



Original article

Conscientious objection in Scientific Ethics and its relationship with ideology, religion and laws

Objeción de conciencia desde la Ética Científica y su relación con la ideología, la religión y con las leyes

Carlos Y. Valenzuela

Programa de Genética Humana, ICBM, Facultad de Medicina, Universidad de Chile, Santiago, Chile

Received 4 May 2017; accepted 27 June 2017

Available online 1 August 2017

Abstract

Conscientious objection (CO) is the refusal to obey laws due to moral, religious or belief principles. The ideologies or religions underlying laws or constitutions have been seldom analyzed. Scientific Ethics finds that constitutions and laws have implicit or explicit ideological elements that are imposed on citizens, and denies or forbids others that lead citizens to CO. Ideological analysis is critical for laws that violate other rights, moral or ethical principles that are accepted by everyone and aggressions to humans or animals. CO is critically different in the cases of military service, abortion (killing fetuses), vaccination or tax payments. In the case of abortion the commandment is to kill a fetus in certain conditions; but to kill human beings contradicts the medical foundations and most religions or ideologies. Constitutions and laws should respect the ideologies or religions of that people so citizens can express and live his or her ideology without contradiction or CO. A law on abortion should provide centers of abortion served by professionals that share that ideology; this would avoid CO.

© 2017 Centros Culturales de México, A.C. Published by Masson Doyma México S.A. All rights reserved.

Keywords: Objection of conscience; Religion; Ideology; Law; Scientific ethics; Ideology of laws

E-mail address: cvalenzu@med.uchile.cl

<http://dx.doi.org/10.1016/j.bioet.2017.06.002>

2395-938X/© 2017 Centros Culturales de México, A.C. Published by Masson Doyma México S.A. All rights reserved.

Resumen

La objeción de conciencia (OC) es la negativa a cumplir una ley por motivos morales o religiosos. Poco se ha analizado la ideología, religión o valoración implícita en las leyes. La Ética Científica (EC) hace este análisis y descubre que toda constitución o ley tiene una o más ideología(s) incorporadas que son impuestas implícitamente a los ciudadanos y niega otras, lo que obliga a la OC. Este análisis es crítico en leyes que se refieren a violación de otros derechos, estados morales, principios éticos aceptados por todos o agresiones al ser humano o a seres vivos. Es distinta la OC en el servicio militar que obliga a matar personas, el pago de impuestos, la vacunación o el aborto. En el aborto el mandato se refiere a matar a un feto en ciertas condiciones; pero matar seres humanos contradice los fundamentos de la medicina, religiones e ideologías. Toda constitución o ley debería considerar las ideologías o religiones, respetándolas para que puedan observarse sin contradicción. Así, una ley de aborto (matar fetos) debería proveer de centros atendidos por personas que comparten esa ideología, con lo que se evitaría toda OC al respecto.

© 2017 Centros Culturales de México, A.C. Publicado por Masson Doyma México S.A.
Todos los derechos reservados.

Palabras clave: Objeción de conciencia; Religión; Ideología; Ley; Ética científica; Ideología de las leyes

Situation, context and Intentionality

Are laws constructed including ideological or religious moral vectors? The present answer is not. In the occidental world it has been assumed that law should be based on “reason”, “common moral or sense” and this is sufficient to represent the feeling, ideologies or religions of a whole people. If this is true, why is conscientious objection (CO) currently invoked in critical subject as abortion, military services, vaccination, euthanasia, and any subject where the human life or its quality is affected? Can reason solve moral, ethics, religion or ideological dilemmas? Can intellectual thinking and laws solve the problem of the fight between the good and evil? A recent law project in Chile about pregnancy interruption offers us the opportunity to think about these subjects. This Chilean law project now in the Parliament about pregnancy interruption (PI) (termination, discontinuation) under three conditions includes the legal possibility of CO. In Chile this originated different approaches ([Beca & Astete, 2015; Besio, 2016; Montero, 2016; Salas et al., 2016](#)). We analyze here CO from the Scientific Ethics (SE) perspective ([Valenzuela, 2000, 2001, 2003, 2013](#)). SE differs from Bioethics and Moral Philosophy because it includes human intentions, scientific knowledge coming mostly from neurosciences or neuro-ethics ([FFigueroa, 2013, 2016](#)) psychology and psychiatry, religions, ideologies and organic evolution with its

