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Human Nature and Aspiring the Divine: On Antiquity and Transhumanism

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Many transhumanists see their respective movement as being rooted in ancient ethical thought. However, this alleged connection between the contemporary transhumanist doctrine and the ethical theory of antiquity has come under attack. In this paper, we defend this connection by pointing out a key similarity between the two intellectual traditions. Both traditions are committed to the "radical transformation thesis": ancient ethical theory holds that we should assimilate ourselves to the gods as far as possible, and transhumanists hold that we should enhance ourselves beyond the physical and intellectual parameters of being human so as to become posthuman. By considering the two views in tandem, we develop an account of the assimilation directive that is palatable to contemporary readers and provide a view of posthumanism worth wanting.

KEYWORDS: Aristotle, enhancement, Neoplatonism, Plato, technology, transhumanism

> "Our concern is not to be free of sin, but *to be god*"
> —Plotinus, 1966, *Ennead* I 2.6.2-3, trans. modified from A. Armstrong

Transhumanism is the contemporary view that people should enhance themselves beyond the physical and intellectual parameters of being human so as to become posthuman. Interestingly (or oddly) enough, the ancients have been thrust into this seemingly modern debate. This has occurred because many transhumanists see their respective movement as being rooted in ancient ethical thought (see Kurzweil, 1999, 57–8; Moravec, 1999, 196–7; Bostrom, 2005, 6, 2014, 41; Vita-More, 2013, 74–8). On the surface, these two intellectual movements may seem like strange bedfellows: much of the contemporary transhumanist literature revolves around radical enhancement via advanced technology and artificial intelligence—things the ancients could not have even imagined, much less discussed—while ancient ethical theory is concerned with human virtue. At best, their interests might seem unrelated; at worst, they might seem at odds.

Unsurprisingly, then, this alleged connection between the contemporary transhumanist doctrine and the ethical theory of antiquity has come under attack: Susan Levin (2017), for example, argues that this historical narrative is mistaken. Although we are sympathetic to some of her criticisms—some of the transhumanist literature is certainly written for a popular audience and lacking in philosophical rigor—we do think that there is more to the story when it comes to the connection between the transhumanists and the ancients. Plato and Aristotle both held that we should aspire to be as "god-like as possible," and key features of their respective ethical theories reflect this seemingly mystical idea. This aspect of Plato and Aristotle is then emphasized by the scholarship of the Neoplatonists

(and Middle Platonists), and their work has a great influence on Judeo-Christian theology and philosophy—and it has some important commonalities with the general claim that humans should seek to enhance themselves in a transformative way.

In this paper, we will illustrate the similarities between contemporary transhumanism and a strand of thought found in the ancients that we will refer to as "assimilationism." We argue that both transhumanists and assimilationists are committed to a similar general thesis that we call the "radical transformation thesis":

> Radical Transformation Thesis: Humans must undergo a radical transformation in order to become their best selves.

In demonstrating the similarities between the two views, we hope to gain a better understanding and appreciation of both transhumanism and assimilationism. We believe that both views are commonly misunderstood or interpreted in confusing ways—transhumanism too divorced from consideration of what is valuable and assimilationism too mystical—and that some of this confusion can be alleviated by considering the two views in tandem. The transhumanist literature gets attention for the bold sci-fi-esque image that it evokes,[1] but it is often unclear on what kind of posthuman transformation we should be striving for, and we argue that looking to the assimilationist writings can aid us in giving a view of posthumanism worth wanting. Conversely, the assimilationist-leaning passages were largely ignored in Anglo-American scholarship, perhaps, as Annas (1999) suggests, because it is not "obvious to us how we are to make sense of [them]" (54).[2] However, we argue that the idea of assimilation to god can be made more palatable to contemporary readers by teasing out the similarities to transhumanism.

Before we begin, we need to say a little about our methodology. Our discussion of the ancients will focus on assimilationism in Plato, Aristotle, and Neoplatonism.[3] With respect to our methodology, we need to make two important points. First, for the sake of simplicity, we will be ignoring intramural debates among the various Neoplatonists. As one might expect, there are many disagreements between them; nevertheless, it is beyond the purview of this paper to focus on these issues. Moreover, because the Neoplatonists mostly share the same general perspective on Plato and Aristotle—especially when looked at from the perspective of the entire history of philosophy—it seems rather innocuous to treat them as a unified school of thought. With this in mind, we will mostly focus on the views of the founder and most renowned Neoplatonist, Plotinus. Second, the Neoplatonists generally have the goal of unifying the Platonic and Aristotelian corpuses both within themselves and with each other. Accordingly, we will be jumping from text-to-text in a manner that might make contemporary scholars uncomfortable, but such was their methodology. In terms of transhumanism, we will not consider any one particular view in detail, but rather we will focus on the general commitment to technological enhancement as a means to exceed the current lifespan, cognition, emotional, and moral capacities of humans dramatically.

