

ARE SAVIOR SIBLINGS A SPECIAL CASE IN PROCREATIVE ETHICS?

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HEMATOPOIETIC STEM CELLS are found in bone marrow and umbilical cord blood, and transplants offer sufferers of certain types of leukemia and anemia an excellent chance of surviving an otherwise terminal disease. However, stem-cell transplantation requires a donor who is a human leukocyte antigen (HLA) match to the recipient, and given the small size of modern bone marrow donor programs, the odds of a match are often minuscule. For instance, in the United States, there is a roughly 0.25 percent chance that an unrelated individual will be an acceptable match.¹ The odds of a match improve to 25 percent for siblings, since they both inherit the same HLA genes from their parents, but due to the average size of the modern family in the West, sufferers of leukemia and anemia will usually lack an existing sibling match. As a result, parents of children suffering from these diseases may wish to conceive a child to provide the necessary stem cells from the newborn's umbilical cord blood to save the life of their existing child. Modern technology means that parents do not need to just conceive and hope to hit the HLA jackpot. Rather, they can use in vitro fertilization (IVF) to produce multiple embryos and follow up with preimplantation genetic diagnosis (PGD) to select one or more that are an HLA match for the sick child.² At birth, the cord blood is collected from the umbilical cord and transplanted to the sick child. This is curative in up to 90 percent of noncancerous patients and has a five-year survival rate (the benchmark for cancer remission) of at least 68 percent of patients with leukemia.³ In both cases, the chances of survival are more than doubled by using a related rather than unrelated donor.

Children conceived in order to donate the stem cells in their cord blood are examples of “savior siblings,” a term referring to children intentionally created

1 Robertson et al., “Conception to Obtain Hematopoietic Stem Cells,” 35.

2 PGD is the genetic profiling of fertilized embryos for certain characteristics (such as HLA type or inherited conditions such as Huntington's disease) before they are implanted.

3 Leung et al., “High Success Rate of Hematopoietic Cell Transplantation Regardless of Donor Source in Children with Very High-Risk Leukemia.”

to donate biological material, most commonly cord blood, but theoretically also bone marrow or solid organs (liver and kidney), to save the life of an already-existing child. Some writers in medical ethics have argued that there are features inherent in the creation of savior siblings that make the practice impermissible or should at least make us skeptical about the arguments offered in its favor.⁴ The primary reasons that have been offered against the practice are: (1) creating a savior sibling has negative impacts on the created child, and (2) creating a savior child represents a wrongful procreative motivation of the parents. In this paper, we examine the extent to which the creation of savior siblings actually presents a special case in procreative ethics. We do not deny that there is a unique feature present in the savior sibling case—namely, that the child was created to save their sibling’s life. We also do not claim that this unique feature raises no novel normative questions for procreative ethics (e.g., whether there are any conditions under which the creation of savior siblings might be morally obligatory). But what we *do* deny is that the distinctive feature of *being a savior sibling* is what makes the procreative act wrong. Our conclusion is that what would make the creation of a particular savior sibling permissible or impermissible are the same things that would make the creation of any child permissible or impermissible. Our conclusion is that savior siblings—in relation to the reasons for the permissibility or impermissibility of their creation—are not a special case in procreative ethics.

There are two clarificatory points to make at the outset. First, our discussion relates to savior siblings created to donate umbilical cord blood, bone marrow, and/or solid organs. However, due both to continual improvements in the efficacy of cord blood transplants and the availability of a cord blood donation at the time of birth, we take cord blood donation to be the prototypical savior sibling case.⁵

4 Wolf et al., “Using Preimplantation Genetic Diagnosis to Create a Stem Cell Donor”; Chan and Tipoe, “The Policy Statement of the American Academy of Pediatrics.”

5 To elaborate, multiple studies have found that sibling-matched cord blood transplantation can be just as effective in treating blood diseases/cancers as bone marrow transplants, with possibly fewer complications. See Rocha et al., “Graft-Versus-Host Disease in Children Who Have Received a Cord-Blood or Bone Marrow Transplant from an HLA-Identical Sibling”; Bizzetto et al., “Outcomes after Related and Unrelated Umbilical Cord Blood Transplantation for Hereditary Bone Marrow Failure Syndromes Other Than Fanconi Anemia”; Locatelli, “Outcome of Patients with Hemoglobinopathies Given Either Cord Blood or Bone Marrow Transplantation from an HLA-Identical Sibling.” And so, given that the median time between beginning the first cycle of IVF-PGD and the birth of a savior sibling is 3.7 years, and that young babies cannot donate bone marrow, it is expected that a cord blood donation would be performed in the first instance, with the possibility of needing a bone marrow donation later if the cord blood transplant is unsuccessful. See Kakourou et al., “Pre-Implantation HLA Matching,” 80–81. Thus, savior siblings would not

Second, in order to determine whether or not savior siblings are “special,” we need to know what the relevant comparand is—special compared to what? Since we are interested in whether or not savior siblings present a special case in *procreative* ethics, the relevant comparand is what we will call the *Standard Child*. This is a child created (in part) for any number of nonsavior reasons, such as the parents’ desire to have additional children, to provide companionship to their existing children, to please grandparents, and so on (more on these reasons in section 2). It is our contention that being a savior sibling does not raise special normative concerns relative to the Standard Child. Finally, to ensure we do not stack the case in our favor, in the savior sibling case we will have in mind parents who would not otherwise have chosen to have an additional child.

1. NEGATIVE IMPACTS ON THE SAVIOR SIBLING

1.1. *Physical Harm*

The first and most obvious reason to consider savior siblings a special case in procreative ethics is the notion that their creation harms the created child and that such harm is not present in the creation of nonsavior siblings. Such harm, the argument might go, could be sufficiently serious that it makes the creation of a savior sibling unjustified regardless of any benefits it might afford the sick child.

The first point to make is that the special harm cannot be from the use of IVF and PGD in the selection process itself, as these treatments are not unique to the savior sibling case. IVF is used around the world by infertile and LGBT couples, and PGD is available to families with a history of inherited diseases such as cystic fibrosis and Huntington’s disease to select for children who will not suffer from these serious and often fatal conditions. If there is any harm associated with IVF and/or PGD *per se*, there is a harm to *all* embryos created or selected in this way.