components of physical (cosmic), organic and cultural human evolution. SE is based on the conception that ethics and moral are sense or meaning of cosmic motion. SE is a non-anthropic ethics dealing with the cosmic presence of directionality of universal processes; its first principle is the second law of thermodynamics (Valenzuela, 2000, 2001, 2003, 2013); its second principle is the historical fact of cosmic evolution. Thus human SE inserts into human bio-socio-cultural evolution and assumes that human ethics is a product of this evolutionary process where religions or ideologies developed as any other cultural element and display a wide polymorphism (Díaz, 1999; Eliade & Couliano, 1991). In this context SE analyzes ethics as dependent of religions or ideologies, because for these cultural conceptions and valuations goodness (good) or badness (evil) are foundational conceptions or beliefs. This analysis is addressed to specialists, health service professionals, students and to any educated reader; thus references includes scientific, philosophical or legal articles and general references for the non specialist reader. I avoid deep philosophical, ethical or scientific analyses; but conserve logical, scientific and axiological rigorousness.

Operational definitions of religions and ideology

Here religion and ideology are defined (operationally and conceptually) as the vision or conception and valuation of existence, the world or life. Ideology gives more emphasis to social moral behavior and religion to individual ethics or principles. Ideology often replaces religion in laic persons. Both are the structure of valuations of the elements of the world conception underlying any decision.

CO definitions

We are interested in the definition of CO in the ethical–moral–legal–religious–ideological interface context. Digital researchers give different definitions according to different languages and cultures; here we use a general and more inclusive definition (definitions in English are related mostly to military conscription): the negative or refusal (objection) to obey a law, a social or professional ordinance or procedure based on moral, conscience, disability, religious or ethical grounds. The treatises often refer to CO together with other forms of refusals such as civil disobedience or resistance, civil protest, rebellion and revolutionary movements (Dictionary.com; Free Medical Dictionary; Savulescu, 2006; Wikipedia, 2017a, 2017b). In these other forms of refusal there are collective manifestations and the conviction that the law or ordinance is morally or ideologically wrong, contradictory or unacceptable to the

entire group; the law is not accepted because it includes unacceptable ideological or religious elements; the law is felt as having an underlying ideological persecutory condition. The conscientious objector does accept the law for the general society but considers it in contradiction with his or her own convictions. Scientific Ethics makes the objection wider. For SE any refusal of the law is, in some way, CO; any infraction (non-obeyance) to the law or delinquency is factually CO, because at the moment of deciding a delinquent or non-legal action, the person knows this action is against the law, but he or she performs the action anyway. Here the “objection” comes from the own valuation of the better result or benefits of the action in relation to the observation of the law. This situation indicates an important difference between SE and Bioethics or Moral Philosophy. Responsibility in SE is dialectically for the results of the action (commission) and for the results of the non-action (omission) that are always present in any decision. We cannot not to decide and if we take one option we do not take the other alternatives, or at least we do not take the non-option. In traditional ethics responsibility is assigned, for example, for killing someone; in SE responsibility is assigned on one part for killing someone, but also for not letting this someone live, for not killing this person, and also and logically for not killing others. If there are three alternatives A1, A2 and A3 and A2 is chosen, responsibility should be assigned for choosing A2 and for discarding A1 and A3 (and the other logical possible alternatives); also, for not leaving A2 “free”. This condition is very important; we are responsible, at any moment, for letting our neighbors live, and any intervention or action we do (or do not do) makes us responsible for its consequences and for the consequences of not doing this intervention or action. Our life is full of responsibilities, but our consciousness accesses a narrow set of them. The religious or ideological development implies an enlightenment of the entire consciousness to live in agreement with the widest responsibility.

