Ought Implies Can: A Kantian Analysis of the Morality of the Use of Neonatal Tissue in Biotechnology

"The evil that is in the world almost always comes of ignorance, and good intentions may do as much harm as malevolence if they lack understanding." – Albert Camus, The Plaque

I. Prolegomena

§1 The Question Concerning Biotechnology

In Martin Heidegger's seminal essay *Die Frage nach der Technik* (*The Question Concerning Technology*), he attempts to discern the essential difference between τέχνη (technology as the ancient Greeks understood it) and modern technology (1977). Heidegger's primary concern is the dangers of *Enframing (Ge-stell)*, which is the true essence of *modern* technology. Enframing is a mode of thinking characteristic of modern technology, where everything in the world (animals, plants, etc.) is reduced to resources to be used and exploited for short-term human comfort. This will to *mastery* and *efficiency* dictates that a resource's value is only a function of its direct and immediate utility to productivity. Enframing the world is hazardous, as it has led to a world of factory farms, child slavery (Doward, 2020), nuclear weapons, and anthropogenic global climate change (Eyring et al., 2021). Heidegger may have been more correct than even he realized: at our current rate of resource utilization, we are barreling toward societal collapse in a matter of decades (Herrington, 2021). Regardless of the form our Beksińskian future takes, the ethical challenges are as numerous and extensive as the existential ones.

Unsurprisingly, Enframing is the essence of modern *biotechnology*, as it too *reveals* (*Herausfordern*) things as *standing-reserve* (*bestand*). More plainly, this means that everything is imposed upon or "challenged" to be some ordered state, which is then used for some technical application, then again for a subsequent one, and so on indefinitely. One example of this that has evaded discussion within bioethics and the biosciences is the utilization of neonatal foreskin tissue. While Heidegger did not believe that humanity was literally being transformed into standing-reserve due to Enframing, the commercialization and commodification of neonatal foreskin tissue seem to imply as much. We challenge forth infants to yield biological materials through circumcision; thus, children are reduced to fibroblast, keratinocyte, and growth factor reserves. The foreskin tissue is stored and kept on call, ready to be set (*stellt*) or processed, yielding cells and other biological materials. These derivatives are then challenged for subsequent applications, including as feeder cells for cell cultures, for testing applications models, and for tissue-engineered skin development (Hodges, 2004; Oliveira et al., 2018).

The ethical implications of such a practice are rarely considered; the last serious analysis was by Frederick Hodges nearly two decades ago (2004). Instead, this topic is typically treated as an unquestionable boon and a "hot commodity," as Molly Glick wrote in a recent *Discover Magazine* piece, where ethics received only minimal analysis (2021). That said, Ms. Glick is far from a unique case; she is merely the most recent in a long line of commentators, scientists, engineers, and doctors who have failed to consider the moral worth of this practice. This speaks to a much deeper problem within modern science and engineering, where ethics has mainly been segregated to its own discipline and is often a mere formality in regular practice. As Copland (2003) writes, "the rise of bioethics as an independent discipline has resulted in a confrontation between ethics and science that has obscured the similar aims of both."

The justification for this practice first emerged from the California Supreme Court ruling in *Moore v. The Regents of the University of California*. The court ruled that Moore had no claim to the patent rights of the cell line produced from his cancerous tissue by the UC Regents, even though Moore had not consented to (or even informed of) his tissues being used in this way (Skloot, 2010). Mitchell (2001) eloquently summarizes the court's rationale:

In the court's reasoning, Moore was forbidden from receiving money from his body parts not just because they were sacred, but also because they were profane. The court argued that Moore had effectively "abandoned" his diseased cells when he consented to their removal, and thus agreed to their disposal in the biological garbage system of the UCLA hospital facility. This garbage system is regulated by federal and local codes designed to safeguard public health. Luckily for the UC regents—and, the court argued, the collective good—one step in this disposal system allows for scientific "research" and, if warranted, patenting of material derived from this garbage. Moore, the court reasoned, simply dumped his wastes into this sewage system, and any proceeds from his leavings rightly accrued to those who took the unpleasant and difficult task of locating and extracting nuggets of gold in the streams of waste.

Ostensibly, this same reasoning is what allows hospitals to sell neonatal foreskin tissue, which is then used in research and industry practices. However, there is a glaring disconnect between the court's ruling regarding Moore's tissues and neonatal foreskin tissue. One could argue that Moore abdicated all ownership of the diseased tissue when he consented to its removal; that is normal in today's medical world. However, infants are not abandoning their foreskins; rather, they are being robbed of them through an act facilitated by their parents or by proxy, as the majority of circumcisions are not performed for medical reasons (Adler et al., 2020, p. 90). Indeed, while parents have the authority to make medical decisions on behalf of their children, such authority is limited to "[the] informed permission for diagnosis and treatment of children" (Doctors Opposing Circumcision, 2016b).

As such, proxy consent cannot authorize the non-therapeutic circumcision of children (Hodges et al., 2002; Povenmire, 1999). Because of this disconnect, the use of neonatal tissue in the aforementioned fields taints any subsequent work, as the products developed are done so at the expense of children's right to bodily autonomy.

To gain a better grasp of the morality of this practice, I will analyze this issue through the lens of Kantian and Schopenhauerian philosophies. However, before we can begin, much preparatory work needs to be done.

On the Value of Neonatal Foreskin Tissue

Historically speaking, the human foreskin has seen relatively little use in biomedical applications. One of the earliest written accounts of its value as a biomedical material is from Remondino in 1891:

Puzey, of Liverpool, has found it of extreme value, and even unequaled by any other part of the body, for furnishing skin-grafts, these grafts showing a vitality that is simply phenomenal, considering the laxity of its tissues and its seemingly adipose character. There is no doubt, however, that for skin-transplanting there is nothing superior to the plants offered by the prepuce of a boy, and where any large surface is to be covered this should undoubtedly be chosen, as offering the greatest and quickest success and the least chances of failure. This is really the only disadvantage that can be charged against circumcision, as in a strictly circumcised community they would be debarred from this great advantage. An uncircumcised individual could be procured, however, to supply the deficiency. (pp. 207–208)

A few decades after Remondino, Frank Ashley published more work detailing the tissue's functionality as a skin-grafting material (1937). Werker et al. documented several other examples in a more recent publication (1998). Most recently, Glick (2021) and Oliveira et al. (2018) provided us with many more applications that depend on infant foreskins. As modern biotechnology began to take shape in the 1980s, and given that biotechnology is merely one branch of technology as a whole, Enframing was waiting in the wings, ready to make itself known to the world, and it did so in the most impudent of ways the moment that discarded infant foreskins were recognized as an untapped source of inexpensive and readily available human tissue from which an abundance of different biological materials could be derived (Hodges, 2004). Thus, infant foreskins are set upon and revealed as standing-reserve. In the following sections, I will briefly explore some aspects of their high value. This short survey is anything but exhaustive, however, as dozens of applications exist beyond what is detailed below.

§2 The Lucrativeness of Infant Circumcision

Infant circumcision on its own is an incredibly lucrative practice, which is likely one of the primary reasons the practice is still perpetuated. According to the American Association of Pediatrics (AAP), the average cost of a circumcision is "upwards of \$1,750." Around one million boys are circumcised each year in the US, for overwhelmingly non-therapeutic reasons, making circumcision upwards of a \$1.75 billion per year industry, not even accounting for the potential selling of the ablated tissue or the market for circumcision devices (Adler et al., 2020, n. 260; R. Jones, 2021). Wiswell attests to this driving lucrativeness with the following:

I have some good friends who are obstetricians outside the military, and they look at a foreskin and almost see a \$125 price tag on it [1987 cost]. Each one is that much money.

Heck, if you do 10 a week, that's over \$1,000 a week, and they don't take that much time. (Lehman, 1987)

Van Howe estimated that a busy obstetrician who pushes non-therapeutic (i.e., not medically necessary) circumcision could potentially generate \$25,000–\$30,000 per year (approximately \$41,258–\$49,510 in 2021) from the procedure alone, citing it as one of the reasons for the perpetuation of the practice (1997, pp. 115–116). The total charges for the circumcision itself, operating room outpatient fee, anesthesia, and any other hospital fees can range from \$9,000 to \$17,000, and even as high as \$23,000 in some cases (Margulis, 2015, p. 132). The routine, non-therapeutic circumcision of children is but one part of a more significant problem in medicine, where patients are regularly prescribed unnecessary surgical interventions, implying that these physicians are either motivated by financial gain or that a gap exists in their education and training, neither of which are excusable in their roles (Stahel et al., 2017).

§3 A Modern-day Elizabeth Báthory: Cosmetics

In recent years, the topic of anti-aging creams and other high-end beauty products that utilize derivatives from infant foreskins has become headline fodder for numerous tabloids. Almost without exception, the topic is treated as quirky and lighthearted, paying no mind to the underlying ethics (Ballantyne, 2009; Edgar, 2018; Lee, 2018; Malamut, 2015; McCall, 2018; Oliver, 2015).

The global anti-aging market is enormous, worth an estimated \$58.5 billion in 2020, and it is expected to see significant growth over the next few years (Ridder, 2021). Additionally, demand for products that make use of infant foreskin derivatives is sizable. Georgia Louise's "Hollywood EGF Facial" is reportedly \$650 per treatment, with a two-year wait list (McCall, 2018). Another treatment, HydraFacial, has become so popular that the company now has a mobile spa that travels city-to-city, charging \$200 per treatment (Edgar, 2018). Skin creams from AQ Skin Solutions and the Oprahendorsed SkinMedica® both make use of infant foreskin derivatives (Al-Qahtani, 2013; Pudloski, 2013). Vavelta®, another foreskin-derived skin treatment that claims to rejuvenate aged skin and repair scarring, is looking to compete with the industry behemoth that is BOTOX® (Ballantyne, 2009; Kesa, 2018).

Neonatal tissue as a whole is teeming with growth factors, which is what makes it so appealing for use in cosmetics. Gail Naughton, one of the pioneers of infant foreskin-based products, has spoken to the importance of growth factors in these anti-aging treatments:

[The] growth factors captured from the donated foreskin of a baby (just one can generate over a million treatments) are at their peak ability in promoting rapid cell turnover. Applied topically, they spur adult skin cells to regenerate. This is said to have a smoothing effect on the skin. (Malamut, 2015)

Naughton's current venture, Histogen, is currently fielding a hair growth treatment that utilizes fibroblasts taken from infant foreskins. Indeed, these infant fibroblasts were "ideal" for Histogen's

technology (Fikes, 2012). Moreover, Angela Christiano of Columbia University Medical Center has also been working on a similar hair growth treatment that also makes use of infants' foreskins and has recently made the leap to 3D-printed methods (Abaci et al., 2018; Grady, 2013). While nowhere near as large as the anti-aging market, the global hair loss treatment market is still significant: it is expected to surpass \$5.46 billion by 2027 (Coherent Market Insights, 2021).

The use of tissue that was violently stolen from infants, which admittedly I have yet to show, is somewhat reminiscent of the more mythical depiction of Erzsébet Báthory, infamous for allegedly bathing in the blood of murdered girls in an attempt to recapture her lost youth. Although a more critical examination of the Countess's life suggests that much of the evidence against her was exaggerated or misrepresented due to political motivations (Szádeczky-Kardoss, 2005), the non-consensual utilization of infants' body parts for vanity is genuine, very public, and indeed often treated as a punchline in the media.

§4 Bioengineered Skin Substitutes & Animal Welfare

Years before the first foreskin-derived skin substitutes even came onto the market, they were anticipated to be lucrative. In an article in *Forbes* from 1993, the then Chief Executive of Advanced Tissue, Arthur Benvenuto, estimated that the annual market for dermis derived from neonatal foreskin could be \$1–2 billion (approximately \$1.848–\$3.696 billion in 2021; Pitta, 1993). Today, numerous commercial bioengineered skin substitutes make use of neonatal foreskin derivatives (Boyce & Supp, 2016; Debels et al., 2015). These substitutes are not necessarily inexpensive either; Kris Ghosh, a gynecologist-oncologist who has used Apligraf to reconstruct a woman's vagina after she had cancer, has stated that the product costs about \$2,000 for each six-inch circle. As Ghosh points out, "hospital systems make money on every end of it [...]. They get money from cutting it in the first place, some profit from harvesting and selling the foreskin, and others for supplying the product made from it back to you" (Margulis, 2015, p. 130).

To contrast the vainer quest into anti-aging and hair loss therapies, a more noble pursuit is admittedly at work here, and this concerns the phasing out of animal testing through the introduction of bioengineered alternatives (Yun et al., 2018). Historically, most systems of Western ethics have given next to no moral consideration for non-human animals, disregarding "the eternal essence [das ewige Wesen] that is present in everything that has life [in Allem, was Leben hat] and that shines out with unfathomable significance [unergründlicher Bedeutsamkeit] from all eyes that see the light of the sun" (Schopenhauer, 2009, p. 162). Although we have come a long way from the grotesque beliefs of thinkers like Descartes, who posited that non-human animals are nothing more than biological machines, incapable of reason, cognition, or (by extension) suffering (2006, pp. 133–134). To these ends, any efforts to reduce the suffering inflicted on non-human animals at the expense of humans is indeed valuable, as the cruelty exacted on animals independent of their agency is incalculable (Schopenhauer, 2015, §153).

Both L'Oréal and MatTek manufacture skin substitutes that are used for cosmetics testing. These skin substitutes both use foreskin tissue, although waste from abdominoplasties, tissue biopsies, and breast and other cosmetic surgeries are also employed, demonstrating that foreskin tissue is *not* necessary for these applications (Woods, 2014; S. Zhang, 2016). When given the option, consumers often prefer products labeled *cruelty-free* (Alaouir et al., 2019; Silva et al., 2021); however, I question the accuracy of such labels given the utilization of neonatal foreskin tissue.

§5 Foreskin Kickback Programs

Ethics watchdog organizations have issued warnings that parents may be pressured into circumcising their children entirely on behalf of commercial interests (Majavu, 2011). Here lies something of a smoking gun. In a recent example of outstanding independent journalism, Anthony Losquadro published his findings into the selling of infant foreskins (2021). Indeed, it is surprisingly challenging to uncover information on this practice; in their secretive world, most medical organizations refrain from publicly disclosing their financial connections to drug and device makers (Weber & Ornstein, 2011), and entities that source neonatal tissue have not yet been subjected to the same level of investigative rigor as pharmaceutical manufacturers, for example.

Through the Freedom of Information Act, Losquadro obtained internal documents from Organogenesis. The documents show a written contract between Organogenesis and two hospitals in Massachusetts (Tufts Medical Center and Boston University Medical Center) and one in Iowa (The Iowa Clinic). They describe business arrangements and collection procedures for the procurement of infant foreskins from the three hospitals. In his article, Losquadro focuses on Organogenesis's contract with Tufts Medical Center: although one section of the agreement entitled "Compensation" references a "Physician's Payment Schedule," "Tissue Sample Fee," and "Institution's Payment Schedule," the schedule that outlined the sum of money to be paid by Organogenesis to Jonathan Davis, Chief of Newborn Medicine and to Tufts was suspiciously absent.

Losquadro also uncovers a confidentiality clause in the contract, in which Organogenesis demands that the hospitals keep information regarding the tissue procurement program on a "need to know" basis, which violates informed consent guidelines, as parents are not informed that their child's foreskin may be used for the benefit of a for-profit business. Moreover, the contract instructs medical staff to solicit consent from expecting parents at 10 weeks of pregnancy during prenatal ultrasound, when sex can be determined. Losquadro also examined the government database Open Payments, which compiles industry payments to doctors and hospitals. From the database, he shows that Organogenesis paid out \$1.3 million to physicians at Tufts Medical Center in a single year, including payments described as being for food (\$389,974.36) and travel and lodging (\$174,122.76). Such payments are eerily reminiscent of the physician kickback programs employed by medical devices and pharmaceutical companies. For instance, Swiss drugmaker Novartis AG recently settled a \$678 million civil fraud lawsuit brought by the US government, where they were accused of paying millions of dollars in kickbacks to physicians to incentivize them to prescribe cardiovascular and diabetes drugs (Vigdor, 2020).

A significant amount of evidence supports the claim that these kickback programs indeed benefit the profit margins of industrial entities and that they are incredibly pervasive in American healthcare (LaPlante, 2006; Ornstein, 2016; Ornstein et al., 2016). These programs, in addition to being thinly-veiled bribes, have the potential to cause immense harm, as evidenced by the ongoing opioid crisis in the US, which is rooted in drug manufacturers' aggressive and deceptive marketing of these powerful narcotics, as well as their own substantial kickback programs (Colson, 2017).

The information that Losquadro has brought to light would appear to be incredibly damning when considered alongside the following statement from one of Organogenesis' annual reports, in which the company explicitly states the commercial value of infant foreskins:

WE MUST BE ABLE TO OBTAIN ADEQUATE SOURCES OF SUPPLY

We manufacture Apligraf for commercial sale, as well as for use in clinical trials, at our Canton, Massachusetts facility. Among the fundamental raw materials needed to manufacture Apligraf are keratinocyte and fibroblast cells. Because these cells are derived from donated infant foreskin, [...] Our inability to obtain cells of adequate purity, or cells that are pathogen-free, would limit our ability to manufacture sufficient quantities of our products. (2001, p. 8)

It should be noted that the aforementioned statement invariably applies to Dermagraft®, which Organogenesis has since acquired (Fikes, 2014). Much like Apligraf, Dermagraft is also "manufactured from human fibroblast cells derived from donated newborn foreskin tissue" (Organogenesis Inc., 2015, p. 1).

As insightful as the Open Payments database is, however, it is still missing many transactions (Ornstein, 2014). This may explain why Organogenesis's payments to Boston University Medical Center and The Iowa Clinic are absent. In other instances, the information entered into the database is riddled with errors or done so in a haphazard fashion, making it difficult to parse or gain any true sense of the number of payments made from the publicly released data (Ornstein et al., 2015). At any rate, the evidence above highlights how entities that source and procure neonatal tissue must be subjected to greater scrutiny and investigation to ensure nothing untoward occurs in their tissue collection practices, as the perverse incentive for exploitation and harm is significant (Adashi, 2015).

Kantian Motivations

Over recent decades, when scholars have argued against the impermissibility of the non-therapeutic circumcision of children, two approaches have primarily been employed: human rights-based approaches and appeals to biomedical ethical principles. Often, these two are blended in some form or other, as they are not necessarily disconnected. Such appeals and arguments have been made countless times by countless authors, scholars, and organizations on the grounds that forced, non-therapeutic genital cutting is an abusive, harmful practice and violates the human rights of the child in question, depriving them of the right to bodily autonomy and the right to self-determination (Carpenter, 2017;

Darby, 2013; DeLaet, 2009; Earp, 2019; Fox & Thomson, 2009; Hinchley, 2007; Merkel & Putzke, 2013; Möller, 2020; Pasquier, 2013; Svoboda et al., 2019; The Brussels Collaboration on Bodily Integrity, 2019; The International NGO Council on Violence against Children, 2012, pp. 21–22; Townsend, 2020). Furthermore, others have signaled a profound and problematic double standard in recognizing female genital mutilation (FGM) as the cruel and wicked practice that it is—with legislation and resolutions passed accordingly—while male and intersex children are rarely afforded these same considerations (Baer, 1997; M. Jones, 2017; Reis, 2013).

These arguments are not problematic in and of themselves, as they are assuredly valid. Moreover, legal and legislative mechanisms ostensibly operate within the framework established by recognized human rights. However, despite the volumes upon volumes of literature out there in the æther, these methods have, in my opinion, proven to be ineffective in protecting children from non-therapeutic or otherwise unnecessary genital cutting. Crucially, on closer examination of the philosophical grounding of both approaches, deep flaws can be identified. The consequence of centering these moral arguments in philosophically weak frameworks is that it makes it easier for offenders to perpetuate non-therapeutic genital cutting practices and for entities tasked with upholding these principles to continue to ignore them.

As such, I will take a different tack, and I advise other scholars to do so accordingly. The most novel argument to date is the thesis recently forwarded by Adler et al. (2020), which posits that American physicians' non-therapeutic circumcision of minors constitutes fraud. This argument is currently being tested in the American courts via *Lavine v. American Academy of Pediatrics* (Attorneys for the Rights of the Child, 2021, p. 15). Another example of note is offered by Lander (1999), who uses Aristotelian virtue ethics as an alternative to contemporary biomedical ethics, which has not protected children from forced genital cutting. To leave no stone unturned, some have adopted legislative strategies by lobbying state and federal lawmakers in the US (Hess, 2009). While undoubtedly well-meaning and meritorious in its own right (and all avenues should, of course, be pursued), I find such efforts to be somewhat naïve until the US enacts significant campaign finance reform (Gilens & Page, 2014; Savage, 2020).

In the following sections, I will outline the problems with basing moral arguments purely on human rights. Then, I will deconstruct the fundamental philosophical problem of appealing to biomedical ethical principles, namely *individual* autonomy. Next, I will propose why an older conception of autonomy and the philosophical system that it comes from—that of Kant, supplemented with that of Schopenhauer—is a far better place to ground these moral arguments. Just as a ship with faulty ballast will not stay its course, arguments utilizing a fundamentally flawed conception of autonomy will struggle to reach their intended destination.

Once I establish the motivations behind my rather unorthodox approach, I will apply this synthesis of Kant and Schopenhauer's philosophical systems to the non-therapeutic circumcision of children, leading up to the use of neonatal foreskin tissue in biotechnology and bioengineering applications.

§6 Human Rights-Based Approaches

In her book *Autonomy and Trust in Bioethics*, Onora O'Neill (2004) writes how many people view human rights as a promising framework for grounding bioethics, as these rights "supposedly provide good reasons both for serious respect for individual autonomy *and* for the definite prohibition on those uses of individual autonomy that violate others' rights" (p. 74). Many times, however, the justification for human rights is nothing more than mere appeals to charters and declarations, such as the UN Universal Declaration of Human Rights of 1948, or the reiterations, reformulations, and extensions of those rights in subsequent documents of the same type, like the UN Convention on the Rights of the Child. The primary failure of this approach is that these appeals are philosophically not very respectable, as they amount to little more than arguments from authority and are not rooted in anything rigorous (O'Neill, 2004, pp. 74–75).

Appeals to authority for morality only result in a *simulacrum* of morality (O'Neill, 2004, p. 91). Ratification of these documents by member states may *politically legitimize* these rights, but they do not provide *ethical justification* for those rights. Moreover, these same treaties and resolutions can consist of *ethically vituperative* content, gaining political legitimation through ratification by states (O'Neill, 2004, p. 75). Much to the (anticipated) dismay of activists, this reality extends to the Helsinki Declaration on the Right to Genital Autonomy of 2012, as well as other similar resolutions seeking to end genital mutilations that have been drafted and passed (Bonner, 1999; Genital Autonomy, 2012; Prescott, 1997). To demonstrate the failings of appealing to authority for morality, we need only consider that the non-therapeutic genital cutting of children has been legitimized as an acceptable practice in the US by the AAP (Adler et al., 2020, p. 90).

Furthermore, how valuable are these declared human rights if the entities entrusted with upholding them only do so selectively? Much like the familiar paradox of sorts: is a law indeed a law if it is not enforced? Are rights valid if they are only selectively protected? Despite recognizing numerous human rights, the UN has failed to protect and uphold them in countless cases, from the failings to preserve life in the 1994 Rwandan genocide (Lakin, 2019) to the complete lack of accountability in the Bush administration's use of torture (Human Rights Watch, 2011). Indeed, examples of the UN's selective protection of human rights are ongoing, including the seeming disinterest and lack of intervention in the Saudi-led genocide in Yemen, perpetrated with arms purchased from the US (Lazare, 2020). The US is a serial offender in this regard: when the federal government is not indirectly aiding and abetting the violation of people's rights, they are doing so directly, such as the sanctions imposed on medicine in countries like Iran. Such sanctions are explicitly engineered to increase human suffering and are doing just that given the devastation that COVID-19 has exacted on the populace (Cunningham, 2020).

Moreover, appealing only to human rights regarding the protection of children from abuse is a lost cause, as the US government is entirely indifferent in that regard, having allied itself with Afghani warlords with child sex slaves and having ordered its soldiers to ignore these repugnant abuses (Goldstein, 2015). It would seem that the laws intended to uphold human rights are more of a suggestion in reality. Understandably, a power imbalance is at work here: the US's control over the

world banking system allows it to flout international human rights laws (Cashman & Kharrazian, 2019), but again that speaks to the part of the problem with appealing to authority for morality and human rights. As O'Neill states:

Bioethics is not a free-floating discipline: there is no way of justifying principles and standards by fiat or by proclamation, and no way of anchoring an account of human rights by mere appeal to declarations and charters, however august. Processes of ratification (by democratic states) may provide (some) democratic legitimation; they are not even qualified to provide ethical justification. This quick and lazy 'justification' of human rights fails, and a more strenuous approach is needed. (2004, p. 76)

Perhaps I am merely disillusioned and cynical, but formulating moral arguments based upon rights—characterized by weak philosophical foundations from the start and declared by an entity that only selectively upholds them—will simply not do.

