Zika Virus: Can Artificial Contraception Be Condoned?

M , R , P , A

Citation

M , R , P , A . *Zika Virus: Can Artificial Contraception Be Condoned?*. The Internet Journal of Infectious Diseases. 2016 Volume 15 Number 1.

DOI: 10.5580/IJID.42116

Abstract

As the Zika virus pandemic continues to bring worry and fear to health officials and medical scientists, Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) have recommended that residents of the Zika-infected countries, e.g., Brazil, and those who have traveled to the area should delay having babies which may involve artificial contraceptive, particularly condom. This preventive policy, however, is seemingly at odds with the Roman Catholic Church's position on the contraceptive. As least since the promulgation of Paul VI's 1968 encyclical, Humanae Vitae, the Church has explicitly condemned artificial birth control as intrinsic evil. However, the current pontiff, Pope Francis, during his recent visit to Latin America, remarked that the use of artificial contraception may not be in contradiction to the teaching of Humanae Vitae while drawing a parallel between the current Zika Crisis and the 1960's Belgian Congo Nun Controversy. The pope mentioned that the traditional ethical principle of the lesser of two evils may be the doctrine that justified the exceptions. The authors of this paper attempt to expand the theological rationale of the pope's suggestion. In so doing, the authors rely on casuistical reasoning as an analytic tool that compares the Belgian Congo Nun case and the given Zika case, and suggest that the former is highly similar to, if not the same as, the latter in terms of normative moral feature. That is, in both cases the use of artificial contraception is theologically justified in reference to the criteria that the doctrine of the lesser of two evils requires. The authors wish that the paper would provide a solid theological-ethical ground based on which condom-use as the most immediate and effective preventive measure can be recommended in numerous Catholic hospitals as well as among Catholic communities in the world, particularly the most Zika-affected and largest Catholic community in the world, Brazil – 123 million present Brazilian citizens are reported to be Roman Catholic.

INTRODUCTION:

The Zika virus continues to raise concerns for health officials and scientists around the globe over its causal link to the birth of microcephalic babies, born with deformed, tiny heads with neurological defects, and to other serious neurological disorders such as Guillian-Barré syndrome. It is now confirmed that the virus targets cells responsible for the growth of the cortex region of prenatal brains which subsequently results in the neurological problems of the infected newborns[1] and that the virus is contracted primarily in two routes – pathogen transmission when one is bitten by Aedes aegypti mosquitoes carrying the virus, and sexual transmission as the Zika-infected man has a sexual intercourse with his female partner. The virus can survive in sperm, though not in blood, at least for two months. Besides, a dreadful fact about the Zika virus is its almost asymptomatic character; most people do not even realize they are infected because they usually are not sick enough to go to the hospital.

As an attempt to reduce the likelihood of the virus' transmission, Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) advise that couples who reside in or have recently traveled to the area impacted by the virus, like Brazil, should use artificial contraception, particularly condom. However, the public health recommendation of CDC and WHO is seemingly at odds with the official views of the Catholic Church. At least since Pope Paul VI's 1968 encyclical, Humanae Vitae, the Church has clearly banned use of artificial birth control as "intrinsic evil."[2]

There is an estimated 1.2 billion Roman Catholics exist in the world. Latin America has the largest Catholic population, which accounts for 483 million Catholics or 41.3% of the total Catholic population. By contrast, in North America there are 85 million Catholics or 7.3 % of the total Catholic population[3]; nevertheless, North American Catholics have the greatest influence in terms of financial and intellectual resources. It is not possible to obtain relatively accurate data

on the number of Catholic laity in the world who use artificial contraception due to its controversial nature. And it is more difficult to collect such data in developing countries like South American nations. Nevertheless, according to a 2013 census, 2% of North American Catholics are reported to use artificial contraception. However, it should be noted that it is still 1 million 700 thousand U.S. population who do not use the contraception for the strong religious cause. And it is certain that the number is greatly higher in South America because the Latin American Catholics, 483 million, tend to be in general more conservative than U.S. Catholics. Brazil has the highest Catholic population of any country in the world; 123 million Brazilian citizens are reported to be Roman Catholic. And Brazil is the most Zika-affected country in the world. That being stated, it is a serious public health issue that demands a clear answer whether the Catholic Church can condone condom-use in this particular crisis.

The Pontiff's Remark on Condonation of Artificial Contraception in Zika Outbreak.

While the conservative camp of the Catholic community has issued the statement that the Zika virus does not justify the use of contraception,[4] Pope Francis suggested in a papal conference that he was open to the idea of artificial birth control as a means to combat the spread of the Zika virus while emphatically taking abortion off the table. During Francis' recent visit to Latin America in Feb. 2016, the current pontiff was asked by a reporter: "Holy Father, for several weeks there's been a lot of concern . . . regarding the Zika virus. There is anguish. Some authorities have proposed abortion, or else to avoiding pregnancy. As regards avoiding pregnancy regarding the Zika virus, can the Church take into consideration the concept of 'the lesser of two evils'?" The pope responded: "Abortion is not the lesser of two evils. It is a crime. It is to throw someone out in order to save another. That's what the Mafia does. It is… an absolute evil. On the 'lesser evil,' avoiding pregnancy, we are speaking in terms of the conflict between the fifth and sixth commandment. Paul VI, a great man, is a difficult situation [which is the 1960's Belgian Congo Nun Controversy] in Africa, permitted nuns to use contraceptives in cases of rape."[5]

Some criticize that Pope Francis' parallel to the Belgian Congo Nun Controversy as an attempt to condone the use of artificial contraception in the present Zika case contradicts the teaching of Humanae Vitae. However, many theologians opine that the pope's suggestion does not contradict to the encyclical. The Boston College theologian, James Bretzke, says that the pope's remark was in "perfect consistency with the traditional moral teaching."[6] As a result, Francis did not (or did not wish to) change the official moral teaching of the Church which condemns the use of artificial contraception under normal circumstances while suggesting condonation for artificial contraception in some special circumstances. Like the Belgian Congo Nun Controversy, the current Zika case is the one where the pope has invoked "a permitted, exceptional case of contraception."[7] Also, as Francis alludes, a further theological rationale for the exception can be found in the principle of the lesser of two evils. Then, what is the Belgian Congo Nun Controversy?

Belgian Congo Nuns Given Artificial Contraception to Prevent Pregnancies.

During the summer months of 1960, uprisings that ultimately led to the Republic of Congo's declaration of independence from the Belgian rule put many religious missionaries in grave danger. Almost all foreign nationals fled the country. However, the Catholic Sisters decided to stay in the newly independent Congo to serve the poor, which put themselves at risk of being raped by members of the Congolese army. Faced with a difficult decision, Pope Paul VI, the author of Humanae Vitae, gave the permission that the nuns could take hormones to prevent ovulation with the intention of avoiding pregnancy but not as an act of contraception.[8] Their use of the drugs was not thought of as direct sterilization because they had no intention of consenting. Rather, the Sisters appealed to legitimate self-protection. Thus, it is interpreted that the pope's decision was made in light of "the prevention of the consequences of a … violation of chastity," says Marcellino Zalba S.J. Taking the artificial contraception protected the nuns' simple human liberties and physical well-being, and it also prevented any emotional distress a pregnancy from a rape may have caused.[9]

Thesis Statement.

It seems as if Francis' suggestion was theologically in tandem with the line that Paul VI took. As the latter decided to permit the Belgian Congo nuns to use artificial contraception, which is considered a lesser evil, to prevent a greater evil, the foreseeable emotional and spiritual agony that the rape-pregnancy may bring about; the former has permitted the same lesser evil, artificial contraception, to avoid a greater evil, microcephaly and possible death. Of course, as some suggest, it would be ideal that married Catholic faithfuls living in the Zika-infected area or having

traveled to the area just abstain from sexual intercourse. However, this seems practically improbable especially for young married Catholics. We believe that Pope Francis' suggestion holds theological soundness and ecclesiastical prudence. Thus, our project here is to elaborate and expand the logical basis for the theological seedling that Francis sets out.

In so doing, we will proceed in the following, first with medical investigation on Zika virus. We make clinical examinations on the virus and introduce its epidemiological implications. Second, we will engage in a foundational theological analysis. We visit a very brief history of the modern development of the Catholic hierarchy's positions on artificial contraception, beginning from Casti Connubii (1930) through Humanae Vitae (1968) to Instruction on Respect for Human Life (1987); discuss how the Church's official teaching has been accommodated (not necessarily in a negative way) to individual faithfuls by reference to the notion of the "condonation by individual conscience" and nevertheless why the "condonation by authority" – the magisterium's official pardon of using artificial contraception for special cases – is important; introduce the Church's long-used, ethical-legal reasoning of "casuistry" to explicate that the Church is able to pronounce the cases of exceptions against the backdrop of the standard ethical norms without contradicting Itself. Third, we will perform ethical case analysis. Focusing on the comparative investigation between the Belgian Congo nuns case and the current Zika case, we try to elaborate how the doctrine of the lesser of two evils provide the doctrinal justification to make the two cases as legitimate cases of exceptions. Relying on the Catholic bioethicist, Richard McCormick's criteria of "proportionate reasons" for balancing two nonmoral evils, we arrive at the conclusion of the essay that the use of condoms in the present Zika crisis is the lesser of two evils because the greater good is promoted in spite of the potential evil consequences. Therefore, the magisterium can condone artificial contraception without altering or contradicting its official doctrinal stance.