Our first goal will be to explain the ancient philosophers' assimilation directive. Following this, we will demonstrate the similarities between transhumanism and assimilationism by considering the ways in which their resemblance has been challenged. As we noted above, transhumanists often draw parallels between their view and the views of the ancients, and so we believe that responding to the objections to this perceived likeness is the best way to show that the two ideas are similar.

I. ASSIMILATION TO GOD IN ANTIQUITY

The *locus classicus* for the assimilation doctrine is in Plato's *Theaetetus*: Socrates has been talking to Theodorus about philosophy, namely, about how philosophers appear ridiculous in public—especially in the court of law (172c). This is because in aristocratic/political matters the philosopher

> knows not even that he knows not; for he does not hold himself aloof from them in order to get a reputation, but because it is in reality only his body that lives and sleeps in the city. His mind, considering all these things petty and of no account, disdains them. (173e, trans. modified from Levett/Burnyeat in Plato, 1997)

Socrates brings up the case of the Pre-Socratic philosopher, Thales, who is rumored to have fallen into a well while studying the heavens (174a). Foolish accidents happen to philosophers because they focus on deeper matters instead of paying attention to ordinary affairs (174b).

After Socrates explains how the philosopher has radically different values from the Many (174b–176a), Theodorus asserts that if all people accepted this claim, there would be more peace and less evil (176a). To this, Socrates replies:

> But it is not possible, Theodorus, that bad things should be destroyed—for there must always be something opposed to the good—nor can they have their place among the gods. But from necessity they must haunt mortal nature and this place here. That's why one must try to flee from here to there as quickly as possible. Fleeing is becoming like god as far as possible; and one becomes like god when one becomes just and pious with wisdom. (176a–b, trans. modified from Levett/Burnyeat in Plato, 1997)

What does it mean to flee our mortal nature and how is this possible? The Neoplatonists found clarification in the *Phaedo*. At 82a–c, Socrates contrasts "popular" or "civic virtues" that one develops through nature and habituation, with virtues developed through intelligence and philosophy. The Neoplatonists identify the civic virtues as the four cardinal virtues described in Book IV of the *Republic*: courage, wisdom, temperance, and justice (427e–44a; see also VII 518d–519a). The Neoplatonists see these virtues as harmonizing one's soul by imposing measure on one's appetite and emotions, as well as eliminating false beliefs (*Enn*. I 2.2.13–18). The civic virtues are practical in nature, they are about making a person a good citizen; in contrast, the philosophical virtues are about making one divine.

The Neoplatonists refer to the philosophical virtues as "purificatory virtues." They derive this term from a passage in the *Phaedo*:

> I fear this is not the right exchange to attain virtue, to exchange pleasures for pleasures, pains for pains and fears for fears, the greater for the less like coins, but that the only valid currency for which all these things should be exchanged is wisdom. With wisdom, we have real courage and temperance and justice and, in a word, true virtue, whether pleasures and fears and all such things be present or absent. Exchanged for one another without wisdom such virtue is only an illusory appearance of virtue; it is in fact fit for slaves, without soundness or truth, whereas, in truth, temperance and courage and justice are a purging away of all such things, and wisdom itself is a kind of cleansing or purification. (69b–c, trans. modified from Grube in Plato, 1997)

Socrates is distinguishing between the superficial "virtues" practiced by decent individuals and the purificatory virtues practiced by philosophers.[4] The former "virtues" trade bodily elements for better bodily elements, while the latter purges these elements altogether. The process of purification involves stripping away the passions proper to embodiment, things like the fear of death and the desire for pleasure. This idea is found in some of the more mystical aspects of the *Phaedo* where Socrates emphasizes that philosophy is the practice of death and dying (61b–64a). Socrates explains that the philosopher's goal is to obtain knowledge and wisdom, but the desires and the diseases of the body do not allow this to happen (62b–67b). Hence, a philosopher can only achieve her goal in death, which is the separation of the soul from body (64c). This is why the "philosopher most disdains the body, flees from it and seeks to be by itself" (65d, trans. Grube in Plato, 1997).