§7 Biomedical Ethics and the Triumph of Individual Autonomy

Let us turn our attention to the more conventional domain of biomedical ethics. Bioethics, as with rights-based approaches, is no doubt a reasonable place to anchor arguments, as physicians primarily perform non-therapeutic circumcisions in medical settings; therefore, it is only natural to appeal to the ethical principles that are supposed to inform medical practice. However, as with the previous approach, certain aspects of this approach can be identified that undermine these moral arguments.

Both sides of the so-called circumcision debate appeal to autonomy. Advocates maintain that parents are allowed to exercise their autonomy in electing for procedures like non-therapeutic circumcision for their children on religious, cultural, or personal grounds—that they are simply doing what they feel is best for their child, as Anthony Atala argues (Urology Care Foundation, 2013). Opponents posit that non-therapeutic circumcision violates the *child*'s autonomy, and the decision should be left for them to make upon reaching adulthood—that these parents are merely equating the child's best interests with their own (Fox & Thomson, 2009; Raho, 2016).

Bioethics is an incredibly fractured and disjointed field, with many regional and cultural variations (Holm & Williams-Jones, 2006). However, the most widely adopted incarnation in Western medicine comes from Beauchamp and Childress (2013), which is where I will anchor this discussion. Accordingly, the four cardinal bioethical principles are *autonomy*, *beneficence*, *nonmaleficence*, and *justice*. In practice, the four are generally weighed against one another, but it is not always clear how to resolve conflicts between them. However, the principle of autonomy is often seen as *more* important in medical ethics than even the principle of beneficence and typically dominates all the other three when put into practice (O'Neill, 2004, p. 35).

Individual autonomy is routinely cited as the principle that the arguments surrounding the non-therapeutic circumcision of children hinge on. At first, this reverence appears to be wholly appropriate, especially in medicine as a whole, given that 19th- and 20th-century medicine was plagued by paternalistic abuses, including the routine, assembly-line circumcisions that American hospitals

instituted in the 1950s, where informed consent was not even an afterthought (Hodges, 2004). Ay, but therein lies the rub. Let us examine this matter more closely.

Although conceptions can be traced back to antiquity, the admiration of our modern incarnation of *individual* autonomy is rooted in John Stuart Mill's version within a naturalistic setting, which views individuals as not only choosing to implement whatever it is that they desire to have at any given moment but as taking charge of those desires (O'Neill, 2004, pp. 30–31). In more complex neo-Millian conceptions, autonomous choices are products of desires that the agent has controlled, moderated, or endorsed by using other desires and beliefs. Within a naturalistic setting, it is the inevitable outcome of a natural process that these neo-Millian processes of second-order endorsement, reflective scrutiny, or identification or endorsement that genuinely express the self or individuality. However, it is not entirely clear why these more elaborate causal processes are elevated to a form of independence that merely spontaneous, unreflecting choosing lacks, or why the choices to which they lead should be considered more valuable (O'Neill, 2004, pp. 33–34).

When taken to its logical conclusion, individual autonomy may encourage ethically questionable and potentially harmful forms of individualism and self-expression, which may in turn affect public health (O'Neill, 2004, pp. 45–46). Although COVID-19 has cast a pale gray light on many deep, troubling systemic problems, it has also presented us with an excellent example of the hazards of this conception of autonomy. Keeping in mind the uniquely contagious nature of SARS-CoV-2, and despite the efficacy of masks, social distancing measures, and inoculation, some individuals feel that pressure to comply with these efforts is an infringement of their cherished individual autonomy and rigidly refuse to compromise, even for the sake of their own health. These individuals then willingly carry the capacity to spread the disease to more vulnerable individuals who may take every possible precaution, effectively receiving a "free ride" from the majority. Moreover, as the Delta variant of COVID-19 began sweeping the US, hospitals began to fill up beyond capacity with unvaccinated individuals, straining resources and already exhausted medical staff and limiting or preventing the care provided to patients with non-COVID-related illnesses (Sellers et al., 2021). Problems persist even when other ethical principles are invoked, such as the Millian principle of avoiding harm; under a completely utilitarian account of maximizing happiness, individual autonomy must be subordinated and marginalized. If it is not, the line between harmful and non-harmful actions and policies is obscured (O'Neill, 2004, p. 73).

This form of autonomy rarely raises any red flags, as it is essentially a *consumerist* view of autonomy that complements our hyper-consumerist world. In medical practice specifically, the principle of autonomy is effectively nothing more than an overinflated term for informed consent or the right to choose or refuse treatment; therefore, the triumph of autonomy is in actuality the triumph of informed consent (O'Neill, 2004, p. 73). While the inherent problems with this dynamic are nuanced in their own right, as O'Neill (2004) explores, for our purposes, we can now tease out the specific troubles of grounding arguments in individual autonomy and biomedical ethics more generally.

Individual autonomy has no internal mechanisms to check itself or to prevent agents who adopt it from engaging in harmful forms of individualism. As such, when parents circumcise their children for non-therapeutic cultural or religious reasons, they are merely acting per the individualism that this form of autonomy enables and encourages, albeit an extreme one. Furthermore, because of the triumph of autonomy, physicians are no longer constrained by the principles of beneficence or nonmaleficence, which enables the practice of routine *non-therapeutic* circumcision since harm and benefit become entirely irrelevant, as long as the parents give consent, reciprocally reinforcing the former through proxy consent. This issue is further compounded when we recognize that informed consent requirements for elective circumcisions have long been criticized as being painfully inadequate (Fletcher, 1999; Longley, 2009; Svoboda et al., 2000).

As O'Neill states, the triumph of individual autonomy over other bioethical principles is "an unsustainable illusion" (2004, p. 73). Therefore, we *must* consider more convincing patterns of ethical reasoning to surmount this intricate issue.

§8 Kantian Autonomy

In antiquity, the science of morals was signified as the *doctrine of morals* (*philosophia moralis*) and also referred to as the *doctrine of duties* (Kant, 2020, p. 6:379). It is more advantageous to justify *obligations* (or *duties*), and hence rights, than to justify *rights* and hence obligations. This approach has four advantages. First, obligations are structurally connected to rights. Second, the connection of obligations to action can be well articulated. Third, obligations are more readily distinguished and individuated than rights. Fourth, this approach is less individualistic than rights-based approaches. However, grounding rights in obligations is only possible if good arguments for central human obligations can be found (O'Neill, 2004, pp. 78–83). Be it *Pflicht*, το δεον, or *le devoir*, duty *is an action by whose mere omission one injures another* (*i.e.*, *commits wrong*). All duties rest upon an obligation that one enters into; hence, every duty gives a right, as no one can oblige themselves without a motive (i.e., without some advantage to themselves; Schopenhauer, 2009, pp. 220–221). To this end, the moral philosophy of the 18th-century Prussian philosopher Immanuel Kant is significant because it is deontological, which correlates seamlessly with the interactional model of human rights, and his view of the importance of autonomy to morality is both powerful and uncompromising:

Autonomy of the will is the sole principle of all moral laws and of the duties conforming to them; any heteronomy of the power of choice, on the other hand, not only is no basis for any obligation at all but is, rather, opposed to the principle of obligation and to the morality of the will. For the sole principle of morality consists in the independence from all matter of the law (i.e., from a desired object) and yet, at the same time, the determination of the power of choice by the mere universal legislative form which a maxim must be capable of [having]. That independence, however, is freedom in the negative meaning, whereas this legislation—pure and, as such, practical reason's own legislation—is freedom in the positive meaning. Therefore, the moral law expresses nothing other than the autonomy of pure practical reason, i.e., freedom [der Freiheit]; and this [autonomy] is itself the formal

condition of all maxims, under which alone they can harmonize [*zusammenstimmen*] with the supreme practical law. (2002, §8)

Kant was a system builder, and he constructed his philosophy with mathematical precision. Unlike rights-based approaches, which are dependent on appeals to authority, Kant grounds morality in reason because, as he says, reason "has no dictatorial authority" (1996, p. A738/B766). His conception of autonomy or *self-legislation* (*Selbstgesetzgebung*) differs fundamentally from that of *individual* autonomy, as he only ever speaks of it in terms of the *autonomy of reason*, of the *autonomy of ethics*, of the *autonomy of principles*, and of the *autonomy of willingness*, and never of an *autonomous self*, *autonomous persons*, or *autonomous individuals*. Therefore, one key aspect that differentiates *Kantian* autonomy from our contemporary *individual* autonomy is that, for Kant, autonomy is *not relational*, *not graduated*, and *not a form of self-expression*. It is about acting on certain principles of *obligation*, incorporating respect for others as free autonomous agents who are imbued with an *absolute moral worth*, as opposed to a life liberated from all bonds (O'Neill, 2004, pp. 83–84).

The basis for Kant's conception of autonomy is expressed through his famed *categorical imperative* (*kategorischer imperativ*) *of practical reason* and its multiple formulations. There is but a single *categorical* imperative: "*act only in accordance with that maxim through which you can at the same time will that it become a universal law [without contradiction*]" (2012, p. 4:421). What distinguishes the *categorical* imperative from, say, a *hypothetical* imperative (*hypothetischer imperativ*) is that it concerns *distinctive* constraints or requirements and functions as a test to show which principles of action *could* be chosen by all (Kant, 2012, p. 4:414; O'Neill, 2004, p. 84). If a principle of action is universalizable, then it is fit to be a universal law; hence, it does not result in a wrong. Kant believed that any rational agent would understand and appreciate the categorical imperative given its universality. His appeal to reason as the basis for morality gives his ethics its apparent universalism: much like the universality of mathematics and how it applies to everyone equally, Kant reasoned that morality based in reason must too be universal. Importantly, this universality of Kant's ethics prevents us from falling into the trap of cultural and moral relativism.

To see how Kant's conception of autonomy functions with respect to cultural relativism, let us briefly consider FGM and MGM (male genital mutilation) or circumcision. When individuals denounce FGM practices yet advocate the circumcision of infant males, they do *not* really will that their maxim should become universal law, as they are taking the liberty of making an *exception* for one group of individuals to the advantage of their biases and inclinations (Kant, 2012, p. 4:424). Of course, in attempts to evade and deflect from this contradiction, circumcision advocates distinguish between the two practices as being entirely different (Saperia, 2012; Zimmermann, 2011). This, however, is a distinction without a difference, as even if we grant them that FGM and MGM are apples and oranges, it still ignores that apples and oranges can both be rotten. What lies at the center of this is non-consensual, non-therapeutic genital cutting.

Moreover, gender and biological sex are flimsy grounds to base the permissibility of one practice but not another, as the contradictions that appear are endless, further reinforcing the universality of Kant's categorical imperative. Gender is a social construct, but if an individual circumcised in infancy identifies as a trans-woman later in life, is she denied the same consideration as ciswomen victims of FGM? What about the inverse: a trans-man who was subjected to clitoridectomy in infancy? No responses to permit this are convincing, and the issue becomes even further convoluted when we realize that biological sex is routinely abused for these same reasons and that, in reality, it is not this static, monolithic institution (Karkazis, 2019; Viloria & Nieto, 2020).

Because genital cutting practices, including circumcision, span numerous cultures and thousands of years of human history (DeMeo, 1997), it is essential to note that temporal universality (atemporality) is also a rational requirement of universal laws. Atemporality is required to demonstrate a maxim's universality, and all duties rest on this atemporal component of universal laws. If a maxim were not valid *at all times and in all places*, it could not be a universal law; hence, practices like slavery are reprehensible irrespective of the period in which they occur.

This modal conception of action in terms of principles of autonomy is fundamentally different from the libertarian form of individual autonomy to which we are more accustomed. Kantian autonomy and individual autonomy may co-exist to some degree, as small amounts of individual autonomy may be helpful in acting with Kantian autonomy, but it should be kept in check, as large amounts may cause agents to contravene Kantian autonomy (O'Neill, 2004, p. 85).

In other ways, Kantian autonomy is more demanding than individual autonomy. The word Kant uses, *Selbstgesetzgebung*, or *self-legislation*, is here not to be understood as legislation by an individual agent, which is an idea that expresses an extreme version of individual autonomy. Rather, the *self* in *self-legislation* is a reflexive term. Self-legislation in this context is *non-derivative legislation* and does not refer to or derive from anything other than itself (O'Neill 2004, p. 85). Likewise, *self-legislation* is not a term for describing merely arbitrary ways in which a rational agent may or may not act. It is descriptive of the basic ways of thinking and willingness that are conducted with sufficient discipline and that can be followable or accessible to others. This approach results in modes of thinking and acting that are *lawlike* as opposed to *lawless*, which are principally intelligible to other rational agents (O'Neill, 2004, p. 95).

For Kant, *willing* is not the same as *wishing*. By that token, *willing* a universal law is not merely the same as *formulating* a universalized principle with the same content as one's own proposal for action. By willing a principle of action, we commit ourselves to take any necessary and some sufficient means, while also accounting for the reasonably foreseeable results of that action. Kant's system, therefore, establishes that a range of fundamental principles *cannot* be willed—not even hypothetically—as universal law. In turn, their rejection identifies the central ethical obligations, which include the central obligations of bioethics (O'Neill, 2004, p. 86).

§9 Schopenhauerian Synthesis

Admittedly, Kantian ethics is not without its critics. Kant's true successor, in my eyes at least, Arthur Schopenhauer, provides a compelling critique of Kant's metaethical grounding of morality within reason in his essay *Über die Grundlage der Moral (On the Basis of Morality*; 2009, §§3–11). While the philosopher of pessimism is best known for his profoundly nightmarish characterization of the world (perhaps only rivaled by Emil Cioran), his masterwork *Die Welt als Wille und Vorstellung (The World as Will and Representation)*, and the blending of German idealism with Eastern Buddhist and Hindu philosophies, Schopenhauer's ethics have been grievously ignored, and he is treated mainly by Kantians as a sort of illegitimate child.

Where Kant ends, Schopenhauer begins. He builds his metaphysics on the foundation of Kant's transcendental idealism and by taking a closer examination of the phenomenal world: if we look beyond all spatial, temporal, and causal relations, we find no way of distinguishing one thing from another. As such, the underlying reality transcends space, time, and causality, and any plurality or multiplicity is purely a quality of the world of experience, as the underlying noumenon must be *one*. Schopenhauer calls this noumenal singularity the *Wille zum leben*, or the *Will to life*, which is ultimately his characterization of Kant's *ding an sich* (*thing-in-itself*), shrouded behind the veil of $m\bar{a}y\bar{a}$ (2018, Chapter 18). Furthermore, because we are all manifestations of the Will, we are all connected by it. We find that Schopenhauer's ethics have their expression in the foundation of morality found in the *Veda* and *Vedanta* in the enduring mystical formula *tat tvam asi* (*you are that*; 2015, §115). As such, Schopenhauer fundamentally rejects Kant's grounding of morality in reason and posits that true moral actions are instead grounded in compassion and sympathy (2009, §§15–16):

[B]y my feeling it as well [mitempfinde], feeling it as mine, yet not in me but in another [...] But this presupposes that I have identified myself to a certain extent with the other, and consequently that the barrier between I and not-I is removed for the moment: only then does the other's business, his need, his distress, his suffering immediately become mine. (2009, p. 229)

In contrast with Kant's categorical imperative, the ultimate and true destination of all moralizing, according to Schopenhauer, is rooted in the following ethical proposition: *Harm no one; rather help everyone to the extent that you can* (*Neminem laede, imo omnes, quantum potes, juva*; 2009, p. 162). However, it should be noted here that Schopenhauer does not entirely reject reason's role in his ethics; rather, he believes we utilize reason to determine whether right actions are done from morally worthy incentives (2009, p. 227, 2015, §328).

Despite attacking Kant's rational grounding of morality and entirely abandoning the imperative form of Kantian ethics, more recent examinations of Schopenhauer's moral philosophy show that he retains many facets of Kant's ethics, even though Schopenhauer himself maintained that he differentiated himself to a significant extent (Guyer, 2012; Shapshay, 2019). There are multiple instances where Kant falls flat, such as with his duties to the self, and Schopenhauer instead provides a much clearer path forward. To these ends, I will be making extensive use of Schopenhauer as well, as he is undoubtedly

the rightful continuation of Kant's legacy. Many Kantians will likely deem this approach heretical and this synthesis and my treatment of specific components of Kant's system iconoclastic. As I am not a Kantian but a Schopenhauerian, I have deep respect for Kant's system, but I do not view it through the rose-colored glasses that modern Kantians do and, like Schopenhauer himself before me, will abandon its more problematic components.

II. Kantian Analysis

Our admittedly demanding preparatory work is finally complete; the time has come to begin the meticulous analysis of genital mutilations, and circumcision in particular, as well as the use of infant foreskin tissue in biotechnology.

In the Kantian sense, mutilation is not merely a vicious form of battery but constitutes partial murder. Therefore, merely framing this discussion under common injury and theft is exceedingly inadequate, and specific consideration must be given to infant circumcision for proper analysis. This analysis is divided into two parts, the first of which contextualizes circumcision under Kant's framework of mutilation or partial murder. The second part then opens the door for ethics, and we will consider this complex issue within morals more properly.

Division I: Circumcision as Partial Murder

In its broadest sense, mutilation or disfigurement is defined as "destroying, removing, or severely damaging a limb or other body part of a person" (Adler et al., 2020, p. 90). However, in their efforts to justify the forced, non-therapeutic circumcision of children, advocates like Sheryl Saperia present vociferous arguments that resemble a somewhat perverse rendering of the sorites paradox; they maintain that all forms of female genital cutting are undeniably mutilation yet remain steadfast in their convictions that "male circumcision is not mutilation, period" (Saperia, 2012). On the contrary, the contention that male circumcision is categorically different is beyond absurd. The English word *circumcision* originates from a modified combination of the Latin words *circum* (around or through) and *caedo* (I cut), resulting in the word *circumcisio*, or literally "cutting around." Genital cutting, regardless of gender or biological sex, has no vague identifiers. Therefore, the law of non-contradiction dictates that it is impossible to categorize one set of genital cutting practices as mutilation and another as something fundamentally different. By defending these kinds of absurdities, circumcision advocates telegraph their inclinations and sophistry, as mutilation is inherently an amoral concept, given that surgery, disease, and chance accidents all have the potential for disfigurement.

At any rate, the common definition of mutilation indisputably comes with baggage, and to be as fair as possible to my interlocutors and their objections to its definition above, I will reject it. Instead, I will derive circumcision as mutilation using Kant's more holistic conception of mutilation, which will serve as the basis of the moral analysis in Division II.

In American culture, in particular, male circumcision is often characterized as nothing more than an insignificant, harmless "snip." This portrayal is wholly vacuous and myopic, as even a small stone dropped into a still pond causes a notable disturbance, and the ensuing ripples of infant circumcision are as far-reaching as they are pernicious.

§10 Kant's Conception of Mutilation

In *Tugendlehre*, Kant begins with a discussion on *perfect duties to oneself* (*Von den vollkommenen Pflichten gegen sich selbst*). *Perfect* duties are those that always hold true and do not result in logical contradictions when they are universalized. Kant begins with the statement, "[t]he *first*, though not the principal, duty of a human being to himself as an animal being," which he states is "*to preserve himself* in his animal nature." The discussion primarily concerns willful (*willkürliche*) *physical death* or killing oneself (*autochiria*). Kant paints these negative duties with a broad brush, as willful *physical death* is not only total suicide (*suicidium*), but also, and more importantly for this work, the merely partial mutilation of oneself:

Mutilating oneself can in turn be either *material*, *depriving* oneself of certain integral, organic [bodily] *parts*, that is, maiming oneself, or *formal*, *depriving* oneself (permanently or temporarily) of one's *capacity* for the natural (and so indirectly for the moral) *use* of one's power. (2020, p. 6:421)

Because we exercise morality through our will and our bodies, the wanton destruction of oneself, either in totality or merely partially, as Kant says, "is to root out the existence of morality itself from the world, as far as one can, even though morality is an end in itself" (2020, p. 6:423). We are the *proprietarius* of our bodies and rule over them, albeit as one would govern over a person; insofar as one would dispose of their body, Kant says, the phenomenon appears restrained by the noumenon. Therefore, we are not the *dominus* of our bodies and are not to treat them as *res sua* or as the *dominatio servi* might do; partial or total willful physical death thus violates the law of the noumenon and we are forbidden from mutilating either ourselves or others (1997, pp. 27:593-594). Now, Kant does not place a complete prohibition on mutilating oneself, as dead or diseased organs may be removed if they endanger one's life. Additionally, he states that it is not a crime against one's own person to cut off things that are a part but not an organ of the body, such as hair or fingernails. However, Kant pours cold water on the concept of organ markets—and, by extension, infant foreskins as a commodity—since he is incredibly explicit that even the cutting of hair to sell on is "not altogether free from blame" (2020, p. 6:423).

Now, that is all well and good, but we have now run into an unexpected ancillary problem that must be addressed and will be considered simultaneously. The particular aspect of Kant's moral philosophy detailed above has brought about significant debate among contemporary Kantians, as Kant's writings predate modern transplantation methods, so no consideration thereof is given. The resulting lacuna within his doctrine is particularly thorny, as his system nominally condemns live organ and tissue

donation of any kind because it is considered partial murder and thus a violation of one's duty to preserve themselves.

In recent decades, however, some Kantian scholars have attempted to extrapolate and develop arguments to permit live organ donation by dancing around Kant's duties to the self and prohibiting self-mutilation. To circumvent mutilation in the *material* sense, some authors have suggested that we can separate body parts based upon their physiological function (Cherry, 2005, p. 136; Cohen, 1999, 2002). Furthermore, to side-step mutilation in the *formal* sense, others have argued that we can separate body parts based on whether they contribute to our cognition (Gill & Sade, 2002, p. 26; Merle, 2000).

As I will show in the subsequent sections, as the critiques for both require their own breathing room, both of these approaches fail and, as I see it, there is no convincing way that one can argue for the permissibility of live organ and tissue donation with respect to Kant's duties to oneself. Articulo (2014) presents the best argument within a Kantian framework, in my opinion, to justify live tissue or organ donation by appealing to the principle of beneficence. However, even this is not perfect in dodging the constraints of Kant's ethical system. If we look to Kant's casuistical questions from the duty of beneficence, he asks: "How far should one expend one's resource in practicing beneficence?" To which he swiftly answers: "Surely not to the extent that he himself would finally come to need the beneficence of others" (2020, p. 6:454). Although Kant is speaking about charity in the monetary sense, live organ donation is a type of charitable action. However, here is the folly: if someone donates a kidney, for instance, they become more vulnerable to illness and will potentially need to call upon the charity of another kidney donor at some point in the future. We can extend this to just about any other type of live tissue or organ donation. In my eyes, therefore, there is no way to cleanly maneuver around Kant's duties to the self in the context of live tissue or organ donation unless we reject them entirely because they are, in actuality, *impossible*. I do believe that if Kant had lived long enough to see live organ donation as we understand it today, he would likely have constructed his system slightly differently. As a result, he is not entirely at fault for not correctly anticipating that his Enlightenmentera system would not perfectly address every modern problem that came to mind; hindsight is always 20/20 after all:

It is much easier to indicate errors and mistakes in the work of a great mind than to give a clear and complete account [*Entwicklung*] of its value. This is because the mistakes are specific and finite and we can review each one, whereas it is a mark of genius that the excellence of its works is unfathomable and inexhaustible; they will not become obsolete but will continue to be instructive for centuries on end. (Schopenhauer, 2010, p. 491)

I now face the problem that in their attempts to permit organ and tissue donation under Kant's system, these modern Kantians have poisoned the well by having distorted and obscured what constitutes mutilation in the Kantian sense. Therefore, it is incumbent upon me to stomp out these notions and to properly show how circumcision constitutes partial murder. This is no doubt an arduous task. However, it may be a blessing in disguise, as it enables me to articulate circumcision more effectively as partial

murder, particularly for the casual reader who may be unfamiliar with Kantian or Schopenhauerian philosophy, as I am aware that my audience is exceedingly diverse.