MEDICAL ANALYSIS

Zika Virus and Its Origin.

Zika virus belongs to Flaviviridae family. The phylogenetic property of the virus is shown to be similar with some other members of this family which use arthropod borne vectors for human transmission. Viruses in this group include Dengue fever, Yellow fever, Japanese Encephalitis and West Nile virus. It is confirmed that Zika virus is carried and transmitted by female Aedes mosquitoes which thrive in areas that gather stagnant water such as drainage ditches, old tires, and other smaller plastic waste due to the fact that these conditions provide the mosquitoes with the perfect environment to lay their larvae and reproduce. And some of the mosquito vectors identified include Aedes aegypti, Aedes africanus, Aedes luteocephalus, and Aedes albopictus belonging to subgenus stegomyia.[10]

The first discovery of the Zika virus was known to us in 1947 when a group of medical scientists studied yellow fever by using sentinel Rhesus monkeys in Uganda. The virus was found in the monkeys. Later, antibodies were isolated from nearby natives with no symptoms of the disease around that time.[11] In 2007, a small outbreak of the virus occurred on Yap Island in Micronesia but did not receive much attention from the media because no links to microcephaly were reported.[12] Many epidemiologists wondered how the Zika virus, then, migrated from the remote areas to the Americas. But it appears that after a few months of island hopping in the later half of 2013, the virus moved from French Polynesia to Tahiti and Bora Bora. Then, in early 2014, the Zika virus reached Easter Island, the home of famous stone figures that drew much tourist attention. And it is speculated that the Zika virus made its first appearance in continental South America in May of 2014, as crowds of soccer fans flocked to Brazil in excitement for the World Cup hosted in Rio de Janeiro that summer.[13] Because Brazil has poor wastewater disposal methods, the virus spread instantaneously, carried by mosquitoes that flourished in the warm climate. It seems apparent that the subtropical climate, lack of basic medical resources, and unsanitary conditions in Brazil and its neighboring South American countries led to the explosion of the virus this past year and a half. In addition, the Zika virus is transmitted through sexual intercourse, so it is considered that the virus is currently spreading to the other part of the world primarily through sexual contact.

Clinical Illness and Symptom, and Epidemiological Concern.

CDC director, Dr. Thomas R. Frieden, has released a statement that there is no doubt any longer that the "Zika causes microcephaly," the birth defect where a Zika-infected newborn is born with unusually small and deformed head with neurological defects.[14] Other defects for fetuses and newborns include defects of the eyes, hearing deficits and impaired growth. Also, there have been increased reports of

Guillain-Barré syndrome, an uncommon sickness of the nervous system, in areas affected by Zika.[15] Guillain-Barré is an illness where the body's immune system attacks part of the peripheral nervous system. Its symptoms include varying degrees of weakness or tingling sensations in the legs which progress in many cases to the weakness and abnormal sensations of the arms and upper body. When the symptom increases in intensity, the person is completely paralyzed due to the muscles malfunction.[16] Besides, it is known that the virus infection can cause even death to the child.[17]

The pathogenesis of Zika virus is still not completely known. However, the virus' "vector-borne transmission," the transmission in which a pathogen is transferred to a human person typically by a bite, is confirmed though many studies. When the Zika virus is transmitted from the mosquitoes carrying the pathogen to human skin cells, its innate immunity is activated and further replication occurs in cell cytoplasm or nuclei.[18] Also, the virus has been isolated in brain tissue with microcephaly and in amniotic fluids and placenta, the fact which explains vertical transmission of the virus from mother to fetus and thus all reproductive age women including pregnant women are considered high risk for transmission.[19]

On the other hand, multiple reports have shown its transmission via sexual contact from infected males to females; the transmission from infected women to males is still not known. It is confirmed that the Zika virus remains in the male's semen for at least 2 months though it can stay in the bloodstream of humans for approximately 10 days.[20] Also, blood transfusion transmission is considered. There have been some reports on the cases of the Zika infection after transfusion.[21] Thus, blood donors who traveled to Zika-infected regions, particularly Brazil, are recommended to withhold donation at least for 28 days.[22]

As of May 2016, a total of 38 countries in both Americas reported active transmission of the Zika virus, and it is spreading rapidly.[23] Most of the countries (South American nations) have too limited medical and financial resources to fight this new epidemic. In the United States, as of May 20, 2016, the number of pregnant women to test positive for Zika virus increased to 157 women including U.S. territories.[24] In the U.S., one of the major concerns now is travel to the Zika-affected area, particularly Rio de Janeiro where the Summer Olympic Games are to be held in August 2016. A large number of U.S. athletes will travel to compete, along with their families, fans, and reporters.

Another major issue is the U.S. cities like Philadelphia, Newark, Baltimore, New York City, etc. that have large immigrant populations from the Caribbean and Latin America who will travel to these countries during the summer months and then return to the United States. At the present moment, there is no vaccine for the Zika virus to travel to these endemic areas.

It is urgent that more education is needed. Still many people are unaware that the virus can be transmitted sexually and that infants can be born with microcephaly. As mentioned above, the Zika virus remain in the male semen for at least 2 months and thus preventive measures are necessary. However, a more dreadful concern is that most of the Zika virus infections are asymptomatic. Clinical symptom of Zika virus is similar to dengue fever and chikungunya fever which usually lasts few days to a week after mosquito bite. And its characteristic clinical findings include fever, pink rash, joint pains and conjunctivitis.[25] However, these symptoms are not even shown in most people though they are infected with the virus. Thus, identifying the infected people from the population is difficult.[26]

Therefore, the most immediate and best preventive measure we can do now, before the vaccine becomes available, is to use condoms. CDC and WHO both advocate for condom-use for 6 months if one individual of the couple is in or traveled to a country with an outbreak of the Zika virus[27] while recommending that women living in affected countries should delay pregnancies if possible.[28] For low-income pregnant women who will be traveling this summer to Zika affected areas, the New York State Health Department is distributing kits with repellent, condoms and larvicide tablets to treat standing water. They hope these precautions will minimize infection rates of immigrants traveling to Zika affected areas this summer.[29]

FOUNDATIONAL THEOLOGICAL ANALYSIS:

The health officials' public advice for use of condoms compels the Roman Catholic community to revisit what has become a perennial theological problem over many decades – that is, while the Catholic hierarchy opposes the use of artificial contraception, the vast majority of the Catholic laity has long used artificial contraception. According to a recent survey, practically all American women (99%) aged 15 to 44 who are sexually experienced have used the artificial contraceptives.[30] And the figure "is virtually the same, 98%, among sexually experienced Catholic women."[31] The primary reason for use of the

contraceptives is because a typical American woman, including Catholic women, wants two children and to achieve this goal she must use artificial contraception for about three decades. This seeming paradox has invited different interpretations and reactions from those outside the Catholic community. One of the most harsh and stereotypical criticisms is as follows: "For women to get a fair shake in the work force, they need at least some measure of reproductive freedom. . . [O]nly a small minority of American Catholics buy into the church's formal prohibition against artificial birth control. [But] Catholic leaders promote the stricture" because the Church "undervalues women."[32] In other words, according to the critics, the Church's ban on artificial contraception, though ignored by its most female members, is because the Church cannot help being mysogynistic.[33]

Given that most Protestant Churches nowadays allow women to pastoral leadership while the Catholic Church vehemently opposes the idea, it is understandable that the critics can find the reason for the Catholic hierarchy's ban on artificial contraception in religious misogyny. However, it is interesting to note that the Catholic Church regards its ban on contraception as well as abortion as the necessary measures to rescue women from the secular society's "debasing of the womanly character and the dignity of motherhood."[34] The Church understands that the secular society's idea of women' liberation is "not the true emancipation of women" but "false liberty and unnatural equality."[35] In other words, the Church sees the secular idea of woman's liberation holding a deceptive form of misogyny. After all, one's moral judgment or evaluation on which group of people holds or practices misogyny ultimately depends on how one views the world based on one's own moral vision or ideology. Meanwhile, it should be noted that the Catholic positions on male priesthood as well as on contraception have been largely consistent. The controversy or paradox arises due to the Church's effort to stay theologically consistent.

Casti Connubii (1930), Humanae Vitae (1968), and Instruction on Respect for Human Life (1987).

