

# THE PRINCIPLE OF TOTALITY AND THE LIMITS OF ENHANCEMENT

JOSHUA W. SCHULZ, PHD

*As for the patient, he is not absolute master of himself, of his body or of his soul. He cannot, therefore, freely dispose of himself as he pleases. Even the reason for which he acts is of itself neither sufficient nor determining. The patient is bound to the immanent teleology laid down by nature. He has the right of use, limited by a natural finality, of the faculties and powers of his human nature. Because he is a user and not a proprietor, he does not have unlimited power to destroy or mutilate his body and its functions. Nevertheless, by virtue of the principle of totality, by virtue of his right to use the services of his organism as a whole, the patient can allow individual parts to be destroyed or mutilated when and to the extent necessary for the good of his being as a whole. He may do so to ensure his being's existence and to avoid or, naturally, to repair serious or lasting damage which cannot otherwise be avoided or repaired.<sup>1</sup>*

—Pope Pius XII, 1952

## Introduction

Within the Thomistic tradition, the Principle of Totality (*TPoT*) articulates a secondary principle of natural law guiding the exercise of human ownership or *dominium* over creation.<sup>2</sup> In its general signification, *TPoT* is a principle of distributive justice determining the right ordering of wholes to their parts.<sup>3</sup> In the medical field it is traditionally understood as entailing an absolute prohibition of bodily mutilation as irrational and immoral, and an imperfect obligation to use the parts of one's body for the perfection of the bodily whole.<sup>4</sup> *TPoT* is thus a key element of the system of principles within which an individual exercises her right to life; it helps specify the nature, scope, and limits of those actions by which an agent permissibly acts in order to preserve her life. While the Thomistic tradition and the Catholic Church have drawn clear conclusions from the principle regarding, for example, direct sterilization and non-therapeutic experimentation on human subjects,<sup>5</sup> less attention has been given to the implications of *TPoT* for non-therapeutic procedures that may positively impact biological functioning or supra-biological goals—that is, for human “enhancement.” While increasing the efficiency with which we pursue biological and social goals might sometimes be permissible—*TPoT* does *not* entail that all non-therapeutic bodily alterations are illicit—modern popes have argued that such changes nevertheless often corrupt the super-personal *meanings* of the human body by leading us to devalue what is intrinsically valuable and so violate *TPoT*.

As Pope Pius XII suggests, correctly applying *TPoT* requires us to first establish that the objects to which the principle is applied in fact stand in the relation of whole to part.<sup>6</sup> This was the most pressing issue of Pius's time, an age when totalitarian states claimed the right to dispose of their citizens in whatever manner was most beneficial either to the state or to the species as a whole. Pius forcefully denounced such claims as falsely assuming that the participation of individuals in social life for

the sake of the common good made those individuals constitutive parts of a state, thereby making the good of the individual wholly subordinate to the greater whole.<sup>7</sup>

Secondly, Pius argues, if a part-whole relationship has been established, we must also clarify “the nature, extension, and limitation of this relationship” in order to correctly apply *TPoT*.<sup>8</sup> This is the most important task for our time. Proponents of the “Principle of Autonomy” in secular bioethics claim that individuals have limitless authority to dispose of their bodies as they wish, including the right to mutilate and destroy their bodies as well as enhance them. They argue that such acts are licit so long as the patient requesting them satisfies several purely procedural criteria: the procedure must be requested intentionally, with an understanding of the procedure and its consequences, and the request must be free of compromising extrinsic influences.<sup>9</sup> Critics of this view often argue that the Principle of Autonomy ascribes a purely instrumental value to the body more appropriate to machines than to human beings.<sup>10</sup>

Following the example of Pope Pius XII, we will explore the degree to which *TPoT* non-univocally guides our use of both artifacts and bodies. We will argue that a careful analysis of these distinct *kinds* of totalities suggests that the application of *TPoT* to artifacts and bodies is strongly isomorphic, which is what tempts advocates of the Principle of Autonomy to invalidly infer the absolute *dominium* of the individual over her body. The inference is invalid because this isomorphism also includes a principle of intrinsic value whose function is to resist the instrumentalization of *both* artifacts *and* bodies in some contexts; we are not even related to artifacts as advocates of absolute autonomy believe we are, let alone to our bodies. Rather, the limits of human *dominium* are determined by the nature and finalities, inherent or acquired, of the objects in question, and it will be argued that articulating these limits raises important, understudied, and fascinating questions about the permissibility of various kinds of human enhancement.

### **Artifacts and the Principle of Totality**

Imagine, if you will, a motorized hairbrush with at least three parts: a brush, a handle, and a motor which cycles the brush through the long and tangled locks of a princess. Artifacts of this sort are not substantial beings in the strict sense. They are only unified to the degree that the parts are ordered to the single activity of brushing hair.<sup>11</sup> Artifacts are *composed* of essentially unified substances such as plastic and metal, but the motorized hairbrush does not itself act so as to preserve its integrity and activity as a hairbrush without assistance from motorized hairbrush mechanics who maintain them as such. Nevertheless, there are several senses in which the whole artificial being we call a “motorized hairbrush” has an end *qua* artifact analogous to the natural ends of substantial beings.

First, the artifact has *ontological priority* over its parts. A brush is only a brush when it serves the purpose of brushing hair, and the motor is only a hairbrush motor insofar as it is put to work moving brushes. Separate these parts from the machine and one has potential or former motorized hairbrush parts; completely separate them from their instrumental context and they will revert back to their natural status as hunks of plastic and metal.

