

# *The Principle of Double Effect as Applied to the Maltese Conjoined Twins*

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*Abstract.* The principle of double effect is often used in bioethics as a tool to evaluate significant cases in obstetrics and gynecology. In this article the author, a Catholic priest, presents and interprets St. Thomas Aquinas's delineation of the principle and discusses several classical applications, namely, to hysterectomy during pregnancy, ectopic pregnancy, and craniotomy. He explains the medical anatomy and physiology of the conjoined Maltese twins, Jodie and Mary, and then examines the arguments of four moralists on their separation. He concludes by arguing that the principle morally justified the surgical separation of Jodie and Mary. *National Catholic Bioethics Quarterly* 9.1 (Spring 2009): 85–96.

## **St. Thomas and the Principle of Double Effect**

The origin of the principle of double effect is often attributed to St. Thomas Aquinas. Many contemporary interpretations of Aquinas's understanding of the PDE differ from his own account, so it is critical both to know what Aquinas said on this matter and to be faithful to his own understanding of it. The text of Aquinas's discussion of private and public self-defense involving killing is found in the *Summa theologiae*:

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Nothing hinders one act from having two effects, only one of which is intended, while the other is beside the intention. Now moral acts take their species according to what is intended, and not according to what is beside the intention. Accordingly the act of self-defense may have two effects, one is the saving of one's life, and the other is the slaying of the aggressor. Therefore this act, since one's intention is to save one's own life, is not unlawful, seeing that it is natural to everything to keep itself in being as far as possible. And yet, though proceeding from a good intention, an act may be rendered unlawful if it be out of proportion to the end. Wherefore if a man, in self-defense, uses more than necessary violence, it will be unlawful: whereas if he repel force with moderation his defense will be lawful, because according to the jurists, it is lawful to repel force by force, provided one does not exceed the limits of a blameless defense. Nor is it necessary for salvation that a man omit the act of moderate self-defense in order to avoid killing the other man, since one is bound to take more care of one's own life than of another's. But as it is unlawful to take a man's life, except for the public authority acting for the common good, it is not lawful for a man to intend killing a man in self-defense, except for such as have public authority, who while intending to kill a man in self-defense, refer this to the public good, as in the case of a soldier fighting against the foe, and in the minister of the judge struggling with robbers, although even these sin if they be moved by private animosity.<sup>1</sup>

What does Aquinas mean by *praeter intentionem* (outside the intention) and how can this be transferred to medical moral reasoning? To knowingly risk an assailant's life, he says, is not to do something that one foresees as likely to result in the assailant's death. Although the killing of an assailant may be necessary to preserve one's own life in some cases, in others this will not be the case. In these latter cases, there will be only some risk that the assailant will die, but in every case, whether the life or another is at stake or not, it is the defendant's intention to preserve his own life.

The correct understanding of Aquinas on the PDE has implications not only for the licit self-defense of an individual, but also for noncombatants in war, persons undergoing surgery who are significantly at risk for death, terminally ill patients receiving morphine for palliative care, and others whose cases present medical moral issues. For example, it is common for persons who are very ill to undergo dangerous surgery that may pose a serious risk of death due to possible hemorrhage or the administration of anesthesia. But the unintended death, though a foreseeable consequence of risky surgery and anesthesia, is a side effect of the directly intended aim of preserving life.<sup>2</sup> Thomas Cavanaugh argues that this is consistent with the understanding of Aquinas, namely, that justified private homicidal self-defense is an action in which the defendant risks killing the assailant. The PDE rests on the ability to foresee harm without intending harm. In the case of a private individual's justified homicidal self-defense, Aquinas accepts the slaying of the assailant as long as it results from the minimal use of force (*proportionatus fini*) and is not intentional

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<sup>1</sup>Thomas Aquinas, *Summa theologiae*, II-II, q. 64, a. 7, trans. Fathers of the English Dominican Province (New York: Benziger Bros., 1948).

<sup>2</sup>G. E. M. Anscombe, "Action, Intention, and 'Double Effect,'" *Proceedings of the American Catholic Philosophical Association* 56 (1982): 21.

