

THE ORAL CONTRACEPTIVE PILL AND THE PRINCIPLE OF DOUBLE EFFECT

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The question of whether the low-dose combined estrogen and progesterone oral contraceptive pill (OCP)¹ is an abortifacient has evoked considerable discussion² within the pro-life medical community. The main lines of the debate bifurcate between one contingent of pro-life physicians who oppose abortion *and* contraception and another who oppose abortion *but not* contraception.³

Some clinicians and ethicists in the first group object to the combined OCP based on good indirect evidence that it could cause the death of an early embryo.⁴ Others in this group broaden their moral opposition to include the primary effect of the OCP: direct suppression of fertility for procreative (family-planning) purposes. For the latter, moral objection to the OCP would continue even if it were proven that it was not an abortifacient.⁵

Pro-life physicians in the second group morally oppose abortion but, because they view hormonal contraception as an effective method of family planning that also has impressive health benefits, do not take moral issue with the low-dose combined oral contraceptive (COC) and, therefore, prescribe it to their female patients. Furthermore, these physicians maintain that, given the lack of direct, and compelling indirect, evidence for its abortifacient character, prescription of the OCP is morally justified.

Background

In a previously published article in *Ethics & Medicine* 17:1, Joel Goodnough, M.D. weighs in on the abortifacient question and its implications for obtaining informed consent from OCP-users.⁶ He concludes that the most commonly prescribed oral contraceptive, the COC, is designed and intended to suppress ovulation and, therefore, to prevent conception. Though he admits that the COC has the potential for failure due to user error or decreased absorption, he also maintains that, if such a failure were to occur and result in the death of the embryo, it would be an unintended adverse side effect. Goodnough argues that, while physicians may want to inform their patients of this possibility in obtaining their properly informed consent, the most reasonable way of dealing with the moral ambiguity is not to discourage the use of OCPs altogether but to encourage, instead, responsible pill-taking.

Goodnough bolsters his thesis, first, with scientific documentation from the primary research of pertinent studies in the literature and, second, with moral corroboration from the principle of double effect.⁷ Using the latter, he concludes that, in the act of the prescription or use of the COC, the good of conception control is what the physician-prescriber (or the COC-user) intends (directly wills) while the evil of the possible death of the embryo is what the moral agent accepts as an unintended side effect and, therefore, what lies outside his/her intention.

My contribution to the ongoing debate outlined above is twofold: first, to

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advance data from relevant medical/scientific literature which calls into question and encourages re-examination of Goodnough's conclusion that indirect evidence for the COC's post-fertilization effects is negligible (part one); second, to challenge his use of the principle of double effect to morally justify the prescription of the COC (part two).

Part One: Critique of the Scientific Evidence

No direct evidence; no substantive indirect evidence: "[I]t is not possible to say that the combined OCP causes abortions."⁸ Goodnough insists that, first, there is no direct evidence for the abortifacient character of the COC and, second, the indirect evidence for such a position is inconclusive and/or negligible and based on "unfounded fears."⁹

Response: I certainly agree that there is no direct evidence that the COC causes abortions. And if its post-fertilization effects (its anti-implantation mechanisms operative pre-, peri-, or post-implantation) were studied directly, it would either involve techniques and procedures that are immoral by virtue of destroying early embryonic life or involve studies that would be moral but non-definitive since they would include indicators such as the Early Pregnancy Factor (EPF) [a pregnancy-associated immunosuppressive protein detected in maternal sera by rosette inhibition assay that, to date, provides a less than acceptable accuracy index]. However, in the rest of this segment, I hope to substantiate that there is good indirect evidence that post-fertilization effects play a small, yet not negligible, role in loss of embryonic life induced by the COC. The principal deficiency of the indirect evidence is a paucity of published data that prevents the quantification of that risk in absolute terms.¹⁰

A) Ovulation rates on the pill: Goodnough argues that there is no evidence to support the occurrence of ovulation in excess of that of the pregnancy rate for normal use of the OCP (3% for 100 woman years).¹¹ The pertinent studies he cites show that, while there is evidence of ovulatory or ovarian activity among COC-users, there is no evidence of ovulation. Only studies that include progesterone only pill (POP)-users along with COC-users show breakthrough ovulation.