The first modern account of the Catholic hierarchy's responses to artificial contraception is Pope Pius XI's 1930 encyclical, Casti Connubii (Of Chaste Wedlock). Prior to that, the Church's teaching had emphasized the dignity of human life, but not been clear about artificial contraception and abortion. Here the pope re-confirms the work of his predecessor, Pope Leo XII's 1880 encyclical Arcanum (Of Mystery) that marriage is not just a civil contract sanctioned by secular state but fundamentally a sacrament where Christ's mysterious union with the Church occurs as well as that the final end or primary aim of marriage is procreation. Then Pius XI confirms the tradition by saying that artificial contraception and abortion are "shameful and intrinsically vicious" evils because they are the violations of Natural Law which is God's divine providence,[36] which in turn theologians may call the presumptuous and arrogant human acts of "Playing God." Nonetheless, the case that couples do not produce children "on account of natural reasons either of time [natural contraception] or certain defects [medical problem]" does the encyclical see as not sinning but only natural.[37]

In the 1968's encyclical, Humanae Vitae (Of Human Life), Pope Paul VI sets a further theological guideline about the issues. He understands the problem with overpopulation and the change of women's status in modern society which provide the context where artificial contraception and abortion seem to be viable and necessary options for modern living. But Paul VI emphasizes that the role of the Church is not to create Natural Law but faithfully reflect and interpret it, and then produces the following interpretations of the law about the issue. First, drawing on the foregoing two encyclicals, Arcanum and Casti Connubii, Paul VI states that "the Church has always issued appropriate documents on the nature of marriage, the correct use of conjugal rights and the duties of spouses" and confirms his predecessors' positions: the primary purpose of marriage is procreation, and artificial contraception and abortion are prohibited while natural contraception is allowed. And he makes clear about the prohibition of sterilization both temporary and permanent. Then, he elucidates the theological principle behind all these, that is – Natural Law dictates that the unitive and the procreative should be inseparable in the process of child birth. In other words, the procreation (the procreative) of the child must be through the physical union (the unitive) of a husband and a wife.[38]

The position of the Church is also repeated when the Congregation for the Doctrine of the Faith gives guidelines to the faithful in their 1987 publication, Instruction on Respect for Human Life in Its Origin and on the Dignity of Procreation: "The Church's teaching on marriage and human procreation affirms the 'inseparable connection, willed by God and unable to be broken by man on his own initiative, between the two meanings of the conjugal act: The unitive meaning and the procreative meaning.'"[39] The quote

within the quote is taken from Humanae Vitae. Accordingly, the inseparability of the unitive and procreative goods of marriage and thereby any action that separates the two goods is an intrinsic moral evil.

"Condonation by Individual Conscience" and the Place of Pastoral Assurance.

It is clear that Paul VI wrote Humanae Vitae as a clarifying document which intends to confirm and explain what the Church's position has been and should be. The Church, after all, has been consistent in this regard. However, the well-known controversy is that only a few Catholics, particularly a very few American Catholics, currently abide by the Church's (or the Catholic hierarchy's) teaching. In fact, the American laity's overwhelming disagreement is attributed to the work of many American theologians and bishops, among which the theologian Charles Curran stands out. As a young professor of moral theology at Catholic University of America and a priest himself, he held a press conference prior to the promulgation of Humanae Vitae, and announced that the faithful were not obliged to follow the directives of Humanae Vitae because, according to his theological judgment, the hierarchy's position is an erroneous interpretation of Natural Law and thus the faithful were free to follow their conscience in regards to the issue of contraception.[40] In other words, the Catholic hierarchy's prohibition of artificial contraception can be condoned by an individual faithful's own conscience. And this position has become representative of the majority of the U.S. Catholics' view on contraception, as the National Conference of Catholic Bishops (now the United States Conference of Catholic Bishops) published "Human Life in Our Day" with some nuanced information about Humanae Vitae just four months after the publication of the papal encyclical.[41]

In fact, this disagreement to the Catholic hierarchy on contraception through so-called "condonation by individual conscience" can be interpreted as theologically licit in accordance with the orthodox Catholic theology, although it is not uncontroversial. There are different levels of authority in terms of the teachings of the Church. At the highest level, there are "divinely revealed truths" taught as infallible, which include the Trinity, the Incarnation, Immaculate Conception, Assumption, etc. The faithful are bound to obey these teachings. And the next highest level is the "definitive but non-revealed truths." These teachings are considered infallibly proposed though not revealed in themselves and require the faithful's firm assent. Thus, when one opposes this type of teaching, one is considered to be in error. Many theologians place Natural Law and the dignity of human life in this category. At the third highest ranking are "authoritative but not irreformable teachings." These teachings are not infallible but do require respect and obedience. Accordingly, this level of teachings calls for the faithful's assent, but one can disagree. So the disagreement with this level of teaching is called "dissent." Most U.S. theologians and bishops see the papal teaching on birth control in this category.[42] Thus, the faithful can dissent based on their own well-formed conscience. However, some bishops and priests do see the teachings on birth control as holding the second highest level of authority. The issue, indeed, is not uncontroversial.

However, what seems more controversial is the notion of conscience itself. What does it mean to say that individual believers' consciences morally guide them in a different direction from the way the Church instructs them? The Church can certainly say that the faithful's conscience must be bound to the authority's direction. This concern, in fact, is found in Humanae Vitae, as Paul VI asserts that "No member of the faithful could possibly deny that the Church is competent in her magisterium to interpret the natural moral law."[43]

It is problematic when an individual member of the laity dissents from the teaching of the Church by following one's own conscience to use artificial contraception. It can be viewed as preposterous that an individual lay person's conscience overrides the Church authority's moral teaching. However, it is the experience of the ordinary Catholic faithful that, when one dissents from the Vatican's position on contraception, one does not feel like one is against the Church because there is the voice of many bishops and priests that says that artificial contraception is permissible though not ideal. Following one's conscience in most cases, in fact, is obtaining "pastoral assurance" directly or indirectly from the members of the priesthood. Pastoral counseling from local parish pastors whether to use artificial contraception may be a direct form of pastoral assurance, while knowing that the U.S. bishops dissented from the Vatican's position on contraception and assuring oneself that one is not sinning against God and the Church would be indirect pastoral assurance.

Note that, by linking the faithful's consciences to pastoral assurance here, we are arguing or implying neither that the ordinary believers are seeking shallow psychological comfort by resorting to conscience, nor that they do not know how to think for themselves, nor that they are secretly

using an available theological position to rationalize what they wish to do, even though all these may be true in certain cases. History shows that when "a pope in the early Middle Ages said torture was morally wrong, many theologians rebuked him. And while official church teaching outlawed usury for many years, many members of the laity continued to collect interest on loans."[44] Nevertheless, what we claim here is, first, that the process in which a sincere faithful has become convinced that one is not sinning is the matter that takes one's serious moral struggle, and second that pastoral assurance is one of the most integral parts of the faithful's struggle. As a matter of fact, "What is conscience as a moral guidance for Catholics?" is a serious and thorny question that requires a further theological investigation. In a metaethical level, the long-lasting Catholic virtue ethics tradition can provide rich discussions on how conscience operates vis-à-vis the notion of charity.[45] However, we shall not pursue the discourse here because it falls outside the purview of this paper.

The Case for "Traditionalist Faithfuls' Conscience."

As mentioned above, South America has the world largest number of Catholic populations and the most Zika-infected Brazil has the highest Catholic population in the world. The use of contraception, particularly condoms, is not a small issue to handle from the perspective of moral condonation. For the sake of convenience, we shall call those obedient to the magisterium's teaching on contraception "traditionalist faithfuls." It can be said that the traditionalist faithfuls obey the Church's teaching because their conscience dictates in such a way that they should follow the magisterium's position. Again, most faithfuls' conscience requires pastoral assurance from the Church authority. The traditionalist faithfuls find pastoral assurance directly or indirectly from the teachings of the magisterium, not from those of the bishops and priests who dissent from the magisterium.

In the midst of the explosive pandemic of Zika virus infection throughout South America and possibly the rest of the world, the condonation by conscience leads the traditionalist faithfuls and their conscience not to use the artificial contraceptives and thus put their lives in danger. And many theologians wonder if the Catholic hierarchy's ban on contraception can be lifted temporarily given the urgency of the situation. When the magisterium officially allows the use of contraception, we call this the "condonation by authority." It is still condonation because the Church does not alter the principle but finds an exception to the principle.

"Condonation by Authority" and the Moral Reasoning of Casuistry.