§11 Kant's Supposed Permittance of Circumcision

Despite the contentious nature of the non-therapeutic circumcision of children, Kantians have strangely had very little to say on the matter. To my knowledge, there is only a single instance where Kant discusses circumcision in any capacity, from which Cohen claims that Kant *permits* circumcision (2002, p. 57). It is not entirely clear to me how she is contextualizing circumcision—as it appears to me that she is separating circumcision from Kant's allowance of disposing of one's body if the end is self-preservation—and is instead characterizing the foreskin as a part though not an organ of the body, like hair, the cutting of which is permitted. Supposing this is indeed the case, and I suspect that it is because she argues that we can separate body parts from the self based on physiological function alone. In that case, it is a gross misrepresentation of the particular example that Kant presents us in his *Lectures on Ethics*. Kant provides the hypothetical as follows:

But if I am forced, on peril of my life, to comply with the local religion or customs, as Niebuhr relates of the travellers who go to Mecca to witness Mahometan practices, that they must either lose their lives or let themselves be circumcised—which actually happened to a Frenchman—then this, too, is no *status confessionis* [commitment to religious belief]; I can always let myself be circumcised, it does no harm, especially if I can thereby save my life. (1997, p. 27:339)

Kant's insistence that circumcision "does no harm" is entirely relative and context-dependent. It is abundantly clear that his allowance of circumcision in this example is *only* because the alternative is death, *not* because he is categorizing the foreskin as a part but not an organ of the body (as Cohen appears to be insinuating). He is explicit, however, that forced circumcisions are devoid of any true religious significance. This scenario is fundamentally no different from the example Kant provides later, where a man can have his foot amputated to preserve his person (p. 27:370). My suspicion is that Cohen is—at least while writing that piece—ignorant about the male foreskin's purpose and function, as is the case of many Americans; it is all too easy, though exceedingly reckless, to suggest that we can remove a body part if one does not have the foggiest clue as to its function.

At any rate, although I sincerely doubt that Kant would approve of non-therapeutic circumcision as Cohen claims, given its contradiction of his duties to oneself, it wholly fits his definition of mutilation in both senses, as I will show in what follows.

§12 Integral, Organic Parts

Mutilation in the *material* sense is quite analogous to our more contemporary conception of mutilation, although Kant does provide us with two albeit dated examples:

To deprive oneself of an integral part or organ (to maim oneself)—for example, to give away or sell a tooth to be transplanted into another's mouth, or to have oneself castrated in

order to get an easier livelihood as a singer, and so forth—are ways of partially murdering oneself. (2020, p. 6:423)

Before we can direct our attention to the human foreskin, some things need to be worked out first. For Kant, integral body parts are not merely those that carry out some physiological function; they are those that make the body *whole* or *complete*. However, this section of *Tugendlehre* only provides half of the story; we must look to Kant's *Critik der Urteilskraft* (*Critique of Judgment*) for the sake of completion. Scholars who argue that one can even consider parts separate from the body based on biological functioning are—whether they realize it or not—presenting an incomplete version of Kant's views by neglecting his teleology of nature and his principle of *judging intrinsic purposiveness in organized beings*, which human beings indeed are: "An organized product of nature is one in which everything is a purpose and reciprocally also a means. In such a product nothing is gratuitous, purposeless, or to be attributed to a blind natural mechanism" (1987, §66). If nothing in an organized being is without purpose, then one cannot coherently categorize body parts in such a way that their removal is considered *anything but* mutilation. Suggesting otherwise under Kant's framework is distortion, as neither Kant nor Schopenhauer believe that any part of the human body is redundant, vestigial, or superfluous:

Thus, everything in an organism must be purposive: and so final causes are the guiding thread for understanding organic nature, just as efficient causes [die wirkenden Ursachen] are for the understanding of inorganic nature. This is why, when in anatomy or zoology we cannot find the purpose of some existing part, our understanding takes offense, just as it does in physics when an effect is given whose cause remains hidden: and as with the hidden cause, we presuppose the necessity of the purpose and set out to find it, however often we search in vain. This is, for instance, the case with the spleen, whose purpose will be the subject of endless hypotheses until one is proved to be correct. (Schopenhauer, 2018, pp. 375–376)

Despite what the two philosophers believed, the consensus now is that there are indeed vestigial parts in humans; however, vestigialities are still *integral* because they are part of what makes up the entirety of the person's body, despite not serving any intrinsic physiological function. An example will crystallize this point: if someone had the Darwin's tubercles of their ears sliced off, I would wager most people would still consider this disfigurement; no amount of shouting at the top of one's lungs that "they are vestigial" would change that. Kant makes no distinction based on biological function as to whether something can be counted as mutilation or not, and neither should we. I should also note, as it is subtle and easy to gloss over, that at no point does Kant state the cutting of hair is *not* mutilation—simply that its cutting "cannot be counted as a crime against one's own person" (2020, p. 6:423). Indeed, we should remember that although humans no longer derive utility from hair aside from aesthetics, other furry mammals still derive function from it (Marieb & Hoehn, 2013, p. 159).

Another aspect that must not be lost on the reader, and which will be much more relevant in the following section regarding the foreskin, is that function is intimately connected with form. In fact, function *follows* form; if you change the form, by extension, you change the function. Form both

enables and constrains function. This truth can be observed at every level of biological organization and even outside the domain of biology. Governed by the laws of thermodynamics, the function of biomolecules is dictated by their three-dimensional shape; altering the conformation of a biomolecule will, generally speaking, alter how it interacts—or does not—with its environment. Moving up to the subcellular level, organelles can compartmentalize materials and regulate their transfer, thus determining or limiting reaction rates (Feher, 2017, pp. 9–10).

Let us now take a half-step up a level: in cellular signaling, when a cell receptor chemically binds to a ligand, it may lead to a conformational change of that receptor, which in turn triggers an intracellular signaling cascade that alters cellular function. Analogous to this chemical signal transduction is mechanotransduction, which uses mechanical forces to induce conformational changes in mechanosensing molecules to activate these intracellular signaling pathways, again yielding altered function (Jacobs et al., 2013). At the tissue level, topology or spatial distribution of cellular processes allows for countercurrent flows, such as clearing metabolites from blood. Moreover, the interstitial pores of the fiber-matrix components of tissue are structured so that they may be either isolated or connected to form hydrophilic channels that are critical for the transport of nutrients, metabolites, growth factors, inhibitors, modulators, and other signaling molecules (Truskey et al., 2009). Lastly, let us consider this at the organ level. The structure and arrangement of nerves and tissues are critical for the proper coordination of delicate and precise bodily processes, such as beating the heart or gastrointestinal motility (Feher, 2017, p. 10).

Even subtle deviations in natural form can drastically alter function. While there are no doubt endless examples of pathologies birthed from even the most minute deviations in normal anatomical and physiological form, we may consider here the alveoli of the lungs. Through a combination of geometry of the alveoli themselves, their proximity to blood capillaries, the elastic fiber composition of their extracellular matrix, the local macrophages that clear foreign particles, and the pneumocyte type II cells that secrete surfactant, these structures of the lungs are engineered for optimal gas exchange. Alterations to this delicate system, such as destruction of or abnormalities in the elastic fiber assembly or deviations in the rheological properties of pulmonary surfactant, can give rise to lung pathologies (Rubenstein et al., 2015).

§13 The Foreskin as an Integral Part

The entropic, noumenal Will—the lord of all worlds—underlies this realm of experience and makes itself known through being and striving. It expresses itself not only in *actions* but also in the *shape* of organisms that appear. The purposiveness (*zweckmäßigkeit*) of organic nature concerning its continued existence cannot be easily accommodated within a philosophical system by neglecting to postulate this sort of Will at the very foundation of the existence of every natural being (Schopenhauer, 2018, p. 372). Conveniently for us, this intrinsic purposiveness is easily discernible in the organs of generation, a testament to the Will's ability to accomplish its ends. In many ways, Schopenhauer's Will is an elegant metaphysical driving force for Darwin's theory of natural selection; the Will is the watchmaker, and natural selection is the watchmaker's tool; it is the supreme *causa efficiens*. It should be noted that

while a watchmaker imbues his craft with purpose and cause, the Will is an irrational and aimless force, content only with its perpetual continuation. Natural selection similarly has no particular ends, though it is not a purely random process. It is not clear how much influence Schopenhauer had on Darwin and vice-versa, though one can draw striking parallels between the two, as even their contemporaries recognized (Asher, 1871).

Some individuals are seemingly interested in putting their ignorance on full display, postulating that the human foreskin is a vestigiality (Collier, 2011). This opining is nothing new; I am reminded of Robert Morris' (1892) question, asking whether evolution was "doing away with" the female clitoris. Or the absurdity that Remondino (1891) raises around whether the prepuce is even a *natural* physiological appendage (Chapter XIX). Thank all-powerful Atheismo that Mr. Darwin did not live long enough to witness this nonsensical drivel.

As shown in the previous section, even vestigialities are invariably *integral* and contribute to the wholeness of an organized being. Moreover, their removal is undoubtedly disfigurement, and therefore vestigiality cannot purely be the basis for determining what constitutes mutilation concerning body part removal. In truth, the human foreskin is far from a vestigiality or merely a useless piece of extra skin, as it is so often described, and its purposiveness is immense; many physicians who pioneered and promoted "medicalized" circumcision, as well as other mutilations, explicitly targeted the male foreskin *because* of its function—a practice that has its genesis in the pseudoscientific, antimasturbatory crusades of the Victorian-era (Acton, 1865, pp. 22–23; Chapman, 1882; M. Clifford, 1893; Cockshut, 1935; Crossland, 1891; Dixon, 1845, pp. 164–165; Hofheimer, 1893; J. Hutchinson, 1891; A. A. W. Johnson, 1860; Kellogg, 1887, pp. 295–296; Mark, 1901; Remondino, 1891, Chapter XVIII; Spratling, 1895). Above all, Maimonides (1963) was by far the most explicit regarding circumcision's purpose of crippling natural function:

Similarly with regard to *circumcision*, one of the reasons for it is, in my opinion, the wish to bring about a decrease in sexual intercourse and a weakening of the organ in question, so that this activity be diminished and the organ be in as quiet a state as possible. It has been thought that circumcision perfects what is defective congenitally. This gave the possibility to everyone to raise an objection and to say: How can natural things be defective so that they need to be perfected from outside, all the more because we know how useful the foreskin is for that member? In fact, this commandment has not been prescribed with a view to perfecting what is defective congenitally, but to perfecting what is defective morally. The bodily pain caused to that member is the real purpose of circumcision. None of the activities necessary for the preservation of the individual is harmed thereby, nor is procreation rendered impossible, but violent concupiscence and lust that goes beyond what is needed are diminished. The fact that circumcision weakens the faculty of sexual excitement and sometimes perhaps diminishes the pleasure is indubitable. For if at birth this member has been made to bleed and has had its covering taken away from it, it must indubitably be weakened. The *Sages*, *may their memory be blessed*, have explicitly stated: It is hard for a woman with whom an uncircumcised man has had sexual intercourse to separate from him. In my opinion this is the strongest of the reasons for circumcision. (p. 609)

As I established in the previous section, altering form will unquestionably alter functionality—typically disrupting it—and suggestions that circumcision does *not* impair natural penile function are both comically ignorant of both history and biology, which is a frightening proposition to consider as the individuals primarily making these benighted suggestions are in positions of medical authority, such as the AAP. In response to their 2012 circumcision policy statement, the AAP's Task Force on Circumcision received a *substantial* amount of criticism for their gross misuse of some—and complete omission of other—medical and scientific literature, lack of any physiological considerations of the human foreskin, pitiful ethical analysis, obvious cultural biases, and blatant conflicts of interest due to certain members' financial ties (Doctors Opposing Circumcision, 2013; Earp, 2012; Frisch et al., 2013; Svoboda & Van Howe, 2013). Be it corruption, bias, or incompetence, the AAP's policy statement is uniquely problematic, as stark differences can be drawn when taking a more cosmopolitan perspective.

Outside the US, physicians do not view non-therapeutic circumcision in the same benign and myopic way as the AAP, nor do they give the same credence to this type of practice. In fact, one-third of Finnish pediatricians demand *criminalization* of non-therapeutic, cultural circumcision of children (Hurme & Reunanen, 2008). Medical and professional organizations in Australasia, Canada, the Netherlands, Belgium, the UK, Scandinavia, Finland, Slovenia, and undoubtedly many more, have all issued strong policy statements or guidelines condemning the practice of non-consensual removal of healthy tissue without any medical indications, as well as finding the evidence of any supposed "health benefits" exceedingly dubious (British Medical Association, 2020; Danish Medical Association, 2020; Dansk Selskab for Anæstesiologi og Intensiv Medicin, 2020; Dave et al., 2017; Hernæs, 2014; Lindboe et al., 2013; Nordic Association of Clinical Sexology, 2013; Royal Dutch Medical Association, 2010; Sorokan et al., 2015; The Ombudsman for Equality, 2016; The Royal Australasian College of Physicians, 2010; Toikkanen, 2004; Varuh človekovih pravic RS, 2012).

This then prompts the obvious question: What *is* the function of the human foreskin? What is its teleology—its purpose? If one consults most American physicians or medical texts, one could not be blamed for believing that the foreskin has no function or that its purpose is some arcane knowledge lost to time in the burning of the Great Library of Alexandria (Geisheker, 2011). The agnotology of the foreskin and circumcision certainly deserves far more in-depth treatment than what I can provide in this work. However, it is not difficult to recognize the presence of censorship. Nearly two decades ago, Harryman surveyed ninety anatomical sources and found that 67% of depictions of the human penis were inaccurate (2004). Moreover, many medical texts routinely print falsehoods of the past (Hodges, 1999a, pp. 54–57; McGrath, 2009, pp. 97–98; Ritter & Denniston, 2002, sec. 26).

Following Harryman's lead, I conducted a brief survey of some recently published anatomy and physiology textbooks to see whether the male foreskin has since received any further attention. To my surprise, while there were indeed some texts that did a commendable job (M. Hutchinson et al., 2007, fig. 73; Kandeel et al., 2007, p. 13; Saladin, 2021, p. 1019), most either omitted the foreskin altogether or mentioned it entirely in passing (Gilroy & MacPherson, 2016, pp. 262–263; Longenbaker, 2020, pp. 420–421; Marieb & Hoehn, 2013, p. 1022; Netter, 2019, pp. 362–370; Rohen et al., 2016, pp. 348–354;

Silverthorn, 2019, p. 810; Waugh & Grant, 2018, pp. 501–502). One text, in particular, opted to *only* mention the *female* prepuce, despite drawing attention to analogs to the male anatomy elsewhere in the very same section (Ellis & Mahadevan, 2019, p. 142). Feher's *Quantitative Human Physiology* acknowledges the mechanical nature of intercourse but entirely overlooks how the foreskin facilitates the act (2017, pp. 964–965). Even in more specialized texts, the foreskin is given only passing remarks at best (Milhoua et al., 2006; Rehman & Melman, 2001). In this respect, modern American medical education is a burlesque of what it should be; the fact that so few texts acknowledge a normal part of the male anatomy is a genuine indictment of the state of play.

When there are entire classes of physicians and anatomists who may themselves be circumcised or who have never encountered the natural, intact penis in any capacity, exacerbated by its near-total censoring from medical literature, they will inevitably encounter an educationally induced form of cognitive dissonance:

Thus, it happens [that] many a man goes through life carrying around nonsense, whims, crotchets, conceits and prejudices that range all the way to fixed ideas. After all, he has never tried on his own to abstract concepts thoroughly from intuitions and experiences, because he has taken in everything ready-made; precisely this makes him and countless others so shallow and insipid. (Schopenhauer, 2015, p. 666)

Comparative Anatomy

Because humans are indeed animal beings, it would be incumbent upon us to provide a brief survey of the Kingdom of Animalia before we set our sights on our own anatomy. However, before we look at mammals, numerous examples of intromittent organs can be found in our more distant animal relatives. Male reptiles, for instance, are typically equipped with a pair of hemipenes, although there are instances of reptiles with a true phallus, such as turtles and Crocodilians, which are held internally within an invagination and everted during erection for copulation (Lombardi, 1998, pp. 99–100). Although most avians lack a true phallus, a protrusible phallus that extends from an invagination is exhibited in ratites and Anseriformes (Brennan & Prum, 2012; O'Malley, 2005, p. 140).

The prepuce is a structure commonly found in nearly all mammals. The only mammals that lack a prepuce are Monotremes—keeping in line with some of the other taxonomic rules that they have a propensity for breaking—where the phallus is covered by a preputial sac, which bears a resemblance to the penile organization observed in turtles. The structure of the prepuce or penile sheaths in mammals varies extensively. Despite this variety, mammals include an exocrine function through small preputial glands; secretions from these glands are often used in scent-marking (Lombardi, 1998, pp. 101–102). There are many nuances to the more specialized nature of the mammalian prepuce, as its structure often functions beyond a physical housing for the phallus, and its utility varies.

We find across all animals, without exception, that the male phallus is housed internally when not used for sexual intercourse. Of course, when we look at primates, this trend continues, albeit with some distinct yet substantial deviations. Across all primates, both the male and female prepuce consists of

dense genital sensory tissue, which shows a sharp divergence from other animals, where the glandular tissue carries functionality in its entirety. Moreover, compared to other primates, the human prepuce is far more developed and carries far more functionality than what is seen in our closest evolutionary relatives, making it a particularly unique structure (Cold & McGrath, 1999).

Teleological Analysis of the Human Prepuce

In antiquity, the Greeks and Romans treated the foreskin with a reverence that the anti-masturbatory crusades of the Victorian-era have largely quashed; one would struggle to find a current source that characterizes the foreskin in the same manner as Galen:

Nature out of her abundance ornaments all the members, especially in man. In many parts there is manifest ornamentation, though at times this is obscured by the brilliance of their usefulness. The ears show obvious ornamentation, and so, I suppose, does the skin called the prepuce $[\pi \acute{o}\sigma \theta \eta]$ at the end of the penis and the flesh of the buttocks. (Hodges, 2001, p. 376)

The contemporary apathy regarding foreskin ablation would be entirely alien to the Greco-Roman societies of old. Circumcision, and mutilations generally, was abhorred and reviled, as the foreskin was uniquely cherished. To this day, this can still be observed in surviving pieces of art (Hodges, 2001).

Although not always perfect in her work, Nature has presented us with a true marvel of her engineering capabilities in the human prepuce that is almost entirely unrecognized and unappreciated in our current age. Typically, discussions about human physiology are exclusively framed concerning *function* and not teleology or purpose. Though somewhat synonymous, these concepts are not equivalent. Teleology is often, wrongfully, scorned by scientists because it appears to reverse causality. In truth, what teleology is about and its relation to Aristotle's αιτίες are commonly misunderstood. Teleology merely describes the behavior in terms of *causa finalis*, that *for which* it exists, and has nothing to do with the underlying driving force, causa efficiens, that through which something exists; temporally, an appearance to be explained has the former in front of it and the latter behind it (Schopenhauer, 2018, p. 377). Generally speaking, regarding the teleology of tissues and organs, their purpose is their function. However, what differentiates *causa finalis* from mere function is its underlying motivation for purpose, which is then carried out by function. For example, extreme mechanical stress damages tissues, so our physiology responds to this by regulating arterial blood pressure through various processes (Feher, 2017, p. 5). Through this lens, I will approach this brief discussion of the human foreskin, as connecting its function with purposiveness is the most straightforward path to understanding its integral nature.

Although the foreskin is cited as serving numerous auxiliary functions, such as the immunological support role (Fleiss et al., 1998), for brevity's sake, I will keep this discussion limited to what I view as its primary functions, which concern reproduction; above all else, this is what the Will to life is interested in.

As with all other mammals above, when the human phallus is not aroused, the glans is kept internal so that the mucosa can be kept moist. However, it is during intercourse that the brilliance of Nature's design shines through. Now, intercourse is a mechanical process, but more importantly, it is a *thermodynamic* process, as strange as this may sound. Although it is not a perfect analog, and I intend to explore this more in a separate work, the reciprocating thrusting motion of the penis-vagina system can be approximated as a double-acting cylinder and piston, wherein moving boundary work is performed on the system (Çengel et al., 2019, pp. 162–164). As we are speaking in terms of a real system (not one that is reversible or quasi-static), irreversibilities will inevitably arise. Therefore, we find that some portion of the translational kinetic energy of the reciprocal motion is lost to heat due to friction. In mechanical systems, friction is undesired because it creates wear on the contact surfaces and reduces efficiency. Physiological systems likewise must reduce wear, as wear in this instance is synonymous with tissue damage. To minimize friction, bearings are therefore introduced.

The vaginal canal comprises sensitive mucosa, and the female anatomy is equipped with its own lubricating system. This is an environment not suited for frictional shear stress, as most women would undoubtedly affirm. We now have our motive, our purpose, as Nature appears to be well acquainted with the concept of bearings, as she has augmented the human phallus with far and away the most distinctive bearing of all. The foreskin is not a static structure; rather, when subjected to stress, it mechanically rolls back and forth like a fascinating rolling-element and fluid bearing hybrid. The motion itself is enabled by the tissue deforming like a Maxwell solid. This unique gliding function serves the purpose of reducing friction for both partners during intercourse. This is its true purpose since, during arousal, the bulbs of the vestibule in the female engorge with blood, which then works to grip the penis (Marieb & Hoehn, 2013, p. 1041). This gripping is equivalent to the physical constraining of a mechanical bearing, thereby further minimizing friction. Moreover, this form allows the foreskin to provide a novel intromissive function, facilitating penetration (Taves, 2002).

From an engineering perspective, this is undoubtedly impressive. However, the truly magnificent aspect of Nature's design is that she has made the foreskin the primary sensory component of the human phallus, comprised of structurally intricate erogenous tissue (Cold & McGrath, 1999; Cold & Taylor, 1999; Sorrells et al., 2007; J. R. Taylor et al., 1996; Winkelmann, 1956, 1959). Moreover, the abundant encapsulated nerve endings are stimulated via mechanical deformation. Together, this means that the structure that serves to facilitate the mechanical nature of intercourse, while simultaneously stimulating the male, is critical for normal sexual reflexes (Meislahn & Taylor, 2004).

To repeat it one last time, by altering the form, one alters the function, and the human phallus is no exception to this rule, as circumcision results in a cavalcade of dysfunction. Circumcision ablates both the most sensitive portion of the penis and eliminates any mobility that the remaining shaft skin would otherwise have, preventing stimulation of the residual nerve endings; as detailed above, this is the explicit purpose of the practice. It then follows, of course, that circumcision results in a significant decrease in sensitivity and sexual pleasure (Adams & Moyer, 2015; Bronselaer et al., 2013; Denniston, 2004; Denniston & Hill, 2004; Fink et al., 2002; Frisch et al., 2011; Kim & Pang, 2007; Masood et al.,

2005; Solinis & Yiannaki, 2007; Sorrells et al., 2007; Warren, 2010). Moreover, likely due to decreased vascularity, innervation, and sensitivity, circumcision is strongly linked to erectile dysfunction (Coursey et al., 2001; Fink et al., 2002; Pang & Kim, 2002; Shen et al., 2004); unsurprisingly, as Bollinger points out, the US, where circumcision is relatively common, has roughly 5% of the world's population, yet consumes 46% of the world's Viagra® (2014). Circumcised men carry a decreased ability to elicit bulb-cavernous contractions (Podnar, 2011), and other investigations have revealed ejaculatory dysfunction is far more common in circumcised men (Kim & Pang, 2007; O'Hara & O'Hara, 1999; Şenkul et al., 2004; Solinis & Yiannaki, 2007; Thorvaldsen & Meyhoff, 2005). Furthermore, as the mechanical lubricating function of the foreskin is removed, female partners are likely to experience vaginal dryness or painful intercourse with circumcised partners (Bensley & Boyle, 2003; O'Hara & O'Hara, 1999, 2002). Though this dysfunction was always the *intended* result of circumcision, as the earliest advocates explicitly tell us in the writings that they have left behind, and the individuals today who try to argue that no dysfunction manifests from circumcision are utterly charlatans in the truest sense of the word.

It should now be abundantly clear to the reader that removal of integral parts, regardless of their function, constitutes maining oneself. Moreover, as is the case with the undoubtedly integral foreskin, altering the form of those parts with function will often result in dysfunction.

§14 On the Natural Use of One's Powers

Before we can explore how genital mutilations fit into this puzzle, some things need to be established, and some critiques need to be made. Because the psychological effects of genital cutting are stark, and many phenomena arise from them, I must firmly ground this section. Mutilation, in the second sense for Kant, the *formal*, is to *deprive* oneself of one's *capacity* for the natural (and so indirectly for the moral) *use* of one's power (2020, p. 6:421). Those unfamiliar with Kant's notoriously enigmatic immanent metaphysics will likely find this somewhat perplexing or unintelligible. To borrow a phrase from Schopenhauer: I will attempt to make it less alien to the reader's conviction.