When it comes to physical harm *after* birth, we will first consider cord blood donation.⁶ The case of cord blood donation is simple, because this procedure

be created to be *bone marrow donors* but to be cord blood donors, with the knowledge that there may be bone marrow donation at a later date. And the same point applies to organ donation, since given that living solid organ donation is only ever ethically (and legally) permissible with the patient’s informed consent, any permissible organ donation by a savior sibling could only ever occur many years after their creation. This means that in the savior sibling case, bone marrow and solid organ donations, unlike cord blood donation, are only possible, not inevitable scenarios.

6 Of course, there are those who believe that *any* procreation harms the resulting child since every life will inevitably include some elements of pain or suffering, such as David Benatar (*Better Never to Have Been*). But this is also not special to the savior sibling case.

results in no physical harm at all. The collection of cord blood is noninvasive and painless (it is taken from the placenta after it is delivered), and studies have shown that collecting this blood poses no risk to the newborn.⁷ And so, while this brings in a difference (not all children have their cord blood collected, although the vast majority could), it is not a difference that is relevant to a claim that the creation of savior siblings is a special case in procreative ethics.⁸ Indeed, thousands of mothers, including one of the authors, voluntarily donate their newborns' cord blood to strangers via public blood banks every year, and others collect and store it in case it is needed by their own child in the future.

However, if the savior sibling case is one where bone marrow or solid organs end up being donated, then physical harm will occur, as these donations are more physically invasive and, in the case of solid organs, can require significant recovery time. While this might make the savior sibling case initially appear very different from the Standard Child procreation case, that would be too quick. This is because any tissue donation is only ethically permissible under certain conditions, and these conditions apply just as much to a savior child as to the Standard Child.

For example, the American Association of Pediatrics (AAP) has laid out criteria under which it is ethical for precompetent minors to donate bone marrow, and these criteria would need to be met regardless of whether the child was created as a savior sibling or not.⁹ Similarly, any organ donation (and its affiliated harms) is only ever ethically permissible when the patient has given informed consent.¹⁰ These requirements will apply just as much to the savior sibling case as they will to the Standard Child—they are not trumped by a savior sibling's reason for genesis.

7 Rubeis and Steger, "Saving Whom?," 480–81.

8 Mother-baby dyads who cannot give cord blood include those with inherited medical conditions or infectious diseases, babies conceived by donor eggs/sperm, twins/triplets, and babies born more than six weeks prematurely.

9 The criteria are: (1) no adult matches are available; (2) there is a strong, positive relationship between the donor and recipient; (3) there is some likelihood that the recipient will benefit from the transplant; (4) the risks to the donor are minimized and reasonable in relation to the benefits accrued to the donor and recipient; (5) parental (and sometimes donor) consent is obtained. See Committee on Bioethics, "Children as Hematopoietic Stem Cell Donors."

10 Richards, "A World of Transferable Parts," 381; Saunders, "Consent and Organ Donation," 312–13. In addition, almost all legal jurisdictions have lower age limits on living organ donors, usually sixteen years. Where there are no limits (e.g., England), there is still a requirement for informed consent. This suggests that what would be concerning in the organ-donation case is whether being created as a savior sibling influenced informed consent. We consider this below (section 1.3).

One might think, however, that there is still a difference in the sense that the savior child is being created *in order* to be a bone marrow or organ donor and therefore experiences pain. To this we have two replies. The first points out that it is not actually the case that the child *is* being created in order to donate and experience pain. For one thing, they are being created in order to save their sibling. But given cord blood is the only *inevitable* form of donation (see note 5 above), a better formulation of the objection is that they are being created *with the knowledge* that they may later donate and therefore experience pain or harm.

Yet this possibility that the child will experience pain/harm is not enough to establish that savior siblings are special. Any time you choose to create a child, you do so in the knowledge that they may be harmed and/or experience pain in the future. The question is whether there is anything special about creating a child you know may experience pain *in this particular way*—namely, as a future bone marrow or organ donor—as opposed to a multitude of other ways (car crashes, sports injuries, broken hearts). One difference might be that in the tissue donation case, the pain or harm will be experienced for the benefit of another. But this can be true for the Standard Child too. He could be injured in a car accident on the way to take his sibling to a sports practice or dentist appointment. Another difference might be that the pain or harm is not totally random but perhaps reasonably foreseeable. However, this could also be true for a Standard Child who is created and strongly directed by her parents to play sports such as ice hockey, rugby, or horseback riding that have a high probability of sometimes serious injury.

1.2. Psychological Harm

Perhaps what makes the savior sibling case special is that it leads to psychological harm for the created child that would not be present in the Standard Child case. Of course, it is impossible to predict the psychological well-being of *any* child before conception, and this is equally true of savior siblings. But in both the savior sibling and Standard Child cases, two features seem relevant to any prediction about psychological harm: the child's being told why they were conceived and the nature of the parents' attitudes to or treatment of the child. We consider each in turn.

Let us assume that a savior child is informed of their reason for genesis. They will grow up knowing they were created in order to save their sibling. What might the psychological impact of that be? Critics might think it could lead the child to fail to see herself as a person with dignity who is worthy of respect. The child may feel as though they were not *really* wanted by their parents or that their parents took on an unwanted burden by having them. But similar sentiments could also occur in many forms of the Standard Child case. Take, for example,

children who result from a contraceptive failure or sexual assault. Upon learning the cause of their creation, these children will surely be just as (if not more) likely as savior siblings to feel they were not *really* wanted by their parents. But the point here extends beyond only “unplanned” cases of procreation. This is because, as we will outline in more detail in section 2, it is not only conceptually impossible to create a child purely for their own sake (because no specific child exists at the point of conception) but also morally undesirable to do so (because some instrumental value is key to positive personal relationships). This means, in principle, that there is always the potential for a child, upon coming to learn the reason for their existence, to feel as if *they* were not *really* wanted by their parents (say, because they were created to give an older child a sibling, or to pass on genes, or due to personal fulfillment from parenting).