Condonation by authority is made when the authority finds cases to which general moral rules do not apply. And the exceptions are made rather clearly when there are precedents. In other words, the new case is assessed in reference to how close the given case is, to the previous case of exception in terms of moral features. This form of moral reasoning by case is called "casuistry." Casuistry was widely used in the Roman Catholic tradition throughout the Medieval Europe. In general, casuistry inquires how close the case at hand is to the paradigm case, which in our concern is the existing paradigm case of exception.[46]

Critics of casuistry point out that the moral reasoning of the casuists seems to take place without appealing to norms. However, this is a grave misunderstanding. Moral reasoning or ethical analysis is not possible without reference to moral principles and rules. Thus, the proper understanding of casuistry is that casuistical reasoning first examines what moral principles apply to the given case and then seeks to find a similar prior case to be compared with it to inquire how the present case should be treated. And this, in fact, is nothing but a standard legal reasoning of "common law system," which is the British-American legal system. Common law system, sometimes called "case law system" or "presidential law system," is the system of jurisprudence where legal precedents function as paradigm cases so as for consistent principles to apply to similar cases. And the Catholic casuistical tradition provides the earliest account of this type of moral-legal reasoning.

A decision-making via casuistry is highly effective and relevant when the magisterium produces a case of moral exception. Since the moral verdict produced by the Church has an implication that the Holy Spirit condones the given case, the moral reasoning here requires a high degree of technical accuracy. It is the Spirit that has led the Church to discover the theological moral principle to tackle a particular problem and is the same Spirit that has allowed the exception. Thus, from the perspective of pneumatology, exceptions must be rare and the verdict must be error-proof. When the given case is shown to hold the same or highly similar moral features to the case previously condoned, the two cases are the same cases narrated in two different contexts. It is now time to turn to an ethical case analysis.

ETHICAL CASE ANALYSIS:

Pope Francis has suggested that women threatened with the

Zika virus could use artificial contraception while excluding abortion absolutely. Then he drew a parallel to the case of exception made to approve of contraception for nuns in Belgian Congo to prevent pregnancies because they were being systematically raped. Then the pope seems to find, in terms of moral features, the Zika case to be highly similar to or the same as the Belgian Congo nuns case. However, it should be pointed out that Pope Benedict XVI made a similar remark to that of Pope Francis when Benedict discusses a way to combat HIV/AIDS in sub-Saharan Africa. In his book published in 2010, Light of the World: The Pope, the Church, and the Signs of the Times, Benedict reminds his audience about the importance of a "human dimension" and their responsibilities as faithful individuals by pardoning the use of condoms in the case that husband or wife is HIV+ in the sub-Saharan Africa. However, the pope cautions by adding that "we cannot solve the problem by distributing condoms [because they are not] a real or moral solution, but, in this or that case, there can be nonetheless, in the intention of reducing the risk of infection, a first step in a movement toward a different way, a more human way, of living sexuality."[47] Thus, there is a prior case of exception that the magisterium has pardoned the use of artificial contraception. If so, from the perspective of casuistry it is possible that the African HIV/AIDS Crisis, the Belgian Congo Nun Controversy, and the current Zika Crisis are all the same or highly similar cases in terms of moral features.

However, given that Pope Francis sees the Belgian Congo nuns case and the Zika case under the same doctrinal light by appeal to the doctrine of the lesser of two evils, it is not entirely clear that the African HIV/AIDS' case should be viewed in the likely manner. Some say that it is so, and some argue that the doctrine of double effects should be used to justify Benedict's remark. And others state that both doctrines, those of the lesser of two evils and of double effects, should be used.[48]

We as theologians and medical professionals do not attempt to speak on behalf of the Holy See, but seek a normative understanding. Thus, we delimit our investigation only to the comparative analysis between the Belgian Congo nuns case and the Zika case, drawing on Pope Francis' own analogy made between the two cases by reference to the doctrine of the lesser of two evils. And we will try to expand and elaborate Francis' suggestions in the following ethical case analysis.

The Doctrine of the Lesser of Two Evils.

Society, in general, has always recognized that, due to complexity of life, we are sometimes faced with conflict situations that leave us with two options both of which are "nonmoral evils." Nonmoral evil refers to the lack of perfection in anything whatsoever. As pertaining to human actions, it is that aspect which we experience as regrettable, harmful, or detrimental to the full actualization of the wellbeing of persons and of their social relationships. [49] This time-honored ethical principle that has been applied to these situations is called the principle or doctrine of the lesser of two evils. When one is faced with two options, both of which involve unavoidable (nonmoral) evil, one ought to choose the lesser evil.[50] Bioethicist Richard McCormick, S.J., argues:

> The concomitant of either course of action is harm of some sort. Now in situations of this kind, the rule of Christian reason, if we are governed by the ordo bonorum, is to choose the lesser evil. This general statement is, it would seem, beyond debate; for the only alternative is that in conflict situations we should choose the greater evil, which is patently absurd. This means that all concrete rules and distinctions are subsidiary to this and hence valid to the extent that they actually convey to us what is factually the lesser evil. . . Now, if in a conflict situation one does what is, in balanced Christian judgment (and in this sense objectively), the lesser evil, his intentionality must be said to be integral. It is in this larger sense that I would attempt to read Thomas Aquinas's statement that moral acts – recipiunt speciem secundum id quod intenditur. Thus the basic category for conflict situations is the lesser evil, or avoidable/unavoidable evil, or proportionate reason.[51]

Therefore, in a conflict situation, an individual may directly choose to do a nonmoral evil as a means to a truly proportionate good end.[52] The individual would not commit sin because one lacks full consent of the will. In the Zika case, a faithful's direct choice of a nonmoral evil may be the use of condoms to decrease Zika transmission, and the means to a truly proportionate good end be the preservation and protection of human life. The married couples might do so justifiably because they are faced with two options, both

of which involve unavoidable nonmoral evils. Of course, the assumption here is that abstinence is not a viable option, particularly for young couples. Thus, examining the case from the scope of the doctrine of the lesser of two evils, the couple's failure to use a condom could allow for the husband to infect his wife with the Zika virus and possibly cause harm to the wife and possible serious brain injury and even death to the potential child. On the other hand, the use of artificial contraception is an intrinsic moral evil, because, as mentioned above, it separates the unitive and procreative goods of marriage. Here, it is emphasized that the good lies in the direct intention of the couple. Their intention to use a condom, the lesser evil, is to protect the wife from being infected with the Zika virus and avoiding a pregnancy, which could result in severe brain injury and even death to the child.

However, in the process of protecting and preserving human life and acting in the best interest of the wife and potential child, some Catholics may view this as leading to scandal in that it could be interpreted as a change in the Church's moral doctrine regarding the use of artificial contraception. After Pope Francis remarked that women threatened with the Zika virus could use artificial contraception while excluding abortion, his critics sited Humanae Vitae which prohibits "any action which either before, at the moment of, or after sexual intercourse, is specifically intended to prevent procreation" (no. 14) and concluded that using condoms to reduce the likelihood of Zika transmission amounts to directly intending contraceptive acts of intercourse as a means to a good end.[53] In fact, the linchpin for resolving which option is the lesser of two evils rests on whether or not there is a proportionate reason for allowing a husband and wife to use a condom to avoid Zika transmission.

Proportionate Reason.

Proportionate reason refers to a specific value and its relation to all elements (including nonmoral evils) in the action.[54] The specific value in allowing for the use of condoms for married couples is to avoid Zika transmission in order to protect and preserve human life. The nonmoral evil, which is the result of trying to achieve this value, is the violation of the moral teaching regarding artificial contraception as an intrinsic moral evil. The ethical question is whether the value of protecting and preserving human life in this particular medical crisis outweighs the nonmoral evil of violating the Church's moral position on artificial contraception in a difficult situation.

This difficult medical situation is equivalent to the Belgian Congo nuns given anovulant drugs to ward off pregnancy that might result from rape and the use of condoms in Africa to avoid the risk of HIV infection if one spouse was infected with HIV/AIDS. To determine if a proper relationship exists between the specific value and the other elements of the act, McCormick, S.J. proposes three criteria for the establishment of proportionate reason:

1) The means used will not cause more harm than necessary to achieve the value.

2) No less harmful way exists to protect the value.

3) The means used to achieve the value will not undermine it.[55]

The application of McCormick's criteria to a husband and wife using condoms to avoid transmission of the Zika virus supports the argument that there is a proportionate reason for allowing this to occur in specific medical situations. The moral foundation is that human life is sacred and in certain medical situations we have a moral obligation to perform an action that would lessen the possibility of harm and death to another human person. First, as discussed in our section of medical analysis above, Rasmussen et al. have reviewed all pertinent medical literature regarding the Zika virus and its impact on fetuses in utero. They have concluded that "sufficient evidence has accumulated to infer a causal relationship between prenatal Zika virus infection and microcephaly and other brain anomalies."[56] The CDC and WHO both advocate for the use of condoms during sexual intercourse to avoid the transmission of the Zika virus to both the female partner and the potential child. It is clear that the Zika virus remains in the man's semen for at least 2 months. The CDC and WHO both recommend the use of condoms for a six month period if one is in a country with an outbreak of the Zika virus. At the present moment, there is no vaccine for the Zika virus. To protect wives from being infected by their husbands during sexual intercourse and from becoming pregnant, the use of condoms is the most effective method available at the present time. Clearly, using condoms in this situation will bring about more good than harm, and will cause less harm than necessary to protect and save lives.

