What constitutional protection for freedom of scientific research?

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Is freedom of research protected at the constitutional level? No obvious answer can be given to this question, as European and Northern American constitutional systems are not unequivocal and the topic has not been discussed deeply enough.

Looking at the constitutions of some European and Northern American countries, it is possible to immediately note that there are essentially two ways to deal with freedom of scientific research. On the one hand, in Canada and in the US, constitutions have no specific provisions to protect freedom of scientific research, with the result that such freedom ends up having to be protected as a specific aspect of the wider freedom of thought and expression (protected by the First Amendment of the US Constitution). On the other hand, other countries' constitutional systems, mainly European ones, expressly recognise freedom of research and teaching arts and science. For instance, article 5 of the German Constitution states that "Art and science, research and teaching are free", article 33 of the Italian Constitution¹ establishes that "The arts and sciences as well as their teaching are free" and article 59 of the Slovenian Constitution states that "Freedom of scientific research and artistic endeavor shall be guaranteed".

Within this second group, some constitutions limit their protection to the provision of freedom of scientific research, whereas other fundamental laws engage governments in promoting and supporting it. For example, the Italian Constitution, which states that "The Republic promotes cultural development and scientific and technical research" (article 9), the Spanish Constitution, according to which "public authorities shall promote science and scientific and technical research for the benefit of general interest" (article 44) and, also, the Greek Constitution, whose article 16 establishes that art, science, research and their teaching are free, and their promotion is mandatory for the State.² It has to be stressed, however, that the commitment to promoting research is often underestimated within the constitutional debate, because the corresponding position of who should benefit from this promotion is not so plainly visible or likely to be claimed by political initiatives. However, this does not diminish the political importance that such a reference covers at the constitutional level. Besides, we cannot exclude the fact that in the future, such a fundamental right (freedom of science and art, and of their teaching) will become important, for example, in the case of evident discrimination.

In summary, in the European and Northern American constitutional panorama, several levels of protection are given to freedom of science: at a first basic level, this freedom receives the same protection given to all other fundamental rights included in the genus of freedom of thought and expression; at a second level, we could find a specific and expressed constitutional recognition for such a fundamental freedom; and finally, at a possible third level, the State is engaged in promoting scientific research.

OBSERVATION VERSUS MANIPULATION

The different ways in which constitutions regard scientific research affect their way of dealing with some of the crucial issues related to freedom of research.

In those countries, such as in the US and in Canada, where freedom of science does not have specific legal protection, there is an ongoing interesting debate on the relationship between observation and manipulation in the scientific field. According to some interpretations, protecting freedom of scientific research under the general provision on freedom of expression (in the US Constitution, the First Amendment) implies giving constitutional protection only to activities consisting in merely observing natural phenomena and diffusing the collected information, while not interacting with them. Consequently, every research activity implying a manipulation of its object (and genetic research is at the forefront) would not be protected by the First Amendment because of its nature of active intervention and manipulation (of living organisms). The Bioethical American Presidential Commission received this idea and stated, in the paragraph dedicated to freedom of scientific research, that "most currently controversial biological research involves experimental manipulation of living matter, rather than theoretical exploration or mere observation of natural objects. It is therefore as much action as

¹The Assemblée Costituente discussed the opportunity to introduce an explicit provision to protect freedom of scientific research. Some were critical about the possibility of dedicating a part of the constitutional text to liberties of culture and thought, considered different from the traditional constitutional rights. Others doubted the need of consecrating too gravely such an activity that is free in itself, so diminishing its own value. At last, the importance of letting the social community be free from the fascist cultural subjection prevailed, and article 33 of the Italian Constitution was introduced, protecting freedom of art and science and their teaching as a means of assuring human cultural and spiritual growth. More about the debate that took place in Assemblée Costituente can be seen in Chieffi.¹

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expression, as much creation as inquiry". It continues by asserting that such an activity could hardly be classified as a form of expression: "Scientists may have the right to pursue knowledge in any way they want cognitively, intellectually," argues one observer, "but when it comes to concrete action in the lab, that becomes conduct and the First Amendment protection for that is far, far weaker".³ On the other hand, freedom of manipulating reality using any kind of technique would not be absolute if compared with freedom of "conscience": "Something is not morally acceptable simply because it is technically possible".⁴