The origin of the problem; implicit ideology

It has been assumed, without formal and rigorous criticism, that the law or right of any country should be obeyed regardless of individual morals, religion or ideology. Underlying this assumption is the general belief that the law represents a general moral, ideological or religious valuation shared by the total people, or that it is a “superior or supreme” trans-moral law; it is a kind of common agreement about bad and good behavior, justified by a “supra-human” instance (often reason) that cannot be justified by itself (reason cannot justify reason). However, this is far from being true; so, knowing that, legislators make laws allowing for the right to

conscientious objection (CO), which is considered an essential right of any legislation, as defined previously. In general, legislators think CO will be for individuals who feel their morals disagree irreducibly with that law. They (legislators) do not analyze whether the law disagrees with universal ideological, political or religious feelings or commandments or even whether contradictions with their own values are involved; moreover they do not examine whether the law has ideological valuations. It is obvious that the ideology of the law includes the assumption that its obedience is “good” and its “refusal” is “bad”, and also that it represents the common ideology of the citizens of that country. But, what is this ideology? In most, if not all laws, this ideology is implicit and accepted without any criticism or analysis. In Nebuchadnezzar’s empire the law to fall down and worship the golden statue he had set up was obligatory for everybody; those did not do so were thrown into a furnace of blazing fire ([Bible, 2017](#)). Daniel (Belteshazzar) and his companions behaved as conscientious objectors, so they were sent to the furnace; their ideology or religion was in contradiction with the ideology or religion included in the king’s law. The same occurred in the Roman Empire with Christians and hundreds of thousands, perhaps millions were killed for not accepting the Empire’s laws. In both cases the ideological or religious component of the law was evident; the present important question is whether any law has implicit or explicit ideological or religious elements that are imposed on persons who do not agree with them or contradict with universal religions or ideologies shared by that people. If this is true, as it is at least in these two examples, any law including these elements becomes a persecutory civil and legal condition for persons having these religions or ideologies, with or without CO, living or not living in that country.

The fallacy of neutral laws

Can there be an ideological or religious “neutral” law? Can there be a law without any valuation element? The answer is not, because laws are produced in a cultural context full of religious, ideological, or cultural valuation elements. Legislators, in constructing laws, believe they have taken these different cultural contexts into account and have articulated them to produce a kind of consensus or intersection set of religious, ideological, moral, political and behavioral propositions to be realized in a law; or they believe they have a supra-religious, supra-ideological neutral or secular position from which they can produce a-religious, an-ideological, a-valuation, an-axial or neutral laws. This is only a well-intentioned belief. If we examine some of the most important religions in the world we conclude this “consensus” is rather a dream. For Semitic religions, Judaism, Christianity and

Islam, animals do not have soul; for Indo-European religions such as Hinduism and Buddhism animals are beings with soul ([Shah, 2017](#)). No agreement may exist between the two groups in most laws related to animal rearing, handling, using for research or having animals as pets. Reincarnation does not exist for Christians, for Hindus and Buddhists it does. For atheistic and most agnostic ideologies the immortal soul does not exist; thus for all these groups the position in face of abortion, euthanasia, to murder someone, the death penalty, anti-conceptive drugs, military institutions and most life-death decisions are irreducibly different and laws cannot reach a real consensus based on the agreement of religious or ideological foundations. The dialog among them is useless, except for establishing that there cannot be agreement.

The hopeless “laic”, “democratic” or “reasonable” solution

Occidental civilizations, mostly in Europe and America, have attempted to develop right in a non-religious-or-ideological background called the “laic” or secular position. Unfortunately this is a poor, badly and polysemically defined word. The simplest meaning of laic as noun is a person that does not belong to the clergy or hierarchical religious class. Laic or secular, as an adjective, is used as not dependent on ideological or religious beliefs; free of religious conditioned position or valuations; not laden by religions. However, this is impossible as shown above. All religious groups have laics and clerical persons, thus the application of the last meaning is inconsistent. On the other hand, a person who is not identified with any formal known ideological or religious visions or valuations has his (her) own vision and valuation of the world that constitutes his private religion or ideology. Nobody has an a-religious, an-ideological, a-political, without-values, a-etc. (neutral) position. We reach the conclusion that this position does not exist in reality, and “laic” is a rather vague and ample o empty conceptualization to reach the minimal agreement needed to produce a syncretic law, that often does not satisfy completely any of the ideological, political or religious participant groups. Moreover, laic positions coincide mostly with ideologies such as Gnosticism, Agnosticism, Atheism, Liberalism, Pragmatism, Rationalism, Positivism and others whose world vision and valuation are as formal, precise and specific as those of known religions and ideologies. Furthermore, the secularist (we must say rather laicist that exists in Latin languages) position has developed an extreme laic ideology that implies an anti-religious or anti-ideological position; thus laicism is a religion by itself.