However, a different worry about psychological harm could be that the savior child might feel like a failure and have low self-esteem if their donation does not save their sibling, who dies despite their donation (even though this is unlikely due to the very high success rates), and that no such potential sense of failure is possible in the Standard Child case. But an individual’s self-esteem or any lack thereof cannot be read directly off how they fare against some standard taken as important by third parties. This is because self-esteem, as a self-regarding attitude, depends on a person’s *own* beliefs about what standards are important and how they fare against them.¹¹ As such, insofar as it is possible for children in the Standard Child case to believe that they failed to live up to their parents’ expectations or act in a way consistent with the standards related to the reason for their creation (which, to them, the meeting of which would likely be very important), a similar concern with a sense of failure and that they disappointed their parents applies just as much in their case too. This is so even though, to others, the standard might seem less important than the one in the savior sibling case. Taking one of the common reasons for procreation just mentioned, if a child knew that the reason for their existence was to give their older sibling a friend, but ended up being disliked by their older sibling, then possible psychological harm resulting from hits to their self-esteem and letting down their parents seems just as likely.

Of course, it is undeniable that a savior sibling might experience psychological harm not only from being informed of the reason for their existence but also due to the way they are treated by their parents. Examples might include parents treating them as an unwanted burden, regularly reminding them that they did not really want them, or visibly favoring the older child. But these poor

11 Sachs, “How to Distinguish Self-Respect from Self-Esteem”; Dillon, “Self-Respect and Self-Esteem.”

parental behaviors could sadly happen to *any* child. Children in the Standard Child case can be subjected to similar treatment, such as being told they were an “accident” or that they are a burden and make their parents’ lives so much harder, and so on. It seems to us that in both of these cases, the wrong lies in the parents having related to their children (savior or standard) in negative ways or taken certain negative attitudes toward them. Any cause of psychological harm to the savior child is not that they were created to be a savior sibling as such but instead the negative way or ways in which the parents relate to the child as they grow up. Whether *any* child feels loved and grows to see themselves as a valuable end in themselves depends substantially on how they are treated by their parents; savior siblings are not unique in this respect. The same point applies to other kinds of nonphysical harm that might potentially be experienced by the savior sibling, such as receiving less material benefit or fewer opportunities relative to the older child. Such harms are contingent on the actions of the parents; they are not inherent in being a savior sibling.

However, one might object that although these potential psychological harms can happen to any child, they are more likely to happen to savior siblings than other children. We disagree. Although there is always the possibility that parents will treat their savior child badly (which, as we have said, is unfortunately a possibility for any child), we think such treatment is at worst equally likely and at best much *less* likely to be experienced by a savior child. It would be a strange person indeed who cared so deeply about their first child that they were willing to conceive, bear, and raise another child to save them, yet also be so callous and unloving toward the second, savior child to whom they stand in exactly the same biological and parental relationship they do to the first. Indeed, in studies investigating the attitudes of parents who decided to create a savior sibling, parents flatly rejected the idea that any person who was willing to go through IVF and PGD could then mistreat the resulting child or treat them differently from the older child.¹² If anything, then, it seems more likely that parents of savior siblings will treat them in a way that makes them feel like a *hero* because they did something no one else could do—save their brother or sister. These children may well embrace their identity as a savior sibling as a badge of honor.

1.3. *Violations of Autonomy*

The next potential reason savior siblings might present a special case in procreative ethics is that their creation violates the savior child’s autonomy. If violation of autonomy is understood to occur when things are done to a person

12 Strong et al., “It’s Time to Reframe the Savior Sibling Debate,” 19–20; Haude et al., “Factors Influencing the Decision-Making Process and Long-Term Interpersonal Outcomes for Parents Who Undergo Preimplantation Genetic Diagnosis for Fanconi Anemia,” 651.

without their consent, then perhaps creating a savior sibling to donate stem cells violates the savior sibling's autonomy.¹³ In these cases, the donor child is far too young to grant or withhold their consent to the donation and the procedure relies on the consent of the parent. In medical ethics this is known as the stage of precompetence. Some critics move directly from the inability of a savior sibling to give consent to the procedure to a claim that, as a result, the procedure constitutes a direct violation of the child's autonomy in a way that counts against the permissibility of the practice.¹⁴

In relation to cord blood, the first point to make is that the mere fact a savior sibling does not consent to the donation of cord blood cannot serve as an argument that savior siblings are special, because it mirrors the uncontroversial and not uncommon practice in the Standard Child case of parents choosing to donate their newborns' cord blood to public cord blood banks.¹⁵ This aside, it is doubtful that on its own, the lack of consent to an action that causes no physical harm and no increased likelihood of psychological harm (such as cord blood donation) is sufficient to constitute a violation of the autonomy of a precompetent child. Seeing simple lack of consent as a violation of autonomy would commit one to regarding virtually all actions toward precompetent children, including completely innocuous ones, as violations of their autonomy. But this cannot be right. You do not violate your precompetent child's autonomy when you change their nappy or take them with you to the supermarket without their consent.¹⁶ With regard to bone marrow donation, there is no autonomy-related difference between savior children donating and the Standard Child donating. In both cases, certain criteria need to be met.¹⁷ If donating bone marrow

13 This point does not apply to organ-donor savior siblings because organ donations ethically and legally require a person's informed consent.

14 Rubeis and Steger, "Saving Whom?," 480; Chan and Tipoe, "The Policy Statement of the American Academy of Pediatrics," 3.

15 One objection here might be that a relevant difference is that parents of savior sibling are likely to be biased when it comes to a decision about donation, given that is the very reason why they decided to have the child in the first place. But if parental bias were a relevant difference (which we are not sure is likely—see above), it is more of a concern with using parental consent as a proxy for a child's best interests (which also occurs in the Standard Child case), not a concern that the creation of savior siblings and subsequent donation cannot be in the interests of the child.

16 This does not deny arguments claiming children (even young children) possess the capacities relevant to autonomy. See Mullin, "Children, Autonomy, and Care"; Hannan, "Childhood and Autonomy," 115–18. The savior sibling case relevant here (cord blood donation) concerns actions toward children that are precompetent infants. We are not aware of any argument that claims these children possess autonomy.