This opinion can be criticised. For example, it can be said that distinguishing between observation and manipulation, especially when referred to basic research, is conceptually groundless, because it is not possible to conduct research without interacting with the object of research and thus "manipulating" it (using this effective metaphor). Even the simple observation is a form of interaction and therefore, after all, a manipulation/construction of the object. Furthermore, the contraposition between observation and manipulation does not stand the test of the facts. In scientific research activity, there is no breaking point between speculative activities and activities that are more likely manipulative, because research in itself looks like a continuum: each phase implies the other phases and vice versa. Each stage of scientific research includes both authentic theoretical-observational and more practical-manipulative aspects in different proportions from time to time (let us just think of the biological sciences, and also of chemistry and other scientific sectors).

It has to be noticed that no clear legal answer has yet been given to this interpretation, which is both highly controversial and leads to a serious outcome—namely, the discrediting of biological scientific research and totally excluding it from constitutional protection.⁵ A clear awareness of weakness in the observation-manipulation distinction and a clear affirmation of freedom of scientific research seem to be lacking in several constitutional studies. Freedom of scientific research, freedom of thought and liberal societies are much more inter-related than the present legal and political literature seems to consider.

FREEDOM OF SCIENCE AND HUMAN DIGNITY

In countries where freedom of scientific research is expressly protected constitutionally, different issues are at the centre of debate. The crucial point is how to balance freedom of research and other fundamental liberties and rights, such as public safety, intellectual property rights and most of all human dignity.

In the light of balancing freedom of research, release of genetically modified organisms with public safety is the precautionary approach that emerges first. In this connection, we must draw attention towards the necessity to avoid sliding from precautionary approach to principle. The difference is more relevant than it appears and implies important conceptual consequences. A principle, in fact, is not usually negotiable and the most likely outcome is that it has a general paralysing effect on freedom of research. On the contrary, by saying that scientific research, especially applied research, needs a precautionary approach, it becomes an internal limit to research activity, a socially prudent way of conducting research: in this perspective a balance is possible, with no detrimental effects on society and on freedom of research.

Another important feature concerns intellectual property rights, generally deserving of great attention because of their possible economic outcomes.

It has to be emphasised that the real core of the patent regimen is authorship rights (the right to see the products of one's own talent recognised). Such a right to the protection of

moral and material interests emerging from any scientific, literary or artistic production is unequivocally recognised by the Universal Declaration of Human Rights 1948, Article 27: (1) everyone has the right to freely participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits; (2) everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author. The International Covenant On Economic, Social and Cultural Rights, New York, 1966, Article 15 states: (1) The States parties to the present Covenant recognise the right of everyone: (a) to take part in cultural life; (b) to enjoy the benefits of scientific progress and its applications; (c) to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author and by the International Agreement on economical, social and cultural rights.

However, the most frequently used concept to be balanced with freedom of scientific research in the field of biological sciences is "human dignity". An interesting starting point in this field is the European Union Fundamental Rights Charta, which in article 13 establishes that, "The arts and scientific research shall be free of constraint". The explicative notes of the Presidium, recognised as the authentic official explanation of the whole Charta, states that "This right is deduced primarily from the right to freedom of thought and expression" and that "It is to be exercised having regard to Article 1 [...]". Article 1 is entirely dedicated to human dignity and establishes that "Human dignity is inviolable. It must be respected and protected". This provision finds its origin in Article 1 of the German Constitution, establishing that "Human dignity is inviolable. To respect and protect it is the duty of all state authority", and it plainly has its historical reason in the political and cultural climate of Germany just coming out from the era of Nazism.

Once this is clear, we cannot help noticing that concepts of dignity and human dignity are elusive and hardly definable.⁶⁻⁸ In constitutional legal terms, the philosophical question about what dignity is and how it can be defined turns into the following: Who has the power or the right to define human dignity? State, representative political institutions, churches, scientists, doctors or anybody else?