Response: It is relevant to point out that evidence of ovarian activity on the OCP does not necessarily include normal ovulation. Nevertheless, pertinent literature demonstrates that, to determine whether ovarian activity does include ovulation, it is critical to study more than three cycles. The available evidence suggests that breakthrough ovulation may become more common with increasing duration of OCP use. In investigations involving 4 or more cycles, ovulation did occur. Breakthrough ovulation was more likely in women using OCs with lower doses (or no dose) of estrogen and with women whose use of the OCP is imperfect rather than perfect. Ovulation rates (ORs) for COC-users ranges from 1.7%¹² to 28.6% per cycle.¹³ The former figure comes out of a 6-cycle study (Grimes et al.) that, because it is based on ultrasound investigation, supplies incontrovertible evidence for ovulation; the 28.6% figure is based on a 4-cycle study (Chowdhury et al.) that, although it provides less conclusive evidence since it is hormonally based, does demonstrate that, with imperfect or normal use, 10 out of 35 women ovulated by the fourth cycle and, with perfect use, 10% or 1 out of 10 women showed a rise of progesterone suggesting ovulation. ORs for POP-users for 6 or more cycles range from 33%¹⁴ to 65%¹⁵ per cycle.

As for failure of the hormonal contraceptive to prevent pregnancy, it is necessary to account for the underreporting of elective abortions. If this is considered, the rates of pregnancy on the OCP are estimated at 4% for "good compliers" and 8% (increasing to a possible 29%) for "poor compliers."¹⁶ Logically, these adjusted pregnancy rates must be taken into account in attempting to make the best estimate possible of breakthrough ovulation rates on the OCP.

B) Prevention of Implantation: Goodnough enlists four arguments to defend his position that the OCP's effects on the endometrium do not cause the loss of the embryo.

First, he agrees that it makes sense to postulate that the endometrium during an anovulatory cycle on the OCP is less normal, but that it does not make sense to argue the same during an *ovulatory* cycle. Due to the active presence of endogenous sex hormones associated with ovulation, the endometrium of an ovulatory cycle on the OCP would be more normal and proportionately less likely to be hostile to implantation.¹⁷

Response: Where are the peer-reviewed data to support Goodnough's postulate regarding the state of the endometrium during ovulatory cycles on the OCP? Just from a common sense perspective, does it seem reasonable to hypothesize that, after perhaps prolonged OC use and its corresponding deleterious effects on the endometrium (average endometrial thickness in OCP-users is 1.1 mm),¹⁸ the same endometrium, following breakthrough ovulation, will immediately spring back from its atrophied, decidual state to that of a normal, non-pregnant (non-secretory) state or even to a normal pregnant (secretory) state? Some IVF studies demonstrate that implantation following embryo transfer does not occur in an endometrium that is less than 6 mm thick.¹⁹

Second, Goodnough insists that the claim that the OCP-induced changes in the endometrium actually prevent embryo implantation is speculative. While the literature describes the OCP as effecting an endometrium that is inhospitable to implantation, "[n]o literature actually shows that death of the embryo results." Whatever embryo loss occurs following breakthrough ovulation and fertilization, "despite seemingly hostile changes in the endometrium," occurs "at the same rate as the embryo implants and survives in non-OCP users."²⁰

Response: As I already noted, I agree that there is no direct evidence for OCP-induced embryo loss. However, in the definition of the mechanisms of the OCP's action (contraception), it is clear that the COC's efficacy is guaranteed by a combination of the pill's effects from both its estrogenic and its progestational agents (that is, from the pill's pre- and post-fertilization effects).²¹ In the first place, the COC prevents a clinically recognized pregnancy by the estrogenic/progestational effects of its primary mechanism: inhibition of gonadotropin secretion via an effect on both pituitary and hypothalamic centers. The progestational agent suppresses luteinizing hormone (LH) secretion and the estrogenic agent suppresses follicle-stimulating hormone (FSH) secretion via the prevention of the selection and emergence of a dominant follicle. In the second place, the COC assures "good contraceptive efficacy" (translated: prevents a clinically recognized pregnancy) by effects of the pill's (progestational)

secondary mechanisms: changes in the endometrium (creating “a decidualized bed with exhausted and atrophied glands”) which make it unreceptive to ovum [sic] implantation; changes in cervical mucus so that it becomes thick and impervious to sperm transport to the uterus; and, changes in the secretion and peristalsis within the fallopian tube that alter embryo transport (and that provide “possible . . . additional contraceptive effects”).