Second, the artifact has *causal priority* over its parts. The goal of having one's hair brushed can be achieved independently of both the *form* and *matter* of its parts so long as some other parts are capable of doing what they do. Functionally equivalent parts are *fungible* in relation to the whole: a brush with metal rather than plastic tines, or perhaps a chemical conditioner, might do the same work. Motorized hairbrushes therefore have flexible formal identities: one can replace most of the functional parts of a motorized hairbrush with fungible equivalents without assailing its artifactual identity.

Third, the good of the motorized hairbrush as a whole has priority over the good of its parts, which are therefore subordinate to the good of the hairbrush itself. This follows from the fact that the hairbrush does not require the existence of any particular part in order to smooth someone's hair. Sometimes this end is frustrated by a defective part, such as a broken handle, and can be better achieved by replacing the part. At other times, the normal functioning of a non-defective part constitutes a structural condition for the defective functioning of other non-defective parts. A powerful industrial motor may be too strong for the wooden arm of the hairbrush or the delicate hair of a princess, either of which may snap and break as a result. Here there is a lack of functional harmony between the otherwise normally operating parts, as well as a lack of functional fitness between the part and the artifact's purpose. One should replace the offending parts with parts more suitable for princesses and for each other.

We can even construct scenarios in which the goal of the hairbrush can only be achieved through the sacrifice of one or more of its parts. Imagine an earthquake striking the salon in which a princess is being prepared for a masquerade ball. Caught by the hair, she is slowly dragged toward a gaping crevice in the floor by the miraculously still functioning motorized hairbrush. A quick-thinking hairdresser would do well to use a handy curling iron to smash the arm of the machine, thereby saving the princess, the brush, and her hair for the ball.

In sum, *TPoT* entails that the good of the parts is wholly subordinate to the good of an artifactual whole, insofar as it is manifestly good to use them *for* the whole, in three specific circumstances: when the parts are defective, when they are ill-fitted to one another or to the artifact's end, and in extraordinary circumstances when their normal functioning is a hindrance rather than a help.

The issue of enhancement raises a new issue about the *intrinsic* value of parts and wholes. In most cases, replacing the parts of an artifact—or even the whole artifact—for the sake of the more efficient or qualitatively better accomplishment of the artifact's end is *prima facie* reasonable. Speaking in an unqualified manner, this is so because artifacts and their parts possess merely *instrumental* value. Thus we can reduce questions of enhancement to questions of usefulness, to the ability of an artifact and its parts to achieve the instrumental ends to which they are directed. Just as the fungibility of an artifact's parts derive from their contribution to the work of the whole artifact, so too does the value of an artifact derive from its contribution to the achievement of some human purpose. The value of an artifact is extrinsic to its existence *as* an artifact: useless artifacts are worthless.

In a secondary and qualified sense, however, some artifacts are valuable for non-instrumental reasons. Some artifacts are so beautiful that it would be a shame

to destroy them (think of a *gilded* motorized hairbrush); others have historical or cultural value independent of their usefulness (think of the *first* motorized hairbrush). Some artifacts have *moral* value (or disvalue) due to their intransitive effects on those who use them.<sup>12</sup> A computer might be very good for viewing pornography and writing offensive political screeds without either of these activities contributing to the flourishing of human beings. Finally, some things can be invested with truly *intrinsic* value by grace: the priestly stole one wears around the neck to signify Christian ordination and the chalice which holds the Eucharistic Blood of Christ are *holy*.

While all such values derive from a finality *extrinsic* to something's status as an artifact, not all extrinsic values are equal. The distinction and difference is this: the value of aesthetic, historical, and cultural objects constitutes a considerable but defeasible reason against their destruction, replacement, sacrifice, or enhancement. One might sacrifice, re-use, or enhance them in extraordinary circumstances, such as a zombie apocalypse, but not otherwise. To do so would be to act contrary to their status and value as aesthetic, historical, or cultural objects. In contrast, the wanton destruction, replacement, sacrifice, or enhancement of a sacred object would constitute what Michael Sandel calls a "corruption" of its divine rather than human source of value, a profanation of the value of the thing.<sup>13</sup> To make a sacred object more suitable merely for human purposes would make an idol of it, as the point of sacred things is to give glory to God rather than pleasure to man. What is holy stands forth from the mundane, having been set aside and removed from the legitimate sphere of human *dominium*.

Given the analysis above, the Principle of Totality allows us to make several normative distinctions. The first is between the *employment* and *misuse* of artifacts. To *employ* an artifact properly is to use it in accord with its artifactual end rather than otherwise. Thus one properly employs a computer to compute, and misuses a computer as a doorstop, a task which could be better accomplished with a more suitably designed artifact. Likewise, *TPoT* allows us to distinguish between *beneficial* and *abusive* uses of an artifact. To *abuse* an artifact is to use it contrary to its finality *qua* artifact, that is, as contrary to human flourishing, whereas to use an artifact *beneficially* is to use it in ways which actually contribute to human flourishing. Obviously, beneficial and abusive uses of artifacts do admit of moral evaluation. However, we should emphasize the difference between *technical* and *moral* evaluation. One can *misuse* artifacts in ways that are either *beneficial* or *abusive*: one can misuse a computer as a doorstop to help occupants flee a burning building or to conceal homemade bombs as part of a terrorist plot. Likewise, one can *employ* artifacts beneficially or abusively: one can employ a knife to cut steak or to permanently silence one's shrewish mother-in-law.