(*praeter intentionem*).<sup>3</sup> But what are we to make of the case where a police officer attempts to defend his life from an aggressor? Aquinas maintains that in this case the “officer of the polity” can *intend* to take the life of his aggressor as long as he uses minimal force (*proportionatus fini*), refers the killing to the common good, and does not harbor animosity against the attacker.<sup>4</sup> In acts of self-defense, both the private individual and the officer of the polity have in common the requirement that the force they use must be minimal, that is, not more than is necessary for the preservation of one’s life.

Cavanaugh argues that Aquinas’s account of the PDE has a second condition which must be met for the risking of harm to be justified.<sup>5</sup> It is not necessary for salvation for a man to forgo an act of moderate defense in order to prevent the death of another, since a man is more responsible to provide for his own life than for that of another. Cavanaugh takes this to mean that a man who would not defend his own life when this entails endangering the life of the attacker might exercise too little responsibility with respect to the good of life in his care. Self-defense may be not only permissible, but even required, when not to defend his own life is to act with too little care for what has been entrusted to him.<sup>6</sup> Cavanaugh does recognize, however, that there may be counter-examples, as when the captain of a sinking ship may be more obliged to care for a passenger’s life than for his own. Both Anscombe and Cavanaugh properly interpret Aquinas’s PDE by recognizing that Aquinas, in q. 64, a.7, does *not* refer to an assailant’s foreseen death as inevitable.

Rev. Thomas J. O’Donnell, S.J., provides a classical account of the PDE as it relates to bioethical issues of the twentieth century. O’Donnell lists five components, each of which must be satisfied:

1. The action, in itself, must be good or at least indifferent.
2. The good effect cannot be obtained in some equally expeditious and effective way without the concomitant evil.
3. The evil effect cannot be directly willed but must only be permitted. Under no condition can the action be even partially prompted by a desire for the evil effect. Otherwise, the evil effect becomes a direct voluntary effect.
4. The evil effect cannot be a means to producing the good effect. Otherwise the evil effect, like any other means, would be necessarily directly willed.
5. There must be a due proportion between the good that is intended and the evil that is permitted.<sup>7</sup>

How to apply these rules to particular cases is a matter of some debate.

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<sup>3</sup>Thomas A. Cavanaugh, “Aquinas’s Account of Double Effect,” *Thomist* 61.1 (January 1997): 114.

<sup>4</sup>*Ibid.*, 4.

<sup>5</sup>Aquinas, *Summa theologiae* II-II, q. 64, a. 7.

<sup>6</sup>Cavanaugh, “Aquinas’s Account of Double Effect,” 6.

<sup>7</sup>Thomas J. O’Donnell, *Medicine and Christian Morality* (New York: Alba House, 1991), 30.

### Three Classic Cases

A classic clinical scenario frequently referred to when discussing the PDE is the management of carcinoma of the cervix or uterus during pregnancy. If the physician takes no action, the cancer will likely metastasize throughout the woman's body, resulting in her death. Chemotherapy or radiation therapy (if available) might cause malformation of the fetus, leading some to propose a direct abortion so as not to deliver a child with abnormalities. Alternatively, some would propose a hysterectomy, foreseeing the death of the fetus. Although both procedures result in the loss of the fetus, the PDE clarifies how the two procedures are morally distinct. To directly and voluntarily kill the fetus or to remove a nonviable fetus from the uterus constitutes a directly willed death of an innocent human being.

Assuming that the only medical option is a hysterectomy (clamping and severing all major blood vessels to the uterus with subsequent removal of the uterus), the PDE explains why this surgical procedure could be morally licit. The evil effect—the death of the fetus—is an indirect voluntary effect. This means that even though the evil effect is foreseen from this surgical procedure, it is in no manner an object of the act of the will. In the case of carcinoma of the cervix or of the uterus during pregnancy with a nonviable fetus *in situ*, the surgeon intends the removal of dangerous pathological tissue. He foresees that the result of his attaining this good effect will be fetal death. He does not directly will or intend fetal death but merely foresees it. To directly attack the fetus for any reason is to directly will fetal death. This would constitute a morally evil action egregiously inconsistent with the PDE.