The resulting philosophical virtues for the Neoplatonists resemble the civic virtues in name, but they differ in that they remove mortal defects.

> Since the soul is evil when it is thoroughly mixed with the body and shares its experiences and has all the same opinions, it will be good and possess virtue when it no longer has the same opinions but acts alone—this is intelligence and wisdom—and does not share the body's experiences—this is temperance—and is not afraid of departing from the body—this is courage—and is ruled by reason and intellect, without opposition—and this is justice. One would not be wrong in calling this state of the soul likeness to god, in which its activity is intellectual and it is free in this way from bodily affections. (*Enn*. I 2.3.12–21, trans. modified from A. Armstrong; see also I 2.6–7 in Plotinus, 1966)

So, whereas the civic virtues provide measure to the bodily affections, the purifying virtues remove them, thus allowing the soul to focus fully on intelligence and reason and thereby achieve a god-like state. Having distinguished between the civic and purificatory virtues, Plotinus must explain their role in the assimilation process. This leads to what we call the "two telos problem," and it will be the subject of the next section.

II. THE TWO TELOS PROBLEM

Generally, ancient ethical theory is considered eudaimonistic: the end (*telos*) of human life is to achieve eudaimonia, which is a term that includes both the subjective component of happiness and the objective component of success or well-being. Excellence or virtue (*aretē*) are the qualities that instantiate or promote eudaimonia. What the virtue of something is depends on its function or characteristic activity (*ergon*). For example, the function of a knife is to cut; thus, the excellence of a knife is to cut well. Accordingly, an excellent knife would be strong, sharp, and easy to grip.

Issues of sporks notwithstanding, it is easy to find the function of silverware. Things are not so simple with humans. Many people today deny that there is a function or ultimate end of human life, but even if we assume there is an end of human nature, the diversity of good lives we can live complicates matters. Plato and Aristotle wrestled with this difficulty—and the Neoplatonists sought to reconcile it. This problem is most well known in Aristotle's *Nicomachean Ethics* where Aristotle concludes the book by arguing that there are two highest goods, with one being higher than the other. The lesser highest good is the life according to practical virtues, while the higher highest good is the life of contemplation (X 6–8).[5]

Aristotle provides several reasons why the life of contemplation is superior to the life of practical virtues. First, contemplation is the highest activity because it deals with the highest knowable objects (X 7.1177a18–22; see also, VI 7.1141b1–7). Second, contemplation is more continuous and stable than practical activity (X 7.1177a22–23). Aristotle's idea is that because practical activity relies on the body, being a good citizen is more fatiguing than contemplating abstract ideas. Third, contemplation is superior with respect to pleasure because intellectual activity is purer and more stable (X 7.1177a24–27). Fourth, contemplation is more self-sufficient (X 7.1177a27–b1). In order to be courageous, for example, there must be people in need of rescuing or fears worth overcoming; contemplation depends on no one else. Fifth, contemplation aims at no other end but itself, while practical activity aims to achieve some further end (X 7.1177b1–20). Since contemplation is less useful or productive, it is more end-like and leisurely than practical activity. Sixth, the contemplative life is more god-like:

> But such a life will be higher than the human plane; for it is not insofar he is human that he will live like this, but insofar as there is something divine in him… If, then, intelligence is something divine as compared to a human being, so too a life lived in accordance with this will be divine as compared to a human life. One should not follow the advice of those who say "Human you are, think human thoughts," and "Mortals you are, think mortal" ones, but instead, so far as is possible, assimilate to the immortals and do everything with the aim of living in accordance with what is highest of the things in us. (X 7.1177b25–1178a1, trans. modified from Rowe in Aristotle, 2002)
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> But that complete happiness is a reflective kind of activity will be evident from the following too. Our belief is that the gods are blessed and happy to the highest degree; but what sorts of practical doings ought we assign to them?... So then the activity of a god, superior as it is in blessedness, will be one of reflection; and so too the human activity that has the greatest affinity to this one will be most productive of happiness. (X 8.1178.b8–24, trans. Rowe in Aristotle, 2002)