Third, *TPoT* allows us to distinguish between *repairing* and *vandalizing* an artifact. Both actions involve affecting the functional integrity of the artifact, that is, the ability of its parts to contribute to the finality of the whole artifact. *Repairing* an artifact restores and optimizes the functional integrity of its parts for the sake of the whole. *Vandalism* destroys an artifact's functional integrity. As with all technical evaluations, neither repair nor vandalism is morally good or bad *per se*. It would be *prima facie* permissible to sabotage the weapon systems of a murderous robot like the "Terminator," but *prima facie* permissible to repair a broken coke machine.<sup>14</sup>

Finally, *TPoT* allows us to distinguish between *honoring* an artifact on the one hand and *committing sacrilege* with an artifact on the other. To *honor* an artifact is to acknowledge and respect its historical, aesthetic, or cultural value. This entails *prima facie* obligations to protect the material integrity of such objects and to communicate their value to others, as we do by creating public museums to house such objects. Insofar as these objects are excluded from the instrumental schema with which we evaluate other artifacts, we profane them to the extent that we ignore their resistance to purely technological evaluation. The worst kind of profanity is sacrilege, for sacred objects are those which have truly assumed, and do not merely approach, intrinsic value. To use them for purposes contrary to their assumed nature is to act contrary to their very meaning as supermundane objects. For instance, sacred objects are fitting or unfitting for God. Such evaluation is *analogical* rather than *technical*, assessing the degree to which such-and-such *represents* or *conveys* God's glory. One *contemplates* a stole by asking how its hue limns repentance and royalty; one *profanes* it by asking whether it is good for keeping necks warm; and one commits sacrilege by *misusing* it, say, as a dish rag.

## The Social Whole

The ontological situation changes when we turn to the relation between society and its citizens, which the recent experience of world war made Pius XII and his predecessor keen to emphasize. Human beings are parts of society as members and cooperators rather than as integral parts.<sup>15</sup> In contrast to the substantial unity possessed by natural substances, Pius contends, society "has no unity subsisting in itself, but [is] a simple unity of finality and action. In the community individuals are merely collaborators and instruments for the realization of the common end."<sup>16</sup>

Consider the consequences for the three kinds of whole-to-part priority we identified in the case of artifacts. First, as a moral rather than physical unity, the State does not have ontological priority over individual human beings. This is so, on the one hand, because human beings have ends independent of their participation in civic society (such as familial and religious ends), and on the other hand, because social relations supervene on persons and have no existence apart from them. As Aristotle argued, one does not make a people by drawing lines on maps: only a common aim brings a community of action into existence.

Second, as Pius notes, while things possessing substantial unities "can dispose directly and immediately of integral parts," this is not the case with societies and their members. Societies do not have absolute causal priority over their members. Insofar as we can talk about societies or States moving their members, their ability to do so is both indirect and remote. Societies provide individuals with reasons for action through the creation and enforcement of law and the communication of culture, but no such reasons are sufficient for action. Indeed, it is precisely because such reasons are *not* sufficient that we require both judicial systems and liberal arts institutions to motivate people to act for the common good.

The point to emphasize, however, is that societies cannot achieve the common good independently of achieving the good of their members, since society's members are not fungible in relation to society as a whole. What motivates this conclusion is the premise that individual human beings themselves have intrinsic worth (or dignity),

and as such cannot be purely subordinated to the good of larger wholes in which they participate. A society which imprisons its inner-city poor and replaces them with harder-working immigrants, or which kills its elderly and its young so as to eliminate their retarding effect on the liberty and pocketbooks of those who remain, has not thereby made progress in achieving the common good.

This thought brings us to our last contrast with artifacts: whereas a tool has anterior and asymmetric value relative to its constituent parts, the opposite is true of man's relation to society, whose purpose is to serve individuals by "regulat[ing] the exchange of mutual needs and to aid each man to develop his personality fully according to his individual and social abilities."<sup>17</sup> It is for this reason that the Thomistic tradition has always held that while public authorities can make demands upon individuals so as to better coordinate and direct them to the human good, "in no case can it dispose of [their] physical being."<sup>18</sup> Rather, the opposite is the case: there are times "when in the course of human events it becomes necessary for a people to dissolve the political bands which have connected them and to assume among the powers of the earth the separate and equal station" to which natural law and nature's God entitles them.<sup>19</sup>

In short, the Principle of Totality does not strictly apply to a purely moral entity such as the state, whose good is not realized by the subordination of its members to the whole but instead by the increased ability of each member to achieve his own finality by his participation in the whole.<sup>20</sup>

### **Isomorphic Application of Totality to the Body and Artifacts**

There are significant similarities between the part-whole relations constitutive of individual human beings and those of artifacts. As Aristotle famously argued, the bodily whole is *ontologically prior* to the nature of bodily parts; a hand is properly a hand only when it possesses the active potentiality (first actuality) for the work of a hand.<sup>21</sup> Lab-grown or amputated hands are possible (passively potential) or former hands; separated too far from its teleological context, a hand loses its substantial unity and decomposes into more basic component substances. Likewise, the biological whole is in important ways *causally prior* to its parts: the end of *life* is accomplished independently of the matter of individual parts. This is true of any living thing, which must metabolize matter-energy from its environment in order to sustain its substantial integrity. Whereas the causal priority of the artifactual whole entails that artifacts can retain their identity *despite* the replacement of their fungible parts, we find that living things retain their substantial identities *because* they are capable of replacing their material parts, of animating non-living substances by subordinating them to the activities of the living whole.

Indeed, precisely because the failure to subordinate parts to the whole entails the destruction of living things, the active subordination of parts *to* the whole *by* the whole is both the essence and good of living organisms *per se*.<sup>22</sup> In the human being alone do we find a being capable of understanding this principle and directing his actions in accord with it for the sake of life. Insofar as the Principle of Totality just is the rational articulation of the finality of life—a principle which makes known the proper participation of practical reason in the providential ordering of nature we

call *natural law*—the principle is normative for human beings.<sup>23</sup> It is the rational expression of the *entelechy* of the body-person to the full actualization of her nature.