Any direct attack upon the human embryo or fetus violates the PDE and, more plainly, the Fifth Commandment. It is not relevant as to the number of lives which can be saved in a “direct” attack.<sup>8</sup> This would mean that when a direct abortion is performed to save the life of the mother, such an act is gravely illicit. As the traditional casuists would say, it is better to have two deaths rather than one murder.<sup>9</sup> Examples of direct abortion include suction, RU-486, saline amniocentesis, and the use of pharmacologic agents, such as the birth control pill and the morning-after pill, if they are abortifacient. Such direct abortions fall under an absolute prohibition of direct causation of death of the innocent human being.

Another common condition in obstetrics and gynecology is an ectopic pregnancy, where the human embryo implants in the fallopian tube. This typically results in a serious pathological situation, since nidation of the embryo advances in a place which is neither anatomically nor histologically functional for this. When the embryo implants into the fallopian tube, unlike the uterus, there is often erosion of the tubal musculature. The invading villi can completely perforate the tube or weaken the wall such that the danger of tubal rupture (and hence hemorrhage) becomes imminent. Although some tubal pregnancies spontaneously resolve without complications,

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<sup>8</sup>*Catechism of the Catholic Church* 2nd ed., trans. U.S. Conference of Catholic Bishops (Vatican City: Libreria Editrice Vaticana, 1997): n. 2271.

<sup>9</sup>Joseph L. Lombardi, “Obstetrical Dilemmas and the Principle of Double Effect,” *American Journal of Jurisprudence* 37 (1993): 197.

the majority require medical intervention. Four common methods are employed to resolve a tubal pregnancy: (1) the administration of methotrexate; (2) salpingostomy, in which the tube is surgically opened and the embryo removed; (3) salpingectomy, in which the damaged tube containing the embryo is surgically removed; and (4) laparoscopy, by which the embryo is removed through suction.<sup>10</sup>

When it is certain that the tube itself is so pathologically damaged that medical intervention is required, the PDE provides the moral basis for licit action. The damaged maternal tissue (the tube which is pathological because of implantation by the embryo) may be surgically removed according to the PDE even though it is the site of an implanted embryo. The removal of the section of the fallopian tube which contains the embryo constitutes an indirect voluntary effect. By removing the pathological tube with the embryo *in situ*, the evil effect resulting in the death of the embryo is not an object of the act of the will, even though it is foreseen. Salpingostomy, by contrast, is the direct removal of a nonviable embryo or fetus from the site of implantation, and so is a direct attack on innocent human life. Methotrexate is a drug often used to treat cancer, which functions by targeting rapidly dividing cells and interfering with DNA synthesis. This drug interferes with the dividing cells of both the trophoblast and the embryo.<sup>11</sup> The trophoblast is a vital “organ” of the developing embryonic human being, and the use of methotrexate constitutes a direct attack on the embryo by the inhibition of DNA synthesis in the trophoblast and within the embryo. Salpingostomy and the use of methotrexate, therefore, are both inconsistent with the PDE, since both directly attack the human embryo.

When a mother who is pregnant is diagnosed with carcinoma of the cervix or uterus and the only remedy is a hysterectomy, classical moralists have always argued that this surgical procedure is consistent with the PDE. When the surgeon clamps and ligates the blood vessels of the uterus, he foresees the loss of the unborn child. The hysterectomy proves to be a case of indirect causation of death, the loss of the fetus being a foreseen but unintended consequence of the necessary surgery.<sup>12</sup> It is critical to note that the surgeon in this case would have still performed the hysterectomy even if the unborn child were not present. The significance of this point becomes clear as we look at the more complex case of craniotomy.

Some have argued that there is no morally relevant difference between hysterectomy and craniotomy when either is performed to save the life of a pregnant mother.<sup>13</sup> But Joseph Lombardi notes that one key distinction is that the hysterectomy for uterine cancer would still be performed even if the fetus was not present. The craniotomy fails this test.<sup>14</sup> In other words, there would be no need to perform a craniotomy if

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<sup>10</sup>Eugene F. Diamond, *A Catholic Guide to Medical Ethics: Catholic Principles in Clinical Practice* (Palos Park, IL: Linacre Institute, 2001), 18.

<sup>11</sup>*Ibid.*, 20.

<sup>12</sup>Lombardi, “Obstetrical Dilemmas,” 197.