Many scholars have found it troubling that there are two highest goods, and that the best one doesn't actually seem all that moral—the contemplator seems rather disinterested in the affairs of others. Accordingly, there is an apparent conflict between the other-regarding aspect of ethics (practical virtue) and the self-regarding aspect of ethics (contemplative activity). Put differently, there is an apparent conflict between the good person and the good for a person, and this tension is symptomatic of human nature being a strange compound of mortal and divine.[6]

Although this conflict is more explicit in Aristotle, a similar friction is in Plato—most clearly seen in the "return to the cave" in the *Republic*.[7] For our purposes, what is relevant is that a philosopher's

blissful life of contemplation is interrupted when they are persuaded and *forced* to take up politics for the good of the city (VII 519c–521b). Once again, we have an apparent tension between self-regarding reasons and other-regarding reasons reflected in the divide between contemplation and practical activity. The fact that philosophers must be persuaded and forced to rule suggests that they do not (at least not immediately) see political activity as being in their own direct self-interest.[8]

With this context in mind, we see that Plotinus was wrestling with similar issues in his distinction between the civic and purificatory virtues. The civic virtues are practical in nature and involve typical moral actions. Yet, as we discussed, these actions seem beneath god, and if our goal is to be like god as far as possible, the value of the civic virtues is called into question. Plotinus' way of reconciling this apparent conflict was to argue that the civic virtues were necessary for developing the purificatory virtues. Nevertheless, Plotinus makes it clear that the person with purificatory virtues will express the civic virtues in a different way from those people who only have the civic virtues:

> But when he reaches higher principles and different measures he will act according to these. For instance, he will not make self-control consist in that former observance of measure and limit, but will altogether separate himself, as far as possible, from this lower nature and will not live the life of the good man which civic virtues requires. He will leave that behind, and choose another, the life of the gods: for it is to them, not to good men, that we are to be made like. (I 2.7.23-28, trans. A. Armstrong in Plotinus, 1966)[9]

Thus, for Plato and Aristotle, and their Neoplatonic interpreters, there are two aspects to humans—a practical aspect that is more other-regarding and a theoretical aspect that is more self-regarding. The theoretical aspect is associated with the divine, while the practical aspect is only associated with mortals. Hence, humans have two ends—one practical and one theoretical—because we are a compound. From this, scholars face the two telos problem: given that humans have two ends that seem very different, it is the job of scholars to either explain how to integrate these ends or to explain why some of the greatest philosophers would have irreconcilable commitments. This isn't the venue to weigh in on such thorny and entrenched debates; rather, we merely intend to show that there is an aspect that needs reconciling.

III. TRANSHUMANISM AND ASSIMILATIONISM

Having established the ancients' view on assimilationism and the role it should play in human life, it is now time to evaluate Levin's charge that transhumanists are mistaken when they claim that they share a vision with antiquity. Her general claim is that "transhumanists' assertions of core commonality with antiquity reflect key misconceptions, with the result that there is no shared vision of human possibility for them to invoke" (Levin, 2017, 279). Ultimately, she argues that once we see how transhumanism and the views of antiquity diverge, then we can see just how problematic the transhumanist project is. We have divided criticisms up into three broad categories, which we will address in detail here.

The Ontological Status of the Transformation

Several of Levin's criticisms fall into a broad category that concerns the ontological status of the transformation. Levin argues that there is a "key ambiguity" implicit in the transhumanist literature. At times, transhumanists seem committed to the claim (1) that we should work on "the cultivation of certain qualities and capacities" beyond what we have now "while remaining within a human modality," while at other times, transhumanists seem committed to the claim (2) that there is "nothing about us that need remain intact" (2017, 279). Stated another way, "transhumanists sometimes equivocate on whether [(1)] posthumans would be our own superior versions or [(2)] continuous with us only in source and sequence of genesis" (Levin, 2017, 287). We can also follow Boyer and Meadows (2015, 180) and think of this question in terms of the kinds of activities posthumans would perform: "[(1)] Are [posthumans] merely better at the same type of activities [we currently practice] or [(2)] are they performing activities of a completely different nature, activities which do not belong to reason at all?"