Traditional applications of *TPoT* to individuals are isomorphic with its application to artifacts.<sup>24</sup> For instance, *TPoT* allows individuals to repair injured body parts, as when we suture a wound, and to replace malfunctioning bodily parts, as in knee-replacement surgery. Likewise, *TPoT* allows us to adjust the functioning of some parts in order to harmonize their effects with the operations of other bodily systems, whether through something as simple as physical therapy, or through complex hormone-supplementation regimens for menopausal women. It even allows us to sacrifice otherwise healthy body parts when this is necessary to preserve one's life—for example, when one's foot is caught in a railroad track as a train fast approaches.<sup>25</sup>

Moreover, we commonly express our approbation or disapprobation of various uses of the body using terms which mirror similar judgments about the uses of artifacts. The art of the physical therapist, strength coach, or dance instructor requires him to distinguish between proper and improper body mechanics (or *employment*). We can likewise distinguish *beneficial* from *abusive* uses of the body on the basis of their contribution to or frustration of human flourishing, as we do when we advocate exercise and discourage someone from smoking crack-cocaine.

As we saw in the case of artifacts, we must beware of confusing these technical categories with one another and with moral evaluation. One may misuse one's body beneficially or abusively—one may *misuse* one's head to stop a door from slamming shut on a child, with or without injury to oneself, just as one may *employ* one's body beneficially or abusively: moderate jogging is healthy, but running marathons not so much (ask Phillipedes).

The most famous medical application of the Principle of Totality distinguishes between *healing* and *mutilating* the body according to the same standard utilized to distinguish *repairing* and *vandalizing* artifacts.<sup>26</sup> *Healing* the body optimizes the functional integrity of bodily parts for the sake of their contribution to bodily health, whereas *mutilation* destroys it.<sup>27</sup> Because *healing* is partly defined according to its finality, it includes procedures, such as amputations, which would be mutilating if they were done for some other purpose. Ethicists must therefore define specific actions according to the standard determinants of human action (i.e., *object*, *intention*, and *circumstances*) rather than by simply describing the physical changes a procedure brings about in a body. In particular, the moral object of the action must include the understood effect the procedure will have on the ability of the part to contribute to the continued health of the physical organism.

A more contentious isomorphism occurs in our distinctions between *honoring* and *profaning* the secondary value of artifacts and *respecting* vs. *violating* the dignity of persons. Just as honoring an artifact requires both acknowledging its value as a historical, aesthetic, or religious object and protecting its material integrity for that reason, so too does respecting the dignity of a person require acknowledging the value of the body as the "site" of rational agency, of personhood, and protecting the material integrity of the body for that reason. The point of attributing dignity to the body is to remove it from the instrumental schema with which we value artifacts, for as in the case of sacred objects, dignity refers to the intrinsic rather than instrumental value of the body.<sup>28</sup> It is for this reason that Catholic bioethics, which requires respect

for the dignity of the body-person, is so often at odds with secular thought directing us to respect absolute personal autonomy—that is, the desires of competent patients, whatever these may be—since by ascribing purely instrumental value to the body, advocates of autonomy deny its exclusion from technocratic reasoning and assert our total, limitless *dominium* over our bodies.

### Defending the Inherent Dignity of the Body-Person

Given the strongly isomorphic subordination of part to whole in artifacts and human persons, coupled with the strongly isomorphic application of *TPoT* to each, it is reasonable to ask how we are to justify the claim that the human body possesses intrinsic value which resists instrumentalization. For instance, some critics of *TPoT* allege that it irrationally requires respect for what are assumed to be the static (Platonic) essences of natural beings—*respect nature!*—which they take to be inconsistent with Darwinian accounts of the evolution of species, the advances of nominalist science, and the technological imperatives of political liberalism, all of which are taken to support the absolute dominion of the person over her body.<sup>29</sup>

Our response is two-fold. First, *TPoT* limits the subordination of some beings to human purposes insofar as *those beings*—and not something so abstract and meaningless as “nature” or “substance” as such—possess intrinsic value.<sup>30</sup> Second, as we argued above, some artifacts can acquire value of an aesthetic, cultural, or religious sort, and for this reason resist purely instrumental reasoning. This value is *intrinsic* insofar as it renders the object in question *unique* and *non-fungible*. Advocates of absolute autonomy thus misunderstand our relationship to artifacts if they assume that being an artifact precludes possession of intrinsic value. Even if it were true that our relationship to our bodies were primarily instrumental, this would not preclude the attribution of dignity to some bodies or their parts (perhaps celebrity bodies would be especially valuable). Our claim that human beings possess *inherent* intrinsic value called *dignity*, and as such are incapable of being subject to technocratic reasoning, is therefore not fundamentally at odds with our claims about the intrinsic value of some artifacts. In both cases, something’s intrinsic value is grounded in its *ecstatic* properties, its participation in a super-substantial finality like culture, history, or beauty; some things mean more than themselves. The difference is that while the acquisition of ecstatic meaning is contingent in the case of artifacts—not every motor-driven hairbrush will be valued as an aesthetic, cultural, or religious object—human beings are inherently (non-contingently) ecstatic in at least three ways.