<sup>13</sup>Joseph M. Boyle, “Double Effect and a Certain Type of Embryotomy,” *Irish Theological Quarterly* 44.4 (1977): 303–318.

<sup>14</sup>Lombardi, “Obstetrical Dilemmas,” 199.

the mother were not pregnant. The fact that a mother is pregnant and cannot safely deliver her child is the reason craniotomy is performed.<sup>15</sup> The death of the child is thus intentionally brought about by the physician.

Joseph Boyle has argued that a craniotomy performed to save the life of a mother constitutes an “indirect” attack and is, therefore, consistent with the PDE. A craniotomy consists of two distinct actions on the child: (1) evacuating the contents of the cranium via suction, and (2) crushing the skull, thereby permitting the labor to continue.<sup>16</sup> Evacuation of the cranium causes the death of the child; however, this action does not save the life of the mother. The reason is that the head of the child is still too large to be removed through the cervix, so the surgeon must crush the skull of the child so that the head and body can be pulled through. After this is done, one can say that the life of the mother has been “saved.” In Boyle’s view, the second part of the craniotomy—the crushing of the skull—simply represents “the alteration of the dimensions of the evacuated skull.”<sup>17</sup> Thus, strictly speaking, the death of the child is not the cause of the saving of the mother.

But this does not seem plausible. It seems reasonable to conclude that the two-stage craniotomy is an action in its own right and should be viewed as a whole. The death of the fetus, therefore, is not among the “side effects” of one of “the parts” of the procedure. In evacuating the child’s cranium (either before or while crushing the skull), the physician directly and intentionally kills the child. An agent causes the actions he intentionally performs. He must cause the death of anyone he intentionally kills.<sup>18</sup> Performing a craniotomy as I have described it is an egregious violation of the PDE.

### **The Anatomy and Physiology of the Maltese Twins**

Applying the PDE to the separation of the conjoined twins Jodie and Mary requires that we have a correct understanding of their anatomy and physiology.<sup>19</sup> It is crucial to understand both Jodie’s and Mary’s clinical conditions and prognoses. The conjoined twins were classified as *ischiopagus tetrapus*, meaning that they were joined at the pelvis, including a fusion at the base of the spine. Each of the girls possessed her own vital organs except for a common urinary bladder.

The critical anatomical connection between the two girls involved the relationship of their hearts, along with the blood vessels and lungs. Jodie’s aorta fed into

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<sup>15</sup>In developed countries, obstructed labor is now resolved by cesarean section, but craniotomies are still performed in developing countries. See Mahendra N. Parikh, “Destructive Operations in Obstetrics,” editorial, *Journal of Obstetrics and Gynecology in India* 56.2 (March–April 2006): 113–114.

<sup>16</sup>Lombardi, “Obstetrical Dilemmas,” 202.

<sup>17</sup>Boyle, “Double Effect,” 310.

<sup>18</sup>Lombardi, “Obstetrical Dilemmas,” 210.

<sup>19</sup>This case, including the anatomic and physiologic features of the twins as discussed here, is described in detail in the draft judgment of the Court of Appeal (Civil Division) of the Supreme Court of Judicature of England and Wales, case B1/2000/2969, September 22, 2000, <http://news.findlaw.com/cnn/docs/siamesetwins/siamesetwins1.html>.



Mary's aorta and the arterial circulation ran from Jodie to Mary. The venous return passed from Mary to Jodie through a shared inferior vena cava and other venous channels in the shared soft tissues. From the time of birth, there was particular concern about the capacity of Jodie's heart to sustain herself and Mary indefinitely. At three weeks, Jodie's heart was reported to be clinically stable, although blood gas analysis indicated oxygen deprivation for both twins. Jodie's blood oxygen levels were thought to be consistently low because of admixture of her blood with severely deoxygenated blood from Mary. Although she fed well, Jodie was not growing normally, and it seemed that Mary was drawing nutrition from Jodie and growing at her expense. The surgeon felt that if Jodie continued to demonstrate a failure to thrive, surgical separation should be attempted at two months.