The impossibility of multi-religious (ideological) homogeneous laws

According to this analysis it is not possible to produce a law or even a political constitution without an ideological or religious component, because if the law induces CO, it is because it has not considered the values of conscientious objectors. Most treatises of right, particularly those from the English tradition, consider law or duty as something superior to human beings; these laws or duties are based in a supra-human undefined “existence”, from which laws proceed, not different from the divine plane of religions. This is mostly the position of rationalist or positivist persons; for them God has been replaced by the undefined conception of “reason”. [Hegel \(1928\)](#) considered that reason, at the limit, was divinity itself. Laws are human artifacts; humans produce laws, the reverse is false. The laws belong to an inferior ontological (I would like to say ontic instead) plane in relation to humans (and their lives) that conventionally construct them. To study, in general, the implicit ideology of any law is crucial but is outside the purpose of this article. So I will analyze the particular case of the Chilean project of law on pregnancy interruption in three causes.

The Chilean law project of pregnancy interruption (PI)

A 1989 Chilean law “forbade any type of abortion”; since then, difficulties have been produced in the moral–legal–ethical interface, even though, the practical clinical decisions seemed not to have complications and continue as previously. However, in the socio-cultural or clinical context there are important problems in the case of rape and when the fetus has pathological conditions with poor vital expectancy in the uterus or after birth. These are two of the three cases where the current law project indicates legal decriminalization. The third is in the case of severe maternal vital risk.

Previous to this analysis, we need to define clearly the behaviors that are under study. Legal and ethical abortion, as far as the Chilean context is concerned, implies to kill intentionally a human fetus or embryo. The intention to kill the fetus should be primary and not a secondary effect of another intention. The fetus should be human; killing hydatidiform moles or triploids ([Valenzuela, 2003](#)) which are not considered human are not abortions. PI may occur at any moment of pregnancy and embryonic or fetal development; legal fault and punishment occurs when the fetus cannot live ex-uterus; then PI leads to the death of the ex-uterus fetus. This is a kind of infanticide, but nobody thinks this or treats it as so, because normal assistance (for

any immature newborn) is given to this fetus knowing that this health care is mostly inefficient to keep this newborn alive.

The decriminalization of the PI in the case of severe maternal vital risk

This situation has been dealt with as the “double effect” doctrine ([Catholics United for the Faith, Inc., 1997](#); [Di Nucci, 2013](#); [Kraus, 2005](#); [Lindblad, Lynöe, & Juth, 2014](#); [Stanford Encyclopedia of Philosophy, 2014](#); [Valenzuela, 2016](#)), as in the case of uterine cancer or infection, placental pathology or others. The intention is to remove the danger of maternal death, and this removal leads secondarily to the death of the fetus. However, this is not the most important ethical situation because it is clear the intention is not primarily to kill the fetus. When the embryo or fetus is the cause of maternal death or aggression as for example in the case of severe immune incompatibility, emission of noxious substances, severe competition for oxygen or metabolites with a non-well compensated mother, the ethical situation is completely different. In this case the cause of aggression to the mother is directly the fetus and the removal of the cause of the maternal danger coincides with killing the fetus. If the fetus is maintained, the fetus kills the mother and “commits suicide”. The only manner to save at least one of this human pair is to kill the fetus and so save the pregnant woman. This is not the “double effect” doctrine; this is “the only possible good (goodness, well)” doctrine. It is interesting that in Chile this occurs wherever the dilemma is presented; thus, it is not true that in Chile “therapeutic” abortion is absent. Here there is nothing to decriminalize, on the contrary, it is necessary to criminalize the decision of not killing the fetus with the consequent death of the mother and fetus. It is important to remember that the “treatment” of ectopic pregnancy, mostly fallopian pregnancies is a case of this ethical class: to kill the fetus or the annexes before they kill the mother. In these cases, regardless the ideology of the intervening persons, the decision does not have degrees of freedom, if we want to save the pregnant woman.

