Genetic enhancement technology – intervention in the genetic structure of the fetus in order to create enhanced physiological and psychological qualities – is possible today (albeit with limited capabilities) thanks to scientific and technological developments. The basic assumption behind this study is that changing the genetic structure may influence not only the fetal genotype and phenotype, but also the development of the individual’s personality and psychological inclinations as an adult. I will argue that since the genetic intervention precedes the emergence of its object’s psychology and personality, and since their emergence depends on the specific genetic designing that took place, the act of genetic enhancement may divert the individual’s psychological profile from its natural course of development (in the absence of external intervention) to an alternative course. Since actions that create identity lack moral value, the obvious questions is does genetic enhancement create a new identity?

In the future, it is possible that the range of possible genetic interventions in fetuses may be more extensive, both in scope (the type of changes that can be controlled) and in strength (the extent of the change that can be generated and directed). In light of this possibility, I believe that it is important to consider various ethical aspects of this technology and to assess its moral value. Some thinkers believe that such a discussion requires the formulation of a specific ethical definition for genetic enhancement. The literature contains a variety of ethical definitions, each reflecting a particular ethical viewpoint. For example, defining genetic enhancement by distinguishing between genetic treatment and genetic enhancement includes an ethical distinction between treatment and enhancement, reflecting an approach that holds that assessing the moral value of enhancement should be distinct from assessing of the moral value of treatment.

The main problem inherent in the adoption of an ethical definition is the restriction of the moral discussion to certain types of enhancement (those included in the definition), although forms of genetic enhancement not included in the definition doubtless require moral examination, as well. Therefore, in order to ensure that the moral discussion encompasses diverse types of enhancement, it is better to refrain from adopting a single definition embodying a specific ethical approach. By way of example, adopting a definition based on increasing personal wellbeing excludes from the moral discussion all those types of enhancement that do not lead to the increase of wellbeing, even if they have considerable moral impact – such as, to give one example, enhancing hearing significantly to an extent that impairs the individual’s ability to concentrate and therefore does not increase his/her wellbeing.

In the moral discussion on genetic enhancement, some argue that this technology is, from a moral standpoint, absolutely prohibited. However, a review of the many critiques of these objections leads to the conclusion that the act of enhancement is not inherently wrong. For example, a common objection is based on the assumption that humans must not alter nature: since genetic enhancement interferes in human nature, it is morally wrong. However, an examination of this objection demonstrates that this assumption lacks a moral argument, for at least two reasons. Firstly, the descriptive claim regarding a specific human nature cannot inform the normative judgment we should apply to this nature. Secondly, human nature includes undesirable characteristics, and accordingly there is no reason to prohibit their alteration.

If the objections to genetic enhancement are sufficient to disqualify this technology, it accordingly has an absolutely negative moral value and there is no room for further moral discussion. However, since the objections are not sufficient for this purpose, we must examine the technology’s moral value. As noted, genetic enhancement refers to prior intervention in the genetic system, and accordingly the point of departure for our discussion is the substantiation of the assumption that enhancement creates a new identity.

The question as to whether genetic enhancement creates a new identity is of considerable relevance to the examination of its moral value. The prevailing moral intuition is that an action has positive or negative moral value depending on the extent to which it benefits or harms a particular individual. This position leads to the argument that an action that creates the person’s identity has no moral value, since the individual could not have existed without that action, and the individual’s condition is neither worsened nor improved as a result thereof. Accordingly, if the act of genetic enhancement creates a new identity, it has no moral value.

There are those who argue that the aforementioned moral intuition does not apply in all instances, since moral intuition establishes that actions that create identity also have moral value. The desire to formulate a position reflecting moral intuition in all instances leads to the creation of diverse moral approaches arguing that moral identity is also to be attributed to actions that create identity. However, the various moral justifications supporting these approaches are not morally intuitive, and accordingly their adoption is unjustified.

Thus, by way of example, the impersonal approach argues that the moral value of an action depends on the manner and extent of its positive or negative influence on the status quo in the world in a manner that is not dependent on any specific person—not even the person who is the object of said action. Therefore, according to the impersonal approach, it is also possible to attribute moral value to actions that create identity. The problem is that the manner in which this approach justifies the attribution of moral value to actions is not dependent on the object of the action, and accordingly is not morally intuitive.

The approach that remains faithful to moral intuition is the narrow person-affecting approach. This approach does not permit the attribution of moral value to actions that create a new identity. However, the argument that actions that create identity are devoid of moral value is faithful to moral intuition, and this approach is therefore justified. Indeed, the idea that actions that create identity have moral value is unfaithful to moral intuition, and accordingly the attempt to defend this idea leads to the formulation of non-intuitive approaches.

Since actions that create identity lack moral value, and since the act of genetic enhancement is undertaken in a manner that influences the creation of a specific personality and psychology, it is important to consider the function of personality and psychology in human identity. If psychology is essential to human identity, then the act of genetic enhancement, which creates a new identity, accordingly lacks moral value. Conversely, if psychology is not essential to human identity, the act of genetic enhancement does not create a new identity, and thus ostensibly does have moral value. Accordingly, it would seem that whether or not genetic enhancement has moral value of depends on the approach we adopt regarding human identity. Ostensibly, the adoption of animalism will have certain ramifications, while the adoption of the psychological approach will lead to different ramifications.