Mary was severely abnormal in three major respects. First, she had a primitive brain that was poorly developed, which was not compatible with normal development in postnatal life. Second, her heart was very much enlarged, showed complex abnormalities of the great vessels, and functioned minimally, at best, on its own. If Jodie's heart had not been providing substantial perfusion of Mary's tissues, Mary would not have been alive. Jodie's heart was unable to pump sufficient blood for her needs as well as Mary's indefinitely, however, and her cardiac function would have to be substantially increased to keep them both alive. This would put Jodie at risk of cardiac failure. Third, Mary had severe pulmonary hypoplasia, meaning a virtual absence of functional lung tissue. The combination of severely abnormal cardiac function and virtually no lung function meant that if Mary had been born as a separate twin, cardiopulmonary resuscitation would not have been possible. In short, Mary was not capable of independent survival. The estimated life expectancy of the conjoined twins was three to six months. This meant an 80 to 90 percent chance of death by six months of age.

The twins were separated by a team of surgeons in November 2000, and Mary died during the procedure.

### **An Evaluation by Four Moralists**

In his 2001 article on the twins, Rev. Benedict Guevin, O.S.B., argues that the surgical separation of Jodie and Mary was consistent with the PDE. It could not be classified as direct killing, he said, but fell under the rubric of *praeter intentionem* (i.e., outside of the intention of the surgeons). Was there an act of unjust aggression issuing from Mary, and an act of quasi self-defense with respect to Jodie, sufficient to draw a parallel to the case of self-defense advanced by Aquinas? Guevin argues that because of Jodie's age, she was incapable of positing an act of self-defense. But even if such an act had been carried out by a person truly capable of it, two moral precepts would have to be satisfied: (1) one could use only such force as is necessary to preserve one's life—even if that force is lethal, and (2) the death of the aggressor would have to be outside the intention of the person defending himself.<sup>20</sup> Although

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<sup>20</sup>Benedict Guevin, "The Conjoined Twins of Malta: Direct or Indirect Killing?" *National Catholic Bioethics Quarterly* 1.3 (Autumn 2001): 402.

this reasoning could not apply to the children themselves, Guevin maintains that the doctors were coming to Jodie's defense in a manner analogous to that a mother who defends her children if a robber enters the house. In the defense of another person, one may not directly intend the death of the aggressor as the means of saving the other's life, and such was not the case here.

Guevin is correct to emphasize that, even if this line of reasoning were used, it still seems to imply that Mary can be considered an aggressor against whom the doctors must act in defense of Jodie. While one could argue that Mary might be seen as a threat to Jodie in a medical context, Mary did not intend to be one in the moral sense. It is the moral sense that allows Guevin to rightfully say that Mary was "innocent" and therefore not an unjust aggressor. The moral language of "defense," "self-defense," and "unjust aggression" does not adequately resolve the enigma of whether it is morally licit to surgically separate conjoined twins.

Despite this limitation, Guevin nonetheless argues that the four parts of the PDE did morally justify the surgical separation of the conjoined twins.<sup>21</sup> First, the intention of the surgeons was good: saving Jodie's life. Second, the two effects of the surgery, the harmful and the beneficial, were proportionate: the loss of the life of Mary was weighed against the saving of the life of Jodie.

The third criteria of the PDE is critical: Was the beneficial effect of saving Jodie's life brought about by the means of the harmful effect of Mary's death? To answer this it is necessary to return to the cardiovascular anatomy of both twins in regard to the surgery. Guevin correctly recognizes that the separation of the major blood vessel is what is at stake: the continuation of Jodie's aorta bringing oxygenated blood to Mary, and the vena cava which was returning deoxygenated blood from Mary to Jodie. It was clearly foreseen that the clamping and ligating of Jodie's aorta would result in Mary's death; organ transplantation was not a possibility for Mary. The clamping and ligating of Jodie's aorta was analogous to the surgical procedure of salpingectomy to resolve a tubal pregnancy. The surgeon first clamps and ligates the blood vessels in the fallopian tube where the embryo has implanted. The surgeon foresees that clamping and ligating those blood vessels will result in the death of the embryo.<sup>22</sup> The surgical separation of the great vessels, therefore, did not save Jodie's life by bringing about Mary's death.