17 At the moment, the accepted criteria are those of the AAP; see note 9 above.

wrongfully violates a child's autonomy, then that is wrong whether that child was a savior sibling or not.

An alternative objection might be that savior siblings do not consent to be created for the purpose of their donation. Might this be a relevant difference from the Standard Child case? Not if consent is understood as express consent, due to the simple fact that nobody consents to the reasons for their own creation. The argument might, however, be put in terms of hypothetical consent and go something like the following: while I might hypothetically consent to be created for the array of purposes that make up the Standard Child case, I would not hypothetically consent to be created for the purpose of donating my stem cells to save my sick older sibling. This is plausible, but it is not clear that the concern here is still with autonomy. This is because to make a statement about hypothetical consent, we need to talk of the *reasons* why such consent would or would not hypothetically be given. But once we are talking of reasons, it is unclear what work hypothetical consent is actually doing in the argument. If it is some reason x that makes us say that a person would not hypothetically consent to be created as a savior sibling, then it is *that* reason that provides the argument against the practice: a person's hypothetical consent provides no independent argument.¹⁸ To claim savior siblings are a special case due to a lack of hypothetical consent, then, is not to claim that creating savior siblings is special due to its effects on the created child's autonomy but that it is special for some other reason.

Perhaps creating savior siblings is normatively different from the Standard Child case because it affects the autonomy of the child in the future. For instance, Matthew Clayton argues that actions toward a minor violate their autonomy if, once they have reached a stage of competence, they would denounce the treatment. That is, what counts is *retrospective* consent. The cases that Clayton thinks are problematic are those that can be seen as deciding for the child the goals they will pursue later in life.¹⁹ Similar concerns underlie the claim that children have a right to an "open future," which requires key options to remain open until a child is a self-determining adult who can choose among them. An example Joel Feinberg gives is Amish parents refusing to send their children to public schools,

18 As Ronald Dworkin puts it: "Hypothetical contracts do not supply an independent argument for the fairness of enforcing their terms. A hypothetical contract is not simply a pale form of an actual contract; it is no contract at all" ("The Original Position," 17–18). David Enoch has recently argued that hypothetical consent might be normatively significant and be connected to the value of autonomy in situations where it better respects a person's deep and central commitments (Enoch, "Hypothetical Consent and the Value(s) of Autonomy"). As we are about to argue, we do not think the savior sibling case connects to autonomy so understood.

19 Clayton, "The Case against the Comprehensive Enrolment of Children."

given this drastically limits the occupational choices that will be available to them.²⁰ This focus on a child's future autonomy is more appealing than making a wholesale claim about all actions in the absence of informed consent being violations of autonomy, as it explains why certain innocuous actions are not violations of autonomy (taking your precompetent child to the supermarket) while others plausibly could be (taking your precompetent child to be baptized).

Does the creation of a savior sibling to donate cord blood and possibly bone marrow fail to respect a child's future autonomy in a way the creation of the Standard Child does not? We think not. The medical procedure does not lock a child into a particular way of life before they get the chance to choose for themselves, nor does it close off a set of key options. From the perspective of future autonomy, being created for the purpose of stem-cell donation is less like the actions Clayton and Feinberg find problematic and more akin to the multitude of actions that are permissible to do to a precompetent child unable to give their consent, such as choosing their hairstyle, giving them a well-tested vaccine, or taking them with you on a car ride. Just like haircuts, vaccines, and car trips, donating stem cells does not fix the options or limit the horizons available to children once they become competent to choose for themselves.

However, an argument might be made that creating a savior sibling and donating their cord blood is changing the likelihood of a child's future choices in one important respect—future donations (including more invasive or permanent donations to their sick sibling such as solid organs such as the kidney or liver). The worry is that a savior sibling may be pressured later in life to donate again if their sibling relapses or develops new illnesses and that this pressure would constitute a violation of autonomy (a similar concern will apply to any child who is the candidate to save a loved one's life through donation). This concern, then, overlaps with the worry briefly signaled earlier (in note 10) regarding the organ donation savior sibling case and the thought that being created for this purpose might affect informed consent by putting undue pressure on the child (who has reached a stage of competence) to donate.²¹

A common view in bioethics is that for a patient to give their informed consent to a medical procedure, they need both to have an adequate understanding of the risks involved and, perhaps more relevant to the discussion here, to be

20 Feinberg, "The Child's Right to an Open Future," 77, 81–82.

21 Once a child has reached a stage of competence, it would be wrongfully arbitrary to treat their voluntary decisions regarding donations any differently from voluntary decisions of competent adults. Of course, the safeguards needed to ensure the decision to donate is in fact voluntary might still differ between competent children and adults. See Wilkinson, *Ethics and the Acquisition of Organs*, 138–44; Brierley and Larcher, "Organ Donation from Children," 1178.

free from any kind of “controlling interference,” where controlling interference is understood as the active intervention by other agents.²² Similar accounts put normative weight on informed consent because it ensures patients are able to make self-authored decisions that are the result of their own judgment and reflection, making them responsible for the shape of their own life.²³

Three barriers to this aspect of informed consent are commonly identified: coercion, undue inducement (i.e., positive offers clouding rational judgment), and “no-choice” situations.²⁴ Is a savior sibling’s choice to donate an organ particularly vulnerable to any such barriers? If these barriers occur due to problematic behavior and actions of parents, then it will, of course, fail to be a case of informed consent. But this just becomes another instantiation of the non-physical harm case. It is, of course, possible for a savior sibling to feel pressured to donate because of threats from their parents, but coercion and threats (even implicit ones) to undertake serious life decisions (such as donating a solid organ) are serious parental wrongs that violate a child’s autonomy regardless of whether a child is a savior sibling. So are actions aiming to “nudge” a child into making one decision over another (say, by intentionally influencing a child’s decision about donation by beginning and ending all conversations with how fantastic it would be if they donated) or framing the issue as one that makes the child feel as if there is really only one choice to be made (“Once you have undergone the donation . . .”).