First, by reason of her rational essence, the human person is a participant in the moral order of the world. Her possession of the faculties of intelligence and will actively order her to moral and intellectual virtues which are themselves intrinsically rather than instrumentally valuable. She is capacitated for virtue from the first moment of her existence, and is therefore inherently possessed of a kind of value no other created being is capable of. Indeed, one could argue that this capacitation for virtue is the correct way to interpret what contemporary philosophers call “autonomy”—not as the active exercise of freedom for any end whatsoever, but as the first, intrinsically valuable actuality of a moral agent *constituting* her as a being capable of achieving moral excellence.<sup>31</sup>



Second, we are genealogically ordered to social life.<sup>32</sup> Insofar as every body-person is descended from parents and sexually capacitated for reproduction, every person is intrinsically ordered to filial, nuptial, and familial relationships. Everyone is someone's son or daughter and a potential husband or wife, mother or father. Moreover, it is through the body's gestures, expressions, and ultimately speech that we are capacitated for communion with others, that is, are capable of constituting ourselves as a community of persons bound by shared ideas, values, experiences, and purposes.<sup>33</sup>

Finally, this "from and for" relationality profoundly describes the supernatural origin and destiny of the human person. Ontologically, Aquinas argues, God *creates* each person at every moment of her existence; we are anteriorly related to God and related to other created beings only in a posterior and secondary manner. Even more suggestively, Aquinas argues that the very subjectivity by which we are diverse as individuals is itself an *exitus* or going forth of the more fundamental Personal relations within the Trinity, and insofar as what is sent is also given, this dynamic image resides in persons as sanctifying grace leading the saints to *beatitudo (reditus)*.<sup>34</sup> Because the economy of the Trinity involves creation and salvation, the human being is the always-created site of God's redemptive activity. The human person is *sacred*, then, not insofar as she exercises her distinctive activities as a knowing and choosing being, but rather, first, as the being who is capacitated by and for grace.<sup>35</sup>

Insofar as these super-biological and super-personal realities or *meanings* are inherent in every human being *per se*, and because of the intrinsic—unique and non-fungible—value they confer upon the person, they are relevant to the determination of fact which must precede every application of the Principle of Totality: we may only alter the body with these finalities in mind.

The Principle of Totality therefore requires us to distinguish between those parts of the body whose value is wholly functional and those which are not. The normal operation of the kidneys and the heart, for example, do not of themselves entail the participation of the person in any whole greater than her own continued biological existence. We can therefore apply *TPoT* to such parts in a straightforward manner: they may be repaired, replaced, sacrificed, and perhaps even functionally enhanced insofar as such operations contribute to the overall good of the person.<sup>36</sup>

Other parts, in contrast, possess super-functional value insofar as their normal operation does entail our participation in finalities which transcend the substantial integrity of the individual. These capacities limit the degree to which we can instrumentalize the person or her parts insofar as they express the *a priori* dignity of the person as a relational being. One powerful line of argument to this effect is St. Pope John Paul II's teaching that contraception and sterilization violate the "language of the body." He argues that it is precisely through the marital act that husbands and wives both become "one complete organism capable of generating human life" and capacitate themselves "to cooperate with God in bringing new human persons into existence in a way that responds to the dignity of persons," that is, with fathers and mothers in a stable family environment committed to the material and spiritual welfare of their children.<sup>37</sup> Just as a friend you have to pay for companionship is no friend at all—the means chosen to achieve friendship undermine the disinterested basis of friendship—so too do contraception and sterilization corrupt the nuptial and

sacramental significance of the sexual powers by acting as if their value were private, instrumental, and non-relational.<sup>38</sup>

Much less attention has been given to the intrapersonal and sacramental significance of the non-sexual powers and parts of the human person. Nevertheless, one could make a strong case against the mutilation and enhancement of those parts necessary for the communication of one's self as a *social* being, such as the face and the hands. The profound psychological trauma suffered by people with severe facial and (to some extent) limb injuries, and their subsequent difficulty forming deep interpersonal relationships, points to this insight.<sup>39</sup> *TPoT* might well deny the permissibility, say, of extensive facial tattoos or cosmetic restructuring which inhibit the ability of the face to express the full range and nuance of human emotion.

Nor has much attention been given to the consequences of potential enhancements to the brain on the meaning of the essentially "human." The *prima facie* acceptability of both physical and pharmacological interventions on the brain to achieve normal psychological function imply that we can ascribe a functional meaning to at least some of its operations. However, aside from the gushing of the transhumanists, there has been little discussion to date of how to identify alterations of the brain (ranging from increased memory and processing power to changed emotional sensitivities) as either mutilations or legitimate enhancements. Would manipulating the neural circuits responsible for cognitive biases of various sorts corrupt or enhance the meaning of rationality, and what would be the impact on human relationships?

Finally, our analysis has implications for applying the Principle of Totality to *accidental* enhancements, that is, changes which do not alter the essential functionality of bodily parts, such as breast enlargement and non-disfiguring piercings and tattoos. Our interpretation of *TPoT* would require such alterations to respect both the functional integrity of bodily parts as well the super-personal *meaning* of the parts in light of the dignity of the human person. Here, as in the case of sacred objects, we must speak of what is *fitting* or *unfitting* for the body-person.

Consider two examples. First, one could reasonably argue that a secondary purpose of breasts is the delight of one's spouse.<sup>40</sup> However, undergoing surgery solely for that purpose would require one to instrumentalize the body of a person by subjecting it to a criterion of evaluation—hedonic efficiency—unfitting for a person whose worth is non-instrumentally grounded. (Evidence of this is that there is no rational limit to *how much* one should increase the size of someone's breasts beyond the arbitrary preferences of the patient or spouse.) In contrast, post-injury cosmetic restructuring that is not able to repair the primary functionality of breasts (to nourish infants) would pass the "fittingness" test if it is done in such a way so as to restore a woman's sense of modest self-worth (and avoid social and psychological trauma). Likewise, the practice of tattooing can either enhance or degrade the body's natural communication of its transcendent worth—just as clothes can. Few would argue that the Hindu *bindi* or the Maori *moko* degrades the body like a topless zombie on the forearm of a barkeep. Just as modesty is a rule of prudence in regard to clothing, so too is *fittingness* the rule of tattoos.