Fourth, the act itself (the surgical procedure) must not be morally evil. While it is true that the surgical separation was of no benefit to Mary, did it violate her bodily integrity such as to constitute an injustice to her? Guevin correctly argues no. Mary's severe cardiac abnormalities as well as the pathology of her great vessels were incompatible with supporting life. This again reflects what happens to a tubal pregnancy: the abnormal implantation of the embryo in the fallopian tube is incompatible with supporting life. While Mary's death and the embryo's death are both foreseen, both are *praeter intentionem*.

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<sup>21</sup>Ibid., 404.

<sup>22</sup>It is not, however, possible at this time to transfer the embryo from the fallopian tube to the uterus for successful implantation.



William May addresses whether the death of one of the twins in an effort to save the other was a directly evil means to a good end.<sup>23</sup> To understand May on this issue, we need to examine his application of the PDE to the obstetrical case of craniotomy. John Finnis, Germain Grisez, and Joseph Boyle have argued that it is morally permissible to perform a craniotomy on an unborn child to save the mother's life.<sup>24</sup> As noted above, this case refers to a woman in labor who cannot deliver the child because the child cannot pass through her pelvic cavity. Direct killing for these authors means a killing in which the resulting death is either intended, is immediate, or is the effect of a cause which may not morally be posited. The physician performing the craniotomy directly intends the reshaping or crushing of the baby's skull and foresees its death only as an unintended side effect. Is it consistent with practical reason to argue that the craniotomy falls under the PDE since the killing is indirect? May rejects this claim and argues correctly, in my opinion, that performing a craniotomy is a direct killing and is radically inconsistent with the PDE. To argue that a craniotomy is indirect killing and is morally justifiable is akin to arguing that the use of methotrexate or salpingostomy in a tubal pregnancy is licit. Both procedures constitute a direct attack on the human embryo; hence, they cannot be described as indirect killing.

May supports the view that the surgical operation to separate the conjoined twins was not intrinsically immoral and did not constitute the intentional killing of Mary.<sup>25</sup> While some would argue that the first principle of the PDE has not been satisfied, May disagrees and claims that the act itself is truly good or at least morally neutral. May rejects the claim that the clamping and severing of the artery is knowingly and freely severing the aorta in a manner which deprives Mary of oxygenated blood. Indeed, the death of Mary is not included in the object freely chosen by the surgeon. The object is to separate the twins. The surgeon foresees that as a result of the separation Mary will die; however, her death is outside the scope of his intention. Nor does her death constitute the chosen means to save the life of Jodie. By properly distinguishing the physical act from the moral object chosen by the acting person, May correctly concludes that the PDE morally justifies the separation of the twins.

Michael Therrien argues against the surgical separation of the conjoined twins on the grounds that the surgical procedure of separation was a direct killing. He sees the intention of the acting person as the end for which the act is being done, or the reason for acting, but he also sees intentionality in the adopted proposal for achieving an end, or the object of the act.<sup>26</sup> Both aspects of intentionality are critical to determining what the act is and whether it is good or evil. For an act of killing to be direct, Therrien holds that one of two things needs to occur: (1) the death of the person must be an end for which the agent acts, or (2) the killing itself has to be employed

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<sup>23</sup>William E. May, "'Jodie' and 'Mary': Separating the Maltese Twins," *National Catholic Bioethics Quarterly* 1.3 (Autumn 2001): 415.

<sup>24</sup>John Finnis, Germain Grisez, and Joseph Boyle, "Direct and Indirect: A Reply to Critics of Our Action Theory," *Thomist* 65.1 (January 2001): 28.

<sup>25</sup>May, "'Jodie' and 'Mary,'" 415.

<sup>26</sup>Michael Therrien, "Did the Principle of Double Effect Justify the Separation?" *National Catholic Bioethics Quarterly* 1.3 (Autumn 2001): 420.

by the agent as a means for achieving whatever end he or she has in mind. Therrien recognizes that the surgical act of separation had two effects: the “killing” of Mary and the saving of Jodie. Therrien maintains that the surgeons directly killed Mary because no other viable alternative to saving Jodie existed at the time. Mary’s life was the chosen means for granting Jodie a normal life. Because Mary’s death was certain, Therrien concludes that it cannot be seen as an unintended side effect that was passively accepted. The PDE, according to Therrien, could only be applied to Mary and Jodie if Mary’s survival would have been reasonably possible, even though she might ultimately have died. The PDE, therefore, would not apply in this case.<sup>27</sup>