Second, at present, there does not appear to be an alternative that is as effective as condom use in the conjugal union to protect and preserve the value of human life. Presently, there is not a vaccine available for the Zika virus. The reality of

the situation is that even when a vaccine becomes available, many question if it will even become available to developing nations. The pharmaceutical industry, despite its claim to have humanitarian good will, has profit as the main goal. They have proven in the past with HIV drugs that the developing nations are not a profitable market for these drugs. Even if a vaccine is made available, many still question if the poor, who are the most susceptible to Zika virus, will be able to afford the drugs. Last, the husband ideally, could decide to abstain from sexual intercourse with his wife for a period of six months. Some have advocated for the use of natural family planning (NFP). The problem with NFP is that the husband could still infect his wife with the Zika virus. Since we know so little about the long term effects of this virus, it makes better medical sense to avoid becoming infected. In good conscience, if the husband and wife cannot abstain from sexual intercourse for a period of six months, then the use of condoms is the less harmful way to protect and preserve human life.[57]

Third, the use of condoms to avoid Zika transmission does not undermine the value of human life. One can argue convincingly that the intention of the husband and wife using a condom is to protect and preserve the life of the wife from becoming infected and the child from microcephaly, other brain disorders and even death. Couples who use a condom to avoid transmission have the best interest of the wife and the potential child as their primary intention, because they wish to avoid causing direct harm to the child through a serious brain disorder or death. Failure to be responsible in avoiding the transmission of Zika virus undermines the basic value of human life, because it places one or two human persons in direct harm. The only possible consequence of this action is the potential harm and even destruction of human life, especially in developing nations where resources are scarce.

The intention of married couples to use condoms in Zika infested areas is to save lives and it has been proven through medical research that transmission through a man's semen is possible for at least six months after being infected. This is a critical issue that must be addressed immediately because innocent lives are hanging in the balance. It seems clear that there is a proportionate reason for allowing the use of condoms in the conjugal union to avoid Zika transmission if in good conscience the married couple finds abstinence to be a moral impossibility. In moral theology when one is faced with a situation that presents a doubtful obligation that cannot be solved definitively, one may legitimately act on a "solidly probable opinion" in favor of liberty, even if the opinions restricting action are more probable. One can use the moral principle of probabilism in this situation because it has been shown that there is a "solidly probable opinion" in favor of the use of condoms for married couples to decrease Zika transmission. The authors believe they have presented good rational arguments (intrinsic probability) and have cited a number of authentic moral theologians who propose the opinion as probable (extrinsic probability).[58] Therefore, it is ethically justified under these moral principles to allow married couples to use condoms to avoid the transmission of the Zika virus. The use of condoms in this situation is the lesser of two evils because the greater good is promoted in spite of the potential for evil consequences. Therefore, Pope Francis' suggestion that condom-use is permitted in the present Zika case is theologically justified.

1.Cell 18, No. 5 (2016): 587-590, accessed May 17, 2016, doi:10.1016/j.stem.2016.02.016.

2.Paul VI, Humanae Vitae, Encyclical Letter on Human Life, Vatican Website, July 25, 1968, accessed March 28, 2016, http://w2.vatican.va/content/paul-vi/en/encyclicals/documents/hf_p-vi_enc_25071968_humanae-vitae.html.

3."How many Roman Catholics are There in the Eorld?" BBC News, March 14, 2013, accessed March 29, 2016, http://www.bbc.com/news/world-21443313. See also "Christian Population as Percentages of Total Population by Country 2010," Pew Research Center, October 13, 2015, accessed March 29, 2016, http://www.pewforum.org/2011/12/19/table-christian-population-as-percentages-of-total-population-by-country.

4. "Zika Does Not Justify Abortion or Contraception," The National Catholic Bioethics Center, February 22, 2016, accessed March 29, 2016, http://www.ncbcenter.org/resources/news/zika-does-not-justify-abortion-or-contraception/.

5.Gerald D. Coleman, "Pope Francis and the Zika Virus," Health Care Ethics USA 24, No. 2: 1, April 2016, accessed May 17, 2016, https://www.chausa.org/docs/default-source/hceusa/coleman.pdf?sfvrsn=10.

6."Pope Francis Suggests Tolerance for Contraception in Zika Crisis," CBS News, February 18, 2016, accessed May 17, 2016,

http://www.cbsnews.com/news/pope-francis-suggests-tolerance-for-contraception-in-zika-crisis/.

7.James F. Keenan, "Pope Francis on Zika and Contraception," America: The National Catholic Reviewhttp://americamagazine.org/content/all-things/pope-francis-zika-and-contraception.

8.Janet E. Smith, "Contraception, Congo Nuns, Choosing the Lesser Evil, and Conflict of Commandments," Catholic World Report, February 20, 2016, accessed May 17, 2016, http://www.catholicworldreport.com/Item/4594/contraception_congo_nuns_choosing_the_lesser_evil_and_conflict_of_commandments.aspx.

9.Coleman, "Pope Francis and the Zika Virus."

10.NJ Marchette et al., "Isolation of Zika virus from Aedes aegypti mosquitoes in Malaysia," The American Journal of Tropical Medicine and Hygiene, 18 (1969): 411–415; G. Grard et al., "Zika Virus in Gabon (Central Africa) – 2007: A New Threat from Aedes Albopictus?" PLOS Neglected Tropical Diseases 8 (2014): e2681, accessed June 12, 2016, http://dx.doi.org/10.1371/journal.pntd.0002681; D.G. Gubler et al., eds., Field's Virology, 4th ed. Philadelphia: Lippincott-Raven, 2001, 1152; G. W. Dick, "Zika Virus II: Pathogenicity and Physical Properties," Transactions of the Royal Society of Tropical Medicine and Hygiene 46 (1952): 521–534; V. H. Lee, "Vectors of the 1969 Yellow Fever Epidemic on the Jos Plateau, Nigeria," Bulletin of the World Health Organization 46 (1972): 669–673; A.D., Haddow et al., "Genetic Characterization of Zika Virus Strains: Geographic Expansion of the Asian lineage, PLOS Neglected Tropical Diseases 6 (2012): e1477.

11. G. W., Dick et al., "Zika Virus I. Isolations and Serological Specificity," Transactions of the Royal Society of Tropical Medicine and Hygiene 46(5): 509-520 accessed June, 12, 2016, http://dx.doi.org/10.1016/0035-9203(52)90042-4.

12.Donald G. McNeil Jr. et al., "How a Medical Mystery in Brazil Led Doctors to Zika," The New York Times, February 06, 2016, accessed May 19, 2016, http://www.nytimes.com/2016/02/07/health/zika-virus-brazil-how-it-spread-explained.html.

13.Ibid.

14.Pam Belluck and Donald G. McNeil Jr. "Zika Virus Causes Birth Defects, Health Officials Confirm," The New York Times, April 13, 2016, accessed May 16, 2016, http://www.nytimes.com/2016/04/14/health/zika-virus-causes-birth-defects-cdc.html.

15."Zika: The Basics of the Virus and How to Protect Against it," CDC (May 16, 2016): 1-2, accessed June 1, 2016, www.cdc.gov/zika

16."The Guillain-Barré Syndrom Fact Sheet," National Institute of Neurological Disorder and Stroke, June 1, 2016, accessed June 12, 2016, http://www.ninds.nih.gov/disorders/gbs/detail_gbs.htm

17.Hengli Tang et al., "Zika Virus," 18; Magda Lahorgue Nunes et al., "Microcephaly and Zika Virus: A Clinical and Epidemiological Analysis of the Current Outbreak in Brazil," Jornal de Pediatria, Vol. 92, Issue 3, May – June 2016, 230-240, accessed June 12, 2016, http://dx.doi.org/10.1016/j.jped.2016.02.009.

18.R Hamel et al. "Biology of Zika Virus Infection in Human Skin Cells," Journal of Virology 89 (17): 8880-8896, accessed June 12, 2016, http://dx.doi.org/ 10.1128/JVI.00354-15.

19.R. B. Martines et al., "Notes from the Field: Evidence of Zika Virus Infection in Brain and Placental Tissues from Two Congenitally Infected Newborns and Two Fetal Losses – Brazil," Morbidity and Mortality Weekly Report 65 (6): 159-160, accessed June 12, 2016, http://dx.doi.org/ 10.15585/mmwr.mm6506e1; M. Besnard et al., "Evidence of Perinatal Transmission of Zika Virus, French Polynesia, December 2013 and February 2014," Eurosurveillance 19(13): 20751, accessed June 12, 2016, http://dx.doi.org/ 10.2807/1560-7917.ES2014.19.13.20751. [Nonetheless, a study has shown that though the virus is present in breast milk, the breast-fed child did not show any clinical manifestations. See M. Dupont-Rouzeyrol et al., "Infectious Zika Viral Particles in Breastmilk (Letter), Lancet 387: 1051, accessed June 12, 2016, http://dx.doi.org/ 10.1016/S0140-6736(1016)00624-00623]

20. J. M. Mansuy et al., "Zika Virus: High Infectious Viral Load in Semen, a New Sexually Transmitted Pathogen (Letter)," Lancet, March 3, 2016, accessed June 12, 2016, http:// dx.doi.org/10.1016/S1473-3099(1016)00138-00139.