It is well known clinically that, during use of OCPs, the regular withdrawal bleeds (“menstrual” bleeds) are lighter than natural menses. A lighter menses indicates a thinner endometrium. Further, once a woman discontinues the use of OCPs, it takes more than one cycle for her menstrual flow to return to the normal level of flow that occurs without OCs. This is clinical evidence that the endometrium does not return immediately to its full thickness when the OC is discontinued altogether. It seems far less likely that it could return to full thickness during a cycle in which the OC is still being taken, albeit, perhaps irregularly.

Due to the COC’s almost perfect rate of contraceptive effectiveness during perfect use, Speroff et al. go on to say that the occurrence of a clinically recognized pregnancy while on the pill is most likely not due to any failure of the pill to act as it is estrogenically and progestationally designed, but to extrinsic factors that have nothing to do with the action of the OCP. When taken correctly, the COC approaches 100% contraceptive efficacy, that is, it is almost 100% effective in preventing a clinically recognized pregnancy. Contraceptive failure is most likely due, then, to failure of its users to strictly adhere to the prescribed regimen (such as missing days), to interference from other medications, or to pill-use accompanied by “vomiting and diarrhea.”²²

Furthermore, does not the claim that the embryo implants and survives at the same rate it does in non-OCP users, despite “seemingly” OCP-induced hostile endometrium, imply that *all* embryo loss following breakthrough ovulation on the pill is due *completely* to natural causes and has *nothing* to do with the effects of synthetic hormones? Does not such a claim run directly contrary to the authoritative conclusion of gynecological textbook authors that the COC’s efficacy in preventing a clinically recognized pregnancy is due to the comprehensive action of its pre- and post-fertilization effects? Is it not disingenuous to argue that, if a pregnant COC-user, under the perhaps prolonged influence of synthetic estrogenic and progestational steroids and their post-fertilization effects, experiences any early embryo loss, it will only be the result of spontaneous abortions and at the same rate as that of a pregnant woman not on the OCP? Again, where is the evidence to support this argument?

While data demonstrate that women who experience a clinically recognized pregnancy while on the OCP experience subsequent spontaneous abortions at rates similar to those of women not on the Pill, to argue this way in reference to unrecognized pregnancies cannot be substantiated. As Stanford and Larimore point out, “. . . available evidence suggests that the mechanisms of early establishment and maintenance of pregnancy and later maintenance of pregnancy are qualitatively and substantially different.”²³

Third, it has been shown that even if the endometrium is in a less receptive state when the human embryo reaches it, the embryo could still implant (and

obviously does sometimes implant as evidenced in women who get pregnant on the pill). In humans (in contrast to some animals) there are several days—a window of days—when the embryo could successfully implant, including a time before and after the optimal time for implantation. As Leon Speroff argues, the use of drugs that, speculatively, could provide contraceptive efficacy by accelerating tubal transport of the embryo would be “of doubtful value in the human because perfect synchrony is not required.”²⁴ In other words, the arrival of the human embryo to the implantation site and an optimally receptive state of the endometrium need not be synchronous and, as a result, accelerating the embryo’s transport through the tube would not contribute to the COC’s efficacy due to the flexible window of implantation in humans.

Response: That some embryos do implant in the endometrium of women taking COCs is obvious from those women who get pregnant on the pill. But this says nothing about whether an embryo is more or less likely to implant in endometrium that has been decidualized and atrophied from the COC compared to implantation in normal endometrium in a woman not taking COCs. The Chowdhury et al. study (cited above) showed that, in women who ovulated secondary to missing two low-dose COCs, the lutenized endometrium was found to be nonsecretory. Such evidence strongly suggests that fewer embryos will be likely to implant in this situation.

Fourth, Goodnough insists that integrin studies showing an appreciable decrease of integrin expression in the endometrium of OCP-users are relevant to the question of the anti-implantation possibility of the pill only if the data originate from ovulatory cycles on the pill.

Response: Somkuti et al. report “significant alterations in cycle-dependent integrin expression” in the endometrium of OCP-users, but they do not specify whether the women tested are in ovulatory or non-ovulatory cycles on the pill.²⁵ But if, for argument’s sake, one concedes that decreased integrin expression only occurs during anovulatory cycles on the pill, how reasonable is it to claim that a COC-user who conceives during an ovulatory cycle will move from a grossly altered level of integrin expression to one that is normal in such a brief period of time? Certainly, there are no data to support such a complete recovery within one follicular phase. Furthermore, would Somkuti et al. have concluded that this diminishment of integrin expression contributed to the pill’s efficacy, that is, prevention of a clinically recognized pregnancy, if they were not referring to integrin expression during ovulatory cycles on the combined OCP?