Therrien’s understanding of the difference between direct and indirect killing and of the PDE is seriously flawed. As Mark Latkovic and Timothy Nelson have pointed out, his understanding of circumstantial necessity seems to imply falsely that an effect that one clearly sees will happen or that is very likely to occur is therefore intended!<sup>28</sup> Therrien thus seriously misunderstands the PDE. This is a physical cause-and-effect understanding of intentionality, but the fact that surgical separation caused Mary’s death does not mean that it was part of the object freely chosen.<sup>29</sup> This is clearly reflected in the traditional application of the PDE to the treatment of a cancerous uterus or cervix during pregnancy or the treatment of an ectopic tubal pregnancy.

The object freely chosen in a decision to perform a hysterectomy because of cancer during pregnancy or a salpingectomy because of an ectopic pregnancy does not have to include the intention to kill the unborn child; indeed, this is an accepted standard among orthodox Catholic moral theologians.<sup>30</sup> When a hysterectomy is performed during pregnancy because of malignancy, the surgeon must first clamp and ligate the uterine blood vessels before removing the uterus containing the unborn child, as noted above. The surgeon clearly foresees the death of the unborn child as a result of the hysterectomy; however, we would have serious difficulty finding a moralist who would argue that this death was direct and intentional. It is likewise true that when a salpingectomy is performed because an embryo has implanted in a fallopian tube, the surgeon must first clamp and ligate the blood vessels before removing the section of the tube containing the embryo. The surgeon clearly foresees the death of the embryo as a result of performing the salpingectomy. But what moralist would ever argue that this is direct and intentional killing? The hysterectomy and salpingectomy are directly intended to save the mother’s life; the evil effect that is foreseen, yet indirect, is the loss of unborn life. Because of the unique anatomy and physiology of the conjoined twins, the separation can be understood and described as an act of separating Mary from the part she shared with Jodie.<sup>31</sup> This is completely consistent with the PDE. Therrien’s understanding of the PDE focuses too extensively on the physical act of separation as the cause of Mary’s death.

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<sup>27</sup>Ibid., 424 and 426.

<sup>28</sup>Mark S. Latkovic and Timothy A. Nelson, “Conjoined Twins of Malta: A Survey of Catholic Opinion,” *National Catholic Bioethics Quarterly* 1.4 (Autumn 2001): 610–613.

<sup>29</sup>Ibid.

<sup>30</sup>Ibid., 611.

<sup>31</sup>Ibid., 613.

Charles Lugosi is an attorney and bioethicist who has also argued against the separation of the conjoined twins. His view is that it was wrong to violate the bodily integrity and sanctity of the weaker twin; furthermore, it would have also been wrong for the parents to consent to the “murder” of Mary.<sup>32</sup> The separation of these conjoined twins is, for Lugosi, a sign that no human life is safe from involuntary sacrifice for the practical purposes of others who may be stronger and more powerful. Lugosi argues that the surgical separation of Jodie and Mary was nothing less than the destruction of one human being to save the life of another. In short, which person must be tossed overboard to save the rest in the overloaded leaky lifeboat?

Lugosi contends that the philosophy of utilitarianism provided the basis for the separation of Jodie and Mary. Utilitarianism is a theory of ethics that focuses on consequences and not on the means by which a goal is reached. In practical terms, utilitarianism is guided by the principle of the greatest good for the greatest number. Under this view, it is senseless for both twins to die if at least one of them can be saved. Lugosi, in rejecting utilitarianism, refers to *Evangelium vitae*, where John Paul II unconditionally condemns the direct and voluntary killing of an innocent human being. Lugosi holds that justice was not served because of the utilitarianism that was operative. Mary was the little lamb who was sacrificed to serve Jodie’s perceived need for autonomy. Lugosi believes that the court, which was obliged to render an opinion, did not think that Mary possessed the same dignity as Jodie. Mary was a “parasite.” While it is certainly true that Mary depended on Jodie for both cardiac and respiratory function, Mary was not a “parasite” or an unjust aggressor, as she was incapable of exercising her rational intellect or will in this context. Lugosi correctly recognizes that utilitarianism is a seriously flawed ethical theory. He likewise recognizes that it is wrong to treat a person as a means to an end. The critical question which remains to be answered is, was utilitarian exploitation operative in the sense that Mary was murdered as a means to an end (i.e., saving Jodie’s life)? This can only be truly evaluated by turning to the PDE.