To be clear, Levin is not claiming that transhumanists explicitly avow two contradictory claims at the same time; rather, her point is that various assertions that transhumanists make implicitly commit

them to both claims, making their position nebulous. For instance, Levin points out that transhumanists seek to promote and maximize things like virtue and rationality, but they describe the perfected being as posthuman.[10] The tension here is that virtue and rationality are human modalities, and thus their perfection would presumably result in a better *human*, not some different type of being (viz., a posthuman). And if this is so, then more conservative views of enhancement are sufficient for reaching these goals (2017, 297–300; see also, Agar, 2014). Levin argues that transhumanists can follow the ancients in using superior beings not as things we should seek to become, but as regulative ideals that should inspire us (2017, 283–290). In contrast, if transhumanists are interested in something truly posthuman, then they shouldn't cling to these human modalities. But if they truly want to transcend the human, and thereby abandon human modalities, then transhumanists are left "without argumentative resources" for defending the claim that this is "attainable or at least valuable in a way that should resonate with us" (Levin, 2017, 286).

Although the commitments of transhumanism can be nebulous, we hold that by looking to assimilationism as a model, we can make sense of this ambiguity. We will begin our response by pointing out that the apparent ambiguity in transhumanists' conception of posthuman is similar to an apparent tension between the assimilationists' conception of the human and the divine. Recall our discussion of Aristotle and human telos in Section II above, particularly his directive to assimilate to the divine as far as possible, instead of "think[ing] human thoughts." For Aristotle, then, we ought to try to live the life of contemplation in which we approach the divine by exercising our rational capacities to the greatest extent that we can. We are, in fact, at our best when we are assimilating to the divine and thinking thoughts higher than the human plane, and we are able to live a life of contemplation *in spite of*, rather than because of, our "human thoughts."[11] The apparent tension is thus that the life of contemplation is the best life for humans to live, but in order to live it, we must think divine, rather than human, thoughts. Thus, for the assimilationists, the divine seems to be both categorically different from being human but also part of human nature. This is similar to the apparent ambiguity between the transhumanists advocating that we actualize human capacities to the fullest extent possible while at the same time encouraging us to become radically different posthumans. On such a view, the transhumanists' posthuman seems to waffle between being a great human being and being something alien.

The next step in our response is to show that there are key elements of transhumanism that mirror the assimilationists' idea that humans have a dual nature of being both mortal and divine.[12] For assimilationists, when we exercise our rational capacities to the highest extent, we think higher thoughts, not human thoughts. Developing our rational capacities fully (assuming that this is possible) will therefore radically transform us as humans and elevate us to a higher plane of existence, despite the fact that we are developing capacities that exist in us as humans, as we currently are. We are able to make this transformation based on our existing capacities because of our dual natures—we are part mortal and part divine.

For their part, the transhumanist project supports the idea that becoming posthuman will and should involve developing our rational capacities by enhancing and expanding our cognitive abilities, removing interference from cognitive bias, inappropriate emotions, and bodily states, as well as giving us more time in terms of lifespan to develop our rational capacities. These aspects of our "biological selves" can interfere with our ability to think rationally and be moral.[13] Thus, we can conceptualize transhumanists as also endorsing a type of dual nature for humans, in which the "biological" (mortal) part of us prevents the "rational" (divine) part of us from reaching a higher level of understanding of reality and from being completely good.[14]

For both assimilationists and transhumanists, then, there is ambiguity in what we will be when we elevate ourselves to the higher plane of existence: will we be essentially what we are now but better or will we be entirely changed? In both cases, this apparent lack of clarity is due to the fact that we have "dual natures": for the ancients, we are part human and part divine, and for transhumanists, we have rational capacities that allow us to seek the truth, but we are limited by the biological factors that are aimed at promoting survival rather than understanding reality. Instead of viewing this ambiguity as a defect of transhumanism and a point of difference between the transhumanists and the assimilationists, as Levin does, we suggest that assimilationism can be utilized to help the transhumanists clarify what the transition to posthuman will (and should) look like. To understand what the ontology of the transition might be, let us consider again the assimilationists' understanding of human and divine

nature. There appear to be three broad categories of divine and mortal beings on the view: divine without possession of any properties of the mortal, mortal without possession of any properties of the divine, and, as in the unique case of human beings, mortal with some properties of the divine. It is this third case, in which there is a melding of mortal and divine, that we must grasp in order to understand the metaphysics of the assimilationist transitions. We believe that the best way to interpret this combination of mortal and divine is to posit that the mortal being possesses some properties of the divine, but these properties are not fully realized.