C) The Incidence of Ectopic Pregnancy: Goodnough points out that one of the benefits of OCP-use is “less chance of ectopic pregnancy.”²⁶ He points out that certain studies^{27,28} demonstrate an increased risk of ectopic pregnancy on the OCP for several reasons. For one, they include POP-users along with COC-users. Since the POP slows down the transport of the embryo, it would naturally lead to higher incidence of tubal pregnancies. If a study consisted of COC-users only, Goodnough argues, the results would vindicate his claim that the COC protects against ectopic pregnancy at least as well as it prevents uterine pregnancy.

Response: Stanford and Larimore point to two large studies^{29,30} whose participants are COC-users only, one conducted in seven maternity hospitals in Paris, France, the other in three Swedish hospitals. Collectively these

investigations, involving 484 women with ectopic pregnancies and 289 pregnant controls, suggest that "at least some protection against intrauterine pregnancy is provided via postfertilization effects,"³¹ namely, via ectopic pregnancy.

Since risk of ectopic pregnancy also involves varying degrees of health risk for the women involved, it is important, from the perspective of obtaining adequate informed consent and respecting individual beliefs, to determine, as accurately as possible, the OC's absolute risk of causing extrauterine pregnancy. Adapting the model of Franks et al.,³² and assuming an odds ratio (relative risk) for an extrauterine pregnancy for a OCP-user of 1.1 to 13.9, Stanford and Larimore predict that a woman on the COC has an absolute risk of an ectopic pregnancy due to postfertilization effects "ranging from 0.7 . . . to 19.9 . . . per 1000 women-years."³³ For POP users, presuming an odds ratio for an extrauterine pregnancy of 79.1, one could predict an "absolute risk of 4 to 99 ectopic pregnancies per 1000 woman-years."³⁴

D) *The Definition of the OCP*: Goodnough states, "[b]y design, by intent, and by primary function, the OCP, when properly used, is in essence a contraceptive. The fact that it may fail to act as it was designed does not change its essence."³⁵ And ". . . a medication that is used to prevent conception is not an abortifacient even if it sometimes causes abortion."³⁶ The way physicians can "render the risk to the embryo tolerable"³⁷ and morally justify the prescription of the OCP is to encourage its responsible use and, on the part of the physician, to prescribe it continuously rather than cyclically, eliminating the pill free interval.

Response: Goodnough defines the combined OCP in the literal, more narrow sense of that which is *contra* or *against* conception. In this view, the practice of contraception is conception control, not birth control. But in defining the OC narrowly, Goodnough sets himself outside the more comprehensive, mainstream definition of the OCP—prevention of a clinically recognized pregnancy—assigned to it by users, designers/researchers and physician-prescribers.

If queried, users would probably not define the OCP as a pharmacological drug that prevents them from ovulating, but as one that prevents them from getting pregnant. N. Van der Vange addresses this point in his study of ovarian activity with the use of selected low dose COCs:

Pearl-Index data, claimed by the manufacturers of these low-dose preparations, indicate that protection against pregnancy is indeed maintained. The present study may introduce some doubts about these figures (his study found a relatively large number of ovulatory cycles with the low-dose COC: triphasic LNG [30 mcgs EE; 50 mcgs levonorgestrel]). *However, the mode of action of these OCs is not only based on ovulation inhibition, but other factors are involved such as cervical mucus, vaginal pH and composition of endometrium (italics mine).*³⁸

The action of accessory contraceptive mechanisms just alluded to gives credence to the definitional accuracy of the vernacular term, the "birth control pill," when referring to the OC. Women who take the pill for family planning purposes do so to avoid getting pregnant. Abortion statistics substantiate that fact by revealing that half of the women who have an abortion were on the pill when they got pregnant.³⁹ In other words, when the OCP fails to do what it is intended to do and what it is designed to do, namely, prevent a clinically recognized pregnancy, many women "rectify" the contraceptive failure with abortion.

