Thomistic Principles and Bioethics, by Jason T. Eberl. New York: Routledge, 2006. 155 pp.

Jason Eberl has deftly applied Thomistic ideas to bioethical issues and their metaphysical underpinnings in a number of articles in recent years. To meet the need for a book-length treatment, Eberl has written Thomistic Principles and Bioethics for the Routledge Annals of Bioethics Series. His aim is to show the relevance of Aquinas' metaphysical and ethical principles to secular and religious bioethics. Recognizing that some people might object that there isn't any place for overtly theological principles in the formation of a pluralistic society's public policies, Eberl avoids Aquinas's theistic assumptions and presents purely philosophical arguments that require only a shared capacity for reason. The book is nicely laid out, beginning with a chapter on the Thomistic account of human nature and natural law, followed by a pair on our origins and endings, then the derived principles are applied to contemporary bioethical issues in the final couple of chapters. Eberl extrapolates Thomistic ideas to guide us in bioethical debates that Aquinas didn't encounter in the 13th century like cloning, embryonic stem cell research (ESCR), organ procurement and withdrawing patients from high-tech equipment. Eberl is especially well prepared for this undertaking, as he is at home in medieval philosophy, contemporary bioethics and metaphysics. The result is a very timely and useful book that all bioethicists should read.

Especially informative is Eberl's foray into debates about delayed hominization and its import for ESCR and abortion. This is the thesis that human beings do not come into existence at fertilization but later when sufficient bodily changes have occurred that are hospitable to rational ensoulment. The Thomistic doctrine that there is a succession of souls – vegetative, sensitive and rational – each involving substantial change was famously revived by Joseph Donceel in 1970. He, like Aquinas, claimed that development of certain brain structures is required for hominization. If none of us was ever a very young embryo, then ESCR and early abortions would not kill an existing human being but merely prevent one from coming into existence. Eberl argues that if Aquinas was familiar with contemporary biology he would have placed our origins at fertilization. Eberl draws upon two senses each of potential and actuality in Aquinas to make his point that the rational soul could be present in the embryo without manifesting all of its capabilities. The book is worth reading just for the job he does disentangling misconceptions about different senses of potentiality and actuality and what kind of supportive external

environment is needed for a rationally ensouled embryo to develop in virtue of an active principle internal to it.

Eberl not only responds effectively to claims that a brain is needed for ensoulment but he also deals well with worries that lead Norman Ford to defend a different version of delayed hominization. Ford claims that human beings must have bodies that are incapable of twinning. Prior to that threshold the embryo is considered just a collection of cells that lack the functional unity and interdependence that characterizes a living substance. Eberl shows that recent research gives us more reason to believe that early embryonic cells interact in a manner befitting a complex organism. Eberl also shows that too quick an inference is made from the possibility of twinning to the claim that no one comes into existence until such fissioning becomes impossible. He claims there is no need to deny immediate hominization because one organism can occasionally split into two. Instead of accepting that twinning means the original human being has tragically fissioned out of existence, he suggests a form of staggered ensoulment: one twin is identical to the original ensouled zygote while the other is younger, ensouled after the original embryo's cells have fissioned into two collections. However, a problem for staggered ensoulment is the second ensoulment in the case of conjoined can't be delayed until one embryo completely separates into two. Since overlapping souls configuring a considerable amount of common matter must be tolerated with conjoined twins, it might be better to claim that all twins were once co-located (fully overlapping). An omniscient God creating two souls at fertilization avoids the arbitrariness of the zygote surviving as the older of two equal-sized twins and strengthens the case for immediate hominization since it doesn't have to even tolerate the rare exception due to twinning. Worries that co-location violates the (rather problematic) Thomistic principle that matter individuates can be met by the exception Aquinas allows for miraculous colocation of bodies (ST. Supp. Q. 83 a.3) since ensoulment isn't a natural phenomenon.

While Eberl offers detailed and rather effective arguments against the various accounts of delayed hominization, he has less to say about what one could call "departed hominization." This is a theory of the alleged dehominization that occurs when brain damage brings about the replacement of the rational soul of the human being with a merely animal (sensitive) or vegetative soul. Aquinas actually held this view, writing that "in the course of corruption, first the use of reason is lost, but living and breathing remain...when human being is removed, animal is not removed as a consequence" (InLC 1.20-21). The doctrine of departed hominization is

actually stronger than the delayed hominization thesis since it is only in opposition to the latter that an appeal can be made to the intrinsic *potential* of a mindless human being to eventually manifest its latent rational powers in its normal environment. Dehominization, if true, would have startling ethical consequences for withdrawing support from the irreversibly non-cognitive, procuring their organs, and advanced directives about their care.