21. A.Broadle, "Brazil Reports Zika Infection from Blood Transfusions," Reuters, Feb. 2, 2016, accessed June 12, 2916, http://www.reuters.com/article/us-health-zika-brazil-blood-

idUSKCN0VD22N.

22. Donna M. Regan et al., “Association Bulletin #16-04: Zika, Dengue, and Chikungunya Viruses,” American Association of Blood Banks, March 1, 2016, accessed June 12, 2016, https://www.aabb.org/programs/publications/bulletins/Documents/ab16-04.pdf. [Sonja Zika virus infection and adverse pregnancy and birth outcomes is established,nderstanding the full spectrum of defects caused by congenital Zika virus infection; if Zika virus is similar to other teratogens, an expansion of the phenotype would be expected (e.g.,with the congemital rubella syndrome, the phenotype was expanded from cataracts to include other findings such as hearing loss, congenital heart defects, and microcephaly). Second, quantifying the relative and absolute risks among infants who are born to women who were infected at different times during pregnancy. Third, identifying factors that modify the risks of an adverse pregnancy or birth outcome (e.g., coinfection with another virus, preexisting immune response to another flavivirus, genetic background of the mother or fetus, and severity of infection).” (Sonja Rasmussen, Denise Jamieson, Margaret Honein et al. “Zika Virus and Birth Defects-Reviewing the Evidence for Causality,” New England Journal of Medicine, 374 (2016): 1981-1987, accessed June 1, 2016, doi: 10.1056/NEJMsr1604338.)]

23.“All Countries and Territories with Active Zika Virus Transmission,” CDC. See also Donald G. McNeil Jr. et al., "How a Medical Mystery in Brazil Led Doctors to Zika."

24.“Possible Zika Virus Infection Among Pregnant Women – United States and Territories,” CDC, May 2016, accessed May 22, 2016, http://www.cdc.gov/mmwr/volumes/65/wr/mm6520e1.html.

25.“Zika Virus: Symptoms, Diagnosis & Treatment,” CDC, February 3, 2016, accessed February 12, 2016, http://www.cdc.gov/zika/symptoms/index.html.

26.“Arboviral Diseases, Neuroinvasive and Non-neuroinvasive – 2015 Case Definition,” CDC, January 21, 2016, accessed June 12, 2016, http://wwwn.cdc.gov/nndss/conditions/arboviral-diseases-neuroinvasive-and-non-neuroinvasive/case-definition/2015/.

27. “Zika Virus in the United States, 2015-2016,” CDC, April 27, 2016, accessed June 1, 2016, http://www.cdc.gov/zika/geo/united-states.html.

28.Belluck and McNeil Jr., "Zika Virus Causes Birth Defects."

29.Emma Fitzsimmons, “New York’s Zika Fight Turns to Travel Precautions and Safe Sex,” The New York Times, May 30, 2016, accessed June 1, 2016, http://www.nytimes.com/2016/05/31/nyregion/zika-precautions-for-summer-travel-the-focus-turns-to-safe-sex.html.

30.Rachel K. Jones and Joerg Dreweke, Countering Conventional Wisdom: New Evidence on Religion and Contraceptive Use (New York: Guttmacher Institute, 2011), 4-5.

31.The Alan Guttmacher Institute (AGI), Fulfilling the Promise: Public Policy and U.S. Family Planning Clinics (New York: Guttmacher Institute, 2000), 10.

32.Frank Bruni, “Catholicism Undervalues Women,” The New York Times, May 6, 2015, accessed March 25, 2016, http://www.nytimes.com/2015/05/06/opinion/frank-bruni-catholicism-undervalues-women.html.

33.Ibid.

34.Pius XI, Casti Connubii, Encyclical Letter on Christian Marriage, Sec. 75, Vatican Web site, December 31, 1930, accessed March 28, 2016, https://w2.vatican.va/content/pius-xi/en/encyclicals/documents/hf_p-xi_enc_19301231_casti-connubii.html

35.Ibid.

36.Ibid. secs. 53-67.

37.Ibid., sec. 59.

38.Paul VI, Humanae Vitae.

39.Instruction on Respect for Human Life in Its Origin and on the Dignity of Procreation, Congregation for the Doctrine of the Faith (CDF) (Vatican City: Vatican Polyglot Press, 1987), 26.

40.Charles E. Curran, Contraception, Authority, and Dissent (New York: Herder and Herder, 1969), 154.

41.“Human Life in Our Day,” United States Catholic Conference (Washington, DC: USCC Office for Publishing and Promotion Services, 1968), accessed March 28, 2016, http://www.priestsforlife.org/magisterium/bishops/68-11-15humanlifeinourdaynccb.htm.

42.John F. Kane, “Roman Catholicism and the Contemporary Crisis of Authority” in Phyllis Zagano and

Terrence Tilley, eds., The Exercise of Primacy (New York, Crossroad Publishing, 1998), 60.

43.Paul VI, Humanae Vitae.

44.See Joshua J. McElwee, "Theologians See Need for Broader Discussion on Conscience," National Catholic Reporter, Feb. 10, 2012, accessed March 29, 2016, http://ncronline.org/news/politics/theologians-see-need-broader-discussion-conscience.

45.Gerard Gilleman as a Catholic virtue ethicist claims that the supernatural theological virtue of charity guides the agent into some definite courses of action in a decision-making situation. For him, what the agent needs is to carefully attend to the supernatural voice of charity which can be that of conscience. For him, charity (or Christian love) is the supreme Virtue (as an infused virtue) that controls all the other virtues/character-traits. See Gilleman, The Primacy of Charity in Moral Theology, trans. by William F Ryan and Andre Vachon (London: Burns & Oates, 1959), pp. 166, 168-174, 167. In fact, today's most contemporary Catholic theologians and ethicists remain in this tradition and attempt to elucidate, expand, and intensify the scheme by employing modern philosophical development. Major texts of such work would be Gerard Gilleman's The Primacy of Charity in Moral Theology (personalism), Martin D'Arcy's The Mind and Heart of Love (existentialism), Karl Rahner's The Love of Jesus and the Love of Neighbor (existentialism, particularly Heideggerian), Robert Johann's The Meaning of Love (transcendental phenomenology), Jules Toners' Love and Friendship (experiential phenomenology), etc.

46.Since the 17th century Blaise Pascal (the spokesperson of the Jansenist sect of Catholicism) vilified the Jesuit confessors of the University of Paris for their use of casuistry by charging that casuistry is the doctrine that ignores universal moral principles and rules "sought to excuse the inexcusable," the damaged reputation of casuistry did not recover for a long time. The 17th century Blaise Pascal (the spokesperson of the Jansenist sect of Catholicism) vilified the Jesuit confessors of the University of Paris for their use of casuistry by charging that casuistry is the doctrine that ignores universal moral principles and rules "sought to excuse the inexcusable," the damaged reputation of casuistry did not recover for a long time [Carson Strong "Justification in Ethics" in Moral Theory and Moral Judgments in Medical Ethics, ed. by Baruch Brody, (Dordrecht: Kluwer Academic Publishers, 1998), 193-211.]. However, in The Abuse of Casuistry (1988), the Christian ethicist Albert Jonsen and the secular philosopher Stephen Toulmin, distinguished "bad casuistry" from "good casuistry," and persuasively argued that Pascal's vilification of casuistry applied only to some Jesuits' "bad casuistry" and thus that casuistry in a proper form could be used as a powerful inductive method in our complex modern society. Since then, there have been massive systematic efforts to develop the "good casuistry." Nowadays, the medieval Catholic method has attained much more sophisticated and rigorous shape than classical casuistry and is widely used in medicine and law [Albert Jonsen and Stephen Toulmin, The Abuse of Casuistry (London, UK: University of California Press, 1989), 272-273.]