The decriminalization of PI in the case of embryo or fetopathy with low life expectancy

In Chile legislators consider severe embryo-pathies as for example triploidy, trisomies such as that of chromosome 18 (Edwards' syndrome) or 13 (Patau's syndrome) which lead to death in the first months after birth, but not of

chromosome 21 (Down's syndrome) that is compatible with adult life. Also they do not think to apply PI in the case of genetic diseases compatible with adolescent or adult life. However, there are thousands genetic syndromes and diseases and their number increases in time; thus the inclusion of these anomalies is nonsense and any health policy based on enumeration is hopeless. A complication arose when intra-uterine treatment for several of these anomalies became available; then, must we treat or abort? Regardless of the final legislative decision the practical situation is, paraphrasing Hamlet: to kill or not to kill the fetus. Most ideologies and religions in Chile consider kill the fetus as a crime, thus a law allowing for killing fetuses (legalization) without considering it as a crime is not in the core ideology of the Chilean people or legislators. If killing a fetus is considered a crime, the only possibility is to continue with this penal assignment but to decriminalize this act in some dramatic situations. Some minorities such as Gnostics or Agnostics think that the value of the autonomy of the pregnant woman is above the value of the life of the fetus and the decision to kill the fetus, in these cases, is even a positive moral act. To put these contradictory positions into agreement is impossible; if legislators apply the norm of respecting both they would produce a law where both behaviors can be performed without legal sanction. However, killing a fetus is not in the core of medical procedures; thus the indication of abortion in this causality should be done out of the "medical environment" in non-medical "centers for pregnancy interruption" even though they will be attended by health professionals who will ideologically agree with this action. When the society authorizes a law leading to capital punishment there are specialized person to execute this penalty; they are executioners. Health professionals are not executioners; their profession is contradictory with that function. Nobody thinks in executing euthanasia by executioners nor euthanize persons sentenced to capital punishment by practitioners, even though drugs for euthanasia apply to some of these cases, with important ethical problems of prescription and in handling the drug. If the law accepts only one ideological consequent behavior, CO should be the rule for persons having the alternative ideology, if they are consequent with that ideology.

The decriminalization of PI in the case of rape

The law project states decriminalization in the case that the pregnancy is the product of a rape. Here all the complications of the last cases are present, besides the complication of lacking a medical indication. As the law says, it is also necessary to show that the fetus is really the son or daughter of the rapist, because if the fetus does not descend from the rapist PI cannot be performed, as a logic and moral consequence

of the law. It is important to remark that we are analyzing the ideologies involved and not the legal factuality or specific legal procedures. In this case, it is clearer that the indication of killing that (usually normal) fetus is out of the medical practice and should be performed in a non-medical “environment”. Agnostic ideologies may disagree more than in the previous case with “religious” ideologies and the legislation to put both contradictory positions into the same bag is impossible. Thus legislation must, if the respect of both ideologies is accepted, be necessarily dual; that is to allow both behaviors without sanction. If the law accepts only one behavior CO should be the rule for persons having the alternative ideology, with the addition of a persecutory process for that behavior.

Muhammad Ali and conscientious objection ([Lederman, 2016](#); [Wikipedia, 2016](#))

Let us examine a paradigmatic case of CO in the case of military service to homologate the situation with killing a fetus (not for a legal-ethics analysis but for revealing the underlying ideologies). Muhammad Ali refused army induction with moral arguments; the most important one was not to agree with killing Vietnamese persons. In his ideology or religion killing persons (in that condition and situation) was not moral. Ali was condemned by the local Draft Board and his world champion title was stripped, in the first sentence, but the Supreme Court absolved him. This particular case allows us to make precise some of the elements that ideologies have in those laws on military drafting. When the USA went to Vietnam to make war several implicit ideological values were involved: (i) to invade a country is licit (expansionist policy); (ii) to intervene internal affairs of countries is licit (interventionism policy); (iii) to make war in other countries, even in non-adjacent countries is licit (bellicosity); (iv) to kill persons of other countries is licit (criminality). Thus a law of army draft includes, at least, these ideological elements and any person who accepts army induction also accepts this ideology; any person who does not accept this ideology should refuse military induction. This is not a problem of CO; it is a problem of public moral or ethical consequence that leads to contradictory positions. If the law is based on only one ideology, it installs an implicit “persecution” of the other ideologies or religions; thus, coinciding with a factually defined fascist (as radical authoritarian ideological imposition) position. Thus the religious or ideological discussion of laws is necessary and obligatory for legislators previous to their acceptance. However, most occidental legislators are not prepared to make a fine ideological or religious analysis of explicit or hidden elements included in laws. Since the French Revolution and the world Enlightenment period the ideology