Does this interpretation of the Principle of Totality allow the enhancement of everything but the face, brain, hands, and sexual organs? Does it allow us to become cyborgs to the exclusion of these (or other such) parts? This question poses a challenge

to our interpretation of *TPoT* insofar as a negative answer would seem to commit us to the “respect for nature” interpretation of *TPoT* we earlier rejected. Does the limiting principle that enhancing alterations to the body must exhibit *fittingness with super-personal meaning* intelligibly apply to the whole person as well as to her parts?

Three reasons can be adduced for the claim that this limiting principle does apply to the whole person, reasons which correspond to the moral, social, and sacramental meanings of the body-person defended above. Hans Jonas, Leon Kass, and Gilbert Meilander have provided fertile grounds for thinking of life as a *narrative arc* from natality to mortality.<sup>41</sup> Greatly extended artificial youth followed by extended insentience or sudden death, as well as endless life, would empty this arc of meaning; the elderly would either lose or live in the past, living as foreigners in their own country, as Jonathan Swift says of the *Struldbrugs*.<sup>42</sup> While an evolutionary account of life suggests that it is good for one generation to make way for the next, there are specific virtues proper to old age whose acquisition would be frustrated by endless youth, such as the determination to labor for goods which will bear fruit only after one’s death, or the willingness to voluntarily set aside power for the sake of the autonomy of one’s children.

Likewise, in our social dimension, many thinkers have discussed the problems of distributive injustice which would likely accompany uneven human enhancement. Even supposing the *prima facie* permissibility of the enhancements in question, non-germ-line alterations would be distributively unjust to unenhanced peers, as depicted in the film *Gattaca*, while germ-line level enhancements would be unjust to future generations by subordinating them to the whims of present generations.<sup>43</sup>

Finally, the Catholic tradition suggests that the elimination of bodily dependency would emaciate its prophetic and evangelical witness to the supernatural destiny of the person. Insofar as suffering is “inseparable from man’s earthly existence,” says John Paul II, it expresses the mystery of the body-person whose capacity for suffering is a witness to the Christian claim that God conquers suffering with love.<sup>44</sup> A cyborg would ultimately reject the soteriological meaning of the corpse, the empty and defeated body unable to sustain its own existence. Who among us would choose the glory of a resurrected body she had previously rejected as ugly, inefficient, boring and cruel? Who saw suffering more akin to damnation than to the desire of a bride who has bought but not yet possessed the mansion of love?

In sum, whether significant enhancement is permissible depends on *moral* and theological claims about the degree to which the *sacramental witness* of the body depends upon its material integrity, as do the Eucharist, the rite of baptism, and marriage.

## Conclusion

We have argued that the Principle of Totality is normative for human beings insofar as it articulates, as a principle of practical reason, the *entelechy* of the body-person to the full actualization of her nature. The application of the principle to the human person is strongly isomorphic with analogous applications of the principle to artifacts, and strongly anisomorphic with respect to society. However, just as the subordination of artificial parts to wholes and to human purposes is truly but defeasibly limited by an artifact’s acquisition of intrinsic value by virtue of its super-substantial participation

in a greater whole, so too is the subordination of organic parts to the bodily whole and to human desires limited by the intrinsic dignity of the person by virtue of her inherent participation in (and capacitation for) moral, social, and supernatural finalities. These super-substantial meanings are relevant to our ongoing debates about human enhancement, since the Principle of Totality requires that procedures affecting the body respect *both* its functional integrity *and* its ecstatic meaning.