47.Pope Benedict XVI, Light of the World: The Pope, the Church, and the Signs of the Times, trans. by Miller and Walker (San Francisco: Ignatius Press, 2010), 119

48.Fr. Martin Rhonheimer of Pontifical University of the Holy Cross states as follows in favor of the doctrine of double effect. He says that an HIV-positive male who uses a condom "to protect his wife from infection is not acting to render procreation impossible . . . but to prevent infection. If conception is prevented, this will be an unintentional side effect." The intention and circumstance prove crucial when deciding whether the use of a condom violates the Church's teachings. In each of the three cases presented, it is argued that the use of condoms is not necessarily a sin. Genuine concerns over a spouse's physical and mental health can justify the use of artificial contraception in extraordinary circumstances (Coleman, "Pope Francis and the Zika Virus"). For the doctrine of double effect, see Gerald Kelly, S.J., Medico-Moral Problems (St. Louis, MO: The Catholic Health Association of the United States and Canada, 1958), 13-14. The doctrine of double effects specifies four conditions which must be fulfilled for an action with both a good and an evil effect to be ethically justified: 1) The action, considered by itself and independently of its effects, must not be morally evil. The object of the action must be good or indifferent. 2) The evil effect must not be the means of producing the good effect. 3) The evil effect is sincerely not intended, but merely tolerated. 4.) There must be a proportionate reason for performing the action, in spite of the evil consequences.

498.For a more detailed description about nonmoral evil, see Louis Janssens, "Ontic Evil And Moral Evil," in Readings In Moral Theology, No. 1: Moral Norms And Catholic Tradition, edited by Charles F. Curran and Richard A.

McCormick, S.J. (Ramsey, N.J.: Paulist Press, 1979), 60.

50.Richard A. McCormick, S.J., How Brave A New World?: Dilemmas In Bioethics, (Washington, D.C.: Georgetown University Press, 1981), 443.

51.Richard A. McCormick, S.J. and Paul Ramsey, Doing Evil To Achieve Good: Moral Conflict Situations, (Lanham, MD.: University Press of America, 1985), 38. See also Thomas Aquinas' Summa Theologiae II-II, q. 64, a. 7.

52.According to McCormick and Ramsey, "it can be argued that where a higher good is at stake and the only means to protect it is to choose to do a nonmoral evil, then the will remains properly disposed to the values constitutive of human good. The person's attitude or intentionality is good because he is making the best of a destructive and tragic situation. This is to say that the intentionality is good even when the person, reluctantly and regretfully to be sure, intends the nonmoral evil if a truly proportionate reason for such a choice is present." [Emphasis in the original] (McCormick and Ramsey, 39).

53.Coleman, 1.

54.James J. Walter, "Proportionate Reason and Its Three Levels Of Inquiry: Structuring The Ongoing Debate," Louvain Studies 10 (Spring, 1984): 32.

55.McCormick's criteria for proportionate reason first appeared in Richard McCormick, Ambiguity in Moral Choice (Milwaukee, WI.: Marquette University Press, 1973). He later reworked the criteria in response to criticism. His revised criteria can be found in Doing Evil to Achieve Good, eds. Richard McCormick and Paul Ramsey (1978).

56.Rasmussen et al., 4.

57.Though we mentioned above that we will compare the Belgian Congo nuns case and the Zika case in reference to the doctrine of the lesser of two evils, we do not mean that other doctrines cannot be used as a justifying tool. In regards to abstinence here, if in good conscience abstinence is not a moral possibility for the married couple, then the use of condoms could become justified under the traditional principle of double effect. "This moral principle is used in conflictual situations in which a single composite action (use of a condom) has at least two foreseen effects that cannot be separated: one that is good and intended (preventing Zika transmission) and a secondary and unintended effect (contraception). See James Bretzke, "Impossibility," in Handbook of Roman Catholic Moral Terms (Washington, D.C.: Georgetown University Press, 2013), 120.

58.Thomas J. O'Donnell, Medicine and Christian Morality 2nd ed. (New York: Alba House, 1971): 14.

References

1. Aquinas, Thomas. Summa Theologiae II-II.
2. Belluck, Pam and Donald G. McNeil Jr. "Zika Virus Causes Birth Defects, Health Officials Confirm." The New York Times. April 13, 2016. Accessed May 16, 2016. http://www.nytimes.com/2016/04/14/health/zika-virus-causes-birth-defects-cdc.html.
3. Benedict XVI. Light of the World: The Pope, the Church, and the Signs of the Times. Trans. by Miller and Walker (San Francisco: Ignatius Press, 2010).
4. Besnard M, Lastere S, Teissier A. "Evidence of Perinatal Transmission of Zika Virus, French Polynesia, December 2013 and February 2014," Eurosurveillance 19(13). Accessed June 12, 2016. http://dx.doi.org/10.2807/1560-7917.ES2014.19.13.20751.
5. BBC News. "How many Roman Catholics are there in the world?" March 14, 2013. Accessed March 29, 2016. http://www.bbc.com/news/world-21443313.
6. Bretzke, James. "Impossibility" in Handbook of Roman Catholic Moral Terms (Washington, D.C.: Georgetown University Press, 2013).
7. Broadle, A. "Brazil Reports Zika Infection from Blood Transfusions." Reuters. Feb. 2, 2016. Accessed June 12, 2916. http://www.reuters.com/article/us-health-zika-brazil-blood-idUSKCN0VD22N.
8. Bruni, Frank. "Catholicism Undervalues Women." The New York Times. May 6, 2015. Accessed March 25, 2016. http://www.nytimes.com/2015/05/06/opinion/frank-bruni-catholicism-undervalues-women.html.
9. CBS News. "Pope Francis Suggests Tolerance for Contraception in Zika Crisis." February 18, 2016. Accessed May 17, 2016. http://www.cbsnews.com/news/pope-francis-suggests-tolerance-for-contraception-in-zika-crisis/.
10. Centers for Disease Control and Prevention (CDC). "All Countries and Territories with Active Zika Virus Transmission." May 26, 2016. Accessed May 26, 2016. http://www.cdc.gov/zika/geo/active-countries.html.
11. CDC, "Arboviral Diseases, Neuroinvasive and Non-neuroinvasive – 2015 Case Definition." January 21, 2016. Accessed June 12, 2016. http://wwwn.cdc.gov/nndss/conditions/arboviral-diseases-neuroinvasive-and-non-neuroinvasive/case-definition/2015/.
12. CDC. "Possible Zika Virus Infection Among Pregnant Women – United States and Territories." May 2016. Accessed May 22, 2016. http://www.cdc.gov/mmwr/volumes/65/wr/mm6520e1.html.
13. CDC. "Zika: The Basics of the Virus and How to Protect Against It." CDC (May 16, 2016): 1-2. Accessed June 1, 2016. www.cdc.gov/zika.
14. CDC. "Zika Virus in the United States, 2015-2016." April 27, 2016. Accessed June 1, 2016. http://www.cdc.gov/zika/geo/united-states.html.
15. CDC, "Zika Virus: Symptoms, Diagnosis & Treatment." February 3, 2016. Accessed February 12, 2016. http://www.cdc.gov/zika/symptoms/index.html.
16. Coleman, Gerald D. "Pope Francis and the Zika Virus," Health Care Ethics USA 24, No. 2: 1, April 2016. Accessed May 17, 2016.