Eberl briefly considers and rejects the dehominization view, appealing to an Ockhamite principle of preferring the explanation that posits the fewest entities. He claims the rational soul hasn't left the body but is partially blocked, only its vegetative functions remain operative. Eberl's account of dehominization would have benefited from a discussion of the brain transplant thought experiment that fills up so much of the modern literature on personal identity. This involves part of the brain (usually the cerebrum) being transplanted from one skull to another. The recipient of the transplanted cerebrum has all the mental capabilities of the person with the cerebrum prior to the operation. The response of most people to the thought experiment is that the person possessing the cerebrum prior to the transplant is identical to the recipient of the cerebrum rather than postoperative mindless organism. Since the liquefied cerebrum of the patient in a PVS is physically equivalent to the cerebrumless organism in the thought experiment, they should be treated the same. Thus the thought experiment makes it more difficult for Eberl to maintain that a vegetative patient is still rationally ensouled, its intellectual capacities just blocked. The evidence that the rational soul has been moved in the thought experiment and is no longer configuring the matter that now belongs to the newly emerged vegetative being suggests that a patient in a PVS with a destroyed cerebrum is also the product of a dehominizing substantial change. Moreover, since the thought experiment involves positing the emergence in a humanoid body of a merely vegetative soul without any rational capacities, blocked or not, Eberl can't oppose dehominization in the case of a PVS by an appeal to an Ockhamite principle of minimizing the introduction of an additional kind of entity into one's ontology.

Philosophers who deny that we are transplanted with our cerebrum standardly maintain that we are misled by what matters to us being transplanted while we actually stay behind in a PVS. They claim, following Derek Parfit, that what we care about in survival is that our mental life continues, not that we are the subject of it. However, this option to explain away the transplant thought experiment isn't available to Eberl because it will have ethical consequences

that Catholic bioethicists can't accept. The claim that identity doesn't matter but only continuation of our psychology is important to us implies that embryos can only be harmed if they have manifested a mental life.

Eberl follows Aquinas in claiming that life involves the soul configuring an organ that controls the rest of the ensouled body, though he claims that organ is the brain not the heart. Eberl defends the whole brain criterion of death against the criticisms of Alan Shewmon, arguably the most sophisticated defender of the traditional circulatory-respiratory criterion. Shewmon maintains that some brain dead individuals may still be alive because their bodies possess sufficient physical integration, the brain having served more of a regulative than integrative role constitutive of life. He supports his position with an extreme form of Guillain Barré Syndrome (GBS) that involves no information getting in or out of the brainstem, thus mimicking brain death in that the rest of the body is not under any control of the brain. But since the GBS patient is still conscious, Shewmon claims that the proponent of the brain death criterion has the unwelcome dilemma of either accepting that such beings are thinking corpses or that their bodies are not dead - and thus by extension neither are the bodies of the brain dead in intensive care units (ICU). Eberl dismisses the worries about GBS because it is reversible and makes the intriguing suggestion that in comparable cases of high cervical cord transection that the human being has been reduced in size to the brain while the rest of the body is just a nonintegrated collection of organs - though the person's soul retains the potential to configure and reanimate if the condition could be reversed in a high-tech future.

Eberl provides alternative accounts of various other cases that Shewmon presents as indicating bodily integration in the absence of whole brain activity. While Eberl's clever interpretations have left me less confident in Shewmon's position that I was before, I still harbor doubts about the brain death criterion. If we were once able to exist as brainless embryos though dependent upon our mother's body, then I don't see why we can't we survive in a brainless condition in the ICU. Since Eberl follows Ashley in suggesting that a zygote's nucleus is sufficient for rational ensoulment, it might be that he holds that it can initially be the controlling organ. The problem is that the nucleus of the zygote doesn't control the organelles outside it during mitotic division and that there isn't a single nucleus controlling the two-cell and three-cell embryos and so on during early development. I think it would be a rather extenuated use of "organ" if Eberl follows Ashley in claiming that the zygote's daughter nuclei collectively

compose the primary organ. It may be best for Thomists to abandon the idea of the controlling organ and perhaps the whole brain criterion of death as well.

Eberl's discussion of the ethics of cloning provides a nice Thomistic-inspired account of how cloning is a corruption of the parent/child relationship and undermines the supportive web of relationships that a child should be born into. Eberl also does a good job extrapolating Thomistic principles that would be relevant to organ transplantation by drawing upon Aquinas' views on charitable duties and bearing bodily injuries for a friend's sake. He relies upon the Principle of Double Effect (PDE) to deal with some worries about possible harms from preparing the dying for organ procurement. His discussions of the PDE are always nuanced whether dealing with organ procurement, fatal pain relief, or his more controversial advocacy of emergency contraception in some rape scenarios and the cessation of hydration and nutrition in the Terry Schiavio debacle. On the topic of euthanasia, Eberl effectively deals with an attempt to justify hastening death by an appeal to Aquinas's principle of totality in which sacrifices are made for the whole. He shows that death to end suffering is quite unlike the loss of a limb to forestall death. Drawing upon Aquinas' account of the goodness of being, Eberl defends the value of the life of even the irreversibly noncognitive.

I wish this book was longer. I would very much like to see how Eberl would apply his impressive knowledge of Thomistic and contemporary philosophy to other issues such as embryo adoption and genetic enhancement. And I wish he had engaged the stronger case that can be made for the possibility of departed hominization. I won't be at all surprised to discover that Eberl can offer a very plausible Thomistic response to my metaphysical concerns.

David B. Hershenov Ph.D.

Associate Professor of Philosophy

University at Buffalo