What we take to be the more serious charge is the concern that even if a savior sibling is raised in a loving environment that inculcates in them a strong confidence in their individual worth, the mere fact that they are a savior sibling might put undue pressure on them that influences their decision to donate an organ. Perhaps this fact is enough to make the decision to donate an organ to save a loved one appear to be a “no-choice” situation. The thought is that because the choice not to donate is such a horrible alternative (as it results in one’s sibling dying), the voluntariness of the choice has been undermined. But as Nir Eyal outlines, we need to distinguish between cases where the curtailment of options results from the offer itself and those where the curtailment is merely the result of (often nonideal) circumstances, as it is often only the former that appears to undermine the voluntariness of a decision.²⁵ Applied to the case of concern here, the relevant distinction is the difference between giving the child the option

22 Beauchamp and Childress, *Principles of Biomedical Ethics*, 100–101.

23 Dworkin, *The Theory and Practice of Autonomy*, 108–20.

24 Eyal, “Informed Consent”; Campbell et al., “How Young Is Too Young to Be a Living Donor?”

25 Eyal, “Informed Consent.”

of donating an organ or having their sibling murdered and giving the child the option to donate or not, where the latter will result in their sibling dying from disease. The choice of a savior sibling not to donate does, of course, have such a serious downside that it would make such a decision unlikely, but this is no different from other scenarios involving medical procedures. The voluntariness of a crash victim's decision to consent to a lifesaving leg amputation need not be undermined just because the alternative (they die) is horrific.

Our argument, then, does not deny that features affiliated with being a savior sibling might influence a child's likelihood of consenting to a donation. That seems undeniably plausible. Our argument denies that changing the likelihood of future decisions makes the savior sibling case special relative to the Standard Child case, because features affiliated with the Standard Child case will influence important future decisions too—and so this fact alone is not enough to support the position that the savior sibling case is special. We think it is the possible influence of two kinds of features of procreative cases that are relevant here: the influence on future choices exerted by a child's knowledge about the reason or reasons for their existence and the influence on future choices exerted by environmental conditions. In the savior sibling case, the former feature would be the child's knowledge that the reason for their existence is in part to provide biological material to save the life of their older sibling, while the latter would be the fact that they have the right genetic profile that makes a donation to their sick sibling possible.

The way such features might influence a savior sibling's choice to donate is clear enough. But take, for instance, the following uncontroversial example of the Standard Child case: two persons whose reason for having a child is in part to have an extra person around to share their love of music. This child will, first, grow up knowing that the reason for their existence is in part their parents' wish to share their love of music; second, the child will be raised in a "music-dense" environment (their parents are always playing music, discussing it, and putting up band posters around the house). Both these features will surely strongly influence the likelihood of the child's choices regarding nontrivial life options (such as what career they choose to pursue, their choice of a partner, and so on), all in a way that we think is analogous to the influences on the decision of a savior sibling to donate an organ.

An objector might reply here that two relevant differences remain between the savior sibling case and Standard Child cases that make any influence over a decision to donate particularly concerning. First, the choice to donate an organ involves physical harm and risks, and second, the stakes of the decision are very high. But some examples show that harm and high stakes are often also present in the decisions that features of Standard Child cases influence.

Regarding harm and risk, a person's choice to earn their living as a musician instead of a more secure career is a choice to undergo psychological stress and anxiety; a person's choice to play football as a hobby over chess is a choice to expose themselves to higher chances of concussion. And as we have argued, parents' motivation for procreation and the environment in which the child is raised often influence the likelihoods of these kinds of choices.

Now, the stakes involved in a decision to donate are obviously extremely high (do it or my sibling dies). But we cannot underplay here the high stakes in other decisions that often present themselves to children in Standard Child cases. We think the best example here is decisions regarding the endorsement of religious and other comprehensive beliefs. When parents who share a religious belief decide to have a child, they are in effect (knowingly or not) putting the child in a position where in the future they will face the following high-stakes decision: endorse or remain a follower of a particular religious belief, or no longer share their family members' conception of the good. The stakes involved in this decision need not result from any malice or pressure from parents (there is no threat of disownment) but simply the fact that a certain distance is unavoidably introduced between persons who do not share the same comprehensive conception. To not be able to fully understand family members' outlook on the world, appreciate their moral compass, or have deep conversations about what they hold most dear are all great losses.

Consequently, the decision of parents in the savior sibling case to put their child in a situation where they will (potentially—see note 5 above) have to make a decision that involves both harm and extremely high stakes does not make the parents of savior siblings unique. In commonplace Standard Child cases, both the reason for the child's existence and the environment in which they are raised can also influence the likelihood of a child's choice in decisions with the same features. Such influences are inevitable given the social contexts in which persons make decisions, and so long as parents in these cases do not explicitly pressure their child and ensure a range of different alternative options is available and known to them, there is no violation of their autonomy.

2. WRONGFUL PARENTAL MOTIVATIONS, OR INSTRUMENTALIZING THE SAVIOR SIBLING

The creation of savior siblings might also be thought to be a special case for nonconsequentialist reasons. The claim that seems most relevant here is the allegation that the creation of a savior sibling wrongfully treats the child instrumentally. If this were the case, then it would certainly be a reason to object to creating savior siblings.

Worries of this kind are common in the medical and bioethics literature. For instance, Lord Robert Winston—a pioneer in fertility technology—argues that creating a savior sibling “would be using an unborn child as a commodity.”²⁶ We think there is an intuitive force to this objection and that it would apply to all forms (cord blood, bone marrow, and organ donation) of the savior sibling case. As such, we disagree with the way Sally Sheldon and Stephen Wilkinson portray the nature of the burden of proof as one where an objector to the practice of savior siblings “must demonstrate that these [sick] children’s deaths are less terrible than the consequences of allowing this particular use of [PGD].”²⁷ This agent-neutral outlook misses the deontological concern with instrumentalizing others. The reason we have assumed that the parents would not have otherwise chosen to have another child is to put the concern with instrumentalization in its strongest terms. However, it is necessary to look more closely at this claim.