For Kant, space and time as we perceive and experience them are merely subjective forms of human sensible intuition. If one were to abstract them from all subjective conditions of human understanding and experience, they would not subsist of themselves. By this, Kant means space and time are *transcendentally ideal*, though *empirically real* (1996, p. A28/B44). The phenomenal world manifests as the *things-as-we-perceive-them* (*Vorstellungen*), mere *representations*, and as *things-in-themselves* (*dinge an sich*), things as they *truly* are; we are unable to have cognition of things as they may be *independent* of our experience of them (1996, p. A383). One aspect to this that Kant surprisingly overlooked—and that Schopenhauer was keen to point out—is that the one exception to this is that *we*, *ourselves*, our *bodies*, are physical objects. We have immediate *a priori* knowledge of ourselves and our bodies, which is fundamentally different from our experience of other material objects within the world of phenomena (2010, §6). Although Schopenhauer extends this into how our experience by way of our bodies—the narrow doorway to the truth—provides us with insights into the underlying metaphysical noumenon, and though he differs slightly from Kant in his theory of perception, which

for this work is neither here nor there, Schopenhauer nevertheless describes this Kantian concept elegantly:

[W]e can never reach the essence of things from the outside: no matter how much we look, we find nothing but images and names. We are like someone who walks around a castle, looking in vain for an entrance and occasionally sketching the façade. (2010, p. 118)

We utilize sensory information through our bodies, and by way of our faculties, we construct our manifold of experience with *a priori* forms of our sensible intuition, space and time (Schopenhauer, 2012, §21). Then, conversely, it is through our body and through our faculties that we can act toward our ends. Destruction of parts of our bodies and exposure to trauma generally disrupt and distort one's sensible intuition. This deprives us of our *capacity* for the *natural use* of our body's power, and so by extension, its *moral use*, which limits our capacity to be rational end-setting agents.

Much like separating and categorizing body parts based purely on their biological functioning, some authors have tried to do the same by arguing whether body parts carry any rational capacity and whether removing them would affect one's ability to reason; if removing an organ or body part that does not contribute to one's rational abilities, then it cannot be considered mutilation in the *formal* sense (Gill & Sade, 2002; Merle, 2000). At first glance, these arguments seem sound; however, as I will show, this approach is superficial, one-dimensional, and demonstrates an exceedingly shallow understanding of the Kantian unity of the mind and body. For Kant, the mind is merely a manifestation of the body and *cannot* be separated from it (Palmquist, 2016); the body, and all of its parts, constitute the person (Kant, 1997, p. 27:387).

While it is the case that organs like the kidneys do not contribute directly to one's cognition, what these other scholars fail to consider is that humans are *not* merely a set of disconnected organs and body parts. The removal of one, regardless of circumstance, can be a deeply traumatic experience, and trauma is something that distorts our interpretation and experience of the world and hinders our natural capacity to use our powers. Those who must undergo surgical amputation or other surgical mutilations may experience intense, crippling grief over the loss of their body image, function, or both. For example, breasts do not carry any rational capacity, and a unilateral mastectomy may have little impact on a woman's physical functioning, but the procedure can result in a profound effect on her body image and identity as a woman (Maguire & Parkes, 1998). Moreover, failure to correctly process one's grief over losing a body part can have severe psychological implications (Zisook & Shear, 2009). Even in cases where tissue is being donated for the benefit of another, post-traumatic stress disorder (PTSD) can still occur in living donors at a significant frequency, while the severity of PTSD post-donation is heavily correlated with a poorer quality of life (Y. Zhang et al., 2019). Additionally, recipients of donor organs may also develop PTSD or other psychological sequelae associated with the ordeal (Davydow et al., 2015).

There is more to this, however. Medical treatment and surgery that are independent of body part loss can also produce psychological traumas (Hall & Hall, 2013). While an anesthetized person

may not be conscious, for example, the brain is still physiologically "awake" and will shift into sympathetic overdrive, promoting hyperinflammation, coagulopathy, immune activation, and metabolic dysfunction (Dobson, 2020). Following surgery, some patients may experience episodes of intraoperative awareness, yielding psychological sequelae including PTSD (Aceto et al., 2013).

Kant and Schopenhauer were both keenly aware of the body's influence over the mind and vice versa. Despite not knowing anything about biochemical imbalances or genetic predispositions, Kant correctly identified the corporeal causes of mental illness (2007); over 150 years before Laing proposed the modern "medical model" (1971). Schopenhauer was far more explicit on this mind-body unity in his writings:

Mental anxiety causes palpitations of the heart, and they, in turn, cause mental anxiety. Grief, care, and restlessness of mind have an inhibiting and complicating effect on the vital process and the working of the organism, whether on our circulation, secretions, or digestion. On the other hand, if these workings, be they of the heart, the intestines, the portal veins, the seminal vesicles or anywhere else, are inhibited, obstructed or otherwise disturbed by physical causes, what arises is emotional unease, anxiety, melancholy and grief without cause, hence the condition we call hypochondria. (2015, §306)

Much of our modern understanding of trauma supports the two Germans' interactionism, and contemporary cognitive science has profound Kantian influences (Brook, 2004), while Kastrup (2020) has recently shown how Schopenhauer's metaphysics may provide answers to fundamental questions regarding the phenomenon of consciousness. While trauma was previously thought to be merely stored in the brain as bad memories, it is now understood that trauma is a *body* memory. As Bessel van der Kolk (2014) writes in his book *The Body Keeps the Score*, psychological traumas manifest physical symptoms. As well as the physical manifestations that van der Kolk discusses, trauma exposure can have transgenerational biological and behavioral consequences. While epigenetics is still mostly in its infancy, and its long-term implications are not entirely clear, evidence is accumulating that trauma exposure, even in childhood, affects the DNA methylation mechanism, which can alter gene expression and the metabolome and can be passed down to offspring (Curry, 2019; McIntosh, 2019; Youssef et al., 2018).

To conclude this section, I would hesitate considerably (and with absolutely no disrespect) to refer to someone who is stricken with grief, depression, anxiety, or any of the other psychological sequelae resulting from body part loss trauma "in the maturity of their faculties." Scholars who fail to take this more holistic view of mind-body unity—and who insist that body parts can be removed without any cognitive consequences—are guilty of the same inauspicious *regard médical* (medical gaze) that Foucault identifies in *Naissance de la Clinique* (*The Birth of the Clinic*, 1973), reducing as it does a human being to a mere set of disconnected organs and body parts.

Now that I have grounded this section, we can move onto the more specific case of genital mutilations.

§15 Genital Mutilations and their Relation to the Use of One's Powers

How circumcision fits into this puzzle may be rather abstruse and more challenging to conceptualize than destroying other sensory faculties like vision, hearing, or cognitive decline. However, the 20th century has provided us with a vast amount of literature detailing the psychological effects of genital surgery. Just over a century ago, Sigmund Freud proposed castration anxiety and its relation to genital medical operations (1918). In the 1920s, Estelle Cole and Edward Glover published works tying psychological traumas to circumcision (1927; 1929). A little over a decade later, David Levy published work describing the effects of surgical interventions on children, including circumcision, noting that many suffered from "combat neurosis," which we now label PTSD (1945). Following this, Freud's daughter, Anna Freud, also focused on the effects of pain and anxiety that result from surgical interventions on children and their devastating long-term consequences (1952). Additionally, we now have a wealth of evidence detailing the psychological traumas that forms of FGM exact on their victims (Behrendt & Moritz, 2005; O'Neill & Pallitto, 2021). But let us turn our attention to the traumas that arise from circumcision, as many discordant notes are struck therine.

By definition, circumcision as the amputation of the foreskin is a partial penectomy. However, circumcision in the US is rarely ever given the same consideration as other types of partial penectomies. Much in the same way that a mastectomy can have profound psychological implications, both partial and total penectomies, including circumcision, can manifest in anxiety, depression, and other trauma-related sequelae. We must remember that in addition to both sexual and urinary function, as with a woman's breasts and their connection to her identity, a cis-male's identity is intimately tethered to the phallus, and even its partial destruction can profoundly threaten that identity (Audenet & Sfakianos, 2017; Bullen et al., 2010; Earp & Steinfeld, 2018; Novac et al., 2013).

When infants who grow up to be adults are circumcised, they are left in a position where they are unable to process their trauma or grieve for the loss of their body part; the trauma is then repressed and left to fester. Infant circumcision correlates with numerous other psychological or emotional disorders, such as PTSD, alexithymia, learned helplessness, altered adult socio-affective processing, feelings of violation and betrayal, and many others indicative of trauma and unresolved grief from body part loss (Bensley & Boyle, 2001; Bollinger & Van Howe, 2011; Boyle, 2015; Boyle & Bensley, 2001; Boyle & Ramos, 2019; Denniston, 2013; Elena, 2009; Gemmell & Boyle, 2001; Goldman, 1999; Hammond & Carmack, 2017; Hammond & Reiss, 2018; Miani et al., 2020; O'Connor & Narvaez, 2015; Odent, 1997; Rhinehart, 1999; Taddio et al., 1997; White, 2013; Yilmaz et al., 2003). Indeed, although most men circumcised as infants may have no conscious memories of the event, those undergoing regressive therapy show that the unconscious mind has not forgotten the experience (R. C. Johnson, 2010).

Moreover, this early trauma can lead to antisocial tendencies through a personality disorder that Denniston (2010) identifies as *circumcision psychopathology*. This can manifest in stark, malevolent

actions, such as when a father seeks to circumcise his son to spite the mother from whom he is separated or divorced, no matter how much the son protests (Adler et al., 2020, p. 94). This response—to compulsively re-enact one's trauma upon another—has long been understood (Denniston, 1999; Goldman, 1999). We can see more evidence of this phenomenon in the fact that physicians who are themselves circumcised tend to support the practice and then, through medical societies, to craft policy statements and inject cultural bias into academic publications in such a way as to avoid their own cognitive dissonance (Earp & Shaw, 2017; Fleiss, 1999; Frisch et al., 2013; Goldman, 2004b; Muller, 2010; Van Howe, 1999b, 2015). Nearly a century ago, Glover documented a physician with an almost "manic" obsessive compulsion to circumcise children (1929). Often this manifests in avoidance and minimization of loss, as the first stage of grief, the denial of loss, is never processed (Goldman 1999); denial is not just a river in Egypt. From a bird's-eye view, we can see this clearly in how circumcision and the foreskin are typically treated as nothing more than a punchline in American pop culture (Young, 2009). However, I have my doubts that the same people would find amusement in the mutilation of girls—consistency be damned. Not even the late, great George Carlin found anything of comedic value in the practice of involuntary circumcision (2009, p. 6).

One reverberation that must not be overlooked is the self-destructive behavior that manifests in adulthood and is entrenched in perinatal trauma (Jacobson et al., 1987; Jacobson & Bygdeman, 1998; Miller, 1991; Salk et al., 1985). Massie suggests that male circumcision could very well be responsible for a string of male adolescent suicides in Northern Ireland, where circumcision is not widely practiced; while not the definitive causation, there is undoubtedly correlation (2013); similarly, an extensive survey of circumcised men indicates that suicidal tendencies are not necessarily out of the norm (Hammond & Carmack, 2017).

Other scholars have elaborated on the effects of the pain of circumcision, the inconsistent use of anesthetics, and the long-term consequences of pain in infants (Van Howe, 199a). Now, circumcision advocates may assert that the broad and effective adoption of anesthetics for pain is sufficient to negate the fallout of this pain; however, as stated in the previous section, even the anesthetized nervous system is still physiologically "awake" (Dobson, 2020). Moreover, one aspect that I have yet to see addressed in any meaningful way regarding the neurological consequences of circumcision is the severe effects of inflammation that follow foreskin ablation in children; while not necessarily always intertwined, pain and inflammation that result from tissue destruction are two sides of the same coin.

After an infant is circumcised, medical authorities such as the Mayo Clinic (2021) and even Anthony Atala (Urology Care Foundation, 2013) maintain that the soreness, redness, and swelling that follows circumcision is "normal" and is not a significant concern for the health of the infant, despite these being the textbook cardinal signs of acute inflammation that we have known about since Celsus first described them. They are no doubt correct that these signs are "normal," as following tissue injury, such as in the surgical removal of an infant's foreskin, a cascade of inflammatory responses is triggered (Temenoff & Mikos, 2008). Inflammation is now recognized as a significant contributor to central nervous system (CNS) injury. The brain is uniquely susceptible to injury by these inflammatory

mediators in the early stages of life, and a significant number of neurodevelopmental and behavioral disorders have been linked to inflammation in these early stages of life: autism spectrum disorders (ASD), schizophrenia, cerebral palsy, epilepsy, cognitive impairment, and depression (Hagberg et al., 2015; Jiang et al., 2018). More specifically, Frisch and Simonsen (2015) identified a clear correlation between circumcision in childhood and ASD. Although they did not speculate on the root cause, inference to the best explanation may suggest that the inflammation that results from circumcision at such a young age could be responsible for ASD, and one can surmise that it contributes to the other aforementioned psychological disorders as well. I encourage future researchers to try picking this lowhanging fruit to see if these other disorders correlate similarly with circumcision. I am curious as to how Atala, as well as other medical institutes and physicians that advocate for non-therapeutic infant circumcision, can reconcile both rolling the dice on possible neurological damage caused by intentional, unnecessary exposure to inflammatory mediators and ensuring that the child is "safe" and "well cared for" (Urology Care Foundation, 2013). To me, this looks far closer to iatrogenesis and malpractice, especially when one considers that no anti-inflammatories are prescribed even to attempt to mitigate this harmful bodily response. However, since non-therapeutic circumcision is not performed out of medical necessity, medical battery is perhaps more accurate, though I am by no means the first to suggest this (Adler, 2013).

Circumcision advocates, through the haze of cultural relativism and ideology, may very well scoff at my assertions. Immerman and Mackey, for example, posit a neural reorganization as a consequence of circumcision. They suggest that it is a *favorable* sort of reorganization, in the more puritanical sense: to curb "behavioral tendencies," to lower "sexual excitability," to "make a circumcised male less sexually excitable and distractible, and, hence, more amenable to his group's authority figures," and the list goes on (1997, 1998). While there are parallels with several Victorian-era quacks, the most odious example that comes to mind is Remondino and his grotesque proposal for the "wholesale circumcision of the negro race as an efficient remedy to preventing the predisposition to discriminate raping so inherent in that race" (1894, p. 3). Such actions with these types of motivations constitute a profound attack on another agent on an *ontological* level; I can think of no other type of attack that measures up to the heinousness of such an act. I submit to the reader: On what grounds and on what authority does someone have to make an active effort to alter someone's behavior *independent* of any precedent? This is akin to being sentenced for a crime that one did not commit. Even in cases where one can certainly argue that there is indeed some precedent for such punishment through rights-forfeiture theory, as in the chemical castration of sex offenders, some scholars have voiced concerns that such a fate constitutes cruel and unusual punishment (Scott & Holmberg, 2003). Although he refers to them as disgraceful punishments, Kant states that such acts are contemptuous (contemnere) of others and denies them the respect owed to human beings in general:

Nonetheless, I cannot deny all respect to even a vicious man [dem Lasterhaften] as a human being; I cannot withdraw at least the respect that belongs to him in his quality as a human being, even though by his deeds he makes himself unworthy of it. So there can be no disgraceful punishments that dishonor humanity itself (such as quartering someone, having

him torn by dogs, cutting off his nose and ears). Not only are such punishments more painful than loss of possessions and life to one who loves honor (who claims to respect others, as everyone must); they also make a spectator blush with shame at belonging to the species that can be treated this way. (2020, p. 6:463)

It is hubris of the highest order—as evidenced by the countless psychological sequelae that are rooted in involuntary circumcision—to assert that we have the ability, let alone the authority, to alter someone's behavior in a "favorable" manner by cutting off their body parts without their consent or precedent.

This masterclass in *naïveté* by Immerman and Mackey perfectly encapsulates the sad state of affairs that modern biomedicine is in, where ethics takes a backseat and is often considered nothing more than an afterthought—nay, it would be more apt to say that ethics is tied up and dragged behind a slow-moving wagon like a piece of luggage. With time, such propositions will end up alongside other mockeries of medicine, like prefrontal lobotomies, and will be looked upon with just as much disgust. This I can be assured of. At any rate, I need not labor on how an *intentional* neural reorganization is not in keeping with the preservation of a child in their animal nature and how it constitutes mutilation in the *formal* sense; it is as clear as the day is long.

When a man, circumcised in infancy, crosses over the bridge beyond denial of loss, the resulting mental anguish is nigh on Lovecraftian. His worldview is shattered; his identity as a person is threatened or invalidated. He is plagued with intrusive rumination of what was done to him, what was taken from him, and what he will never experience for irrational reasons entirely out of his control. He finds himself thrust into a society that is at best indifferent to his trauma or mocks it at worst. As a result, he may be hesitant to seek professional help and therefore unwittingly navigates the labyrinthine catacombs of grief with neither map nor lantern:

The most merciful thing in the world, I think, is the inability of the human mind to correlate all its contents. We live on a placid island of ignorance in the midst of black seas of infinity, and it was not meant that we should voyage far. [...] but some day the piecing together of dissociated knowledge will open up such terrifying vistas of reality, and of our frightful position therein, that we shall either go mad from the revelation or flee from the deadly light into the peace and safety of a new dark age. (Lovecraft, 2011, p. 139)

These are the psychological and emotional consequences of "competently" performed circumcisions—the type that advocates like Saperia argue should be permitted (2012). These consequences are only amplified when the circumcision, which is overwhelmingly unnecessary, is botched; we need only consider the tragic story of David Reimer (Woo, 2004). Gary Shteyngart has recently published his soberingly insightful and evocative account of the immense suffering a botched circumcision has caused him (2021). The belief that non-therapeutic circumcision is in no way a traumatic experience for a child to have endured is entirely absurd. Nobody would fault a child for being traumatized if their ears were taken from them for non-therapeutic reasons, let alone actual therapeutic ones.

Let us now move beyond circumcision and Kant's conception of mutilations and onto how they relate to morals proper.

Division II: Moral Analysis

It is now time for morals and ethics to make their appearance in this work formally. As the linchpin in these discussions is invariably autonomy and independence, I will begin with Kant's axiom of external freedom, as it is the groundwork for everything that follows. Then, we will explore how duties to the self are impossible parental duties and rights under the context of non-therapeutic circumcision of children, and finally, which injustices reveal themselves through the practice itself and the use of neonatal tissue in biotechnology.

§16 Kant's Axiom of External Freedom

As Kant sees it, only one innate right belongs to everyone by virtue of our humanity: *external freedom*. This is described as independence from someone else's necessitating choice (*nötigender Willkür*), insofar as it can coexist with the freedom of every other in accordance with a universal law (2020, p. 6:237). This freedom is the basis for his Universal Principle of Right (*Allgemeines Prinzip des Rechts*). An action is considered *right* if it can coexist with everyone else's freedom in accordance with a universal law, or if on its maxim, the freedom of choice can coexist with everyone's freedom in accordance with a universal law. If someone's action or condition is right, therefore, it does not conflict with the external freedom of others; whatever hinders that action or condition is *wrong*, as it cannot coexist with the freedom of others (Kant, 2020, pp. 6:230-231). We will explore the complexities and nuances that arise from this throughout Division II.

§17 On the Impossibility of Duties to Ourselves

We have now arrived at one of the starkest instances where Kant fails us, which is in regard to the duties to oneself. The duty to preserve oneself is particularly onerous, which is quite self-evident based on the knots into which contemporary Kantians twist themselves by trying to argue the permissibility of live organ and tissue donation within the framework of Kant's doctrine—like trying to smash down a square peg into a round hole. There is a significant and crippling flaw that all these Kantians have seemingly overlooked entirely or never bothered to consider, despite Kant's clumsy syllogism for the existence of duties to ourselves (2020, pp. 6:417-418). As Schopenhauer points out, duties to the self must, as with all duties, be either duties of right or love, both of which are *impossible to the self*. Again, square peg, meet round hole. Kant's duties to the self are indicative of puritanical 18th-century notions of morality, partially prudential rules, partially dietetic prescriptions, and as the domain of ethics is purely concerned with external human actions, neither belong within morals proper (Schopenhauer, 2009, p. 126).

Duties of right (Rechtspflichten) toward ourselves are impossible based upon the self-evident principle: "No injury is done to someone who wills it [volenti non fit injuria]': for since what I do is at all times

what I will, what happens to me from myself too is always only what I will, and consequently never a wrong [*Unrecht*]." Similarly, with *duties of love* (*Liebespflichten*) toward ourselves, "morals finds its work here already done and arrives too late." These duties, like duties of right, are also impossible, as the highest commandment in Christian morals even presupposes it: "Love your neighbor as yourself," to which the love that one has for themselves is assumed in advance of loving everyone else. The inverse, "loving yourself as your neighbor," as Schopenhauer shows, adds nothing and demands very little; this would be "the sole duty according to which a work of supererogation [*Opus supererogationis*] would be on the daily schedule" (2009, §5).

Because duties to ourselves are impossible, consensual body modification may be considered mutilation or maiming oneself. However, the act itself falls entirely outside the domain of moral consideration. As duties to ourselves are impossible in the moral sense, lucid adults can undergo consensual body modification (such as circumcision) or donate parts of their body for the benefit of others, if they so choose and nobody is wronged morally. What is presupposed in this notion is that the adult is doing so of their own volition and not under the coercion of another party, as this is when morals and ethics enter the room. Moreover, someone may be mentally unwell and engage in selfmutilation, such as the case where a poor, troubled soul, in the depths of suffering, attempted their own surgical foreskin reconstruction (Walter & Streimer, 1990). However, such an act cannot possibly be considered immoral, much in the same way that we do not look upon acquaintances, friends, or relatives who have chosen to depart this mortal coil voluntarily as criminals; we look upon them with sorrow and compassion, and not indignation or resentment (Schopenhauer, 2015, p. 326). Even Kant would agree that someone in the ice-cold grip of mental illness instead needs a doctor and *not* an ethicist (2007, p. 15:939). The moral significance (Bedeutsamkeit) of actions is entirely in its relation to others. Only then can said actions have moral worth or reprehensibility (Verwerflichkeit), making them an act of either justice or loving kindness, or their opposites (Schopenhauer, 2009, p. 206).

§18 Parental Rights

Through his third concept of property, Kant posits that parents have some degree of control and power over their children and their bodies. The example provided by Kant is that parents have the power to impound their children in their household, should they run away. What this concept does not do is permit a parent's absolute power over their child's body. While this concept gives parents power over their children, Kant stipulates that the parents have an innate duty to care for their children, as the child, who is a person, was brought into the world without consent as a result of the responsible free will of others (the parents). We will return to the concept of duty in the next section. Kant explicitly states that while the child is indeed a "product" of the parents, the child is still endowed with freedom and autonomy, which cannot be disregarded. As such, the child is not the property of his or her parents, who have an obligation not to treat their child as property; parents do not retain a right to destroy or abandon the child as though the child were an inanimate object. By extension, the child's bodily integrity must be respected by the parents, and elective, non-therapeutic surgeries (such as circumcision) violate the child's external freedom (2020, pp. 6:280-282).

Nevertheless, advocates maintain that it is the right of the parents to circumcise their children based entirely on their cultural preferences or religious doctrines, as well as in an effort to conform to perceived social norms (Margulis, 2015, p. 124; Rediger & Muller, 2013; Waldeck, 2003). This presumes that the child in question will grow up to hold the same beliefs as their parents, which is fallacious and an easy notion to upset. To demonstrate this, I will invoke one of Kant's influences, David Hume. To rework and invert Hume's criticism of inductive reasoning regarding the rising of the sun: a child will grow up to hold the same religious beliefs as their parents is no less intelligible a proposition, and implies no more contradiction, than the negation, that they will not (2007, pp. 26–27). Unlike the sun in Hume's example, which both was and is, children do not hold serious religious convictions any more than they hold political ones (Dawkins, 2015); try as one might to reveal it, there is no is to speak of, as children merely maintain a simulacrum of religious faith. To circumcise a child in *anticipation* that they will carry the same theological beliefs as their parents into adulthood—or even want to be circumcised—is fallacious, as it prejudges what has yet to come to pass with questionable certainty. Although we say that we *know* that the sun will rise tomorrow, this is merely because we have seen the sun rise day after day and have made a judgment that the sun will likely rise tomorrow too, but it is always possible that someday it may not.

This same degree of certainty cannot reasonably be applied to children carrying on the religious beliefs of their families, as current trends show that faith is significantly declining with younger generations (Inglehart, 2020). Parents and religious leaders cannot therefore coherently argue that *their* faith is a legitimate justification for forced, non-therapeutic circumcision. We can apply this same syllogism to the cultural, non-religious circumcision of children because, regardless of the motivation for the circumcision, many adults circumcised in infancy abhor their circumcision status and feel violated by the disregard of their agency (Hammond & Carmack, 2017; Hammond & Reiss, 2018). Over two decades ago, Duckett estimated that there were "well over a million men in America that would pay good money to have their foreskins restored were there an effective procedure" (1995). That figure has since increased: a recent YouGov survey found that more than five million men in the US want their foreskins back (Serody, 2021). Indeed, this figure is likely to be somewhat muted, as satisfaction with one's circumcision status is tied to false beliefs about circumcision and the natural male anatomy (Earp et al., 2017).