Standard texts describing the mechanism of the COC and professional inserts written by pharmaceutical designers that accompany the pills corroborate this populist definition. The COC acts both to suppress ovulation and to prevent uterine implantation. Its dual end is realized not only by the primary estrogenic mechanism of anovulation but by its secondary progestational mechanisms that, besides preventing the surge-like release of LH necessary for ovulation, also prevent sperm transport to the uterus, alter fluid secretion and peristalsis of the fallopian tubes, and alter the uterine endometrium in a way that makes implantation of the early embryo less likely. When the contraceptive nature or essence of the pill is defined in this broader, more comprehensive sense, it is clear that the way the OCP is designed to act—in a pre-fertilization *and* post-fertilization manner—corresponds exactly to the commonplace definition of the OCP's essential nature: the prevention of a clinically recognized pregnancy or the control of birth.

Part Two: Is Prescription of the COC Morally Justified by the Principle of Double Effect?

Because of its implications for moral analysis, Goodnough is right to home in on the correct definition of the COC. First, by defining its design and intent as the suppression of ovulation, he suggests that the moral object of the action of prescribing the COC—precisely what the physician is intending in that action—is a morally good one and one that could be done for a good motive. What the physician is doing, i.e., what he intends, is the suppression of ovulation (its *content*) chosen under the guise of the good (its *form*). In short, according to Goodnough's analysis, to offer the COC-user temporary, reversible infertility is a good thing and, therefore, the *moral object* of the act of prescribing the hormonal contraceptive is a good one. Second, defining the essence of the COC as suppression of ovulation, Goodnough also implies that the principal *motive* of the physician for prescribing it, to prevent conception, is also morally good. The physician intends the act's foreseen good effects (prevention of conception) and only permits or accepts its foreseen but unintended evil effects (prevention of implantation).

Third, it is impossible, from a moral perspective, to define what it is that one wills or intends in the action of prescribing the oral contraceptive unless and until one understands the pill's intended effects versus its unintended side effects. If, as Goodnough argues, the COC is essentially defined as an anovulant, that is, that its principle effect is to prevent conception by suppressing ovulation, then what he or any other physician intends (*in se intentum*) by prescribing the combined OCP is the good of the suppression of ovulation. However, Goodnough considers the COC's side effects, like that of the risk of death of the early embryo in the event of breakthrough ovulation and fertilization, lie outside the intention (*praeter intentionem*) of the physician. By not intending but only accepting the foreseen evil side effect of a possible abortion, Goodnough appears to be arguing that the physician is fulfilling his duty to avoid those evil effects as far as possible.

Fourth, understanding the "nature" of the COC alerts the physician to the morally ambiguous nature of the act of prescribing it. Goodnough defines the COC as a medication that, in essence, prevents conception, but one that also has the potential for failure that could result in the death of the early embryo. Hence,

a physician-prescriber is able to foresee that the action of prescribing the COC has both beneficial (morally good) and harmful (morally bad) effects: the foreseen good effects—the prevention of conception and other health benefits, and the foreseen bad effect—the risk of the loss of early embryonic human life. Whether prescription of the pill is a morally good thing to do—in the presence of this morally evil effect—is the question that the principle of double effect can help to answer.

Given Goodnough's definition of the COC and its implications for the way he would define the moral object of and motive for the action of prescribing it, the following is a suggested specification of his employment of the principle of double effect:

- 1) The intended object of the act of prescribing the COC—the suppression of ovulation—is a morally good one, i.e., it facilitates the patient's family planning goals, facilitates genuine gynecological health and, therefore, contributes to human fulfillment of the COC-user.
- 2) The motive of the prescribing physician—to prevent conception of a new human being—is a morally good one (i.e., it advances human fulfillment since it conforms with the woman's plans to, say, avoid unplanned pregnancies). The physician's motive is to will the foreseen good effect while only permitting or accepting the foreseen (but rarely occurring) evil effect (risk of the death of the early embryo).
- 3) The foreseen good effect of the action—the suppression of conception along with other health benefits—is realized not by means of the foreseen action's bad effect—the possibility of the death of the early embryo, but by means of the introduction of synthetic sex steroids that alter events of the ovulatory and menstrual cycle. [In other words, the death of the embryo is not the means to the suppression of ovulation; the action of the synthetic sex steroids is.]
- 4) The foreseen good effects of the action—an effective, convenient, and safe method of conception control and a host of health benefits—are equal to or greater than the foreseen but rare occurrence of the death of an embryo.
- 5) The physician has no other effective means than the use of COCs to realize the ends of conception control and other pill-specific health benefits.