https://www.chausa.org/docs/default-source/hceusa/coleman.pdf?sfvrsn=10.
17. Congregation for the Doctrine of the Faith (CDF). Instruction on Respect for Human Life in Its Origin and on the Dignity of Procreation (Vatican City: Vatican Polyglot Press, 1987).
18. Curran, Charles E. Contraception, Authority, and Dissent (New York: Herder and Herder, 1969).
19. Dick, GW. "Zika Virus I. Isolations and Serological Specificity," Transactions of the Royal Society of Tropical Medicine and Hygiene 46(5): 509-520 accessed June, 12, 2016, http://dx.doi.org/10.1016/0035-9203(52).
20. Dick GW, Kitchen SF, and Haddow AJ. "Zika Virus II: Pathogenicity and Physical Properties." Transactions of the Royal Society of Tropical Medicine and Hygiene 46 (1952).
21. Dupont-Rouzeyrol M, Biron A, and O'Connor O. "Infectious Zika Viral Particles in Breastmilk (Letter), Lancet 387: 1051. Accessed June 12, 2016. http://dx.doi.org/10.1016/S0140-6736(1016)00624-00623]
22. Fitzsimmons, Emma. "New York's Zika Fight Turns to Travel Precautions and Safe Sex," The New York Times, May 30, 2016. Accessed June 1, 2016. http://www.nytimes.com/2016/05/31/nyregion/zika-precautions-for-summer-travel-the-focus-turns-to-safe-sex.html.
23. Gilleman, Gerard. The Primacy of Charity in Moral Theology. Trans. by William F Ryan and Andre Vachon (London: Burns & Oates, 1959).
24. Grard G, Caron M, Mombo IM, Nkoghe D, Mboui Ondo S. "Zika Virus in Gabon (Central Africa) – 2007: A New Threat from Aedes Albopictus?" PLOS Neglected Tropical Diseases 8 (2014): e2681. Accessed June 12, 2016. http://dx.doi.org/10.1371/journal.pntd.0002681.
25. Gubler DG, Kunu G., Markoff L. Field's Virology. 4th Ed. Philadelphia: Lippincott-Raven, 2001.
26. Haddow AD, Schuh AJ, Yasuda CY, Kasper MR, and Heang V. "Genetic Characterization of Zika Virus Strains: Geographic Expansion of the Asian lineage. PLOS Neglected Tropical Diseases 6 (2012).
27. Hamel R, Dejarnac O, and Wichit S. "Biology of Zika Virus Infection in Human Skin Cells," Journal of Virology 89 (17): 8880-8896, accessed June 12, 2016, http://dx.doi.org/ 10.1128/JVI.00354-15.
28. Janssens, Louis. "Ontic Evil And Moral Evil." in Readings In Moral Theology No. 1: Moral Norms And Catholic Tradition. Edited by Charles F. Curran and Richard A. McCormick, S.J. (Ramsey, N.J.: Paulist Press, 1979).
29. Jones, Rachel K. and Joerg Dreweke. Countering Conventional Wisdom: New Evidence on Religion and Contraceptive Use (New York: Guttmacher Institute, 2011).
30. Jonsen, Albert and Stephen Toulmin. The Abuse of Casuistry (London, UK: University of California Press, 1989).
31. Kane, John F. "Roman Catholicism and the Contemporary Crisis of Authority" In Phyllis Zagano and Terrence Tilley, Eds. The Exercise of Primacy (New York, Crossroad Publishing, 1998).
32. Keenan, James F. "Pope Francis on Zika and Contraception." America: The National Catholic Review. Feb 20 2016. Accessed June 1, 2016. http://americamagazine.org/content/all-things/pope-francis-zika-and-contraception.
33. Kelly S.J., Gerald. Medico-Moral Problems (St. Louis, MO: The Catholic Health Association of the United States and Canada, 1958).
34. Lee VH and Moore DL. "Vectors of the 1969 Yellow Fever Epidemic on the Jos Plateau, Nigeria." Bulletin of the World Health Organization 46 (1972)
35. Magda Lahorgue Nunes, Celia Regina Carlini, Daniel Marinowic, Felipe Kalil Neto, Humberto Holmer Fiori, Marcelo Comerlato Scotta, Pedro Luis Ávila Zanella, Ricardo Bernardi Soder, and Jaderson Costa da Costa. "Microcephaly and Zika Virus: A Clinical and Epidemiological Analysis of the Current Outbreak in Brazil." Jornal de Pediatria. Vol. 92. Issue 3. May – June 2016, 230-240. Accessed June 12, 2016. http://dx.doi.org/10.1016/j.jped.2016.02.009.
36. Mansuy JM, Dutertre M, and Mengelle C. "Zika Virus: High Infectious Viral Load in Semen, a New Sexually Transmitted Pathogen (Letter)." Lancet. March 3, 2016. Accessed June 12, 2016. http://dx.doi.org/10.1016/S1473-3099(1016)00138-00139.
37. Marchette NJ, Garcia R, and Rudnick A. "Isolation of Zika Virus from Aedes aegypti mosquitoes in Malaysia." The American Journal of Tropical Medicine and Hygiene 18 (1969)
38. Martines RB, Bhatnagar J, and Keating MK. "Notes from the Field: Evidence of Zika Virus Infection in Brain and Placental Tissues from Two Congenitally Infected Newborns and Two Fetal Losses – Brazil," Morbidity and Mortality Weekly Report 65 (6). Accessed June 12, 2016. http://dx.doi.org/ 10.15585/mmwr.mm6506e1
39. McCormick S.J., Richard A. How Brave A New World?: Dilemmas In Bioethics. (Washington, D.C.: Georgetown University Press, 1981).
40. McCormick S.J., Richard A. and Paul Ramsey. Doing Evil To Achieve Good: Moral Conflict Situations (Lanham, MD.: University Press of America, 1985).
41. McElwee, Joshua J. "Theologians See Need for Broader Discussion on Conscience." National Catholic Reporter. Feb. 10, 2012. Accessed March 29, 2016. http://ncronline.org/news/politics/theologians-see-need-broader-discussion-conscience.
42. McNeil, Donald G., Simon Romero, and Sabrina Tavernise. "How a Medical Mystery in Brazil Led Doctors to Zika." The New York Times. February 19, 2016. Accessed May 22, 2016. http://www.nytimes.com/2016/02/07/health/zika-virus-brazil-how-it-spread-explained.html.
43. National Institute of Neurological Disorder and Stroke. "The Guillain-Barré Syndrom Fact Sheet." June 1, 2016. Accessed June 12, 2016. http://www.ninds.nih.gov/disorders/gbs/detail_gbs.htm
44. O'Donell, Thomas J. Medicine and Christian Morality. 2nd ed. (New York: Alba House, 1971)
45. Paul VI. Humanae Vitae. Encyclical Letter on Human Life. Vatican Website, July 25, 1968. Accessed March 28, 2016. http://w2.vatican.va/content/paul-vi/en/encyclicals/documents/hf_p-vi_enc_25071968_humanae-vitae.html.
46. Pew Research Center. "Christian Population as Percentages of Total Population by Country 2010." October 13, 2015. Accessed March 29, 2016. http://www.pewforum.org/2011/12/19/table-christian-population-as-percentages-of-total-population-by-country.
47. Pius XI. Casti Connubii. Encyclical Letter on Christian Marriage. Sec. 75. Vatican Web site. December 31, 1930. Accessed March 28, 2016. https://w2.vatican.va/content/pius-xi/en/encyclicals/documents/hf_p-xi_enc_19301231_casti-connubii.html.
48. Pollack, Andrew. "New Weapon to Fight Zika: The Mosquito." The New York Times, January 30, 2016. Accessed May 18, 2016. http://www.nytimes.com/2016/01/31/business/new-weapon-to-fight-zika-the-mosquito.html.
49. Rasmussen, Sonja, Denise Jamieson, Margaret Honein, ... "Zika Virus and Birth Defects-Reviewing the Evidence

for Causality." New England Journal of Medicine. 374 (2016): 1981-1987. Accessed June 1, 2016. doi: 10.1056/NEJMsr1604338.
50. Regan, Donna M., "Association Bulletin #16-04: Zika, Dengue, and Chikungunya Viruses." American Association of Blood Banks, March 1, 2016. Accessed June 12, 2016. https://www.aabb.org/programs/publications/bulletins/Documents/ab16-04.pdf.
51. Smith, Janet E. "Contraception, Congo Nuns, Choosing the Lesser Evil, and Conflict of Commandments." Catholic World Report. February 20, 2016. Accessed May 17, 2016. http://www.catholicworldreport.com/Item/4594/contraception_congo_nuns_choosing_the_lesser_evil_and_conflict_of_commandments.aspx.
52. Strong, Carson. "Justification in Ethics" in Moral Theory and Moral Judgments in Medical Ethics. Ed. by Baruch Brody (Dordrecht: Kluwer Academic Publishers, 1998).
53. Tang, Hengli, Christy Hammack, Sarah C. Ogden, Zhexing Wen, Xuyu Qian, Yujing Li, Bing Yao, Jaehoon Shin, Feiran Zhang, Emily M. Lee, Kimberly M. Christian, Ruth A. Didier, Peng Jin, Hongjun Song, and Guo-Li Ming. "Zika Virus Infects Human Cortical Neural Progenitors and Attenuates Their Growth." Cell Stem Cell 18, No. 5. March 4, 2016: 587-90. Accessed May 17, 2016. doi:10.1016/j.stem.2016.02.016.
54. The Alan Guttmacher Institute (AGI). Fulfilling the Promise: Public Policy and U.S. Family Planning Clinics (New York: Guttmacher Institute, 2000).
55. The National Catholic Bioethics Center. "Zika Does Not Justify Abortion or Contraception." February 22, 2016. Accessed March 29, 2016. http://www.ncbcenter.org/resources/news/zika-does-not-justify-abortion-or-contraception/.
56. United States Catholic Conference. "Human Life in Our Day." (Washington, DC: USCC Office for Publishing and Promotion Services, 1968). Accessed March 28, 2016. http://www.priestsforlife.org/magisterium/bishops/68-11-15humanlifeinourdaynccb.html.
57. Walter, James J. "Proportionate Reason and Its Three Levels of Inquiry: Structuring The Ongoing Debate." Louvain Studies 10 (Spring, 1984).

Author Information

Marvin J. H. Lee , Ph.D., Bioethics Consultant
Institute of Clinical Bioethics, Saint Joseph's University
Philadelphia, Pennsylvania

Ravi S. Edara , M.D., Internal Medicine Resident
Internal Medicine Resident, Mercy Catholic Medical Center
Darby, Pennsylvania

Peter A. Clark , S.J., Ph.D., Director
Institute of Clinical Bioethics, Saint Joseph's University
Philadelphia, Pennsylvania

Andrew T. Myers , Research Fellow
Institute of Clinical Bioethics, Saint Joseph's University
Philadelphia, Pennsylvania