A very common reason parents with more than one child give for having had their second child is to ensure that their first child has a sibling—to play with, to have as support when older, to have help taking care of aging parents down the line, and so on. We will call this the *Companion* case. If this is correct, then parents in these situations are creating the second child at least partly for the benefit of the first. Rarely if ever do we encounter moral criticism of such parents. Rather, they are often lauded for taking on some costs (those of raising another child) for the benefit of their other child. Having a second child to give a first child a sibling is at worst considered morally neutral. The mere fact, then, that in the case of savior siblings the second child is created to benefit the first child will not be enough to sustain the claim that savior siblings are special in this regard. If it is permissible to procreate in order to create a companion for the older child with the relatively trivial benefits above, then why would it not also be permissible to procreate in order to provide them with a benefit that is absolutely essential to their life?

It is a perhaps uncomfortable truth that parents rarely procreate purely for the sake of the child. In fact, some philosophers doubt that it is even possible to do so, because prior to conception there is no person for whose sake the parents can act.²⁸ If you ask modern-day Western parents why they chose to have children, they will usually cite reasons such as wanting: the personal fulfillment of parenting; to pass on genes; a playmate for existing children; to fulfill a religious

26 Quoted in Boyle and Savulescu, “Ethics of Using Preimplantation Genetic Diagnosis to Select a Stem Cell Donor for an Existing Person,” 1241.

27 Sheldon and Wilkinson, “Should Selecting Saviour Siblings Be Banned?,” 533.

28 Mills, “Are There Morally Problematic Reasons for Having Children?”; Weinberg, *The Risk of a Lifetime*.

obligation; to satisfy grandparents; or caregivers in old age. This list of reasons is probably not exhaustive, but we think they are the most common ones.²⁹ What is notable is that all these reasons are instrumental. They all “use” the child to a certain extent as a means to some end, such as the happiness of siblings or to please parents, other family members, God, and so on—none of them have anything to do with the child’s own interests. The concern with instrumentalization, then, does not at first sight seem particular to the savior sibling case.

Of course, the fact that even in Standard Child cases of procreation the reasons for procreating are often instrumental does not demonstrate that they are morally permissible reasons. It may be the case that it is *never* permissible to procreate for instrumental reasons and that saving an existing child’s life is just one of many instrumental reasons parents should not use when deciding to have a child. If so, savior siblings are not special and we can stop here having proven the case. However, Claudia Mills argues persuasively that although it may at first seem undesirable to be valued for instrumental reasons, this is misleading.³⁰ And while Mills thinks the conditions that make instrumentalization acceptable in cases of procreation do not obtain in the case of savior siblings, we disagree.

Mills argues that in personal relationships we do and should desire to be valued at least in some sense instrumentally. She asks us to imagine that we are invited to dinner by a friend. When you inquire as to the reason for the invitation, if your friend replies, “I invited you for your own sake,” you would likely feel somewhat offended. Did she invite me so that I could benefit from *her* amazing company? What you really want to hear is: “I invited you because I enjoy your company. You tell the best jokes and give good advice.” Mills thinks it is the selfish, instrumental answer that is gratifying to us and that we actually *want* our friends to value us for certain kinds of their own selfish reasons.³¹

Imagine you are adopting a child. It is commendable to adopt the child for the child’s own sake, for humanitarian reasons, perhaps. However, adopting a child is not only not undermined but is actually *enhanced* by the presence of instrumental selfish reasons. It is the difference between later saying to your child, “I adopted you to save you from a life of suffering,” and, “I adopted you to save you from a life of suffering but also because I knew you would bring so

29 In our admittedly unscientific social-media polls, no respondent gave any reason other than those listed. However, in some non-Western cultures there are likely to be additional reasons related to high infant mortality rates and a need for help on small family farms or to earn money to support the family. See also Overall, “Reasons to Have Children—Or Not,” 149–51.

30 Mills, “Are There Morally Problematic Reasons for Having Children?”

31 Mills, “Are There Morally Problematic Reasons for Having Children?,” 4.

much joy to my life.” The latter is a mutually beneficial scenario: “I want you for your own sake but also for my own. We need each other.”

However, it is not the case that any and all instrumental reasons are acceptable. Returning to the dinner invitation, you would not be satisfied by a response such as “I invited you for dinner to convince you to drive me to work every day.” Likewise, it is not acceptable to adopt a child to be your live-in housekeeper. How do we determine which instrumental reasons are permissible and which are not?

One reason to object to the second reason for the dinner invitation and not the first is that the good that you are providing in the second case is not unique to you. Anyone could offer your friend a ride, but not just anybody could make him laugh and give him good advice. If you were to find out that all along your “friend” only continued the relationship due to interchangeable goods you provided—rides to work, help moving, and so on—you would likely feel that you were not really friends at all, because part of genuine friendship involves the *reciprocal* exchange of *noninterchangeable* goods. This points to the two criteria for an acceptable instrumental reason—it must not undermine the quality of the relationship itself by instrumentalizing the other for benefits that are non-reciprocal or goods that are extrinsic to them.

Benefits are nonreciprocal when one party receives goods from the relationship and the other does not. Having a friend help you move but then not returning the favor when they ask for help six months later is exploiting a friendship in order to receive a one-sided benefit. But even where the exchange of relationship goods is reciprocal, so not one-sided, the relationship is still undermined if one or both parties are engaged in it only for interchangeable goods. If you drove your friend to work every week (good for them) and enjoyed their company (good for you), that is reciprocal, but you would likely still feel hurt if you found out that they found your company neutral at best and continued the friendship only for the free ride to work that anyone with a car could have provided them.

Returning to procreation, if parents create a child in order to use her as a housekeeper, treating her just well enough to avoid the involvement of child protective services, they have impermissibly instrumentalized her both because the benefits of the relationship are one-sided (in the parents’ favor) and the goods she provides (housekeeping services) are extrinsic to her—after all, anybody could mop the floor.