Response: As I outlined above, Goodnough defines the COC in a literal, narrow manner that fails to encompass its broader, more comprehensive mechanisms of action and essence, viz., the prevention of a clinically recognized pregnancy. With an inaccurate understanding of the essential nature of the COC in place, his definition of the moral object of the act of prescribing the OC will also necessarily be faulty. Objectively speaking, then, what the physician-prescriber intends in the act of prescribing the COC is the prevention of a clinically recognized pregnancy. And directly willing the prevention of a clinically recognized pregnancy means that the physician wills that the pill achieve that end through its primary and secondary mechanisms of action, i.e., through both its pre- and post-fertilization effects.

Understood correctly, then, the moral object of the act of prescribing the COC

is evil, not good. It is critical to this discussion to note that directly intending to prevent a clinically recognized pregnancy by the prescription of the COC is illicit based on two distinct immoral acts, risk of abortion and suppression of fertility. First, one ought never to prescribe a medication that could directly risk causing the death of another human being, and second, one ought never prescribe a medication that works against the good of the patient by suppressing rather than promoting, specifically, the human procreative good and, by extension, overall physical and psycho-somatic health and human fulfillment.

Of course, if the act of prescribing the COC is immoral by virtue of its directly intended object (even if you define it, as Goodnough does, as suppression of ovulation only), one cannot proceed to the subsequent conditions of the principle of double effect without incurring moral inconsistencies. Referencing my previous construction of Goodnough's appeal to the principle of double effect, and presuming for illustrative purposes that the directly intended object of the act is suppression of ovulation only, these contradictions would include the following:

- 1) The object of the act of prescribing the COC, suppression of ovulation, is described as moral when it is immoral;
- 2) The motive for the act, the control of conception, could be morally acceptable given the presence of psychological, financial, and health reasons justifying the spacing of children. (Keep in mind, however, that a morally upright motive will not transform an action that is immoral by virtue of its moral object into a morally good act);
- 3) The foreseen effect of the act—conception control—is evil not good, and it is sometimes realized by the evil means of post-fertilization effects;
- 4) The “good” effect of conception control cannot be equal to or greater than the evil effect of birth control since both effects—the anovulant and abortifacient—are evil; and
- 5) The prescription of the OCP is not the only means of obtaining the end of effective conception control; there is another means to avoiding conception that is moral since it accords with the good of the human beings involved, both providers and users, and it brings with its own set of other health benefits.

Summary Response: Based on these contradictions, my objections to Goodnough's use of the principle of double effect (PDE) are threefold. First, in his description of the requisites for the correct application of the PDE, Goodnough opts to make explicit in his fifth criterion what is typically unexpressed but always presupposed by the principle, namely, that “there must be no other way of producing the good effect.” Since this criterion is central to adjudicate legitimate appeal to the principle, it is appropriate to state it upfront. It immediately restricts invocation of the PDE to cases where the good goal of the agent can be achieved only through a morally mixed means, that is, through an action that realizes both good and bad effects. In other words, if, in the case under consideration, there would be an effective way to suppress ovulation or to avoid pregnancy that does not bring with it the evil of an abortifacient effect, one

would be obligated to choose that option rather than the OC.

Laboring under the aegis of that requisite, I maintain that Goodnough inappropriately invokes the PDE to justify the prescription of the OC, since there is an alternative, that is, *an effective medical and moral means* of avoiding pregnancy. Evidence of the medical efficacy of a natural method of family planning, a meta-analysis of the Creighton Model NaProEducation Technology (five studies involving 1,876 couples), reveals that, when this system of natural procreation education is used to avoid a pregnancy, its method effectiveness at the 12th ordinal month is 99.5% and its use effectiveness is 96.8%; at the 18th ordinal month, its method and use effectiveness is 99.5% and 96.4% respectively. These statistics compare favorably with the efficacy of the OC.⁴⁰