## Endnotes

1. "Address to the First International Congress on the Histopathology of the Nervous System," Sept. 13, 1952; *AAS* 44 (1952) 779-89. Aquinas articulated *TPoT* in *Summa Theologica* (*ST*) II-II.65.1 (2<sup>nd</sup> ed., trans. Fathers of the English Dominican Province, 1920), and the principle was reaffirmed virtually unchanged by Catholic theologians until the 20<sup>th</sup> century. Pius XII is credited with actually naming the principle.
2. This essay will not give an extended defense of the Principle of Totality. One could briefly defend the principle as follows. Human *dominium* is the natural expression of finality in a rational mode of being, as Aquinas argues (*ST* I-II.1.2; I-II.16.1). *Life* refers to the natural capacity of an organism for self-perfective immanent activity, as David Oderberg argues: a living thing acts *for* itself in order to *perfect* itself, i.e., acts so as to produce, conserve, and repair its functioning as the kind of thing it is (*Real Essentialism*. [New York: Routledge, 2007], 180). Therefore, the rational (participative) exercise of *dominium* over one's life must aim at the perfection of one's functioning as the kind of thing one is, i.e., the adaptation of one's body to one's internal and external environments for the sake of continued living. Since this definition of the rational use of one's body for the sake of life *simply is* the Principle of Totality, it follows that the Principle of Totality is a moral law of human nature specifying what constitutes permissible (rational) action for the sake of life.
3. St. Thomas Aquinas, *ST* II-II.61.1: "There is the order of the whole towards the parts, to which corresponds the order of that which belongs to the community in relation to each single person. This order is directed by distributive justice, which distributes common goods proportionately."
4. That is, while *TPoT* prohibits all bodily mutilation, as a principle of prudence, it does not require one to undergo every beneficial and available medical procedure. One may refuse burdensome medical treatment while acting consistently with *TPoT* when such omissions are consistent with the demands of achieving *beatitudo*. See the *Vatican Declaration on Euthanasia* and Pope Pius XII's "Address to an International Congress of Anesthesiologists," *L'Osservatore Romano*, November 25-26, 1957.
5. See Pope Paul VI, *Humanae vitae*, no. 14; National Conference of Catholic Bishops, *Ethical and Religious Directives for Catholic Health Care Services* (Washington, D.C.: United States Catholic Conference, 1995), no. 53.
6. Pope Pius XII, *AAS* 44 (1952), 786-88.
7. In "the moral community ... the whole has no unity subsisting in itself, but a simple unity of finality and action. In the community individuals are merely collaborators and instruments for the realization of a common end. ... [Thus] the public authority doubtlessly holds direct authority and the right to make demands upon the activities of the parts, but in no case can it dispose of its physical being. Indeed, every direct attempt upon its essence constitutes an abuse of the power of authority." *AAS* 44 (1952) 779-89
8. *Ibid.*
9. Beauchamp and Childress, *Principles of Biomedical Ethics*, 7<sup>th</sup> ed. (Oxford: Oxford UP, 2013), 104-5.
10. See e.g., Leon R. Kass, *Life, Liberty and the Defense of Dignity: The Challenge for Bioethics* (San Francisco: Encounter Books, 2002), 17; William E. May, *Catholic Bioethics and the Gift of Human Life*, 3<sup>rd</sup> ed. (Huntington, IN: Our Sunday Visitor, 2013), 262-67.
11. Aquinas discusses the difference between natural unities (*simpliciter unum*) and multiplicities which are unified *secundum quid* in *Summa contra gentiles*, IV.35.7. See Martin Nolan for discussion: "The Positive Doctrine of Pope Pius XII on the Principle of Totality," *Augustinianum*

- 3 (1) 1963: 29-44.
12. See Neil Postman, *Technopoly: The Surrender of Culture to Technology* (NY: Vintage, 1993).
  13. Sandel argues that “To corrupt a good or a social practice is to degrade it, to treat it according to a lower mode of valuation than is appropriate to it” in *What Money Can't Buy: The Moral Limits of Markets* (New York: Farrar, Straus and Giroux, 2012), 34.
  14. While one might imagine a few circumstances in which vandalizing artifacts has some beneficial effect on human flourishing—e.g., the stress relief achieved by smashing obsolete computers with sledge-hammers—in general, vandalism would seem to be motivated by malice, and so encourage the acquisition of associated vices, such as envy and slander.
  15. “Considered as a whole the community is not a physical unity subsisting in itself and its individual members are not integral parts of it.” *AAS* 44 (1952) 786-88.
  16. *Ibid.*
  17. *Ibid.*
  18. *Ibid.* Even the occasional *sacrifice* of some individuals for the sake of society, as sometimes occurs in the extraordinary circumstances of war or quarantine, is not done for the sake of preserving the society, but for the preservation of the individuals who comprise it.
  19. *The Declaration of Independence*, July 4, 1776.
  20. So argues Gerald Kelly, S.J., “Pope Pius XII and the Principle of Totality,” *Theological Studies* 16 (1955), 373-96.
  21. Aristotle, *Politics* 1.2, 1253a 19-22.
  22. See David Oderberg’s attack on the brain-death criterion of bodily death on the grounds that only whole-body putrefaction is a certain sign of death in *Applied Ethics: A Non-Consequentialist Approach* (Malden, MA: Blackwell, 2000), 86. Also see his *Real Essentialism* (2007), chapter 8 on “Life.”
  23. See Aquinas, *ST* II-II.93.3 and 5.
  24. Indeed, it’s analogously applied to artifacts, but *per se* appropriate for human beings.
  25. See Pope Pius XII, “Allocution to the Twenty-Sixth Congress of the Italian Society of Urologists,” *AAS* 45 (1953), 673-79.
  26. See Aquinas, *ST* II-II.65.1
  27. Constructivist accounts of health share this *formal* definition of health but differ about *which* finality medical procedures are said to aim at, namely, the satisfaction of human desire rather than optimal organismic functioning. This allows constructivists to describe mutilating procedures as “healthy” so long as they satisfy a patient’s desire to be mutilated, e.g., sterile. One devastating problem with the constructivist account is that it entails no procedure is mutilating *per se*—up to and including deliberately killing a patient—and thus the account is both *conceptually too broad* as a definition of ‘health,’ and *practically useless* insofar as it in principle eliminates the possibility of making the limiting distinctions the Principle of Totality is intended to draw. While opponents of the Principle of Totality see this as a *reductio ad absurdum* of the Principle, it should be clear that such arguments attack a straw man insofar as they misconstrue the nature of the whole in relation to which bodily parts are rightly subordinated. More importantly, as I argue below, such accounts apply reasoning appropriate to artifacts inappropriately to human beings—that is, insofar as they turn a moral analogy into a category mistake.
  28. For discussion, see David Oderberg, *Moral Theory: A Non-Consequentialist Approach* (Malden, MA: 2000), chapter 4 on the Doctrine of the Sanctity of Life, and Christopher Kaczor, *A Defense of Dignity: Creating Life, Destroying Life, and Protecting the Rights of Conscience* (Notre Dame: University of Notre Dame Press, 2013).
  29. Ronald Munson argues thus in *Intervention and Reflection: Basic Issues in Bioethics*, 9<sup>th</sup> ed. (Boston, MA: Wadsworth Cengage Learning, 2012): “Contemporary evolutionary theory shows that the apparent purposive character of evolutionary change can be accounted for by the operation of natural selection on random mutations. Also, the development and growth of organisms can be explained by the presence of genetic information that controls the processes. . . . Thus, no adequate grounds seem to exist for asserting that the teleological organization of nature is anything more than apparent” (890-91). Munson here ignores Neo-Aristotelian and contemporary work on functions (teleological and otherwise), e.g., in *Functions: New Essays in the Philosophy of*