When parents circumcise their children, whether on cultural or religious grounds, they do so with insufficient evidence that their child will be content with the decision that is made for them, if that even makes it into their consideration, and by that point alone, parents have *morally wronged* their child by neglecting their epistemic responsibility (W. K. Clifford, 1879).

The only sensible approach for religious circumcisions is to take cues from the Anabaptists, who maintain the belief that baptism is only valid when a candidate freely confesses their faith in Christ and requests to be baptized—something to which infants are incapable of consenting. Suppose we are to be truly honest with ourselves: we must admit that all true religion is *internal* and lies entirely in the relationship of the human heart toward God (Kant, 1997, p. 27:73). Baptizing or ritually circumcising

children that cannot consent *cheapens* the religious significance of such practices, as it deprives them of their ability to confess their faith and devotion to a higher power voluntarily and to commit themselves meaningfully; involuntary circumcision is no *status confessionis* (Kant, 1997, p. 27:338). In recent years, many Jewish and Muslim scholars have sought reform and have argued that ritualistic circumcision should no longer be retained and practiced, and some have proposed alternative liturgies (Abu-Sahlieh, 1999; L. B. Glick, 2004, 2013; Goldman, 2004a; Goodman, 1997; Greenberg, 2017; Oryszczuk, 2018; Pollack, 2009).

§19 A Parent's Duty to Preserve Their Children

Although every right comes from duty, which is an agreement entered into, there is only *one* obligation that is *not* assumed by means of an agreement but is instead immediately through action, because the one to whom one has the obligation was not yet there when it was assumed, which is the duty that parents have to preserve their children (Schopenhauer, 2009, p. 221).

Although Kant intended these to be duties to the self, I believe that we can use them in another way. Parents carry a narrow right over their children, but this is because they have a duty to preserve and care for their offspring and to prevent them from harming themselves, at least until they reach maturity. Like a flower leaning toward the sun, children look to their parents for care and nurture while growing and developing into the adults they will someday become. Although Kant explicitly states that parents have this responsibility in *Rechtslehre*, he leaves much room for interpretation as to how parents should best raise their child (2020, pp. 6:280-282). Although parents are expressly forbidden from treating their children as property, some parents believe it is nevertheless their duty as parents to circumcise or alter their children's bodies in keeping with *their* (that is, the parents') religion or culture, as though their child were their property. In truth, this is merely egoism masquerading as right.

Despite duties to oneself being impossible, it is reasonable to assume that "preserving" one's offspring can be taken as "preserving them in their animal nature," which then prohibits any non-therapeutic body modifications, like circumcision. Schopenhauer would likely agree to this extrapolation of Kant, as parallels to his pederasty example can be drawn effortlessly; even if a child consents to these modifications, like circumcision, they are not considered mature in their judgment, and the principle "no injury is done to him who wills it" cannot be invoked, as no reasonable person believes in their heart that children *will* to be circumcised (2009, pp. 128–129). Disposing of parts of one's child as a mere means to some discretionary end, such as non-therapeutic cultural or religious ends, debases the humanity in one's person (*homo noumenon*), the preservation of which the parents (*homo phaenomenon*) have nevertheless been entrusted (Kant, 2020, p. 6:423).

§20 Genital Mutilations are Violence

Historically and colloquially, *violence* has been considered equivalent to battery or physical harm; however, this definition excludes things such as *institutional* or *structural* violence. Mike Rugnetta argues for a more precise definition, and I strongly recommend that other scholars consider it. In the

most precise sense, Rugnetta (2016) argues, *violence* is "the whole or partial negation of agency through force"; all battery *is* violence, but *not all* violence is battery. Abigail Thorn (2017) rephrases Rugnetta's definition of violence into one that, for our purposes, is simpler to work with: as "the force that removes an agent's choice." This more precise definition provides for a greater order of ethical discourse than the more commonly accepted one allowed for. More importantly, for the work before the reader, it allows me to illustrate more easily why involuntary genital mutilations, namely infant male circumcision, infringe upon right and keep us from getting bogged down in Kantian imperative jargon.

Violent actions are those that cannot be meaningfully retracted; they are a crossing of the Rubicon, or a *swallowing of the porcupine*, as the Tibetan Buddhists say. Just as when a painter makes her very first brushstroke on a blank canvas, when a violent act occurs, it creates a point in time where an option is no longer possible (Rugnetta, 2016). It is easy to see how involuntary mutilations of any kind thus qualify as violent actions. Circumcision status, in particular, is viewed as a binary, where one is either intact or circumcised. Those who are circumcised are forever circumcised. One can engage in foreskin reconstruction, such as non-surgical restoration, although after completion, one merely becomes $\dot{\epsilon}\pi\iota\sigma\pi\alpha\sigma\mu\dot{\alpha}$ (stretched-one), as the ancient Greeks referred to it, which is effectively just a secondary status (Schultheiss et al., 1998). Moreover, both surgical and non-surgical restoration, while restoring a great deal of physical function and cosmesis, can never truly replace specific tissues and specialized structures of the natural foreskin; however, advances in tissue engineering and regenerative medicine are likely to overcome this barrier (Purpura et al., 2018).

Nevertheless, despite the advances in tissue regeneration approaches, none of these strategies will entirely undo the psychological trauma and neurological damage invoked. Non-surgical restoration certainly has helped those suffering psychologically to find some sense of peace, but this is a process that takes many years and significant effort and dedication (Boyle et al., 2002; White, 2013). Here, I must remind the reader that these are struggles that have been forced on someone by removal of their agency and cannot be meaningfully retracted. Thus, circumcision and other involuntary genital mutilations are, by definition, violent acts; when children are circumcised without medical indication, they are deprived of the legitimate ability to choose whether they want to be circumcised when they reach adulthood.

That said, Rugnetta's definition of violence is inherently amoral, so we will now explore how violence relates to morals and rights.

§21 Involuntary Genital Mutilations Infringe Against Right (*lus*)

Now that I have established how circumcision is, in fact, a form of mutilation or partial murder, that does not necessarily tell us anything about its morality. As I mentioned previously, anyone can engage in self-mutilation or body modification if they so choose; it may be bad for their health, but they are not wronging themselves or others in the moral sense, as the moral worth of actions is entirely in their relation to *others* (Schopenhauer, 2009, p. 206).

Under Kantian moral philosophy, a maxim is wrong (*Unrecht*) if it is non-universalizable and therefore unfit to be universal law. Actions or conditions (*zustande*) are *right* (*ius*)—that is, they do not infringe against justice (*iustitia*)—if the maxim of freedom of choice of each can coexist with everyone's freedom in accordance with a universal law of nature without contradiction. Kant defines *right* as "the sum of the conditions under which the choice of one can be united with the choice of another in accordance with a universal law of freedom" (2020, p. 6:230). What is *wrong* and what is *right* are synonymous with *injury* and *non-injury*, the latter also including the prevention of injury. Because *injustice* (*Ungerechtigkeit*), or *wrong*, always consists in injury to another, the concept itself is *positive*; that is to say, it makes its existence felt. Therefore, the corollary to this is that *right* is therefore a *negative* element, as it designates actions that one can perform *without* injuring others or doing wrong (Schopenhauer, 2009, pp. 217–218). As I mentioned previously in §8, some maxims are such that they cannot even be *thought of* without contradiction, such as maxims of *violence*, as these are fundamentally counter to right and result in a wrong (Kant, 2012, p. 4:424).

On the face of it, maxims of violence or force (*zwingen*) are wrong, although Kant presents one caveat. Maxims of violence, by definition, are a hindrance or resistance to the external freedom of other agents, and one cannot coherently will them to be universal law. As paradoxical as it may seem at first glance, Kant points out that connected with right in the *narrow sense* (*ius strictum*) is an authorization to use *reciprocal* force, which is, in fact, consistent with freedom in accordance with universal laws. Hence, although a hindrance of or resistance to the freedom of others is wrong, an exercise of freedom that is opposed to that hindrance or resistance (a *hindering* of a *hindrance to freedom*), the action is therefore consistent with freedom in accordance with universal laws and is therefore right. Although there is an authorization for reciprocal force, it is only legitimate in the *narrow* sense of right and gives rise to *ambiguous* right (*ius aequivocum*; Kant, 2020, pp. 6:231-236). Moreover, as *right* is synonymous with *non-injury*, and also consists of prevention of injury: no sympathy or compassion for another can demand of me that I allow myself to be injured by them, and suffer wrong (Schopenhauer, 2009, p. 217). Therefore, the hindering of the condition (maintaining intact genitals) of another through involuntary, forced circumcision or other mutilations directly and clearly infringes against right (i.e., it injures the receiver).

Now, because every duty gives a right, parents, through their duty to preserve their children, have agency over their children and must allow for medical intervention if the condition threatens the child's life—a hindrance to the child's freedom—which potentially authorizes the legitimate use of force by way of some life-changing medical intervention through right in the *narrow* sense. This is the extent to which this right allows, as any *non-therapeutic* body modifications are illegitimate uses of force, given that they deprive the child of what is *internally* theirs, *freedom*. Children are immature in their judgment, for even if they consent, the principle of no injury is done to him who wills it cannot be applied. Therefore, the non-therapeutic circumcision of children is *wrong* and *injurious*.

Magnitude of Injustice

What is rarely considered within ethical discussions is the *magnitude of wrong*. Although a poor, starving person stealing a loaf of bread when near death commits a wrong, his injustice is relatively minuscule compared to a rich man who somehow deprives a poor man of his last possession. Therefore, although every unjust action is wrong in terms of *quality*, namely injury to another's person, freedom, property, or honor (or in the case of involuntary circumcision, all four), in terms of *quantity*, the magnitude of the injustice can be very different. The measuring of justice and injustice is not direct and absolute (though quality remains constant), such as that of a ruler; rather, it is mediated and relative, like that of sines and tangents. Schopenhauer provides us with a simple formula for estimating this quantity: "the magnitude of my action's injustice equals the magnitude of the ill [*Übel*] I inflict on another by it, divided by the magnitude of the advantage I gain by means of it" (2009, p. 219).

As established in Division I, circumcision is invariably partial murder; however, its moral worth is dependent upon whether the person undergoing the act wills it or not, as no injury is done to someone who wills it. If we take total murder to be infinite in magnitude, partial murder must therefore be lesser, though no less infinite, in magnitude. However, I am not interested in splitting the difference on this matter. Thus, the magnitude of the variable in the denominator becomes negligible, as this equation will always equal an infinite level of injustice. Therefore, the *magnitude* of forced circumcision or any other genital mutilation generally must be nigh on *infinite in its injustice*. If we look into our hearts, we must acknowledge this to be true. As forced mutilation of any kind is a non-universalizable action, it matters not which body part is being disfigured; our stomachs still churn in revulsion by the thought of someone's fingers or eyes being forcibly removed. Moreover, even though any number multiplied by infinity is still infinity, I would slightly amend Schopenhauer's formula, as any injustice committed against a child is far more egregious than one committed against an adult due to their uniquely vulnerable nature.

However, we are not done here, as this subsection has only contextualized wrong in terms of *simple* injustice, which must be distinguished from *double* injustice. This, as Schopenhauer states, "takes place where someone has expressly assumed the responsibility of protecting another in a determinate respect, so that non-fulfillment of this obligation would already be injury of the other and therefore wrong; but then he himself goes beyond this to assault and injure the other in the very respect in which he ought to have protected him." This concept of a double injustice is collectively considered under the concept of *betrayal*, which is the abomination of the world; accordingly, even Dante placed traitors in the lowest circle of Hell (Schopenhauer, 2009, p. 220). In addition to the simple, though grotesque, injustice of partial murder that occurs in circumcising a child illegitimately, contravening right in the *narrow* sense, the double injustice occurs due to parents abdicating their *duty* to preserve their child. However, they are not alone in this crime, as physicians often facilitate the act.

Many conservative methods exist for treating foreskin pathologies (Dalton, 2009; Doctors Opposing Circumcision, 2016a), and have been used since antiquity (Hodges, 1999b, pp. 134–135, 2001, pp. 395–397). It is medical malpractice not to exhaust these before opting for destructive tissue amputation.

The rate at which children will require medically-warranted circumcision before the age of 18 is less than 0.5% (Sneppen & Thorup, 2016), so the physician who does not initially pursue these conservative methods wrongs the parents and the child both by using an illegitimate use of violent force and by not fulfilling the duties that they are tasked with upholding by way of their occupation. People are not things; they do not necessarily have the knowledge and experience that physicians carry, and, as Plato teaches us, a physician in the precise sense is firstly interested in doing what is best for the patient under their care—not what is best for or most effortless for the physician—and by swinging the lead due to the profitability of circumcision and selling of the tissue, or overextending the legitimacy of their right by circumcising a child non-therapeutically and committing medical battery, the humanity of the person the physician is entrusted with caring for is disregarded (2003, sec. 342d). I would wager that most patients would not consider an illegitimate (that is, not medically necessary) use of force against their person to be in their best interest.

Mutilation qualifies as a violent act, as integral bodily parts are excised, and one can suffer deep psychological scars. The act of mutilation is a casting of the die and cannot be meaningfully retracted; it does not fade away like footsteps in the sand. Therefore, forced mutilations such as circumcision *categorically* infringe upon right and constitute partial murder and are in fact *contemptuous* of others; not even those who commit heinous crimes should be subjected to such dehumanizing fates as disfigurement (Kant, 2020, p. 6:463).

§22 The Foreskin as an Object of Choice & Wrongful Use

There is a second way to consider this topic, through which it becomes far more directly relevant to neonatal foreskin tissue as standing-reserve and the subsequent challenging and ordering of biotechnological applications. However, to do this, we must disregard Kant's unity of the mind and body, as the Heideggerian concept of standing-reserve is in reference to external, empirical things. In Kantian philosophy, the body is not something that is mine; it is instead *me*. We do not own our bodies in the same sense that someone owns a thing, which can invoke the transfer of right. However, biotechnology is not concerned with the mind-body problem, and infant foreskins have become a commodity to purchase, sell, and utilize in spite of Kantian unity. As such, these tissues should be considered as external objects of choice; I believe this is the true path forward for Kantians who wish to continue to opine on the permissibility of live organ and tissue donation within Kant's moral doctrine, as duties to oneself are impossible, and just about every part of the human body can now be repurposed in one way or another.

Since infant foreskins and other human tissues and organs have become commodities, I will argue that we can treat them as *empirical possessions*, those that are separate from the body. It follows, then, that to have a foreskin is *posessio phaenomenon* or *possession in appearance*; one can have intact genitals and then have their foreskin removed. Possession is dependent on time and space. An *object of my choice*, according to Kant, is "something I physically have in my *power (potentia)* to use in any way whatsoever." When an object of choice is in one's physical power, then one can use it to the exclusion of others; it "extends itself *a priori*" to include freedom to use these objects of choice to the exclusion

of others (2020, p. 6:246). It is not sufficient, however, that we distinguish what is merely externally mine or yours, as ethics demands that we make it our maxim to act *rightly*; we must distinguish what is *rightfully* mine or yours. The *analytic a priori* proposition that defines this states that what is *rightfully mine* (*meum iuris*) is that "with which I am so connected that another's use of it without my consent would wrong me" (Kant, 2020, p. 6:245). To this end, there is nothing in this world to which everyone has such an indisputable *right* as their own person (Schopenhauer, 2015, p. 325). Therefore, biological males are born with a foreskin already in their possession. In other words, that foreskin is in the male's power at birth, and thus we can conceive the foreskin as a *rightful* object of choice. Poor Kant is undoubtedly spinning in his grave.

The Permissive Law of Practical Reason

Naturally, this prompts a new question: Are there any limitations on using an object of my choice? Are there any *absolute* prohibitions on using an object of choice? When Kant refers to absolute prohibition, he is referring to cases where an object of choice is under nobody's control or power (i.e., it is unused and masterless [res nullius]). Even in these cases, would it still be wrong or prohibited? Can it be wrong to use an object even when no one has laid claim to it or is using it? According to Kant, "pure practical reason" leads to the conclusion that there is "no absolute prohibition against [its] use." If there were absolute prohibition, it would be a contradiction of external freedom. Nobody would ever be permitted to take and use anything if such a condition were true. It would leave us in a world filled with unusable things; force of law would prevent any use of all things. Kant states that we are *merely* permitted (bloß erlaubt) to take control of unclaimed things through the permissive law (lex permissiva) of practical reason (2020, p. 6:246). To this effect, the UC Regents were merely permitted to take possession of Moore's tissue when he consented to the tissue's removal, effectively abandoning the tissue in their biohazardous waste system. The tissue was without ownership on property that belonged to the UC Regents. The universal principle of right does not prevent the assumption of absolute prohibition against the use of things. One cannot will that masterless objects become universally impermissible to use. Practical reason wills that the permissive law is a valid principle, as practical reason extends itself through the postulate a priori (Kant, 2020, p. 6:246).

Theft and Wrongful Use of Infant Foreskins

Kant's postulate of practical reason concludes that when one has an object of choice, one may possess it for whatever period of time that one pleases. One is further permitted to take an object under one's control if it is in one's power to do so, as long as nobody else's freedom is violated. If someone wants to take away the object of my choice, that person must justify doing so; by keeping it in my control, I am only acting in accordance with the postulate of practical reason. This holds true whether the thing in question is on my person or if I have left it to return to later. If someone were to take it, it is a violation of my right to freedom, and therefore their action injures me. Practical reason dictates that taking an object by force is incompatible with the other person's external freedom of choice and thus violates Kant's universal principle of right (2020, p. 6:246).

Circumcising a child non-therapeutically, taking their foreskin, therefore constitutes theft and is fundamentally no different from if someone were to wrest an apple from my hand or to drag me away from my resting place, as it wrongs me in terms of what is *internally* mine (freedom; Kant, 2020, pp. 6:247-248). In the narrow sense, parental right does not authorize such maxims. We must also keep in mind that this is no mere theft, as it is a theft by means of partial murder, and as I argued in the last section, the magnitude of the injustice invoked is incomprehensible.

To then purchase and use what amounts to stolen property—and as both the AAP and CDC state that the overwhelming majority of child circumcisions are *not* medically necessary (Adler et al., 2020, p. 90)—therefore amounts to wrongful use; entities such as Organogenesis, Gail Naughton and Histogen, and the many, many others are sailing close to the wind as they are *not* merely permitted to use infant foreskins in the overwhelming majority of instances, as the permissive law of practical reason dictates that infant foreskins removed non-therapeutically are not equivalent to Moore's tissues. Irrespective of discipline, those of us in engineering have a responsibility to do no harm in our work; this is the supreme principle of engineering ethics (Grubbe, 2015). By supporting the practice of non-therapeutic circumcision by utilizing the ill-gotten tissue, a double injustice occurs: using the tissue itself is equivalent to wrongful use or using of stolen property, as *lex permissivia* cannot be invoked, which is the simple injustice; the double injustice occurs through the support of a contemptuous and harmful practice, like vultures circling carrion and swooping in to take advantage of what remains; this is a violation of one's engineering responsibility and is an insult to *literal* injury. Moreover, by allowing such a practice, we set a precedent where other tissues of children may be open to using in such a way. As some scholars have warned, the allowance of the non-therapeutic circumcision of boys opens up the door for various forms of FGM (Earp, 2020; Earp et al., 2021). By extension, a world where clitoral and labial tissue of girls is used in such a repugnant manner is undoubtedly in the cards:

Whoever steals makes the property of everyone else insecure and therefore deprives himself (by the principle of retribution [*Wiedervergeltung*]) of security in any possible property. (Kant, 2020, p. 6:333)

III. Ought Implies Can

From his writings, Heidegger noticed something fundamental about pre-modernity in nature and people. Such clear relationships are completely lost on us today due to modern technology's tendency to partition resources into standing-reserve. We now no longer have any relational context between us and how we interact with the world, and without this relational context, we begin to lose sight of the more significant impact this partitioning has on us and the world around us. By modern biotechnology revealing infant foreskins as standing-reserve, engineers, scientists, and physicians have entirely dissociated themselves from the fact that these products and cell cultures are all derived from a profoundly violent practice that can only perpetuate itself (in its current form) through the continual exploitation of children, thereby losing sight of their responsibility of doing no harm in their work:

If he is to become a true cabinetmaker, he makes himself answer and respond above all to the different kinds of wood and to the shapes slumbering within wood—to wood as it enters into man's dwelling with all the hidden riches of its nature. In fact, this relatedness to wood is what maintains the whole craft. Without that relatedness, the craft will never be anything but empty busywork, any occupation with it will be determined exclusively by business concerns. Every handicraft, all human dealings are constantly in that danger. (Heidegger, 1968, pp. 14–15)

Undoubtedly, the many advancements made possible by the utilization of neonatal foreskin derivatives have improved the quality of life for some people. However, even from a utilitarian perspective, I sincerely question whether this can offset the ills, both moral and otherwise, of the forced, non-therapeutic circumcision of children. Furthermore, for the majority of these applications, there is nothing specifically unique about neonatal tissue that cannot be substituted with an alternative. As I mentioned in the section on value, waste tissue from many other types of surgical procedures can be utilized. Moreover, modern bioprocess engineering methods and recombinant technologies are more than capable of synthesizing the necessary growth factors without necessitating the violent exploitation of children (Shuler et al., 2017).

Harming through one's work does not necessarily constitute malevolence, just as with the carelessness that led to large disasters as in Bhopal or Chernobyl, or the negligence that caused Boeing aircraft crashes (IAEA, 1992; Larson, 2019; A. Taylor, 2014). It can manifest as willful ignorance while being complicit in a practice that exploits children. Every system of ethics tells us that we *ought* not to harm and exploit children. Because there are indeed alternatives to using neonatal tissue for these many applications, and because Kant teaches us that *ought implies can*, it is a moral imperative that biotechnology and bioengineering disenthrall itself from this ignominious practice.