Although a moral comparison/contrast between the use of a natural method and the OCP for family planning purposes would entail a discrete article, the following is sufficient here. Only natural methods of family planning afford a method of avoiding pregnancy that does not bring with it the risk of the induced death of the early embryo (a moral ambiguity associated with OCs that Goodnough recognizes and about which he has moral reservations). Further, when a couple avoids the conception of a new human being by respecting the natural rhythms of their fertility, they choose a means to their end that conforms exactly to a comprehensive understanding of human nature and the procreative/personal aspect of human fertility.⁴¹ As Leon Kass warns, the principal norm against which we need to adjudicate any sort of reproductive technology, including "The Pill," is whether it constitutes a fulfillment rather than a "defilement of *our given nature as procreative beings, . . .*" (italics mine).⁴² The reality is that only with natural methods of family planning (as opposed to steroidal hormonal methods) is a couple able to promote the truth of their procreative nature, the truth of marriage as a community of love and life, and the truth of their marital intercourse as acts that are at once life- and love-giving.

Second, even if for argument's sake we concede, from one side, that one can legitimately invoke the PDE in respect to the prescription of the OC and, from the other, that the abortifacient effect of the OC is an unintended side effect, the nature of the evil effect of the act, i.e., the death of an early embryo, would not be outweighed by the good effects of a convenient method of family planning and of ancillary health benefits. Or stated another way, the good effects of convenient family planning and possible health benefits are not of a sufficient moral value to justify the bad effect of risking the death of an embryonic human being. There is a clear disproportionality between the good and bad effects of the act of prescribing the OC and, as a result, Goodnough's argument fails to fulfill the proportionality requisite of the PDE.

Third, in assessing the moral object of the action of prescribing the OC, and, again, conceding for argument's sake that the "what" of the action is suppression of ovulation as Goodnough defines it, it is necessary to analyze the moral nature of the kind of act that suppresses ovulation. One cannot describe the suppression of ovulation as a good unless one views fertility and the normally functioning reproductive system as some sort of pathology. But, in what sense are a woman's natural menstrual and ovulatory cycles a disease? Should not working cooperatively with a woman's reproductive system so that it can function optimally be a premiere goal of gynecological medicine?⁴³ And, if this analysis

stands, the prescription of the OC, even when judged primarily from a medicinal rather than from a moral perspective, is not a good human act. That is, prescribing the OC is not in the best health interests (physical and moral) of the patient, nor is it, by logical extension, in the best professional interests of the health professionals who is bound to promote the integral good of every patient.