Lugosi notes the general rule of natural law that we ought to pursue the good and avoid what is evil. He is correct when he argues that the direct and intentional taking of an innocent person’s life violates the principles of nonmaleficence and justice. But exactly what does Lugosi mean when he says that “to kill one innocent person to save the life of another is always, without exception, morally wrong”?<sup>33</sup> Lugosi does not tell us what type of killing (direct or indirect) he is referring to in his argument. He states that some Catholic theologians would make an exception for an abortion to save the life of an expectant mother during an ectopic pregnancy where the embryo cannot be successfully transplanted from the fallopian tube to the uterus. But to what is Lugosi referring: the use of methotrexate, salpingostomy, or salpingectomy? Lugosi does not provide answers to these critical questions.

Lugosi understands the PDE as a natural law tool used to analyze the morality of actions that involve more than one effect. He lists three conditions that must

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<sup>32</sup>Charles I. Lugosi, “Playing God: Mary Must Die So Jodie May Live Longer,” *Issues in Law and Medicine* 17.2 (Fall 2001): 124–165.

<sup>33</sup>*Ibid.*, 148.

be satisfied: (1) the evil must not be the means of producing the good effect, (2) the evil may not be directly intended, and (3) there must be a proportionate reason for performing the action in spite of its evil consequences. Lugosi's view is that for the PDE to be satisfied according to the requirements of the natural law, the surgical separation of Jodie and Mary would only have been ethical if it increased the chances of survival for both children. The surgery would have to be designed for the benefit of both patients, and be inherently suited to preserve both lives to the extent possible. While it is true that each twin had her own team of physicians and different anesthesiologists, it was clearly foreseen that the surgical act of separating the great vessels between the twins would result in the death of Mary. This is the basis for Lugosi's claim that, since Mary was directly killed, the PDE was not satisfied; as a result, Mary was murdered to save Jodie. According to Lugosi, this was an intrinsically evil action that was grounded in utilitarianism.

Lugosi's misunderstanding of the PDE is grounded in a failure to properly distinguish between a direct attack and an indirect attack. Mary had a poorly developed primitive brain, severe cardiac abnormalities of the great vessels, and a virtual absence of functioning lung tissue; even if she had been born separately, she would not have been capable of survival because of severely abnormal cardiorespiratory function. The cardiac pathology of her great vessels was so severely abnormal that it was incompatible with supporting life. This is analogous to the human embryo undergoing implantation in the fallopian tube; such an embryo does not have a chance of survival. The surgeon foresees that as soon as the blood vessels in the fallopian tube are clamped and ligated, such an indirect attack will result in the loss of human embryonic life. In an analogous manner, the surgeon foresees that the clamping and ligating of Jodie's aorta—an indirect attack—will result in Mary's death. Neither the human embryo in the fallopian tube nor Mary's "attachment" to Jodie offer a reasonable hope of recovery even with the most contemporary procedures available in medicine and surgery.

### **Indirect Harm to Human Life**

The case of the Maltese conjoined twins teaches us that, while a correct understanding of the pathophysiology of the twins does not in itself resolve the ethical dilemma of whether surgical separation is licit, a correct ethical decision cannot be made apart from such an understanding. What is critical is the intention of the acting moral agent in terms of the *finis operis* (the moral object chosen) and the *finis operantis* (the motivations of the acting agent). The attempt to determine if a medical procedure (such as the separation of these twins or different types of conjoined twins) constitutes a direct or indirect attack on human life must necessarily include a correct understanding of the unique pathophysiology of the conjoined twins. The PDE morally justifies the types of actions that result in indirect harm to innocent human life, such as to a human embryo abnormally implanted in the fallopian tube or to a conjoined twin in the case of the surgical separation of Mary from Jodie. Because of severe pathologies which are incompatible with life, neither the embryo nor Mary has a reasonable chance of survival, even with the help of contemporary medical technologies.