References

- Abaci, H. E., Coffman, A., Doucet, Y., Chen, J., Jacków, J., Wang, E., Guo, Z., Shin, J. U., Jahoda, C. A., & Christiano, A. M. (2018). Tissue engineering of human hair follicles using a biomimetic developmental approach. *Nature Communications*, 9(1), 5301. https://doi.org/10.1038/s41467-018-07579-y
- Abu-Sahlieh, S. A. A. (1999). Muslims' Genitalia in the Hands of the Clergy: Religious Arguments about Male and Female Circumcision. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 131–171). Springer US. https://doi.org/10.1007/978-0-585-39937-9_9
- Aceto, P., Perilli, V., Lai, C., Sacco, T., Ancona, P., Gasperin, E., & Sollazzi, L. (2013). Update on post-traumatic stress syndrome after anesthesia. *European Review for Medical and Pharmacological Sciences*, *17*(13), 1730–1737. https://www.europeanreview.org/article/4540

- Acton, W. (1865). Disorders in Childhood. In *The Functions and Disorders of the Reproductive Organs in Childhood, Youth, Adult Age, and Advanced Life, Considered in Their Physiological, Social, and Moral Relations* (3rd ed., pp. 18–42). Lindsay & Blakiston.
- Adams, A., & Moyer, E. (2015). Sex is never the same: Men's perspectives on refusing circumcision from an in-depth qualitative study in Kwaluseni, Swaziland. *Global Public Health*, *10*(5–6), 721–738. https://doi.org/10.1080/17441692.2015.1004356
- Adashi, E. Y. (2015). Money and Medicine: Indivisible and Irreconcilable. *AMA Journal of Ethics*, *17*(8), 780–786. https://doi.org/10.1001/journalofethics.2015.17.8.msoc1-1508
- Adler, P. W. (2013). Is Circumcision Legal? *Richmond Journal of Law and the Public Interest*, *16*(3), 439–486. https://scholarship.richmond.edu/jolpi/vol16/iss3/3
- Adler, P. W., Van Howe, R. S., Wisdom, T., & Daase, F. (2020). Is Circumcision a Fraud? *Cornell Journal of Law and Public Policy*, *30*(1), 45–107. https://www.lawschool.cornell.edu/research/JLPP/upload/Adler-et-al-final.pdf
- Al-Qahtani, A. H. (2013). *Skin Cream* (Patent No. US 8518879 B2). https://patents.google.com/patent/US8518879B2/en
- Alaouir, T., Gustavsson, R., & Schmidt, N. (2019). *Factors Driving Purchase Intention for Cruelty-free Cosmetics:* A study of female millennials in Jönköping, Sweden. http://urn.kb.se/resolve? urn=urn:nbn:se:hj:diva-44134
- Articulo, A. C. (2014). Living Organ Donation, Beneficient Helping, & the Kantian Concept of Partial Self-Murder. *Open Journal of Philosophy*, *04*(04), 502–509. https://doi.org/10.4236/ojpp.2014.44052
- Asher, D. (1871). Schopenhauer and Darwinism. *The Journal of Anthropology*, *1*(3), 312–332. https://doi.org/10.2307/3024815
- Ashley, F. (1937). Foreskins as Skin Grafts. *Annals of Surgery*, *106*(2), 252–256. https://doi.org/10.1097/00000658-193708000-00009
- Attorneys for the Rights of the Child. (2021). *Lawsuit Filed Against American Academy of Pediatrics Claiming Fraud in Performing Circumcision* (Vol. 13, Issue 1). https://www.arclaw.org/wp-content/uploads/Newsletter-13-1.pdf
- Audenet, F., & Sfakianos, J. P. (2017). Psychosocial impact of penile carcinoma. *Translational Andrology and Urology*, *6*(5), 874–878. https://doi.org/10.21037/tau.2017.07.24
- Baer, Z. (1997). Circumcision: Are Baby Boys Entitled to the Same Protection as Baby Girls Regarding Genital Mutilation? In G. C. Denniston & M. F. Milos (Eds.), *Sexual Mutilations: A Human Tragedy* (pp. 197–203). Springer US. https://doi.org/10.1007/978-1-4757-2679-4_21

- Ballantyne, C. (2009, February 12). *A Cut above the Rest?: Wrinkle Treatment Uses Babies' Foreskins*. Scientific American. https://web.archive.org/web/20211002165535/https://www.scientificamerican.com/article/a-cut-above-the-rest-wrin/
- Beauchamp, T. L., & Childress, J. F. (2013). *Principles of Biomedical Ethics* (7th ed.). Oxford University Press.
- Behrendt, A., & Moritz, S. (2005). Posttraumatic Stress Disorder and Memory Problems After Female Genital Mutilation. *American Journal of Psychiatry*, *162*(5), 1000–1002. https://doi.org/10.1176/appi.ajp.162.5.1000
- Bensley, G. A., & Boyle, G. J. (2001). Physical, Sexual, and Psychological Effects of Male Infant Circumcision: A New Preputial Structure. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Understanding Circumcision: A Multi-Disciplinary Approach to a Multi-Dimensional Problem* (pp. 207–239). Springer US. https://doi.org/10.1007/978-1-4757-3351-8_12
- Bensley, G. A., & Boyle, G. J. (2003). Effects of male circumcision on female arousal and orgasm. *The New Zealand Medical Journal*, *116*(1181), 595–596. http://www.cirp.org/library/sex_function/bensley1/
- Bollinger, D. (2014, March 13). Adding Insult to Injury: Acquisition of Erectile Dysfunction from Circumcision. ResearchGate.

 https://www.researchgate.net/publication/322056383_Adding_Insult_to_Injury_Acquisition_of_E rectile_Dysfunction_from_Circumcision
- Bollinger, D., & Van Howe, R. S. (2011). Alexithymia and Circumcision Trauma: A Preliminary Investigation. *International Journal of Men's Health*, *10*(2), 184–195. https://doi.org/10.3149/jmh.1002.184
- Bonner, C. A. (1999). The Oxford Declaration: A Call for the World-Wide Prohibition of the Genital Mutilation of Children. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 495–503). Springer US. https://doi.org/10.1007/978-0-585-39937-9_41
- Boyce, S., & Supp, D. (2016). Biologic Skin Substitutes. In M. Z. Albanna & J. H. Holmes (Eds.), *Skin Tissue Engineering and Regenerative Medicine* (pp. 211–238). Academic Press. https://doi.org/10.1016/B978-0-12-801654-1.00011-5
- Boyle, G. J. (2015). Circumcision of Infants and Children: Short-Term Trauma and Long-Term Psychosexual Harm. *Advances in Sexual Medicine*, *05*(02), 22–38. https://doi.org/10.4236/asm.2015.52004

- Boyle, G. J., & Bensley, G. A. (2001). Adverse Sexual and Psychological Effects of Male Infant Circumcision. *Psychological Reports*, *88*(3_suppl), 1105–1106. https://doi.org/10.2466/pr0.2001.88.3c.1105
- Boyle, G. J., Goldman, R., Svoboda, J. S., & Fernandez, E. (2002). Male Circumcision: Pain, Trauma and Psychosexual Sequelae. *Journal of Health Psychology*, *7*(3), 329–343. https://doi.org/10.1177/135910530200700310
- Boyle, G. J., & Ramos, S. (2019). Post-traumatic stress disorder (PTSD) among Filipino boys subjected to non-therapeutic ritual or medical surgical procedures: A retrospective cohort study. *Annals of Medicine and Surgery*, *42*, 19–22. https://doi.org/10.1016/j.amsu.2019.04.004
- Brennan, P. L. R., & Prum, R. O. (2012). The erection mechanism of the ratite penis. *Journal of Zoology*, *286*(2), 140–144. https://doi.org/10.1111/j.1469-7998.2011.00858.x
- British Medical Association. (2020). *Non-therapeutic male circumcision (NTMC) of children practical guidance for doctors*.
- Bronselaer, G. A., Schober, J. M., Meyer-Bahlburg, H. F. L., T'Sjoen, G., Vlietinck, R., & Hoebeke, P. B. (2013). Male circumcision decreases penile sensitivity as measured in a large cohort. *BJU International*, *111*(5), 820–827. https://doi.org/10.1111/j.1464-410X.2012.11761.x
- Brook, A. (2004). Kant, Cognitive Science and Contemporary Neo-Kantianism. *Journal of Consciousness Studies*, *11*(10–11), 1–25.
- Bullen, K., Edwards, S., Marke, V., & Matthews, S. (2010). Looking past the obvious: experiences of altered masculinity in penile cancer. *Psycho-Oncology*, *19*(9), 933–940. https://doi.org/10.1002/pon.1642
- Carlin, G. (2009). *Last Words* (T. Hendra (Ed.)). Free Press.
- Carpenter, C. (2017). "His Body, His Choice": Pitching Infant Male Circumcision to Health and Human Rights Gatekeepers. In "Lost" Causes: Agenda Vetting in Global Issue Networks and the Shaping of Human Security (pp. 122–147). Cornell University Press. https://doi.org/10.7591/9780801470363-008
- Cashman, K., & Kharrazian, C. (2019, September 1). *US Sanctions Are Designed to Kill*. Jacobin. https://www.jacobinmag.com/2019/09/us-iran-sanctions-donald-trump-iran-deal-oil-banks
- Çengel, Y. A., Boles, M. A., & Kanoğlu, M. (2019). Energy Analysis of Closed Systems. In *Thermodynamics: An Engineering Approach* (9th ed., pp. 161–209). McGraw-Hill Education.
- Chapman, N. H. (1882). Some of the Nervous Affections Which are Liable to Follow Neglected Congenital Phimosis in Children. *Medical News*, *41*(12), 314–317.

- Cherry, M. (2005). *Kidney for Sale by Owner: Human Organs, Transplantation, and the Market*. Georgetown University Press.
- Clifford, M. (1893). *Circumcision: Its Advantages, and How to Perform it.* J. & A. Churchill.
- Clifford, W. K. (1879). The Ethics of Belief. In L. Stephen & F. Pollock (Eds.), *Lectures and Essays by the late William Kingdon Clifford* (Vol. 2, pp. 177–211). Macmillan & Co.
- Cockshut, R. W. (1935). Circumcision. The British Medical Journal, 2(3902), 764.
- Cohen, C. B. (1999). Selling Bits and Pieces of Humans to Make Babies: The Gift of the Magi Revisited. *The Journal of Medicine and Philosophy*, *24*(3), 288–306. https://doi.org/10.1076/jmep.24.3.288.2525
- Cohen, C. B. (2002). Public Policy and the Sale of Human Organs. *Kennedy Institute of Ethics Journal*, *12*(1), 47–64. https://doi.org/10.1353/ken.2002.0002
- Coherent Market Insights. (2021, January 11). *Hair Loss Treatment Market to Surpass US\$* 5,461.1 *Million by 2027*. https://www.coherentmarketinsights.com/press-release/hair-loss-treatment-market-3635
- Cold, C. J., & McGrath, K. A. (1999). Anatomy and Histology of the Penile and Clitoral Prepuce in Primates: An Evolutionary Perspective of the Specialised Sensory Tissue of the External Genitalia. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 19–29). Springer US. https://doi.org/10.1007/978-0-585-39937-9_3
- Cold, C. J., & Taylor, J. R. (1999). The Prepuce. *BJU International*, *83*(S1), 34–44. https://doi.org/10.1046/j.1464-410x.1999.0830s1034.x
- Cole, E. M. (1927). Circumcision and the Abreaction of Fear. *Journal of Neurology, Neurosurgery and Psychiatry*, *S1-7*(27), 237–238. https://doi.org/10.1136/jnnp.s1-7.27.237
- Collier, R. (2011). Vital or vestigial? The foreskin has its fans and foes. *Canadian Medical Association Journal*, 183(17), 1963–1964. https://doi.org/10.1503/cmaj.109-4014
- Colson, N. (2017, April 6). *Prescribing Crisis*. Jacobin. https://jacobinmag.com/2017/04/opioid-crisis-addiction-workers-pharmaceuticals-trump
- Copland, P. (2003). Science and ethics must not be separated. *Nature*, *425*(6954), 121. https://doi.org/10.1038/425121a
- Coursey, J. W., Morey, A. F., McAninch, J. W., Summerton, D. J., Secrest, C., White, P., Miller, K., Pieczonka, C., Hochberg, D., & Armenakas, N. (2001). Erectile Function After Anterior Urethroplasty. *The Journal of Urology*, *166*(6), 2273–2276. https://doi.org/10.1016/S0022-5347(05)65549-8

- Crossland, J. C. (1891). The Hygiene of Circumcision. *The New York Medical Journal*, 53, 484–485.
- Cunningham, E. (2020, March 29). *As coronavirus cases explode in Iran, U.S. sanctions hinder its access to drugs and medical equipment.* The Washington Post. https://www.washingtonpost.com/world/middle_east/as-coronavirus-cases-explode-in-iran-us-sanctions-hinder-its-access-to-drugs-and-medical-equipment/2020/03/28/0656a196-6aba-11ea-b199-3a9799c54512_story.html
- Curry, A. (2019). Parents' emotional trauma may change their children's biology. Studies in mice show how. *Science*. https://doi.org/10.1126/science.aay7690
- Dalton, J. (2009). Conservative Management of Foreskin Conditions. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Circumcision and Human Rights* (pp. 121–131). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9167-4 10
- Danish Medical Association. (2020, November 5). *Omskæring af drenge uden medicinsk indikation er etisk uacceptabelt [Circumcision of boys without medical indication is ethically unacceptable]*. Lægeforening. https://www.laeger.dk/omskaering-af-drenge-uden-medicinsk-indikation-er-etisk-uacceptabelt
- Dansk Selskab for Anæstesiologi og Intensiv Medicin. (2020). *Ikke-terapeutisk omskæring af drenge* [Non-therapeutic circumcision of boys]. https://intactdenmark.dk/wp-content/uploads/2020/02/Notat-om-ikke-terapeutisk-omskæring-af-drenge-februar-2020.pdf
- Darby, R. J. L. (2013). The child's right to an open future: is the principle applicable to non-therapeutic circumcision? *Journal of Medical Ethics*, 39(7), 463–468. https://doi.org/10.1136/medethics-2012-101182
- Dave, S., Afshar, K., Braga, L. H., & Anderson, P. (2017). Canadian Urological Association guideline on the care of the normal foreskin and neonatal circumcision in Canadian infants. *Canadian Urological Association Journal*, *12*(2), E76–E99. https://doi.org/10.5489/cuaj.5033
- Davydow, D. S., Lease, E. D., & Reyes, J. D. (2015). Posttraumatic stress disorder in organ transplant recipients: a systematic review. *General Hospital Psychiatry*, *37*(5), 387–398. https://doi.org/10.1016/j.genhosppsych.2015.05.005
- Dawkins, R. (2015, February 19). *Don't Force Your Religious Opinions on Your Children*. Time. https://time.com/3711945/children-religion-parents-school-policy/
- Debels, H., Hamdi, M., Abberton, K., & Morrison, W. (2015). Dermal Matrices and Bioengineered Skin Substitutes. *Plastic and Reconstructive Surgery Global Open*, *3*(1), e284. https://doi.org/10.1097/GOX.000000000000019

- DeLaet, D. L. (2009). Framing Male Circumcision as a Human Rights Issue? Contributions to the Debate Over the Universality of Human Rights. *Journal of Human Rights*, *8*(4), 405–426. https://doi.org/10.1080/14754830903324795
- DeMeo, J. (1997). The Geography of Male and Female Genital Mutilations. In G. C. Denniston & M. F. Milos (Eds.), *Sexual Mutilations: A Human Tragedy* (pp. 1–15). Springer US. https://doi.org/10.1007/978-1-4757-2679-4 1
- Denniston, G. C. (1999). Tyranny of the Victims: An Analysis of Circumcision Advocacy. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 221–240). Springer US. https://doi.org/10.1007/978-0-585-39937-9_17
- Denniston, G. C. (2004). Circumcision and Sexual Pleasure. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Flesh and Blood: Perspectives on the Problem of Circumcision in Contemporary Society* (pp. 45–53). Springer US. https://doi.org/10.1007/978-1-4757-4011-0_4
- Denniston, G. C. (2010). Circumcision Psychopathology. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Autonomy: Protecting Personal Choice* (pp. 67–73). Springer Netherlands. https://doi.org/10.1007/978-90-481-9446-9_6
- Denniston, G. C. (2013). The Harm of Circumcision. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Cutting: Protecting Children from Medical, Cultural, and Religious Infringements* (pp. 59–68). Springer Netherlands. https://doi.org/10.1007/978-94-007-6407-1_4
- Denniston, G. C., & Hill, G. (2004). Circumcision in Adults: Effect on Sexual Function. *Urology*, 64(6), 1267. https://doi.org/10.1016/j.urology.2004.03.059
- Descartes, R. (2006). Reply to Second Set of Objections. In R. Ariew & D. Cross (Eds. & Trans.), *Meditations, Objections, and Replies* (pp. 75–100). Hackett Publishing Company, Inc.
- Dixon, E. H. (1845). Phimosis and Circumcision. In *A Treatise on Diseases of the Sexual Organs:*Adapted to Popular and Professional Reading, and the Exposition of Quackery, Professional and Otherwise (pp. 158–165). Taylor, Wilde & Co. https://collections.nlm.nih.gov/catalog/nlm:nlmuid-65910840R-bk
- Dobson, G. P. (2020). Trauma of major surgery: A global problem that is not going away. *International Journal of Surgery*, *81*, 47–54. https://doi.org/10.1016/j.ijsu.2020.07.017
- Doctors Opposing Circumcision. (2013). *Commentary on American Academy of Pediatrics 2012 Circumcision Policy Statement*. https://www.doctorsopposingcircumcision.org/wp-content/uploads/2016/08/commentary-on-

american-academy-of-pediatrics-2012-circumcision-policy-statement.pdf

- Doctors Opposing Circumcision. (2016a). *Conservative Treatment Alternatives to Male Circumcision*. https://www.doctorsopposingcircumcision.org/for-professionals/conservative-treatment/
- Doctors Opposing Circumcision. (2016b). *Medical Ethics and the Non-therapeutic Circumcision of Male Children*. https://www.doctorsopposingcircumcision.org/wp-content/uploads/2016/08/medical-ethics.pdf
- Doward, J. (2020, March 1). *Children as young as eight picked coffee beans on farms supplying Starbucks*. The Guardian. https://www.theguardian.com/business/2020/mar/01/children-work-for-pittance-to-pick-coffee-beans-used-by-starbucks-and-nespresso
- Duckett, J. W. (1995). A Temperate Approach to Neonatal Circumcision. *Urology*, *46*(6), 771–772. https://doi.org/10.1016/S0090-4295(99)80341-0
- Earp, B. D. (2012, August 30). *The AAP report on circumcision: Bad science* + *bad ethics* = *bad medicine*. Practical Ethics. http://blog.practicalethics.ox.ac.uk/2012/08/the-aap-report-on-circumcision-bad-science-bad-ethics-bad-medicine/
- Earp, B. D. (2019, January 11). 'Unconstitutional' US anti-FGM law exposes hypocrisy in child protection. The Conversation. https://theconversation.com/unconstitutional-us-anti-fgm-law-exposes-hypocrisy-in-child-protection-109305
- Earp, B. D. (2020). Why was the U.S. ban on female genital mutilation ruled unconstitutional, and what does this have to do with male circumcision? *Ethics, Medicine and Public Health*, *15*, 100533. https://doi.org/10.1016/j.jemep.2020.100533
- Earp, B. D., Sardi, L. M., & Jellison, W. A. (2017). False beliefs predict increased circumcision satisfaction in a sample of US American men. *Culture, Health & Sexuality*, *20*(8), 945–959. https://doi.org/10.1080/13691058.2017.1400104
- Earp, B. D., Shahvisi, A., Reis-Dennis, S., & Reis, E. (2021). The need for a unified ethical stance on child genital cutting. *Nursing Ethics*, 096973302098339. https://doi.org/10.1177/0969733020983397
- Earp, B. D., & Shaw, D. (2017). Cultural Bias in American Medicine: The Case of Infant Male Circumcision. *Journal of Pediatric Ethics*, *1*(1), 8–26. https://cris.maastrichtuniversity.nl/en/publications/cultural-bias-in-american-medicine-the-case-of-infant-male-circum
- Earp, B. D., & Steinfeld, R. (2018). Genital Autonomy and Sexual Well-being. *Current Sexual Health Reports*, *10*(1), 7–17. https://doi.org/10.1007/s11930-018-0141-x

- Edgar, J. (2018, May 22). *The HydraFacial Phenomenon: Why Everyone Is Obsessed With This In-Office Treatment*. Allure. https://web.archive.org/web/20211002162711/https://www.allure.com/story/hydrafacial-treatment
- Elena, T.-V. (2009). Limbic Imprint. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Circumcision and Human Rights* (pp. 251–254). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9167-4_24
- Ellis, H., & Mahadevan, V. (2019). *Clinical Anatomy: Applied Anatomy for Students and Junior Doctors* (14th ed.). John Wiley & Sons Ltd.
- Eyring, V., Gillett, N. P., Achuta Rao, K. M., Barimalala, R., Barreiro Parrillo, M., Bellouin, N., Cassou, C., Durack, P. J., Kosaka, Y., McGregor, S., Min, S., Morgenstern, O., & Sun, Y. (2021). Human Influence on the Climate System. In V. Masson-Delmotte, P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, & B. Zhou (Eds.), Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_03.pdf
- Feher, J. (2017). *Quantitative Human Physiology: An Introduction* (2nd ed.). Academic Press.
- Fikes, B. J. (2012, October 19). *Hair growth treatment works, says San Diego's Histogen*. The San Diego Union-Tribune. https://web.archive.org/web/20211002164604/https://www.sandiegouniontribune.com/sdut-hair-growth-treatment-works-says-san-diegos-2012oct19-story.html
- Fikes, B. J. (2014, January 22). *Shire sells Dermagraft to Organogenesis*. The San Diego Union-Tribune. https://www.sandiegouniontribune.com/business/biotech/sdut-shire-sells-dermagraft-organogenesis-2014jan22-story.html
- Fink, K. S., Carson, C. C., & DeVellis, R. F. (2002). Adult Circumcision Outcomes Study: Effect on Erectile Function, Penile Sensitivity, Sexual Activity and Satisfaction. *The Journal of Urology*, *167*(5), 2113–2116. https://doi.org/10.1016/S0022-5347(05)65098-7
- Fleiss, P. M. (1999). An Analysis of Bias Regarding Circumcision in American Medical Literature. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 379–402). Springer US. https://doi.org/10.1007/978-0-585-39937-9_33
- Fleiss, P. M., Hodges, F. M., & Van Howe, R. S. (1998). Immunological functions of the human prepuce. *Sexually Transmitted Infections*, *74*(5), 364–367. https://doi.org/10.1136/sti.74.5.364

- Fletcher, C. R. (1999). Circumcision in America in 1998: Attitudes, Beliefs, and Charges of American Physicians. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 259–271). Springer US. https://doi.org/10.1007/978-0-585-39937-9_19
- Foucault, M. (1973). *Naissance de la Clinique: Une Archéologie du Regard Médical [The Birth of the Clinic: An Archaeology of Medical Perception]* (A. M. Sheridan (Trans.)). Tavistock Publications.
- Fox, M., & Thomson, M. (2009). Reconsidering 'Best Interests': Male Circumcision and the Rights of the Child. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Circumcision and Human Rights* (pp. 15–31). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9167-4_2
- Freud, A. (1952). The Role of Bodily Illness in the Mental Life of Children. *The Psychoanalytic Study of the Child*, *7*(1), 69–81. https://doi.org/10.1080/00797308.1952.11823153
- Freud, S. (1918). Totem und Tabu: Einige Übereinstimmungen im Seelenleben der Wilden und der Neurotiker [Totem and Taboo: Resemblances Between the Mental Lives of Savages and Neurotics] (A. A. Brill (Trans.)). Moffat, Yard & Company.
- Frisch, M., Aigrain, Y., Barauskas, V., Bjarnason, R., Boddy, S.-A., Czauderna, P., de Gier, R. P. E., de Jong, T. P. V. M., Fasching, G., Fetter, W., Gahr, M., Graugaard, C., Greisen, G., Gunnarsdottir, A., Hartmann, W., Havranek, P., Hitchcock, R., Huddart, S., Janson, S., ... Wijnen, R. (2013). Cultural Bias in the AAP's 2012 Technical Report and Policy Statement on Male Circumcision. *Pediatrics*, *131*(4), 796–800. https://doi.org/10.1542/peds.2012-2896
- Frisch, M., Lindholm, M., & Grønbæk, M. (2011). Male circumcision and sexual function in men and women: a survey-based, cross-sectional study in Denmark. *International Journal of Epidemiology*, 40(5), 1367–1381. https://doi.org/10.1093/ije/dyr104
- Frisch, M., & Simonsen, J. (2015). Ritual circumcision and risk of autism spectrum disorder in 0- to 9-year-old boys: national cohort study in Denmark. *Journal of the Royal Society of Medicine*, 108(7), 266–279. https://doi.org/10.1177/0141076814565942
- Geisheker, J. (2011, October 30). *Doctor Ignorance of Male Anatomy Harms Boys*. Psychology Today. https://www.psychologytoday.com/intl/blog/moral-landscapes/201110/doctor-ignorance-male-anatomy-harms-boys
- Gemmell, T., & Boyle, G. J. (2001). Neonatal Circumcision: Its Long-Term Harmful Effects. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Understanding Circumcision: A Multi-Disciplinary Approach to a Multi-Dimensional Problem* (pp. 241–252). Springer US. https://doi.org/10.1007/978-1-4757-3351-8_13

- Genital Autonomy. (2012). The 2012 Helsinki Declaration of the Right to Genital Autonomy. *12th International Symposium on Law, Genital Autonomy & Children's Rights*. http://www.genitalautonomy.org/helsinki-declaration-2012/
- Gilens, M., & Page, B. I. (2014). Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens. *Perspectives on Politics*, *12*(3), 564–581. https://doi.org/10.1017/S1537592714001595
- Gill, M. B., & Sade, R. M. (2002). Paying for Kidneys: The Case against Prohibition. *Kennedy Institute of Ethics Journal*, *12*(1), 17–45. https://doi.org/10.1353/ken.2002.0004
- Gilroy, A. M., & MacPherson, B. R. (Eds.). (2016). *Atlas of Anatomy* (3rd ed.). Thieme Medical Publishers, Inc.
- Glick, L. B. (2004). "Something Less Than Joyful": Jewish Americans and the Circumcision Dilemma. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Flesh and Blood: Perspectives on the Problem of Circumcision in Contemporary Society* (pp. 143–169). Springer US. https://doi.org/10.1007/978-1-4757-4011-0_12
- Glick, L. B. (2013). Defying the Enlightenment: Jewish Ethnicity and Ethnic Circumcision. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Cutting: Protecting Children from Medical, Cultural, and Religious Infringements* (pp. 285–296). Springer Netherlands. https://doi.org/10.1007/978-94-007-6407-1_18
- Glick, M. (2021, July 26). *Why Human Foreskin Is a Hot Commodity in Science*. Discover Magazine. https://web.archive.org/web/20211002162036/https://www.discovermagazine.com/the-sciences/why-human-foreskin-is-a-hot-commodity-in-science
- Glover, E. (1929). The "Screening" Function of Traumatic Memories. *International Journal of Psychoanalysis*, *10*, 90–93. http://www.cirp.org/library/psych/glover/
- Goldman, R. (1999). The psychological impact of circumcision. *BJU International*, *83*(S1), 93–102. https://doi.org/10.1046/j.1464-410x.1999.0830s1093.x
- Goldman, R. (2004a). The Growing Jewish Circumcision Debate: A Psychosocial Critique. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Flesh and Blood: Perspectives on the Problem of Circumcision in Contemporary Society* (pp. 171–194). Springer US. https://doi.org/10.1007/978-1-4757-4011-0_13
- Goldman, R. (2004b). Circumcision policy: A psychosocial perspective. *Paediatrics & Child Health*, 9(9), 630–633. https://doi.org/10.1093/pch/9.9.630