The importance of this question and its answer is strictly related to how the relationship between human dignity and freedom is set up. If dignity encompasses liberty (so that it is correct to say that liberty is included by dignity), then whoever defines human dignity has in reality the power of limiting liberty. On the contrary, if we believe that "no dignity can be conceived without freedom", human dignity becomes an essential attribute of freedom and the point of view totally changes. An idea of human dignity conflicting with freedom cannot be given, because without freedom anybody loses his/her dignity as well. Therefore, the only free subject is the one who has the power to define human dignity for himself/herself.

From this second point of view, freedom of scientific research is the rule and any possible limitation needs stronger and more specific arguments than that of human dignity. One fair limitation to freedom of research can be found in the principle "not to harm others". This principle "requires liberty of tastes and pursuits; of framing the plan of our life to suit our own character; of doing as we like, subject to such consequences as may follow; without impediment from our fellow-creatures, so

⁶For example, in the recent Italian law on assisted reproduction (Law number 40/2004), it has been introduced, in article 1, that the product of fertilisation should have the same rights as the other subjects involved in the procreation process, to raise it to the dignity of a third party that cannot be harmed.

long as what we do does not harm them even though they should think our conduct foolish, perverse, or wrong".⁹ However, the principle not to harm others does not solve every problem as another problem arises as in Chinese boxes: "Who are the others?" and "How can harm be defined?".¹¹

Finally, the problem of who has the power to define dignity becomes more complex when powerful institutions, which act as monopolists of dignity, are against both the scientific research in critical areas (mainly embryonic stem cell research) and the autonomous decisions of the individual in matters of life and death. The balance shift from the individual rights to the power of the institutions has important consequences on both the conceptual and the juridical levels.

Rights from wrongs and a wrong theory

In a historical perspective, constitutional provisions explicitly protecting freedom of research in several European countries look like a typical example of "rights emerging from wrongs"¹⁰ of Nazism during the Second World War. Following Dershowitz's¹⁰ opinion, it is essential to correctly identify the error that led society to affirm a freedom or a right. In the case of freedom of scientific research, the error is clearly identifiable in experimental practice carried out by Nazi doctors in concentration camps and in eugenics. We think we have to be precise on this point and understand what made eugenics so unacceptable, whoever promoted it.¹¹ What is unacceptable in eugenics is not the fact of it being a public health policy, because a mass prevention campaign against thalassaemia would also be such a public health policy. But eugenics is something more. It is a coercive public health policy. Removing one of these terms it makes impossible to exactly understand what the focal and real fundament of our rights and liberties as European citizens is. At the same time, it makes it impossible to exactly understand what is the error not to be repeated: in the case of eugenics, it is the coercive violation of the personal integrity of women and men.

More recently, some scholars have started talking about a new danger or mistake, the so-called new eugenics, hoping to foresee it in certain medical techniques made available by science in recent years (eg, sex selection and others), and that individuals would be induced to utilise it under the pressure of fashion or marketing, a form of eugenics even more serious. In reality, this fear of a new eugenics seems to be more likely a criticism of some contemporary psychological attitudes and lacks the negative characterising element of the old eugenics: being a State coercive policy. The paradox is that the new eugenics aims to protect individuals from being conditioned by allegedly imposed social models, but it ends up justifying laws, such as the Italian law on assisted reproduction, establishing the correct approved way in which people must reproduce, under severe sanctions. In doing so, the opposition to the new eugenics (and the related individuals' choices) turns into an old eugenic legislation founded on the illiberal assumption that only the State knows what is the right thing for citizens to do in their private lives and in their bodies.

There is no doubt that science and law do not have the same reciprocal relationship and the same position in society in all countries and geographical realities, but the fundamental questions we ask ourselves are common. On closer examination, in fact, the above-mentioned American Presidential Commission report states principles not different from the new Italian law on assisted procreation. However, the difference is that the American report aims to establish whether and to what extent specific researches should be publicly funded, so not limiting the possibility of private citizens sponsoring research, whereas in Italy, whatever is not expressly allowed by law is forbidden under sanction. There is a great difference between lack of public funding for what is considered not worthy, and criminalising it.

In conclusion, we believe that scientific freedom deserves a deeper constitutional consideration to fully realise fundamental activities for our democratic system development. And we would like to close with the fundamental inspiration of the European Network for Life Sciences, Health and the Courts (www.unipv.it/enlsc) which states: "To be against science is as much antiscientific as to be uncritically pro science".

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