of rationalism, positivism or laicism has been prevalent; most of these positions are rather atheistic, materialistic or agnostic and they have invaded all the occidental laws, creating an ideological background that is often in contradiction with occidental or oriental religious backgrounds, particularly with Islam. Rationalism is widely accepted, but when we ask: what is reason or rationalism? It is difficult to give a non-ideological answer. Moreover, as we pointed out, the validity of reason cannot be given by reason without falling into a circular epistemic or axiological procedure. Reason appears as the faculty of the mind that replaces the idea of God after his negation; as mentioned above Hegel equalized reason with God (Hegel, 1928), the same occurred with “logos” in the Hellenic culture (Brann, 2011; Wikipedia, 2017c) homologized with God or Jesus by Ephesian thinkers such as Heraclitus and the evangelist John (separated by nearly 500 years) (Bible Research, 2012). Reason is not dealt with in any textbook of psychology, thus it appears as a vague faculty of the mind that can have (for some thinkers but for all) the last word on any subject or matter. On the other hand, logic, analysis, synthesis, cognitive or math abilities, intelligence, affections, emotions, abstraction and other psychological traits are well and consistently studied and can scientifically account for any mental process. It is necessary to add an adjective to reason to deal it with as causal reasoning, abstract reasoning, and so on.

If legislation is constructed under the “secularist” ideology, this ideology will have an advantage in relation to other religions or ideologies, thus the assumed solution is worse, because only one ideology (minority, the laic or secularist) would be prevalent in the foundation of the law. The above analysis shows that present laws are not only not founded on religious or ideological conceptions or valuations, but they assume, in most cases, that “rationality” or legal argumentation replace or overcome them as a kind of “laic”, “secular” or “superior” common sense. This procedure leads inexorably to CO and hide often a surreptitious religious or ideological persecution.

Conclusion

If we want to be really plural and respectful of any religion or ideology, we must leave laic, laicism, secular or secularism ideologies (because they hide private, agnostic, gnostic, atheistic or materialist ideologies) as the core of laws, and to construct plural laws where all the ideologies or religions, included secularist ones, will be really and completely respected; also, these plural laws would allow that the moral behaviors they imply, even contradictory ones may be practiced without any restriction. Thus, CO would not exist; a law leading to CO is a bad law, because it does not respect and

does not include all the ideological or religious spectrum of that people. It is time for laws to be constructed not only by lawyers or legislators, but for anthropologists, sociologists, demographers, theologians, political scientists, ethicists, geneticists and philosophers.

Conflicts of interest

The author has no conflicts of interest to declare.

Acknowledgements

Prof. Lafayette Eaton improved the English style and scientific conceptualizations. This research is not supported by any funding source.

