

**A public hearing at the federal supreme court:  
the construction of a scientific fact in court**

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**Abstract**

The main idea of this paper came from the observation that not only scientists produce facts to be used by the law, but also the legal system influences the formation of scientific knowledge. In this co-production cycle, the courts, acting as regulatory agencies, conduct their investigations at the boundaries of scientific knowledge, where questions are uncertain, contested and fluid, not on a background of a widely established scientific knowledge. We address then a specific case that puts in evidence the interweaving of law and science: a public hearing in the Supreme Court (STF). We chose to address a public audience that decides on the possibility of anticipation of delivery of anencephalic fetus. Through the analysis of the exhibitors' discourse and the articulation of arguments by ministers it is possible to notice how each judge aligns to the points more attuned to his conviction. We conclude that scientists who participate in the public audience do not bring in their presentations the "fact" (object of judgment), but "facts" that, in the exercise of an ontological politics by ministers, will be taken and turned into "scientific truths" to be accepted by the mantle of *res judicata*. After the trial, the defeated thesis disappears and anencephalic assumes a new form. Technoscience disrupts social relations, which are then compelled to a redefinition, through law, with directions and obligations. It is not, therefore, a case of divergence in the legal system but a scientific controversy in a court.

## **Introduction**

The main idea of this paper came from the observation that not only scientists produce facts to be used by the law, but the legal system also influences the formation of scientific knowledge. Those who are responsible for the procedural facts seek the truth as much as the scientists questioned in the hearings. When science meets law, scientific questions are inevitably deconstructed, revealing areas of uncertainty and conflict in interpretations.

## **Situating the discussion**

We want to think of a case where it's possible to see technoscience and law overlap, trailing the same path. For such, we have chosen the trial of ADPF 54, whose object was acknowledge the legality in interrupting a pregnancy with an anencephalic fetus. Anencephaly is a malformation in the neural tube which consists of a defect in its closing and which results in a partial absence of the brain and the skull. Some specialists state that the fetus has no cortical activity, as it happens with someone who is brain dead. As a consequence of this anomaly, and the possibility of its diagnosis on a level of certainty, there would not exist a presumption of life outside the womb. This absence of presumed life alone would depart from an abortion crime, which predicates the potentiality of the fetus' life outside the womb.

The lawsuit was proposed by the National Confederation of Health Workers in Brazil - CNTS. The CNTS cites the medical literature to assert that anencephaly consists of the absence of brain hemispheres and fetal cortex, leading to intrauterine death in 65% of the cases, or to an afterlife of, at most, a few hours after birth. Besides, it stresses that the permanence of the abnormal fetus in the mother's womb would prove to be potentially dangerous, possibly causing harm to her health and a risk of death. Accordingly, imposing on the woman that she carries, for nine months, a fetus that she knows for sure will not survive inflicts pain, anguish and frustration, resulting in violence against human dignity – physically, morally and psychologically – and a curtailment of freedom and autonomy of will.

Several judges from inferior courts deny authorization to terminate pregnancies of this sort and criminalize the conduct of women and health professionals that do such.

Those judges make use of the scientific opinion which affirms, among other points, that there is no possibility of being sure of the diagnosis and that life expectancy cannot be predicted. Thus, beside the whole legal matter, concerning the right to life, dignity, health, etc., the Ministers are faced with the scientific controversy. As of this moment, the Supreme Federal Court in Brazil (STF) recognizes the overflow and summons individuals who may be interested in manifesting themselves. The rapporteur minister understands that "the subject in analysis leads to multiple questions", that being the reason for his summoning of public hearings. The piece below illustrates Minister Marco Aurélio's intention for summoning the public hearing:

"I usually say that, without facts, there is no trial and that he who personifies the State-Judge has to be faced with a group of elements aiming to form the respective convincement upon the controversy. Our goal, with this Public Hearing (...), is to gather those pieces of information for that convincement. After each exhibit there will be room for questioning, for asking questions." (transcription of the first day of the public hearing, p. 2)

Any person may apply for public hearings, however their application is subjected to the rapporteur minister's approval. The Internal regiment of the STF, although it does not establish rigid criteria for the approval of the participations, making them overly discretionary, sets the tone for choosing when referring to people with experience and authority on the matter being discussed (SHAPIN, 2010). Thus, we realize that the institute of public hearings makes a breeding ground for analyzing the relations between the jurist and the scientist.