Some defenders of the practice of creating savior siblings think that while it makes the instrumental nature of reproduction more obvious, it is no less justified than other instrumentally justified procreation.³² Is this right, or does

32 Robertson et al., “Conception to Obtain Hematopoietic Stem Cells,” 36.

creating a savior sibling constitute a special case of wrongful instrumentalization? Mills thinks it might. First, she thinks that while there are plenty of instrumental reasons for having children that create reciprocal benefits, she doubts that savior siblings create reciprocal benefits. If parents decide to have a second child so that their first child can have a companion and lifelong support, the benefit there is reciprocal because both siblings are benefiting the other in the same way. By contrast, Mills doubts that there is a reciprocal exchange of benefits in the savior sibling case because the proposed benefit (life for the sick child) is one-sided. The savior sibling is intended to be a donor for the existing child but not vice versa.³³ We are not so sure.

First, note that even if Mills is right that there is no reciprocal exchange of benefits in the savior sibling case, there is not necessarily a reciprocal exchange of benefits in Standard Child cases either. The most likely case of a reciprocal exchange of benefits is probably the Companion example. Imagine that the older child loves their sibling but the younger child strongly dislikes them, and as the two grow older they become estranged. This would not be particularly unusual; after all, you do not choose your family! In this case there is no reciprocal exchange of benefits, so perhaps it was impermissible for the parents to have the second child to provide a companion for the first. But this seems to peg the permissibility of the reproductive act on the outcome, not the parents' motivations, which were honorable—to create reciprocal benefits for both children. This seems wrong, since what nonconsequentialists find impermissible about instrumentalizing people is not what ultimately happens to them but how one relates to them—that is, one's motivations or reasons for acting, not outcomes. A nonreciprocal-exchange-of-benefits outcome can result from any of the instrumental reasons for procreation, to produce a savior sibling included. Perhaps all of these motivations for procreation are wrongful if they have the undesired result, but savior siblings are not special in this regard.

Second, it is not necessarily true that there is no potential reciprocal benefit in the savior sibling case. When the savior sibling is created, they become part of the family. They give the benefit of life to the sick child but also receive benefits in return. Many philosophers see existence itself as a benefit, but even those who do not allow that there are other benefits for the savior child, such as their sibling's companionship and their parents' love. What determines whether an exchange is reciprocal is not a direct equivalence of benefits; reciprocity need not be a tit-for-tat exchange. As Lawrence C. Becker notes, perfect returns in kind would often defeat the purpose of the reciprocity in the first place: "I don't

33 Mills, "Are There Morally Problematic Reasons for Having Children?," 6.

want a popcorn popper; that is why I gave you mine.”³⁴ According to Becker—and we find his account convincing—what counts is that the return is both fitting and proportionate.³⁵ The benefits associated with cases like Companion seem to satisfy these two conditions, but we do not see why the benefits associated with the savior sibling case cannot satisfy them too.

The expected benefits for the savior sibling can be regarded as a fitting response to the benefits received by the older child, given both are connected to the welfare of persons and their ability to be involved in loving relationships. They are a return that is of the right kind, in a way that giving the savior sibling a million dollars and then putting them up for adoption would not be.

But what about proportionality? This might be what motivates someone who finds the savior sibling case problematic, given that the act of saving a life clearly only goes one way. It might be true that no level of benefits received by the savior sibling could ever be commensurate with the benefit they give to their older sibling. But this does not mean the proportionality condition of reciprocity is violated, as often proportionality in terms of costs or effort seems just as appropriate as proportionality of benefit. For example, imagine your neighbor returns your dog that went missing. You surely are not in their debt until you rescue *their* dog. If, say, your neighbor “found” your dog simply because it walked into their yard while they were enjoying a picnic, a “thank you” seems proportionate. If, however, they found your dog after joining you on a citywide search all night, then a bigger gesture of thanks seems called for. Despite giving a great benefit to their sibling, a savior child has not put an inordinate effort (and in the cord blood case they have not put any effort) into creating those benefits. (Arguably, the effort is made by the mother through her pregnancy). So, even if a savior sibling could never receive a benefit that is strictly commensurate with the benefit they give to their older sibling, this would not exclude the possibility of a reciprocal relationship. The savior sibling case, then, is not a special case of instrumentalization from nonreciprocity or one-sided benefits.

Of course, were the parents to take the biological material from the child then shut them away for eighteen years, giving them only the minimum required for life, then the child would not enjoy any reciprocal benefits and this would be wrongful instrumentalization. But we could concoct similar forms of treatment in relation to all of the other possible ways parents decide to have children for instrumental reasons in Standard Child cases. What counts is that a child conceived for instrumental reasons (which, remember, is likely almost all children) can plausibly expect a reciprocal return of benefit, and in

34 Becker, *Reciprocity*, 107–8.

35 Becker, *Reciprocity*, 106–15.

the savior sibling case they can. Furthermore, as noted earlier, it borders on the absurd to think that parents who love their first child so much that they would consider going through IVF, embryo selection, and pregnancy in order to save that child's life could be the same parents who would treat the child that saved the first child so callously that that second child would receive no reciprocal benefits from their creation.

However, Mills also thinks that the savior sibling case might be a wrongful form of instrumentalization because the benefits involved are *external* to the relationship itself. Creating someone for their particular genetic profile is not instrumentally valuing them for their unique contribution to the relationship, the argument goes, but valuing them for something that anyone could provide (like valuing a friendship only for the free car rides to work). As Mills recognizes, the puzzling point here is that in deciding to procreate, even in Standard Child cases, *no* parent can value their child for themselves, given they know not a single thing about them.³⁶ As such, when one decides to procreate for instrumental reasons, there will always be *some* acknowledgment of the interchangeability of goods, since it is expected that any child of the set of possible children will be able to provide the benefit. Consequently, the fact that the benefit received from the donation of a particular genetic profile is interchangeable (anyone with the right profile could, in theory, provide it) does not make the savior sibling case different from other cases of procreation for instrumental reasons.

However, what Mills thinks *does* introduce a relevant difference between the savior sibling case and acceptable forms of instrumental procreation is the fact that the goods provided in the savior sibling case are not intrinsic to the parent-child relationship.³⁷ In Companion, the benefit received (lifelong support and love between two siblings) is something that can only be provided by having another child. But if one, say, decided to have a child only for the security of being cared for in old age, the benefit received would not be unique to the relationship (it need not be a child who takes care of you when you are elderly).