References

- Beca, J. P., & Astete, C. (2015). Conscientious objection in medical practice. *Revista Médica de Chile*, 143(4), 493–498.
- Besio, M. (2016). Conscientious objection and the values of medical profession. *Revista Médica de Chile*, 144(3), 377–381.
- Bible. Dan 3, 1–8.
- Bible Researcher. (2012). *The meaning of Logos in the prologue of John's...* Retrieved from <http://www.bible-researcher.com/logos.html>
- Brann, E. (2011). *The imaginative conservative. The logos of Heraclitus.* Retrieved from <http://www.theimaginativeconservative.org/2015/12/logos-of-heraclitus.html>
- Catholics United for the Faith, Inc. (1997). *The principle of double effect.* Retrieved from <http://www.cuf.org/FileDownloads/doubleeffect.pdf>
- Di Nucci, E. (2013). Embryo loss and double effect. *Journal of Medical Ethics*, 39(8), 537–540.
- Díaz, C. (1999). *Manual de historia de las religiones* (3rd ed.). Bilbao: Desclée de Brouwer.
- Dictionary.com. Conscientious objection. Retrieved from <http://www.dictionary.com/browse/conscientious-objective>
- Eliade, M., & Couliano, I. P. (1991). *The Eliade guide to world religions.* New York, NY: Harper Collins.
- Figueroa, G. (2013). The ambitions of neuroethics: To find the scientific fundaments of moral. *Acta Bioethica*, 19(2), 259–268.
- Figueroa, G. (2016). Neuroethics: The pursuit of transforming medical ethics in scientific ethics. *Biological Research*, 49(1) <http://dx.doi.org/10.1186/s40659-016-0070-y>
- Free Medical Dictionary. Retrieved from <http://medical-dictionary.thefreedictionary.com/conscientious+objection>
- Hegel, G. W. F. (1928). *Vie de Jésus.* pp. 49. Paris: Editions D'Aujourd'Hui.
- Kraus, A. (2005). *Principio del doble efecto.* La Jornada-Unam. Retrieved from <http://www.jornada.unam.mx/2005/07/27/index.php?section=politica&article=022a2pol>
- Lederman, M. (2016). *Scotus Blog.* Retrieved from <http://www.scotusblog.com/2016/06/muhammad-ali-conscientious-objective-and-the-supreme-courts-struggle-to-understand-jihad-and-holy-war-the-story-of-cassius-clay-v-united-states/>

- Lindblad, A., Lynöe, N., & Juth, N. (2014). End-of-life decisions and the reinvented rule of double effect: A critical analysis. *Bioethics*, 28(7), 368–377.
- Montero, A. (2016). Objeción de conciencia en la atención en salud sexual y reproductiva ¿es éticamente válida? In A. Montero, & R. Niño (Eds.), *Bioética en salud sexual y reproductiva* (pp. 142–153). Santiago, Chile: Editorial Mediterráneo Ltda.
- Salas, S. P., Besio, M., Bórquez-Estefó, G., Salinas, R. A., Valenzuela, C. Y., Micolich, C., et al. (2016). Position paper from the Department of Ethics of the Chilean College of Physicians about conscientious objection. *Revista Médica de Chile*, 144(3), 382–387.
- Savulescu, J. (2006). Conscientious objection in medicine. *British Medical Journal*, 332(4), 294–297. <http://dx.doi.org/10.1136/bmj.332.7536.294>
- Shah, P. K. Comparison of religions. Retrieved from <http://www.fas.harvard.edu/~pluralsm/affiliates/jainism/workshop/WorldRgn.PDF>
- Stanford Encyclopedia of Philosophy. (2014). *Doctrine of double effect*. Retrieved from <https://plato.stanford.edu/entries/double-effect/>
- Valenzuela, C. Y. (2000). Verso un'etica scientifica: L'origine della individualità ed il problema degli embrioni congelati. In C. A. Redi, S. Caragna, & M. Zuccotti (Eds.), *Biologia delle cellule staminali. Opportunità e limiti di impiego* (pp. 33–45). Pavía: Colegio Gisleri.
- Valenzuela, C. Y. (2001). Scientific Ethics and frozen embryos. *Revista Médica de Chile*, 129(5), 561–568.
- Valenzuela, C. Y. (2003). Scientific Ethics of therapeutic abortion. *Revista Médica de Chile*, 131(5), 562–568.
- Valenzuela, C. Y. (2013). The ontogenetic origin of human beings in the scientific-ethics perspective and its implications on abortion. *Clinical Research and Bioethics*, 4(2), 148–154. <http://dx.doi.org/10.4172/2155-9627.1000148>
- Valenzuela, C. Y. (2016). Scientific ethical approach to double effect or only possible good in therapeutic abortion. *Acta Bioethica*, 22(2), 179–185.
- Wikipedia. (2016). *Clay v. United States*. Retrieved from https://en.wikipedia.org/wiki/Clay_v._United_States
- Wikipedia. (2017a). *Civil disobedience*. Retrieved from https://en.wikipedia.org/wiki/Civil_Disobedience
- Wikipedia. (2017b). *Rebellion*. Retrieved from <https://en.wikipedia.org/wiki/Rebellion>
- Wikipedia. (2017c). *Logos-Wikipedia*. Retrieved from <https://en.wikipedia.org/wiki/Logos>