For an example of what such a combination of properties might look like, compare the laziest couch potato with the best bodybuilding competitor. In regards to the domain of fitness and nutrition, they will not share properties: the laziest couch potato will never go to the gym while the best bodybuilder will go every day, the best bodybuilding competitor will never eat snack food but the couch potato will. But take a melding of the two, say, a novice bodybuilder. They will start taking on the properties of the best bodybuilder, but these properties will not be fully realized: the novice will go the gym, but perhaps not every day, and the novice will eat less snack foods, but perhaps not cut them out entirely. Becoming the best bodybuilder requires rejecting all of the couch potato properties, but not all of the properties that the novice bodybuilder started out with, since the set of those properties include things like appreciation of fitness, dedication, etc., which form the basis of the properties that define the best bodybuilder.

We can think about the human to posthuman transformation in a similar way. Normal humans possess some of the basic properties of posthumans, such as our capacity for rational thought. However, we also possess properties that can interfere with these properties that we share with posthumans: there are certain biological and psychological factors that limit us. We already possess some of the properties of posthumans, just as we already possess some of the properties of the divine, and the process of becoming posthuman (or divine) involves developing these properties that are already in place—it does not involve rejecting everything human, as Levin seems to interpret their project. Insofar as some of the properties of being human are already the seeds of at least some of the properties of being posthuman, then becoming posthuman does not involve a complete rejection of all of our current properties—only of the ones that are limiting us from developing these posthuman properties. The radical transformation that transhumanists endorse need not be interpreted as "nothing about us remaining intact"; instead, we can interpret the transformation in a way similar to the transformation discussed by the assimilationists, that is, as a development of the "rational" and the removal of the "biological." However, even though one isn't parting ways with all that is human, the transformation is still radical in that one is eliminating (or severely reducing) certain elements of human nature and maximizing others. To the extent that the resultant being is much different from past humans, and insofar as this push for maximizing certain human elements and erasing others stands in sharp contrast to enhancement conservativism, the name "posthumanism" is justified.[15]

Pessimism About Humanity

The second way that one might criticize the connection between assimilationists and transhumanists concerns the motivation behind the two projects. There appears to be an element of human pessimism running through transhumanist writings. From the transhumanist perspective, certain features of humanity are defective, and these defects are preventing us from achieving the kinds of lofty goals we have come to identify as distinctively human: goals such as understanding reality and being moral. We thus need to change radically so that we can overcome these barriers and avoid the destruction of the world (on this latter point, see Walker, 2011; Persson and Savulescu, 2012).

In the absence of a radical transformation to the posthuman state, transhumanists are pessimistic about the future of humanity, and it is this pessimism about the human condition that transhumanist philosopher Nick Bostrom connects to Plato. In explicating what being posthuman may be like, Bostrom compares our current state to that of the prisoners in the cave: "our cognitive limitations may be thus confining us in a Platonic cave, where the best we can do is theorize about shadows, that is, representations that are sufficiently over simplified and dumbed-down to fit inside the human brain" (2005, 6). Bostrom suggests that "the tardiness and wobbliness of humanity's progress on many of the eternal problems' of philosophy are due to the unsuitability of the human cortex for philosophical work" and so even philosophers may be somewhat constrained to the cave, "like dogs walking on their

hind legs—just barely attaining the threshold level of performance required for engaging in [philosophical work] at all" (2014, 59).

Levin argues that Bostrom "misrepresents Plato's metaphysics" (2017, 281) when he compares the human-posthuman transformation to the prisoner-escapee transformation that occurs when leaving the cave. Levin's point is that, since Plato's account holds that education and philosophical training are what allow us to understand the Forms and thus leave the cave and gain understanding of the true nature of reality, an account such as Bostrom's that is disparaging of what philosophy can do in this regard cannot compare itself to Plato's account without being disingenuous.

We can see where Levin is coming from with this criticism: there are certainly elements of Plato (and Aristotle) that are optimistic about the ability of humans to understand. In the *Meno*, for instance, Socrates shows how an uneducated slave actually possesses true beliefs about geometry (82b–85e). Nonetheless, there is another side to Plato, one which is rather disparaging of the human condition and its potential for excellence. As we discussed earlier, in the *Phaedo*, Socrates says that philosophy is the preparation for death. Death, at the appropriate time, is a blessing for a philosopher because the "soul of the philosopher most disdains the body, flees from it and seeks to be by itself" (trans. Grube in Plato, 1997 65d) and in death the soul will be released from the body (64c). The soul of a philosopher despises the body because the body misleads and restricts the soul. The body distracts us from philosophy by filling us with desires and fear and requires constant upkeep (66b–c). It is the bodily desire for wealth that drives us toward war and civil conflict (66c–d). Moreover, when we do practice philosophy, the influence of the body obscures our vision of the truth (66d). This leads Socrates to go as far as describing the body as a prison of the soul (82e–83a).