In the setting of public hearings, the STF has most of its investigations on the borders of scientific knowledge, where matters are uncertain, contested and fluid, and do not rest upon a background of widely established scientific knowledge. The different exhibits brought by scientists from public and private institutions evidence the scientific controversy under construction. The direction to be taken by the Ministers will certainly be a strong ally for those scientists who support the winning position.

We will try to locate confluence points in the discourse within the trial we have chosen. Points where an overlapping can be identified. The overlapping we want to evidence is the one resulting from the articulation of scientific and legal argumentations.

We want to see law and science in action, building and fueling each other in a cycle of co-production.

### **The public hearing**

The public hearing concerning the trial to which we refer took place on August 26th and 28th and on September 4th and 16th in 2008. Let it be noted that the proposed lawsuit was proposed in 2004 and the trial took place in 2012.

Next we will go through the description of the participation of the 25 exhibitors. It is possible to gather them in two groups according to the conclusion of each exhibit: those who declared to be against and those who declared to be for the anticipation of childbirth of an anencephalic fetus. Let it be noted that such separation was not made in the public hearings.

AGGLOMERATE 1 - According to these exhibitors the anticipation of childbirth of an anencephalic fetus constitutes an abortion crime. These are their main ideas: a) the fetus' humanity must be defended, independently of its malformation; b) the reduced life expectancy does not have the prerogative to deny its rights and identity; c) the anencephalic state being equivalent to brain death is rejected; d) it was highlighted that neuroscience would allegedly have demonstrated that the anencephalus has the neural substrate for vital functions and consciousness; e) the group manifested for the inviolable right to life; f) the group pointed out that the respect toward the fetus' life must be defended by the scientific community out of prudence, given the lack of depth in the studies on the matter thus far; g) they defended that the anencephalic baby has a variable life expectancy, making medical knowledge unsuitable to violate its physical integrity; h) babies born alive diagnosed with anencephaly do have clinical signs of brain activity, such as pupillary reflex, suction and spontaneous breathing; i) the risk to the mother is no greater than in a twin pregnancy and anticipating childbirth before the fetus becomes viable is comparable to eugenic abortion. We have included in this agglomerate: National Conference of Bishops in Brazil; National Association Pro-Life and Pro Family; Medical-Spiritual Association of Brazil; Federal Representative Luiz Bassuma; Teacher Lenise Aparecida Martins Garcia; Family Development Association; Dr. Cinthia Macedo Specian; Dr. Dornival da Silva Brandão; Dr. Elizabeth Kipman Cerqueira.

AGGLOMERATE 2 – For these exhibitors, anticipating the birth of an anencephalic fetus does not constitute an abortion crime. Their main argumentations are: a) the woman's wish should prevail, for she is the only one who can measure the personal impact of the pregnancy with an anencephalic fetus; b) several of the argumentations contrary to freedom of choice for women in the reproductive field would be, in fact, the expression of specific religious doctrine and morals, thus not consistent with a secular State; c) the doctor and the patient should be the ones to resolve their issues, without the need to always consult with a magistrate, whose opinion is unknown; d) there are risks to the pregnant woman's health when carrying an anencephalic fetus and the interruption of such pregnancy constitutes the right to citizenship; e) this fetal pathology can be identified eight weeks into the pregnancy and the anencephalic fetus can be considered neurologically stillborn; f) the anencephalic fetus does not present cortical activity, which would be similar to being brain dead, alluding to electroencephalography; g) the women who receive such diagnosis are submitted to "a torturing experience", thus the decision whether to have a therapeutic anticipation of birth should be up to private ethics; h) in the name of women's mental health, the Brazilian Psychiatric Association defends the pregnant woman's self determination to freely decide whether to have a therapeutic anticipation of birth in these cases; i) there are two diagnostic certainties, currently, in obstetric ultrasonography: fetal death and anencephaly. This agglomerate included: Universal Church of the Kingdom of God; Dr. Maria José Fontelas Rosado Nunes; Federal Council of Medicine; Brazilian Federation of Gynecology and Obstetrics Associations; Brazilian Society of Fetal Medicine; Brazilian Society of Clinical Genetics; Federal Representative José Aristodemo Pinotti; Brazilian Society for the Progress of Science; Institute of Bioethics, Human Rights and Gender; Health Minister José Gomes Temporão; Escola de Gente; National Feminist Network of Health, Sexual Rights and Reproductive Rights; National Council of Women's Rights; Conectas Human Rights and Center of Human Right; Special Department of Policies for Women; Dr. Talvane Marins de Moraes.