- Psychology and Biology*, edited by Ariew, Cummins and Perlman (Oxford: Oxford UP, 2002).
30. See Oderberg, *Real Essentialism* (2007), chapter 9.
  31. See Servais Pinkaers, *The Sources of Christian Ethics*, translated by Sr. Mary Thomas Noble, O.P. (Washington, D.C.: Catholic University of America Press, 1995), 357-58.
  32. The phrase “genealogical person” is taken from St. Pope John Paul II, *Gratissimam Sane* (Letter to Families), no. 12. For discussion, see Carl Anderson and Jose Granados, “The Nuptial Mystery: From the Original Gift to the Gift of Self,” in *Called to Love: Approaching John Paul II’s Theology of the Body* (New York: Doubleday, 2009), 61-79.
  33. Just as the “physical laws of sound” grant the musician “the very possibility of expressing himself musically and so enable him to achieve communion with the rest of the world through his art,” so too, argue Anderson and Granados, is the human body “like an artist’s medium ... [a] capacity for creative communication” that “opens us to participation in reality” (*Ibid.*, 35). Cf. Aristotle, *Politics* 1.3.
  34. *ST* 1.45.7: “In rational creatures, possessing intellect and will, there is found the representation of the Trinity by way of image, inasmuch as there is found in them the word conceived, and the love proceeding. But in all creatures there is found the trace of the Trinity, inasmuch as in every creature are found some things which are necessarily reduced to the divine Persons as to their cause.” See also 1.43.6: “mission as regards the one to whom it is sent implies two things, the indwelling of grace, and a certain renewal by grace.”
  35. See *Evangelium Vitae*, no. 38-39.
  36. We say “perhaps” because, as any sports fan knows, the enhancement of what may appear to be a tissue of purely functional significance, such as the musculature of the body by illegal steroid use, may have interpersonal consequences on the justice of one’s relationships with others.
  37. William E. May, *Catholic Bioethics and the Gift of Human Life*, 3<sup>rd</sup> ed. (Huntington, IN: Our Sunday Visitor, 2013), 85. May’s sources include John Paul II’s “Analysis of Knowledge and Procreation,” General Audience of March 5, 1980, Original Unity of Man and Woman, nos. 4-5, pp. 149-50.
  38. For discussion, see Joshua Schulz, “Chastity’s Children: Sexual Reality, Procreation & the Wisdom of Virtuous Love.” *Touchstone: A Journal of Mere Christianity*. January/February (2014), 25-29. Prominent Protestant Christians have reached similar conclusions, though disagreeing about whether each and every sexual act must be open to procreation. See, for instance, Gilbert Meilaender, “Sweet Necessities: Food, Sex, and Saint Augustine.” *Journal of Religious Ethics*, 29 (1) 2001: 3-18.
  39. See Avinash De Sousa, “Psychological issues in acquired facial trauma,” in *Indian Journal of Plastic Surgery: Official Publication of the Association of Plastic Surgeons of India* 43 (2) 2010: 200-205; M.E.P. van den Elzen et al., “Adults with congenital or acquired facial disfigurement: Impact of appearance on social functioning,” *Journal of Craniomaxillofacial Surgery*, 40 (8), 777 – 782; and Deirdre M. Desmond, “Coping, affective distress, and psychosocial adjustment among people with traumatic upper limb amputations,” *Journal of Psychosomatic Research* 62 (1) 2007: 15-21.
  40. See *Proverbs* 5: 18-19: “May your fountain be blessed, / and may you rejoice in the wife of your youth. / A loving doe, a graceful deer— / may her breasts satisfy you always, / may you ever be intoxicated with her love.”
  41. Hans Jonas, “The Burden and Blessing of Morality,” in *The Hastings Center Report*, 22 (1) 1992: 34-40. Leon Kass, “*L’Chaim* and Its Limits: Why Not Immortality?” in *Life, Liberty, and the Defense of Dignity: The Challenge for Bioethics* (San Francisco: Encounter Books, 2002), 257-74. Gilbert Meilaender, “Terra es anima: On Having a Life,” in *The Hastings Center Report*, 23 (4) 1993: 25-32, and “Death” in *Neither Beast Nor God: The Dignity of the Human Person* (New York: New Atlantis Books, 2009), 67-76.
  42. Jonathan Swift, *Gulliver’s Travels* (1726), chapter 10. Swift also writes that the mostly childless, immortal Struldbrugs cannot contract sacramental marriages, for “the law thinks ... that those who are condemned ... to a perpetual continuance in the world should not have their misery doubled by the burden of a wife.”
  43. See the excellent discussion of this and the previous point by Yuval Levin, *Imagining the Future: Science and American Democracy* (New York: New Atlantis Books, 2008), 54-81.

44. See St. Pope John Paul II, *Salvifici Doloris*, “On Salvific Suffering,” (1994), no. 3, 14-15.

---

**Joshua W. Schulz, PhD**, is Associate Professor of Philosophy at DeSales University, Pennsylvania, and Editor of the *Maritain Notebook* for the American Maritain Association. He currently resides in Center Valley, Pennsylvania, USA.