This kind of pessimism about the limits of the embodied human condition are not limited to the "otherworldly" *Phaedo*, but are in Plato's other work as well. In the *Gorgias*, we get a similar account of death being the separation of the soul from body, and a desire for discerning things by the soul itself (465c–d, 492e–493c, 523a–527e). The source of the problem is that Plato thinks that wisdom is necessary for eudaimonia and the threshold for what counts as wisdom is quite robust—thereby excluding most, if not all, people. When discussing the allegory of the cave, Socrates does not liken himself to a philosopher, but sees himself as a chained prisoner (VII 515a), and since he famously disavows knowledge of anything important, it is unclear that he counts himself as being truly happy (*Apology* 21d).[16] In both the *Republic* (X 604c) and the *Laws* (VII 803b–804c), Plato has the protagonist tell us that human affairs aren't worth taking seriously. These ideas are part of the assimilationist directive that we need to break away from our human condition and become something better.

With all of this in mind, it is not unreasonable for transhumanists to think that Plato is an ally in thinking that there are inescapable hurdles humans face due to our embodied nature.[17] Divorced from Platonic metaphysics, this point is quite plausible given evidence that cognitive biases are a pervasive and unavoidable feature of unconscious thought (Harman, 1999; Green and Haidt, 2002; Kahneman, 2011; Doris, 2015). When we add those unavoidable physical impediments to rational and moral thought that are caused by disease and the desire for food, sex, and drink, the Platonic and transhumanist idea that there are features of being human that greatly hinder our ethical, emotional, and intellectual development is rather reasonable (see Fröding, 2011).

Technology and Value

The previous subsections demonstrate that assimilationists and transhumanists share a commitment to the radical transformation thesis. However, there is one (perhaps glaring) difference between the assimilationists and the transhumanists that still needs to be addressed: the relationship between technology and intelligence. Technology is, without a doubt, one of the core topics of interest for the transhumanists. The transhumanist movement was largely born out of appreciation for and apprehension about the possibilities for human advancement that have opened up with the recent rapid rise in technological advancement.[18]

The ancients were, of course, not concerned with advanced technology, but Plato does have a significant view about craft and its relationship to knowledge: his *technē* theory. On Plato's view, knowledge of a craft not only involves performing the craft well but also must include an understanding (an ability to give a rational account) of why the craft is *good*. It is through thinking about *technē* theory that Levin finds what appears to be a substantive difference between assimilationists and transhumanists.

On Plato's account, having knowledge of something inherently involves having knowledge of that thing's value and the way in which it contributes to human flourishing. Because of this, Levin argues that Plato's view of understanding and intelligence is very different from how the transhumanists conceive of understanding and intelligence in their discussions of enhancement.

Transhumanists, according to Levin, tend to equate intelligence with information processing ability: they believe that "our cognitive abilities are best used toward technological innovation that enables machine intelligence to vastly surpass ours in reliability, speed, and processing capacity; to the extent that such an activity succeeds, we are engineering our own, cognitively superior successors" (Levin, 2017, 291). Because transhumanists do not include consideration of value and human flourishing in their account of intelligence or their pursuit of creating superintelligent AI, Levin argues that "insight à la Platonic *technai* is ignored or deemed 'irrelevant' to transhumanist concerns" (Levin, 2017, 293).[19]

Levin's general point is that emulating the way that the brain processes information or focusing on creating machines that process information efficiently cannot "create" understanding in a Platonic sense, since understanding for Plato necessarily involves knowledge of the good. Thus, the transhumanists' views on worthwhile human endeavors are fundamentally different from the views of antiquity: transhumanists can be read as endorsing the idea that creating super intelligent beings is a matter of creating beings that process information well, while the assimilationists would never view intelligence as simply involving information processing. If Levin is correct and there is a substantive difference in how assimilationists and transhumanists conceive of understanding and intelligence, then this would in fact be problematic for our claim that the two views are similar in spirit. In order to address this worry, it will be helpful to separate three questions regarding the relationship between intelligence, value, and technology.