There are two principal approaches in the philosophical discussion of human identity, each of which reflects a distinct perception regarding the role of psychology in defining identity. According to the psychological approach, psychology is an essential element of human identity, and we are intrinsically psychological beings. Accordingly, genetic intervention that influences the creation of a new psychology thereby creates identity. Conversely, animalism argues that we are intrinsically a human organism or animal, and that psychology is not essential to our identity. This position implies that genetic intervention in a fetus does not create a new identity, since it does not create a new organism.

The determination between these approaches is essential in order to answer the question whether genetic enhancement creates new identity. However, an examination of the different arguments in favor of these approaches demonstrates that these approaches are based on distinct intuitions. In certain cases, it is intuitive to adopt the psychological approach, while in others it is intuitive to adopt the approach of animalism. The different arguments in favor of these approaches do not permit a determination to be made and therefore cannot provide an answer to the question “does genetic enhancement creates a new identity?”

Although it is essential to decide between these approaches in order to answer the question whether genetic enhancement creates a new identity, it is not essential to do so in order to answer the question regarding the moral value of this technology. As mentioned, according to the psychological approach, the act of genetic enhancement lacks value, since it creates a new identity. However, even if we accept the assumptions of animalism—that the act of genetic enhancement does not create a new identity—it is still correct to argue that it lacks moral value. In this instance, however, the justification is different. As we noted, the narrow person-affecting approach argues that an action has moral value insofar as it benefits or harms the object of the enhancement. I would argue that even if we adopt the animalistic position, the act of genetic enhancement cannot damage or impair the object of the enhancement, for the following reason. As noted, the genetic enhancement precedes the development of the psychology and personality and influences their emergence. The evaluation by the object of the enhancement of his/her characteristics in itself inevitably depends on the characteristics created by the act of enhancement, Since the enhanced individual never experienced a reality of other psychological characteristics or a different personality structure, his/her evaluating judgment concerning the enhancement is made solely on the basis of the current psychological tendencies. In order to judge, the object is required to compare situations; but since he/she never experienced one of these situations, he/she cannot evaluate the enhancement as beneficial or harmful relative to another unfamiliar state.

Although the act of genetic enhancement lacks moral value according to both the psychological approach and animalism, each approach leads to a different argument for the action’s lack of moral value. On the one hand, it is sufficient, in terms of practical ethics, to simply state that genetic enhancement lacks moral value, since when an act is known to lack moral value, there is no ethical impediment to its execution. On the other hand, the response is incomplete without determining between the positions and the justification remains unknown. In other words, the act lacks moral value, there is no determination regarding which of the moral grounds justifies its lacking moral value. The desire to provide a complete response to the question of the moral value of the act of genetic enhancement motivates me to examine whether a metaphysical inquiry may enable us to determine between animalism and the psychological approach, and hence to answer the question as to why genetic enhancement lacks moral value.

The metaphysics of identity includes two central but opposing approaches. Three-dimensionalism reflects the intuitive perception that every object in reality exists in its entirety at any given moment in time. Conversely, the non-intuitive approach of four-dimensionalism argues that an object has a presence in time similar to its presence in space: at any given moment, a certain temporal part of the object exists, and the aggregate of these temporal parts constitutes the object.

The adoption of the three-dimensionalist approach does not enable us to determine between animalism and the psychological approach. The intuitive approach permits us to hold either the psychological or the animalistic position. Given this approach, it is impossible for both positions to be correct. Conversely, the adoption of the four-dimensionalist approach allows us to determine that both the approaches we are examining are correct in metaphysical terms, so that we can then determine by means of moral and practical justifications which approach is relevant in any given instance. The four-dimensionalist approach also integrates with both positions, but permits the argument that both are correct simultaneously. This study shows that, in the case of genetic enhancement, psychology is an important element of morality, and accordingly the psychological approach is justified in this instance.

The determination between three-dimensionalism and four-dimensionalism is possible through an exploration of the metaphysics of time. According to The A Theory, time passes, while according to The B Theory time does not pass and all times exist. Although The A Theory is faithful to the human perception of time, a number of arguments prove that The A Theory leads to a contradiction, and accordingly The B Theory should be preferred.

The B Theory is inconsistent with three-dimensionalism, which argues that every object exists in its entirety at one moment in time. According to The B Theory, an object exists at different moments in time. It is impossible that the object in its entirety exists at every one of the different moments in time, since an object that exists in its entirety in one moment cannot do so in other moments. Accordingly, we should adopt four-dimensionalism.

The discussion of the ethical aspect of this issue combined with its metaphysical aspect enables us to provide a complete answer to the question regarding the moral value of genetic enhancement. Having adopted the four-dimensionalist approach, we may then adopt the psychological approach, which is justified in the case of genetic enhancement, concluding that the act of genetic enhancement lacks moral value since it creates a new identity.