- Goldstein, J. (2015, September 20). *U.S. Soldiers Told to Ignore Sexual Abuse of Boys by Afghan Allies*. The New York Times. https://www.nytimes.com/2015/09/21/world/asia/us-soldiers-told-to-ignore-afghan-allies-abuse-of-boys.html
- Goodman, J. (1997). Challenging Circumcision: A Jewish Perspective. In G. C. Denniston & M. F. Milos (Eds.), *Sexual Mutilations: A Human Tragedy* (pp. 175–178). Springer US. https://doi.org/10.1007/978-1-4757-2679-4_17
- Grady, D. (2013, October 21). *New Technique Holds Promise for Hair Growth*. The New York Times. https://web.archive.org/web/20211002164647/https://www.nytimes.com/2013/10/22/science/new-technique-holds-promise-for-hair-loss.html?smid=url-share
- Greenberg, Z. (2017, July 25). *When Jewish Parents Decide Not to Circumcise*. The New York Times. https://www.nytimes.com/2017/07/25/well/family/cutting-out-the-bris.html
- Grubbe, D. L. (2015). Ethics Examining Your Engineering Responsibility. *Chemical Engineering Progress*, *111*, 21–29. https://www.aiche.org/sites/default/files/cep/20150221.pdf
- Guyer, P. (2012). Schopenhauer, Kant and Compassion. *Kantian Review*, *17*(3), 403–429. https://doi.org/10.1017/S1369415412000155
- Hagberg, H., Mallard, C., Ferriero, D. M., Vannucci, S. J., Levison, S. W., Vexler, Z. S., & Gressens, P. (2015). The role of inflammation in perinatal brain injury. *Nature Reviews Neurology*, *11*(4), 192–208. https://doi.org/10.1038/nrneurol.2015.13
- Hall, M. F., & Hall, S. E. (2013). When Treatment Becomes Trauma: Defining, Preventing, and Transforming Medical Trauma. *American Counseling Association Conference*. https://www.counseling.org/docs/default-source/vistas/when-treatment-becomes-trauma-defining-preventing-.pdf
- Hammond, T., & Carmack, A. (2017). Long-term adverse outcomes from neonatal circumcision reported in a survey of 1,008 men: an overview of health and human rights implications. *The International Journal of Human Rights*, *21*(2), 189–218. https://doi.org/10.1080/13642987.2016.1260007
- Hammond, T., & Reiss, M. D. (2018). Antecedents of Emotional Distress and Sexual Dissatisfaction in Circumcised Men: Previous Findings and Future Directions—Comment on Bossio and Pukall (2017). *Archives of Sexual Behavior*, *47*(5), 1319–1320. https://doi.org/10.1007/s10508-018-1180-0
- Harryman, G. L. (2004). An Analysis of the Accuracy of the Presentation of the Human Penis in Anatomical Source Materials. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Flesh and Blood: Perspective on the Problem of Circumcision in Contemporary Society* (pp. 17–26). Springer US. https://doi.org/10.1007/978-1-4757-4011-0_2

- Heidegger, M. (1968). *Was heißt Denken?* [What Is Called Thinking?] (J. G. Gray (Trans.); 1st ed.). Harper & Row Publishers, Inc.
- Heidegger, M. (1977). Die Frage nach der Technik [The Question Concerning Technology]. In W. Lovitt (Trans.), *The Question Concerning Technology and Other Essays* (pp. 3–35). Harper & Row Publishers, Inc.
- Hernæs, N. (2014, April 8). *Nei til omskjæring fra private*. Sykepleiens. https://sykepleien.no/2014/04/nei-til-omskjæring-fra-private
- Herrington, G. (2021). Update to limits to growth: Comparing the World3 model with empirical data. *Journal of Industrial Ecology*, *25*(3), 614–626. https://doi.org/10.1111/jiec.13084
- Hess, M. (2009). The MGM Bill: A Legislative Strategy for Protecting US Boys from Circumcision. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Circumcision and Human Rights* (pp. 227–230). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9167-4_21
- Hinchley, G. (2007). Is infant male circumcision an abuse of the rights of the child? Yes. *BMJ*, 335(7631), 1180–1180. https://doi.org/10.1136/bmj.39406.520498.AD
- Hodges, F. M. (1999a). The History of Phimosis from Antiquity to the Present. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 37–62). Springer US. https://doi.org/10.1007/978-0-585-39937-9_5
- Hodges, F. M. (1999b). Phimosis in Antiquity. *World Journal of Urology*, *17*(3), 133–136. https://doi.org/10.1007/s003450050120
- Hodges, F. M. (2001). The Ideal Prepuce in Ancient Greece and Rome: Male Genital Aesthetics and Their Relation to Lipodermos, Circumcision, Foreskin Restoration, and the Kynodesme. *Bulletin of the History of Medicine*, *75*(3), 375–405. https://doi.org/10.1353/bhm.2001.0119
- Hodges, F. M. (2004). Bodily Integrity in the Biotech Era: Placing Human Rights and Medical Ethics in Historical Context. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Flesh and Blood: Perspective on the Problem of Circumcision in Contemporary Society* (pp. 1–15). Springer US. https://doi.org/10.1007/978-1-4757-4011-0_1
- Hodges, F. M., Svoboda, J. S., & Van Howe, R. S. (2002). Prophylactic Interventions on Children: Balancing Human Rights with Public Health. *Journal of Medical Ethics*, *28*(1), 10–16. https://doi.org/10.1136/jme.28.1.10
- Hofheimer, J. A. (1893). Phimosis; A Plea for its Relief by Early Operation. *JAMA*, *XXI*(24), 890–891. https://doi.org/10.1001/jama.1893.02420760020001i

- Holm, S., & Williams-Jones, B. (2006). Global bioethics myth or reality? *BMC Medical Ethics*, *7*(1), 10. https://doi.org/10.1186/1472-6939-7-10
- Human Rights Watch. (2011). *Getting Away with Torture: The Bush Administration and Mistreatment of Detainees*. https://www.hrw.org/report/2011/07/12/getting-away-torture/bush-administration-and-mistreatment-detainees
- Hume, D. (2007). *An Enquiry Concerning Human Understanding* (P. Millican (Ed.)). Oxford University Press.
- Hurme, T., & Reunanen, M. (2008). Poikien ympärileikkaus: Kysely lastenkirurgien hoitokäytännöistä [Circumcision of boys in Finland a questionnaire to Finnish paediatric surgeons]. *Suomen Lääkärilehti*, *63*, 2781–2786. http://www.cirp.org/library/general/hurme2008/
- Hutchinson, J. (1891). On Circumcision as preventive of Masturbation. *Archives of Surgery*, *2*(7), 267–269.
- Hutchinson, M., Mallatt, J., Marieb, E. N., Wilhelm, P. B., Hutchings, R. T., & Zanetti, N. (2007). *A Brief Atlas of the Human Body* (2nd ed.). Pearson Education, Inc.
- IAEA. (1992). INSAG-7: The Chernobyl Accident: Updating of INSAG-1.
- Immerman, R. S., & Mackey, W. C. (1997). A Biocultural Analysis of Circumcision. *Biodemography and Social Biology*, *44*(3–4), 265–275. https://doi.org/10.1080/19485565.1997.9988953
- Immerman, R. S., & Mackey, W. C. (1998). A Proposed Relationship Between Circumcision and Neural Reorganization. *The Journal of Genetic Psychology*, *159*(3), 367–378. https://doi.org/10.1080/00221329809596158
- Inglehart, R. F. (2020, August 11). *Giving Up on God: The Global Decline of Religion*. Foreign Affairs. https://www.foreignaffairs.com/articles/world/2020-08-11/religion-giving-god
- Jacobs, C. R., Huang, H., & Kwon, R. Y. (2013). Cellular Mechanotransduction. In *Introduction to Cell Mechanics and Mechanobiology* (pp. 311–336). Garland Science.
- Jacobson, B., & Bygdeman, M. (1998). Obstetric care and proneness of offspring to suicide as adults: case-control study. *The BMJ*, *317*(7169), 1346–1349. https://doi.org/10.1136/bmj.317.7169.1346
- Jacobson, B., Eklund, G., Hamberger, L., Linnarsson, D., Sedvall, G., & Valverius, M. (1987). Perinatal origin of adult self-destructive behavior. *Acta Psychiatrica Scandinavica*, *76*(4), 364–371. https://doi.org/10.1111/j.1600-0447.1987.tb05620.x
- Jiang, N. M., Cowan, M., Moonah, S. N., & Petri, W. A. (2018). The Impact of Systemic Inflammation on Neurodevelopment. *Trends in Molecular Medicine*, *24*(9), 794–804. https://doi.org/10.1016/j.molmed.2018.06.008

- Johnson, A. A. W. (1860). On an Injurious Habit Occasionally Met with in Infancy and Early Childhood. *The Lancet*, *75*(1910), 344–345. https://doi.org/10.1016/S0140-6736(02)67454-9
- Johnson, R. C. (2010). The Impact of Neonatal Circumcision: Implications for Doctors of Men's Experiences in Regressive Therapy. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Autonomy: Protecting Personal Choice* (pp. 149–165). Springer Netherlands. https://doi.org/10.1007/978-90-481-9446-9_16
- Jones, M. (2017). Intersex Genital Mutilation A Western Version of FGM. *The International Journal of Children's Rights*, *25*(2), 396–411. https://doi.org/10.1163/15718182-02502008
- Jones, R. (2021, March 8). *International Contractors are Profiteering from New Circumcision Devices*. Foregen Commentarium. https://www.foregen.org/commentarium-articles/international-contractors-are-profiteering-from-new-circumcision-devices
- Kandeel, F. R., Koussa, V., & Kuligowska, E. (2007). Anatomy of the Male Reproductive Tract. In F. R. Kandeel, R. S. Swerdloff, & J. L. Pryor (Eds.), *Male Reproductive Dysfunction: Pathophysiology and Treatment* (pp. 9–20). Informa Healthcare USA, Inc.
- Kant, I. (1987). *Critik der Urteilskraft [Critique of Judgment]* (W. S. Pluhar (Ed. & Trans.)). Hackett Publishing Company, Inc.
- Kant, I. (1996). *Critik der reinen Vernunft [Critique of Pure Reason]* (W. S. Pluhar (Trans.); Unified ed). Hackett Publishing Company, Inc.
- Kant, I. (1997). *Lectures on Ethics* (P. Heath & J. B. Schneewind (Eds.); P. Heath (Trans.)). Cambridge University Press.
- Kant, I. (2002). *Critik der praktischen Vernunft [Critique of Practical Reason]* (W. S. Pluhar (Trans.)). Hackett Publishing Company, Inc.
- Kant, I. (2007). De Medicina Corporis, quae Philosophorum est [On the Philosophers' Medicine of the Body]. In R. B. Louden & G. Zöller (Eds.), & M. Gregor (Trans.), *Anthropology, History, and Education* (pp. 182–191). Cambridge University Press. https://doi.org/10.1017/CBO9780511791925.015
- Kant, I. (2012). *Grundlegung zur Metaphysik der Sitten [Groundwork of the Metaphysics of Morals]* (M. Gregor & J. Timmermann (Eds. & Trans.); Revised ed). Cambridge University Press.
- Kant, I. (2020). *Die Metaphysik der Sitten [The Metaphysics of Morals]* (L. Denis (Ed.); M. J. Gregor (Trans.); Revised ed). Cambridge University Press.
- Karkazis, K. (2019). The misuses of "biological sex." *The Lancet*, 394(10212), 1898–1899. https://doi.org/10.1016/S0140-6736(19)32764-3

- Kastrup, B. (2020). *Decoding Schopenhauer's Metaphysics: The Key to Understanding How It Solves the Hard Problem of Consciousness and the Paradoxes of Quantum Mechanics.* Iff Books.
- Kellogg, J. H. (1887). Treatment for Self-Abuse and its Effects. In *Plain Facts for Old and Young: Embracing the Natural History and Hygiene of Organic Life* (pp. 290–327). I. F. Segner.
- Kesa, I. (2018, March 27). *Beauty Industry Part of Foreskin Flesh Trade, Anti-Circumcision Activists Warn*. VICE. https://web.archive.org/web/20211002163656/https://www.vice.com/en/article/43bxgm/the-beauty-industry-is-part-of-a-baby-foreskin-flesh-trade-anti-circumcision-activists-warn
- Kim, D. S., & Pang, M. G. (2007). The effect of male circumcision on sexuality. *BJU International*, 99(3), 619–622. https://doi.org/10.1111/j.1464-410X.2006.06646.x
- Laing, R. D. (1971). Intervention in Social Situations. In *The Politics of the Family and Other Essays* (pp. 21–42). Pantheon Books.
- Lakin, S. (2019, September 5). *Lessons from the UN peacekeeping mission in Rwanda*, 25 *years after the genocide it failed to stop*. The Conversation. https://theconversation.com/lessons-from-the-un-peacekeeping-mission-in-rwanda-25-years-after-the-genocide-it-failed-to-stop-122174
- Lander, M. M. (1999). Circumcision and Virtue Ethics. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 409–412). Springer US. https://doi.org/10.1007/978-0-585-39937-9_35
- LaPlante, A. (2006, August 1). *Marketing to Physicians Reaps Higher Returns for Drug Companies*. Insights by Stanford Business. https://www.gsb.stanford.edu/insights/marketing-physicians-reaps-higher-returns-drug-companies
- Larson, R. (2019, March 29). *Gambling With Your Life*. Jacobin. https://www.jacobinmag.com/2019/03/ethiopian-airlines-crash-ivey-memo-capitalism
- Lazare, S. (2020, June 27). *Saudi Arabia Deserves Condemnation on Yemen Not Gratitude*. Jacobin. https://jacobinmag.com/2020/06/saudi-arabia-war-yemen-united-nations-aid
- Lee, A. (2018, November 30). *The Penis Facial: Is It Really Worth the Hollywood Hype?*Entertainment Tonight. https://web.archive.org/web/20211002162538/https://www.etonline.com/the-penis-facial-is-it-really-worth-the-hollywood-hype-114756
- Lehman, B. A. (1987, June 22). The Age Old Question of Circumcision. *Boston Globe*, 41, 43. http://www.cirp.org/news/bostonglobe06-22-87/
- Levy, D. M. (1945). Psychic Trauma of Operations in Children: And a Note on Combat Neurosis. *American Journal of Diseases of Children*, 69(1), 7–25. https://doi.org/10.1001/archpedi.1945.02020130014003

- Lindboe, A., Malmberg, F., Aula, M. K., Larsen, F. P., Sigurðardóttir, M. M., Larsen, A. C., Skari, H., Markestad, T., Odden, J. P., Haugstad, K. E., Wang, L. J., Söder, O., Gøthberg, G., Svensson, I., Einarsson, I., Rósmundsson, Þ., & Bjarnason, R. (2013). *Let The Boys Decide On Circumcision: Joint statement from the Nordic Ombudsmen for Children and Pediatric Experts*. https://www.barneombudet.no/uploads/documents/Barneombudet-mener/Andre-brev-og-innspill/2013/Let-the-boys-decide-on-circum
- Lombardi, J. (1998). Urogenital Structure and Integration. In *Comparative Vertebrate Reproduction* (pp. 61–107). Springer US. https://doi.org/10.1007/978-1-4615-4937-6_4
- Longenbaker, S. N. (2020). *Mader's Understanding Human Anatomy & Physiology* (10th ed.). McGraw-Hill Education.
- Longley, G. E. (2009). Framing the Foreskin: A Content Analysis of Circumcision Information Handouts for Expectant Parents [University of Colorado Denver]. http://digital.auraria.edu/AA00003489/00001
- Losquadro, A. (2021, February 20). *Circumcision in America: Are baby boys' foreskins for sale?*Medium. https://anthonylosquadro.medium.com/circumcision-in-america-are-baby-boys-foreskins-for-sale-e0b79fadc8cb
- Lovecraft, H. P. (2011). The Call of Cthulhu. In S. T. Joshi (Ed.), *The Call of Cthulhu and Other Weird Stories* (pp. 139–169). Penguin Books.
- Maguire, P., & Parkes, C. M. (1998). Coping with loss: Surgery and loss of body parts. *BMJ*, *316*(7137), 1086–1088. https://doi.org/10.1136/bmj.316.7137.1086
- Maimonides, M. (1963). *The Guide of the Perplexed* (S. Pines (Trans.); Vol. 2). The University of Chicago Press.
- Majavu, A. (2011, August 8). *Babies' foreskins could be sold: Ethics watchdog*. TimesLIVE. https://web.archive.org/web/20210309020944/https://www.timeslive.co.za/news/south-africa/2011-08-08-babies-foreskins-could-be-sold-ethics-watchdog///
- Malamut, M. (2015, April 14). *The 'Baby Foreskin Facial' Is a Real Thing*. Boston. https://web.archive.org/web/20210829175902/https://www.bostonmagazine.com/health/2015/04/14/baby-foreskin-facial-boston-hydrafacial/
- Margulis, J. (2015). Foreskins For Sale: The Business of Circumcision. In *Your Baby, Your Way: Taking Charge of your Pregnancy, Childbirth, and Parenting Decisions for a Happier, Healthier Family* (pp. 118–136). Scribner.
- Marieb, E. N., & Hoehn, K. (2013). *Human Anatomy & Physiology* (9th ed.). Pearson Education, Inc.
- Mark, E. G. (1901). Circumcision. American Practitioner and News, 31(4), 122–126.

- Masood, S., Patel, H. R. H., Himpson, R. C., Palmer, J. H., Mufti, G. R., & Sheriff, M. K. M. (2005). Penile Sensitivity and Sexual Satisfaction after Circumcision: Are We Informing Men Correctly? *Urologia Internationalis*, *75*(1), 62–66. https://doi.org/10.1159/000085930
- Massie, L. (2013). Male Circumcision and the Potential for Unexplained Male Adolescent Suicide in Northern Ireland. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Cutting: Protecting Children from Medical, Cultural, and Religious Infringements* (pp. 101–106). Springer Netherlands. https://doi.org/10.1007/978-94-007-6407-1_7
- Mayo Clinic Staff. (2021). *Circumcision (male)*. Mayo Clinic. https://web.archive.org/web/20211120010636/https://kidshealth.org/Nemours/en/parents/procedure-circumcision.html
- McCall, R. (2018, March 21). "Penis facials" are the strangest new beauty trend celebrities are obsessed with and yes, you read that right. Business Insider. https://web.archive.org/web/20211002164205/https://www.businessinsider.com/penis-facials-are-the-strangest-new-beauty-trend-celebrities-are-obsessed-with-2018-3
- McGrath, K. A. (2009). Variations in Penile Anatomy and Their Contribution to Medical Mischief. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Circumcision and Human Rights* (pp. 97–108). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9167-4_8
- McIntosh, D. (2019, September 18). *The Epigenetics of Childhood Trauma*. Psychology Today. https://www.psychologytoday.com/us/blog/psyched/201909/the-epigenetics-childhood-trauma
- Meislahn, H. S., & Taylor, J. R. (2004). The Importance of the Foreskin to Male Sexual Reflexes. In G.
 C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), Flesh and Blood: Perspective on the Problem of Circumcision in Contemporary Society (pp. 27–43). Springer US. https://doi.org/10.1007/978-1-4757-4011-0
- Merkel, R., & Putzke, H. (2013). After Cologne: male circumcision and the law. Parental right, religious liberty or criminal assault? *Journal of Medical Ethics*, 39(7), 444–449. https://doi.org/10.1136/medethics-2012-101284
- Merle, J.-C. (2000). A Kantian Argument for a Duty to Donate One's Own Organs. A Reply to Nicole Gerrand. *Journal of Applied Philosophy*, *17*(1), 93–101. https://doi.org/10.1111/1468-5930.00143
- Miani, A., Di Bernardo, G. A., Højgaard, A. D., Earp, B. D., Zak, P. J., Landau, A. M., Hoppe, J., & Winterdahl, M. (2020). Neonatal male circumcision is associated with altered adult socio-affective processing. *Heliyon*, *6*(11), e05566. https://doi.org/10.1016/j.heliyon.2020.e05566
- Milhoua, P., Lowe, D., & Melman, A. (2006). Normal Anatomy and Physiology. In J. J. Mulcahy (Ed.), *Male Sexual Function: A Guide to Clinical Management* (2nd ed., pp. 1–45). Humana Press. https://doi.org/10.1007/978-1-59745-155-0_1

- Miller, A. (1991). The Newly Recognized, Shattering Effects of Child Abuse. In H. Hannum & H. Hannum (Trans.), *The Untouched Key: Tracing Childhood Trauma in Creativity and Destructiveness* (pp. 167–170). Doubleday.
- Mitchell, R. (2001, May). Owning Shit: Body, Garbage, and Commodification. *Bad Subjects*, *55*. https://web.archive.org/web/20170719130624/http://bad.eserver.org/issues/2001/55/mitchell.html
- Möller, K. (2020). Male and Female Genital Cutting: Between the Best Interest of the Child and Genital Mutilation. *Oxford Journal of Legal Studies*, *40*(3), 508–532. https://doi.org/10.1093/ojls/gqaa001
- Morris, R. T. (1892). Is Evolution Trying to Do Away With the Clitoris? *Transactions of the American Association of Obstetricians and Gynecologists*, *5*, 288–302.
- Muller, A. J. (2010). To cut or not to cut? Personal factors influence primary care physicians' position on elective newborn circumcision. *Journal of Men's Health*, *7*(3), 227–232. https://doi.org/10.1016/j.jomh.2010.04.001
- Netter, F. H. (2019). Atlas of Human Anatomy (7th ed.). Elsevier.
- Nordic Association of Clinical Sexology. (2013). *Statement on Non-Therapeutic Circumcision of Boys*. https://www.arclaw.org/wp-content/uploads/2013-10-10-nacs-statement-on-ritual-circumcision-of-boys-press-release.pdf
- Novac, B., Ciobica, A., Dobrin, R., Ciobotaru, M., & Costache, C. (2013). Psychological/Psychiatric Trauma in Patients with Penile Cancer and Partial or Total Penectomy. *Archives of Biological Sciences*, *65*(4), 1293–1298. https://doi.org/10.2298/ABS1304293N
- O'Connor, P., & Narvaez, D. F. (2015, January 11). *Circumcision's Psychological Damage*. Psychology Today. https://www.psychologytoday.com/us/blog/moral-landscapes/201501/circumcision-s-psychological-damage
- O'Hara, K., & O'Hara, J. (1999). The effect of male circumcision on the sexual enjoyment of the female partner. *BJU International*, *83*(S1), 79–84. https://doi.org/10.1046/j.1464-410x.1999.0830s1079.x
- O'Hara, K., & O'Hara, J. (2002). The Gliding Mechanism of the Natural Penis vs. The Non-gliding Friction Action of the Circumcised Penis. In *Sex As Nature Intended It: The Most Important Thing You Need to Know About Making Love, but No One Could Tell You Until Now* (2nd ed., pp. 69–79). Turning Point Publications.
- O'Malley, B. (2005). Avian anatomy and physiology. In B. O'Malley (Ed.), *Clinical Anatomy and Physiology of Exotic Species: Structure and Function of Mammals, Birds, Reptiles, and Amphibians* (pp. 97–161). Elsevier. https://doi.org/10.1016/B978-070202782-6.50009-0

- O'Neill, O. (2004). Autonomy and Trust in Bioethics. Cambridge University Press.
- O'Neill, S., & Pallitto, C. (2021). The Consequences of Female Genital Mutilation on Psycho-Social Well-Being: A Systematic Review of Qualitative Research. *Qualitative Health Research*, *31*(9), 1738–1750. https://doi.org/10.1177/10497323211001862
- Odent, M. (1997). Learned Helplessness: A Concept of the Future. In G. C. Denniston & M. F. Milos (Eds.), *Sexual Mutilations: A Human Tragedy* (pp. 121–124). Springer US. https://doi.org/10.1007/978-1-4757-2679-4_10
- Oliveira, T., Costa, I., Marinho, V., Carvalho, V., Uchôa, K., Ayres, C., Teixeira, S., & Vasconcelos, D. F. P. (2018). Human Foreskin Fibroblasts: From Waste Bag to Important Biomedical Applications. *Journal of Clinical Urology*, *11*(6), 385–394. https://doi.org/10.1177/2051415818761526
- Oliver, D. (2015, April 10). *Is Baby Foreskin The Key To Youthful Skin?* HuffPost. https://web.archive.org/web/20211002162827/https://www.huffpost.com/entry/baby-foreskin-facial_n_7040808
- Organogenesis Inc. (2001). *10-K 2000 Annual Report*. https://sec.report/Document/0000927016-01-001622/
- Organogenesis Inc. (2015). *Dermagraft*® *Directions For Use*. https://dermagraft.com/pdf/Dermagraft-Directions-for-Use.pdf
- Ornstein, C. (2014, October 6). *\$1.1 Billion in Drug, Device Payments to Doctors Not Included in New Federal Database*. ProPublica. https://www.propublica.org/article/1.1-billion-in-drug-device-payments-to-doctors-not-included-in-new-database
- Ornstein, C. (2016, June 20). *Feed Me, Pharma: More Evidence That Industry Meals Are Linked to Costlier Prescribing.* ProPublica. https://www.propublica.org/article/more-evidence-phrama-meals-are-linked-to-costlier-prescribing
- Ornstein, C., Tigas, M., & Jones, R. G. (2015, January 22). *Why Pharma Payments to Doctors Were So Hard to Parse*. ProPublica. https://www.propublica.org/article/why-pharma-payments-to-doctors-were-so-hard-to-parse
- Ornstein, C., Tigas, M., & Jones, R. G. (2016, March 17). *Now There's Proof: Docs Who Get Company Cash Tend to Prescribe More Brand-Name Meds*. ProPublica. https://www.propublica.org/article/doctors-who-take-company-cash-tend-to-prescribe-more-brand-name-drugs
- Oryszczuk, S. (2018, February 28). *The Jewish parents cutting out the bris*. Jewish News. https://jewishnews.timesofisrael.com/the-jewish-parents-cutting-out-the-bris/