Our reply here is twofold. First, in the case considered here—parents of children with leukemia and anemia—savior siblings often *are* the only persons who can provide such a benefit. If alternative donors were available, the savior sibling would not be needed. As such, the benefit *is* unique to the parent-child relationship. Second, the motivations for choosing to have a savior sibling *themselves* originate from a parent-child relationship. It is out of a concern to prevent their other child from dying that the parents decide to have a savior sibling. And so, while the child might be created for instrumental reasons, the child is not

36 Mills, "Are There Morally Problematic Reasons for Having Children?," 8.

37 Mills, "Are There Morally Problematic Reasons for Having Children?," 9.

created for reasons inimical or opposed to valuable relations between a parent and their child—it is because the parent loves their child unconditionally that they decide to have another child. Of course, if the parents put the savior sibling up for adoption immediately following donation, that would express that the savior sibling was only valued instrumentally for something external to an appropriate parent-child relationship (never mind that that is an unacceptable way to treat a child). But again, the savior sibling case is not special in this regard. We would say the same thing if, in Companion, the child were put up for adoption once it became obvious the sibling relationship was not working out.

These comments show that savior siblings do not present a special form of instrumentalization. First, they can expect a reciprocal return of benefits. Second, because there are no other options for donation available and the motivation for the savior sibling's creation is internal to a parental-child relationship, they are not valued merely for providing benefits that are interchangeable. We think what is really driving the instrumentalization objection is a worry that the child will be mistreated somehow, that parents will not relate to their child in the right way. But again, rather than being an argument that savior siblings *per se* present a special case, this worry indicates that the important factor is not the reasons for the child's conception but the child's treatment after birth. No one worries about the children created to be companions, nor about the children created for the array of other instrumental reasons that make up the Standard Child case. Why do we worry about savior siblings?³⁸

3. CONCLUSIONS

There is clearly something different about savior siblings compared to other children—they are created to save another. Our claim in this paper has been that this descriptive difference does not raise special normative issues of procreative permissibility and impermissibility. On the contrary, the conditions in which it is permissible or impermissible to create a savior sibling are the same conditions in which it is permissible or impermissible to create any child.

38 One might argue that there is something else special about savior siblings—viz., that they are genetically selected for the benefit of a third party. For this objection to hold, it must be the case that savior siblings are special compared to the Standard Child just in case they are genetically selected to help a third party in a way that a Standard Child is not. We have already argued that creating a child to benefit a third party is not necessarily impermissible, so it must be the fact that the child was genetically selected that is relevant. This takes us into a more general bioethical debate about the permissibility of genetic selection itself. If genetic selection for anything other than disease prevention is impermissible, then savior siblings likely are too, but not because they are savior siblings. Thank you to an anonymous reviewer for suggesting this objection.

We first argued that either there is nothing inherent in the creation of savior siblings that will lead to physical harm (the cord blood case), or, if there were physical harm (the bone marrow or organ donation case), the procedure would only ever be permissible if the same ethical and legal requirements that exist in Standard Child cases were met. Furthermore, given that bone marrow and organ donation are only possible and not inevitable outcomes, the savior sibling case is no different from all those instances of the Standard Child case where parents choose to create a child in the knowledge that the child may be harmed and/or experience pain in the future. We then argued that savior siblings are no different from Standard Child cases of procreation when it comes to the possibility they will experience psychological harm, whether that results from their knowledge of the reason for their existence or from the treatment they receive from their parents.

We also argued that a child's autonomy is no more undermined in the savior sibling case than it is in the Standard Child case. It is, of course, true that savior siblings consent neither to being born for the purpose of donation nor to undergoing medical treatment at a stage of precompetence. But this does not make savior siblings special, because no child consents to be born for any purpose, and parents make decisions about their precompetent children's medical treatment all the time. Furthermore, while it might be thought that being created for the purpose of blood donation undermines the child's right to an "open future" by making them more likely to make further donations later in their life, or that any choice to donate an organ by a savior sibling can never be a case of "informed consent," this thought results either from an erroneous conflation of increased likelihood to donate with involuntariness or from unacceptable pressuring from parents, the latter of which also violates the autonomy of children in Standard Child cases.

As we outlined, the reasons driving most (all?) procreation are instrumental. And this instrumentalization need not make reasons for procreation wrongful but can actually be a good thing, so long as the benefits involved are reciprocal and noninterchangeable. And we argued that there is nothing stopping the instrumental reasons underpinning the savior sibling case from meeting these two conditions. What seems to be driving concerns about instrumentalizing savior siblings is a worry that the child will be mistreated somehow. A child being mistreated would, of course, be terrible, but it would be terrible because the child was mistreated, not because they were instrumentalized. In fact, if it were possible to create children for their own benefit (though, as we said, many doubt this), it would be no less terrible for the child who is born for this reason to be mistreated than for a child created for some acceptable instrumental purpose (such as a savior sibling) to be mistreated.

What the argument highlights is that any wrong-making features in the creation of savior siblings are no different from those in Standard Child cases, in particular, the quality of the child's life (including how they are treated and related to) once they exist. In other words, what would make having created a savior sibling wrong would be no different from what would make the creation of a Standard Child wrong—neglect, abuse, lack of love, lack of respect for the child's autonomy, and so on.³⁹

However, although we have argued that the unique reason for their birth does not affect the moral permissibility of creating them, this special feature of savior siblings might have normative implications for whether their creation may actually be morally obligatory. In the case considered here (where no other donors are available), creating a savior sibling is the only option for preventing a significant bad from happening (a child dying). As such, answering whether the practice is morally obligatory will need to be sensitive to how we weigh the prevention of such a bad against the costs imposed by the practice on parents (especially mothers). These are clearly both morally weighty reasons, and it is not immediately obvious how such a weighting would best be made. Unfortunately, examining the implications of this special feature of savior siblings must be a task left for future work.⁴⁰

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39 Spelling out exactly what children are entitled to expect from their parents on pains of having been wronged is beyond the scope of this paper, but promising accounts can be found in S. Matthew Liao's *The Right to Be Loved* and Erik Magnusson's "Children's Rights and the Non-Identity Problem."

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