### **Moving the scientific argumentations**

Next we will describe the articulation movement, by the Ministers, of the scientific argumentations brought to the public hearing. We will pick two characters to follow: the winner and the won. This victory regards the final decision in the trial, which concluded that it is unconstitutional to impose an interpretation that signifies that interrupting the pregnancy of an anencephalic fetus constitutes crime of abortion. The winner will be personified by the rapporteur minister, Marco Aurélio; and the won by Min. Cesar Peluso, who gathered in their votes a greater amount of remissions to the public hearings, thus providing rich material of analysis to our paper. It is possible to see that each vote will join the discourse of those who brought argumentations to their conviction. We will see that the judge, at the moment of the decision, as the scientist upon stabilizing a controversy, only takes into account the information conveniently adequate to the result expected to be reached.

Right at the beginning it is possible to highlight two statements that illustrate well what has just been affirmed. Min. Cesar Peluso: "the public hearing has produced contradictory results and is, thus, unsuitable for use, regarding the matter of the existence of brain activity and waves in the anencephalic being." Minister Marco Aurélio: "the information and the data revealed in the public hearing have contributed greatly to clarify what anencephaly is, it even included the presentation of images which facilitated understanding of the matter". (ADPF/54, p.44)

That way, for Min. Marco Aurelio the evidence brought by the public hearing does not demonstrate any contradiction to invalidate those argumentations that he would use for his vote to allow the anticipation of childbirth of the anencephalus. On the other hand, Min. Cesar Peluso focuses on the divergence among the several statements, so that even those facts that were not contested are put in doubt. In this movement, we perceive an inductive leap that allows the whole construction of the vote by each one of the Ministers. Where for one, the starting point is certainty, for another it is doubt and contradiction. Note that both refer to the same hearing.

Let us behold, then, how the articulation of some scientific argumentations to the formation of this court decision took place. Two prime points were stabilized by the trial: 1- the possibility of certainty in the diagnosis of anencephaly; 2- facing a sure diagnosis

of anencephaly, the presumption of life inexists (ADPF/54, p. 45). Minister Marco Aurélio is categorical: "It is a diagnosis of certainty, which specialist scholars stressed accordingly in the public hearing" (ADPF/54, p. 50). As for Minister Cesar Peluso: "it is undeniable that the current state of medicine does not present conditions for a precise identification of the anomaly in 100% of the cases, as it can never prognoses how long the anencephalus' afterlife will be" (ADPF/54, p.401). In this context, the case of Marcela comes up, who was diagnosed with anencephaly but survived for one year, eight months and twelve days. That case disconcerts Min. Marco Aurélio, but he settles his position based on Dr. Heverton Neves Pettersen's statement who clarified: "it is a false idea of an anencephalus, because that child presents, as may be seen on the tomography scan, part of the cerebellus, brain stem and a small piece of the temporal lobe, which is part of the brain hemispheres. Therefore, that is not the diagnosis of anencephaly". (second day of the public hearing, transcription, page 29). That way, Marcela's case is set aside, assuming the role of an anomaly. (Kuhn, 2009). For Min. Cesar Peluso, even though it was a misdiagnosis, Marcela deposes against the winning thesis. That because either she was not a case of anencephaly, and thus one cannot conceive a diagnosis with certainty, or it indeed was anencephaly and the presumption of inexistent life is withdrawn. In this example it is possible to see the same argumentation, which is the misdiagnosis in Marcela's case, being articulated by the opposing theses.

## **Conclusion**

Min. Marco Aurelio's theses won for reasons of eminently political character. Science was on his side as much as on Min. Cesar Peluso's. The public hearing does not give the Ministers "the fact", as was intended by the rapporteur minister. It brings "facts". It is up to the Ministers to choose, in the exercise of ontological politics, that "facts" will be taken and turned into "scientific truths" to be admitted under the mantle of *res judicata*. When the trial is over, the winning thesis leaves the spotlight and the anencephalus assumes a new form. It is not only, therefore, a matter of divergence in the legal sphere, but of scientific controversy in the sphere of a court of law.

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