- Palmquist, S. R. (2016). Kant's Perspectival Solution to the Mind-Body Problem: Or, Why Eliminative Materialists must be Kantians. *Culture and Dialogue*, *4*(1), 194–213. https://doi.org/10.1163/24683949-12340010
- Pang, M. G., & Kim, D. S. (2002). Extraordinarily high rates of male circumcision in South Korea: history and underlying causes. *BJU International*, *89*(1), 48–54. https://doi.org/10.1046/j.1464-410X.2002.02545.x
- Pasquier, L. M. (2013, December 25). *Circumcision of young boys is not a right*. The Washington Post. https://www.washingtonpost.com/opinions/circumcision-of-young-boys-is-not-a-right/ 2013/12/25/62f8aed0-5c3e-11e3-be07-006c776266ed_story.html
- Pitta, J. (1993, May). Biosynthetics. Forbes, 170–171.
- Plato. (2003). [Πολιτεία] *The Republic* (G. R. F. Ferrari (Ed.); T. Griffith (Trans.)). Cambridge University Press.
- Podnar, S. (2011). Clinical elicitation of the penilo-cavernosus reflex in circumcised men. *BJU International*, *109*(4), 582–585. https://doi.org/10.1111/j.1464-410X.2011.10364.x
- Pollack, M. (2009). Circumcision: If It Isn't Ethical, Can It Be Spiritual? In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Circumcision and Human Rights* (pp. 189–194). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9167-4_17
- Povenmire, R. (1999). Do Parents Have the Legal Authority to Consent to the Surgical Amputation of Normal, Healthy Tissue from Their Infant Children?: The Practice of Circumcision in the United States. *Journal of Gender, Social Policy & The Law, 87*(1), 87–123. http://www.ncbi.nlm.nih.gov/pubmed/16526136
- Prescott, J. W. (1997). The Ashley Montagu Resolution to End the Genital Mutilation of Children Worldwide: A Petition to the World Court, the Hague. In G. C. Denniston & M. F. Milos (Eds.), *Sexual Mutilations: A Human Tragedy* (pp. 217–220). Springer US. https://doi.org/10.1007/978-1-4757-2679-4_23
- Pudloski, K. (2013, April 15). *Is Oprah Supporting the Harvest of Baby Foreskin?* VICE. https://www.vice.com/en/article/xdm5q7/is-oprah-supporting-the-harvest-of-baby-foreskin
- Purpura, V., Bondioli, E., Cunningham, E. J., De Luca, G., Capirossi, D., Nigrisoli, E., Drozd, T., Serody, M., Aiello, V., Carlo A. Cirioni, & Melandri, D. (2018). The development of a decellularized extracellular matrix—based biomaterial scaffold derived from human foreskin for the purpose of foreskin reconstruction in circumcised males. *Journal of Tissue Engineering*, *9*, 204173141881261. https://doi.org/10.1177/2041731418812613

- Raho, J. A. (2016). In Whose Best Interests? Critiquing the "Family-as-Unit" Myth in Pediatric Ethics. In P. A. Clark (Ed.), *Bioethics Medical, Ethical and Legal Perspectives* (pp. 145–160). InTech. https://doi.org/10.5772/66715
- Rediger, C., & Muller, A. J. (2013). Parents' rationale for male circumcisions. *Canadian Family Physician*, *59*(2), e110–e115. http://www.ncbi.nlm.nih.gov/pubmed/23418252
- Rehman, J., & Melman, A. (2001). Normal Anatomy and Physiology. In J. J. Mulcahy (Ed.), *Male Sexual Function: A Guide to Clinical Management* (pp. 1–46). Humana Press.
- Reis, E. (2013). Intersex Surgeries, Circumcision, and the Making of "Normal." In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Cutting: Protecting Children from Medical, Cultural, and Religious Infringements* (pp. 137–147). Springer Netherlands. https://doi.org/10.1007/978-94-007-6407-1_10
- Remondino, P. C. (1891). History of Circumcision from the Earliest Times to the Present. Moral and Physical Reasons for its Performance, with a History of Eunchism, Hermaphrodism, etc., and of the Different Operations Practiced upon the Prepuce. F. A. Davis.
- Remondino, P. C. (1894). Negro Rapes and their Social Problems. *National Popular Review*, 4(1), 3–6.
- Rhinehart, J. (1999). Neonatal Circumcision Reconsidered. *Transactional Analysis Journal*, *29*(3), 215–221. https://doi.org/10.1177/036215379902900306
- Ridder, M. (2021). Size of the anti-aging market worldwide from 2020 to 2026. In *Statista*. https://www.statista.com/statistics/509679/value-of-the-global-anti-aging-market/
- Ritter, T. J., & Denniston, G. C. (2002). *Doctors Re-examine Circumcision*. Third Millennium Publishing Co.
- Rohen, J. W., Yokochi, C., & Lütjen-Drecoll, E. (2016). *Anatomy: A Photographic Atlas* (8th ed.). Wolters Kluwer.
- Royal Dutch Medical Association. (2010). *Non-therapeutic circumcision of male minors*. https://www.knmg.nl/circumcision/
- Rubenstein, D. A., Yin, W., & Frame, M. D. (2015). Flow in the Lungs. In *Biofluid Mechanics: An Introduction to Fluid Mechanics, Macrocirculation, and Microcirculation* (2nd ed., pp. 327–353). Academic Press. https://doi.org/10.1016/B978-0-12-800944-4.00009-3
- Rugnetta, M. (2016, May 18). What Is Violence? PBS Idea Channel. https://youtu.be/DyitF-6tBu4
- Saladin, K. (2021). *Anatomy & Physiology: The Unity of Form and Function* (9th ed.). McGraw-Hill Education.

- Salk, L., Sturner, W., Lipsitt, L., Reilly, B., & Levat, R. (1985). Relationship of Maternal and Perinatal Conditions to Eventual Adolescent Suicide. *The Lancet*, *325*(8429), 624–627. https://doi.org/10.1016/S0140-6736(85)92156-7
- Saperia, S. (2012, July 3). *Male Circumcision is Not Mutilation, Period*. HuffPost. https://www.huffingtonpost.ca/sheryl-saperia/infant-circumcision-canada_b_1646749.html
- Savage, L. (2020, December 9). *The 2020 Election Shows How Organized Money Devoured American Democracy*. Jacobin. https://www.jacobinmag.com/2020/12/2020-election-money-campaign-finance
- Schopenhauer, A. (2009). Über die Grundlage der Moral [On the Basis of Morality]. In C. Janaway (Ed. & Trans.), *Die beiden Grundprobleme der Ethik [The Two Fundamental Problems of Ethics]* (pp. 113–258). Cambridge University Press.
- Schopenhauer, A. (2010). *Die Welt als Wille und Vorstellung [The World as Will and Representation]* (J. Norman, A. Welchman, & C. Janaway (Eds. & Trans.); Vol. 1). Cambridge University Press.
- Schopenhauer, A. (2012). Über die vierfache Wurzel des Satzes vom zureichenden Grunde [On the Fourfold Root of the Principle of Sufficient Reason]. In D. E. Cartwright, E. E. Erdmann, & C. Janaway (Eds. & Trans.), *On the Fourfold Root of the Principle of Sufficient Reason and Other Writings* (pp. 1–197). Cambridge University Press.
- Schopenhauer, A. (2015). *Parerga und Paralipomena [Parerga and Paralipomena]* (A. del Caro & C. Janaway (Eds. & Trans.); Vol. 2). Cambridge University Press.
- Schopenhauer, A. (2018). *Die Welt als Wille und Vorstellung [The World as Will and Representation]* (J. Norman, A. Welchman, & C. Janaway (Eds. & Trans.); Vol. 2). Cambridge University Press. https://doi.org/10.1017/9780511843112
- Schultheiss, D., Truss, M. C., Stief, C. G., & Jonas, U. (1998). Uncircumcision: A Historical Review of Preputial Restoration. *Plastic and Reconstructive Surgery*, *101*(7), 1990–1998. https://doi.org/10.1097/00006534-199806000-00037
- Scott, C. L., & Holmberg, T. (2003). Castration of Sex Offenders: Prisoners' Rights Versus Public Safety. *Journal of the American Academy of Psychiatry and the Law*, *31*(4), 502–509. http://www.ncbi.nlm.nih.gov/pubmed/14974806
- Sellers, F. S., Cha, A. E., Knowles, H., & Hawkins, D. (2021, August 18). *The delta variant is putting America's hospitals back in crisis mode*. The Washington Post. https://www.washingtonpost.com/health/2021/08/18/covid-hospitals-delta/

- Şenkul, T., İşerİ, C., Şen, B., Karademİr, K., Saraçoğlu, F., & Erden, D. (2004). Circumcision in Adults: Effect on Sexual Function. *Urology*, *63*(1), 155–158. https://doi.org/10.1016/j.urology.2003.08.035
- Serody, M. J. (2021, October 6). *More Than 5 Million American Men May Want Their Foreskins Back*. Foregen Commentarium. https://www.foregen.org/commentarium-articles/yougov-survey-2021
- Shapshay, S. (2019). Was Schopenhauer a Kantian Ethicist? *International Journal of Philosophical Studies*, *28*(2), 168–187. https://doi.org/10.1080/09672559.2019.1692056
- Shen, Z., Chen, S., Zhu, C., Wan, Q., & Chen, Z. (2004). [Erectile function evaluation after adult circumcision]. *Zhonghu Nan Ke Xue*, *10*(1), 18–19. http://www.ncbi.nlm.nih.gov/pubmed/14979200
- Shteyngart, G. (2021, October 4). *A Botched Circumcision and Its Aftermath*. The New Yorker. https://www.newyorker.com/magazine/2021/10/11/a-botched-circumcision-and-its-aftermath? fbclid=IwAR3xNccsTck_wO335J6gcW4beqIs8OyQR8WH_wrTdKv_RtVqzqDyysoulns
- Shuler, M. L., Kargi, F., & DeLisa, M. (2017). Utilizing Genetically Engineered Organisms. In *Bioprocess Engineering: Basic Concepts* (3rd ed., pp. 471–518). Prentice Hall.
- Silva, A., Fonseca, M. J., Cardoso, P. R., Fonseca, M. C., & Teixeira, A. (2021). Factors Influencing the Purchase Intention of Cruelty-Free Cosmetics in Portuguese Consumers An Exploratory Approach. In Á. Rocha, C. Ferrás, P. C. López-López, & T. Guarda (Eds.), *Information Technology and Systems. ICITS 2021. Advances in Intelligent Systems and Computing, vol 1331* (pp. 256–268). Springer, Cham. https://doi.org/10.1007/978-3-030-68418-1_25
- Silverthorn, D. U. (2019). *Human Physiology: An Integrated Approach* (8th ed.). Pearson Education, Inc.
- Skloot, R. (2010). "Who Told You You Could Sell My Spleen?" In *The Immortal Life of Henrietta Lacks* (pp. 199–224). Crown Publishers.
- Sneppen, I., & Thorup, J. (2016). Foreskin Morbidity in Uncircumcised Males. *Pediatrics*, *137*(5), e20154340–e20154340. https://doi.org/10.1542/peds.2015-4340
- Solinis, I., & Yiannaki, A. (2007). Does circumcision improve couple's sexual life? *The Journal of Men's Health & Gender*, *4*(3), 361. https://doi.org/10.1016/j.jmhg.2007.07.010
- Sorokan, S. T., Finlay, J. C., & Jefferies, A. L. (2015). Newborn male circumcision. *Paediatrics & Child Health*, *20*(6), 311–315. https://doi.org/10.1093/pch/20.6.311
- Sorrells, M. L., Snyder, J. L., Reiss, M. D., Eden, C., Milos, M. F., Wilcox, N., & Van Howe, R. S. (2007). Fine-touch pressure thresholds in the adult penis. *BJU International*, 99(4), 864–869. https://doi.org/10.1111/j.1464-410X.2006.06685.x

- Spratling, E. J. (1895). Masturbation in the Adult. *Medical Record*, 48(13), 442–443.
- Stahel, P. F., VanderHeiden, T. F., & Kim, F. J. (2017). Why do surgeons continue to perform unnecessary surgery? *Patient Safety in Surgery*, *11*(1), 1. https://doi.org/10.1186/s13037-016-0117-6
- Svoboda, J. S., Adler, P. W., & Van Howe, R. S. (2019). Is Circumcision Unethical and Unlawful? A Response to Morris et al. *Journal of Medical Law and Ethics*, *7*(1), 72–92. https://doi.org/10.7590/221354019X155385183386162213-5405
- Svoboda, J. S., & Van Howe, R. S. (2013). Out of step: fatal flaws in the latest AAP policy report on neonatal circumcision. *Journal of Medical Ethics*, 39(7), 434–441. https://doi.org/10.1136/medethics-2013-101346
- Svoboda, J. S., Van Howe, R. S., & Dwyer, J. G. (2000). Informed Consent for Neonatal Circumcision: An Ethical and Legal Conundrum. *The Journal of Contemporary Health Law and Policy*, *17*(1), 61–133. http://www.ncbi.nlm.nih.gov/pubmed/11216345
- Szádeczky-Kardoss, I. (2005, September). *The Bloody Countess?* (L. Nehrebeczky (Trans.)). Élet És Tudomány [Life and Science]. https://notesonhungary.wordpress.com/2014/05/31/the-bloody-countess/
- Taddio, A., Katz, J., Ilersich, A. L., & Koren, G. (1997). Effect of neonatal circumcision on pain response during subsequent routine vaccination. *The Lancet*, *349*(9052), 599–603. https://doi.org/10.1016/S0140-6736(96)10316-0
- Taves, D. R. (2002). The intromission function of the foreskin. *Medical Hypotheses*, 59(2), 180–182. https://doi.org/10.1016/S0306-9877(02)00250-5
- Taylor, A. (2014, December 2). *Bhopal: The World's Worst Industrial Disaster, 30 Years Later*. The Atlantic. https://www.theatlantic.com/photo/2014/12/bhopal-the-worlds-worst-industrial-disaster-30-years-later/100864/
- Taylor, J. R., Lockwood, A. P., & Taylor, A. J. (1996). The prepuce: specialized mucosa of the penis and its loss to circumcision. *British Journal of Urology*, *77*(2), 291–295. https://doi.org/10.1046/j.1464-410X.1996.85023.x
- Temenoff, J. S., & Mikos, A. G. (2008). Biomaterial Implantation and Acute Inflammation. In *Biomaterials: The Intersection of Biology and Materials Science* (pp. 369–384). Pearson Education, Inc.
- The Brussels Collaboration on Bodily Integrity. (2019). Medically Unnecessary Genital Cutting and the Rights of the Child: Moving Toward Consensus. *The American Journal of Bioethics*, *19*(10), 17–28. https://doi.org/10.1080/15265161.2019.1643945

- The International NGO Council on Violence against Children. (2012). *Violating Children's Rights: Harmful practices based on tradition, culture, religion or superstition.*https://resourcecentre.savethechildren.net/library/violating-childrens-rights-harmful-practices-based-tradition-culture-religion-or
- The Ombudsman for Equality. (2016, September 19). *Poikien ympärileikkaukset [Circumcision of boys]*. Tasa-Arvovaltuutettu. https://tasa-arvo.fi/en/-/circumcision-of-boys-tas-143-2016-issued-on-23-august-2016-
- The Royal Australasian College of Physicians. (2010). *Circumcision of Infant Males*. http://www.racp.edu.au/docs/default-source/advocacy-library/circumcision-of-infant-males.pdf
- Thorn, A. (2017, January 20). *Intro to Anarchy: Power & Violence*. Philosophy Tube. https://youtu.be/bCAUmh99hMI
- Thorvaldsen, M. A., & Meyhoff, H.-H. (2005). Patologisk eller fysiologisk fimose? [Pathological or physiological phimosis?]. *Ugeskrift for Læger*, *167*(17), 1858–1862. http://www.ncbi.nlm.nih.gov/pubmed/15929334
- Toikkanen, U. (2004, February 22). *Lastensuojelun Keskusliitto hyväksyisi poikien ympärileikkauksen ainoastaan sairauden takia [The Central Union for Child Welfare would only accept circumcision of boys because of illness]*. Lääkärilehti. https://www.laakarilehti.fi/ajassa/ajankohtaista/lastensuojelun-keskusliitto-hyvaksyisi-poikien-ymparileikkauksen-ainoastaan-sairauden-takia/
- Townsend, K. G. (2020). The child's right to genital integrity. *Philosophy & Social Criticism*, *46*(7), 878–898. https://doi.org/10.1177/0191453719854212
- Truskey, G. A., Yuan, F., & Katz, D. F. (2009). Transport in Porous Media. In *Transport Phenomena in Biological Systems* (2nd ed., pp. 399–438). Pearson Education, Inc.
- Urology Care Foundation. (2013). Circumcision: What Parents Should Know. *Urology Care Foundation*. https://www.urologyhealth.org/healthy-living/urologyhealth-extra/magazine-archives/spring-2013/circumcision
- van der Kolk, B. A. (2014). *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma*. Viking Press.
- Van Howe, R. S. (1997). Why Does Neonatal Circumcision Persist in the United States? In G. C. Denniston & M. F. Milos (Eds.), *Sexual Mutilations: A Human Tragedy* (pp. 111–119). Springer US. https://doi.org/10.1007/978-1-4757-2679-4_9
- Van Howe, R. S. (1999a). Anaesthesia for Circumcision: A Review of the Literature. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal*,

- *and Ethical Considerations in Pediatric Practice* (pp. 67–97). Springer US. https://doi.org/10.1007/978-0-585-39937-9_7
- Van Howe, R. S. (1999b). Peer-Review Bias Regarding Circumcision in American Medical Publishing: Subverting the Dominant Paradigm. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Male and Female Circumcision: Medical, Legal, and Ethical Considerations in Pediatric Practice* (pp. 357–378). Springer US. https://doi.org/10.1007/978-0-585-39937-9_32
- Van Howe, R. S. (2015). A CDC-requested, Evidence-based Critique of the Centers for Disease Control and Prevention 2014 Draft on Male Circumcision: How Ideology and Selective Science Lead to Superficial, Culturally-biased Recommendations by the CDC. https://doi.org/10.13140/2.1.1148.4964
- Varuh človekovih pravic RS. (2012). *Obrezovanje fantkov iz nemedicinskih razlogov je kršitev otrokovih pravic [Circumcision of boys for non-medical reasons is a violation of children's rights]*. https://www.varuh-rs.si/sl/obravnavane-pobude/primer/obrezovanje-fantkov-iz-nemedicinskih-razlogov-je-krsitev-otrokovih-pravic/
- Vigdor, N. (2020, July 1). *It Paid Doctors Kickbacks*. *Now, Novartis Will Pay a \$678 Million Settlement*. The New York Times. https://www.nytimes.com/2020/07/01/business/Novartis-kickbacks-diabetes-heart-drugs.html
- Viloria, H., & Nieto, M. (2020). *The Spectrum of Sex: The Science of Male, Female, and Intersex*. Jessica Kinglsey Publishers.
- Waldeck, S. E. (2003). Social Norm Theory and Male Circumcision: Why Parents Circumcise. *The American Journal of Bioethics*, *3*(2), 56–57. https://doi.org/10.1162/152651603766436261
- Walter, G., & Streimer, J. (1990). Genital Self-mutilation: Attempted Foreskin Reconstruction. *British Journal of Psychiatry*, *156*(1), 125–127. https://doi.org/10.1192/bjp.156.1.125
- Warren, J. P. (2010). Physical Effects of Circumcision. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Autonomy: Protecting Personal Choice* (pp. 75–79). Springer Netherlands. https://doi.org/10.1007/978-90-481-9446-9_7
- Waugh, A., & Grant, A. (2018). Ross & Wilson Anatomy and Physiology in Health and Illness (13th ed.). Elsevier Ltd.
- Weber, T., & Ornstein, C. (2011, May 5). *Medical Groups Shy About Detailing Industry Financial Support*. ProPublica. https://www.propublica.org/article/medical-groups-shy-about-detailing-industry-financial-support

- Werker, P. M. N., Terng, A. S. C., & Kon, M. (1998). The Prepuce Free Flap: Dissection Feasibility Study and Clinical Application of a Super-Thin New Flap. *Plastic & Reconstructive Surgery*, *102*(4), 1075–1082. https://doi.org/10.1097/00006534-199809040-00024
- White, B. M. (2013). Healing the Harms of Circumcision: A Nursing Case Study. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Genital Cutting: Protecting Children from Medical, Cultural, and Religious Infringements* (pp. 107–130). Springer Netherlands. https://doi.org/10.1007/978-94-007-6407-1_8
- Winkelmann, R. K. (1956). The Cutaneous Innervation of Human Newborn Prepuce. *Journal of Investigative Dermatology*, *26*(1), 53–67. https://doi.org/10.1038/jid.1956.5
- Winkelmann, R. K. (1959). The Erogenous Zones: Their Nerve Supply and Significance. *Mayo Clin Proc*, *34*(2), 39–47. http://www.ncbi.nlm.nih.gov/pubmed/13645790
- Woo, E. (2004, May 13). *David Reimer, 38; After Botched Surgery, He Was Raised as a Girl in Gender Experiment*. Los Angeles Times. https://www.latimes.com/archives/la-xpm-2004-may-13-me-reimer13-story.html
- Woods, B. (2014, May 29). Companies are making human skin in labs to curb animal testing of products. CNBC.
 https://web.archive.org/web/20211002165156/https://www.cnbc.com/2017/05/25/loreal-ismaking-lab-produced-human-skin-to-curb-animal-testing.html
- Yilmaz, E., Batislam, E., Basar, M. M., & Basar, H. (2003). Psychological trauma of circumcision in the phallic period could be avoided by using topical steroids. *International Journal of Urology*, *10*(12), 651–656. https://doi.org/10.1046/j.1442-2042.2003.00722.x
- Young, H. (2009). "THAT THING": Portrayal of the Foreskin and Circumcision in Popular Media. In G. C. Denniston, F. M. Hodges, & M. F. Milos (Eds.), *Circumcision and Human Rights* (pp. 239–250). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9167-4_23
- Youssef, N. A., Lockwood, L., Su, S., Hao, G., & Rutten, B. P. F. (2018). The Effects of Trauma, with or without PTSD, on the Transgenerational DNA Methylation Alterations in Human Offsprings. *Brain Sciences*, *8*(5), 83. https://doi.org/10.3390/brainsci8050083
- Yun, Y. E., Jung, Y. J., Choi, Y. J., Choi, J. S., & Cho, Y. W. (2018). Artificial skin models for animal-free testing. *Journal of Pharmaceutical Investigation*, *48*(2), 215–223. https://doi.org/10.1007/s40005-018-0389-1
- Zhang, S. (2016, December 30). *Inside the Lab that Grows Human Skin to Test Your Cosmetics*. WIRED. https://web.archive.org/web/20211002165226/https://www.wired.com/2016/12/inside-lab-grows-human-skin-test-cosmetics/

- Zhang, Y., Wang, J., Jin, S., Xiang, B., Yang, J., Li, K., Huang, B., Lai, W., Yan, L., & Zhao, J. (2019). Post-traumatic stress disorder in living donors after pediatric liver transplantation. *Medicine*, 98(20), e15565. https://doi.org/10.1097/MD.0000000000015565
- Zimmermann. (2011). Male circumcision is not comparable to female genital mutilation. *The BMJ*, *342*, d978. https://doi.org/10.1136/bmj.d978
- Zisook, S., & Shear, K. (2009). Grief and bereavement: what psychiatrists need to know. *World Psychiatry*, *8*(2), 67–74. https://doi.org/10.1002/j.2051-5545.2009.tb00217.x