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References

- 1 This discussion of the question of the abortifacient character of the oral contraceptive focuses on the perfect use of the "low-dose combined" oral contraceptives, i.e., those containing 30 or 35 micrograms (mcgs) of ethinyl estradiol (EE). It does so because, first, most women using hormonal contraception are on this form of "the pill." Second, there appears to be more substantive agreement that the other contraceptive formulations may have greater risks of incurring breakthrough ovulation, ectopic pregnancy, or hostile effects on the endometrium and, therefore, may have greater risks than the "low-dose combined" pill (COC) for post-fertilization effects. The other contraceptive formulations that are referred to in contrast to the COC include: the lower dose combined pill (20 or 30 mcgs of EE); progesterone only pill (no estrogenic component); emergency contraceptives (2 doses:120-200 mcgs of EE or no EE but 1.5 mg levonorgestrel); injectable contraceptives such as DePo Provera (no estrogenic component) and imperfect use of any kind of hormonal contraceptive.
- 2 In *Ethics and Medicine*, for example, numerous articles and responses were dedicated to this question: J Wilks. "The Impact of the Pill on Implantation Factors—New Research Findings." 2000;16.1; WL Larimore. "The Abortifacient Effect of the Birth Control Pill and the Principle of 'Double Effect.'" 2000;16.1; Joel Goodnough's article cited in the body of this article and in a footnote below; J Wilks. "Response to Joel E. Goodnough MD, 'Redux: Is the Oral Contraceptive Pill an Abortifacient?'" 2001;17.2; and in exchanges between William F. Colliton and Joel E. Goodnough, 2001;17.2 and between Joseph B. Stanford/Walter L. Larimore and Joel E. Goodnough, 2001;17.3.
- 3 Representative articles: WL Larimore and JB Stanford. "Postfertilization Effects of Oral Contraceptives and Their Relationship to Informed Consent" *Arch Fam Med*. 2000;9:126-133; SA Crockett, D Harrison, J DeCook, C Hersh. "Hormone Contraceptives: Controversies and Clarifications." In JF Kilner, PC Cunningham, WD Hager eds. *The Reproductive Revolution: A Christian Appraisal of Reproductive Technologies, Sexuality and the Family*. (Eerdmans, Grand Rapids, MI) 2000; WL Larimore, R Alcorn. "Using the Birth Control Pill is Ethically Unacceptable." In JF Kilner, PC Cunningham, WD Hager eds. *The Reproductive Revolution: A Christian Appraisal of Reproductive Technologies, Sexuality and the Family* (Eerdmans, Grand Rapids, MI) 2000.
- 4 I adhere to the scientifically sound definition of fertilization as the beginning of pregnancy and abortion as any event (natural or induced) that causes the death of the developing embryo or fetus and that occurs from post-fertilization up to and including the end of the third trimester. Early abortions, those that occur before implantation and the secretion of hCG, are clinically unrecognizable pregnancies, while those occurring after the verifiable presence of hCG are clinically recognizable pregnancies. Consequently, what I intend by the phrase "death of the early human embryo" in the context of post-fertilization effects of the combined OCP is an induced abortion of the early embryo.
- 5 B. Ashley, KD O'Rourke. *Health Care Ethics: A Theological Analysis* 4th ed (Washington, DC: Georgetown University Press) 1997. Also see my argumentation in Part Two of this article.
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- 7 *Ibid.*, 47.
- 8 *Ibid.*, 48.
- 9 *Ibid.*
- 10 WL Larimore and JB Stanford, Postfertilization Effects, 130.
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- 20 Goodnough, Redux, 39.
- 21 L Speroff, RH Glass, NG Kase. *Clinical Gynecologic Endocrinology and Infertility* 6th ed (Lippincott Williams & Wilkins, 1999): 879.
- 22 *Ibid.*
- 23 Larimore and Stanford, *Postfertilization Effects*, 130.
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- 41 The relevant question is, how precisely does the practice of hormonal contraception abuse rather than properly use the human procreative power? The answer exposes how contraception contradicts the human meaning or purpose of the act of marital intercourse and how it denies the truth of the procreative/sexual natures of male and female human beings and of their acts of conjugal intercourse. First, the practice of contraception treats fertility, or the procreative aspect of the act of marital intercourse, as a one-dimensional reality or as mere biology. But just as the human being is a body-soul unit, human fertility, a bodily power, has, at once, a biological *and* a personal meaning. The need to propagate the human species which is certainly a *biological* need, is also, at once, a basic *human* need that, when properly fulfilled, promotes the good of the whole person. Second, since the suppression of any basic human need contradicts the well-being of the whole person, and since contraception directly suppresses the procreative need of the human being, the practice of contraception acts against human welfare. Stated another way, the fulfillment of the cadre of basic human needs specifies how it is a human being realizes him or herself. These human needs, including the need to procreate, tell the husband and wife what they ought to do or what goods they ought to promote in order to be themselves, that is, to realize themselves—how they ought to act in order to be a fulfilled and happy couple. Third, contraceptive intercourse fails to recognize that the personal, self-giving dimension of marital intercourse is the inseparable correlate to its biological, life-giving dimension. To untether the life-giving dimension of fertile marital intercourse from its self-giving aspect falsifies the comprehensive meaning of the act of marital love. Predictably, to some degree or another, the very love and intimacy that one had hoped to protect and promote through suppression of fertility necessarily collapse in upon themselves. Accordingly, the mutual human growth and flourishing that every couple hopes for, and that should follow on the heels of realizing the "one flesh" relationship of their genital intercourse, will be truncated or will, to varying degrees, fail to materialize.
- 42 L Kass. "Preventing a Brave New World." *The New Republic Online*. 5/21/01: www.thenewrepublic.com/052101/kass052101.html
- 43 From a practical perspective, the use of natural methods of family planning has the potential to promote a cadre of health benefits beyond that of the moral regulation of birth. The **CREIGHTON MODEL FertilityCare™ System**, for example, not only provides the benefits of an effective holistic method of both achieving and avoiding a pregnancy as the circumstances of a marriage require, but it also provides a charting system that acts as an elemental diagnostic tool for tracking, evaluating, and maintaining gynecological health. Tracking one's reproductive cycles, as part of the science of NaPro**TECHNOLOGY**® (Natural Procreative Technology), allows the woman and her physician to maintain good gynecologic health by monitoring and evaluating anomalies including infertility, miscarriage, irregular cycles, hormonal imbalance, PMS, ovarian cysts, and unusual bleeding.

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