1. Do transhumanists and assimilationists think of intelligence and knowledge differently?
2. Do transhumanists seek to provide a rational account of the way technological advancement connects to goodness?
3. Do transhumanists and assimilationists have a similar attitude toward technology?

As to the first question, we believe that Levin is correct that the transhumanists do often talk about intelligence in terms of the speed and power of information processing and that ancient philosophers' conception of *epistēmē*, or understanding, is far more robust. That being said, Plato saw things like memory, calculation, and other cognitive abilities as being important to wisdom. This is why, in the *Republic*, Plato says that guardians must learn easily and have a good memory (VI 486c–d, VI 503c, VII 535c; see also, *Laws* IV 709e, IV 710c, XII 964e). Additionally, since mathematics and science are an essential component of philosophers' education, and higher cognitive processes are required to succeed in these fields, it seems that though information processing isn't the same thing as intelligence and knowledge, it is necessary for it. Nonetheless, ignoring this difference is a significant failure of transhumanism, and they need to improve how they think about intelligence and knowledge.[20] However, we do not think this omittance is enough to preclude the transhumanists and the assimilationists from having a similar commitment to the radical transformation thesis, especially given that the transhumanists are in fact concerned with human flourishing, as we discuss below.

As to the second question, regarding whether transhumanists connect technological advancement to goodness, Levin argues that because transhumanists believe that superintelligent AI would be "inherently value neutral, meaning that it could just as readily operate toward good as ill," (Levin, 2017, 292) their view neglects consideration of goodness. As mentioned above, the transhumanists are highly interested in the impact that technological advancement will have on intelligence. In the transhumanist literature, there is discussion of two different ways of creating superintelligent beings: (a) biological and technological enhancements to current humans and (b) the creation of superintelligent AI. Although transhumanists often endorse both ideas, it is best to keep them separate. We can thus distinguish two different theses endorsed by transhumanists:

a. That there is a posthuman "mode of being," possibly attainable via technological advancement, in which certain capacities exceed what humans can currently achieve. Because of this, humans should become posthuman. (e.g., Bostrom, 2013)

b. Artificial intelligence is likely to exceed human intelligence in the near future, and thus we should create an initial superintelligent machine that will be able to protect human values. (e.g., Bostrom, 2014)

Although both theses are about what human beings should be doing regarding the rapid advancement in our technological capability, they are distinct.[21] Thesis (a) is about a transformative process for actual (current or future) human beings, which will transform human beings into posthumans. Thesis (b), in contrast, is about the new types of beings that might arise as we humans become better at making artificial intelligence.

Written this way, it is clear that these theses are related, but do not entail each other, for it is possible to endorse one of them without endorsing the other. However, in her discussion of the relationship (or lack thereof) between the transhumanists and the ancients, Levin treats these two theses as being one in the same—a treatment we cannot really fault her for, since, as mentioned above, the transhumanists themselves do not clearly distinguish these ideas.[22] Thus, *even if* it were the case that the transhumanists' discussion of superintelligent AI does not consider how such technology contributes to goodness, this point would only serve as an objection to the second transhumanist thesis about intelligence.[23] Concerning the first thesis, though, it is clear that transhumanists are deeply concerned with the way that transformation via technology contributes to human flourishing. The bulk of their writing offers accounts of why technological advancement is paramount to flourishing—and how such flourishing doesn't involve disregarding current human values (see especially, Bostrom, 2005, 8). Although, as one might expect, different transhumanists have different values, in general, transhumanists see radical enhancement as a means of promoting autonomy, critical thinking, peace, health and life span, diversity, and creativity. One can object to the reasons transhumanist put forth in defense of the claim that technological advancement will improve human flourishing, but it is simply mistaken to think that they are not in the business of providing a rational account for how these technological advancements connect to human goodness.

Finally, the third question compares the attitudes of assimilationists and transhumanists toward technology. We do think that this might be an interesting difference between the two traditions. Transhumanists rely on technology, and technology is an external means of provoking the radical transformation. When assimilationists describe the transformative process, however, it seems that they have in mind an internally driven change, or at least a change in which we are removing ourselves from the bodily states that are limiting us (refer back to our discussion of the "purificatory virtues" from Section I). An important question, then, is whether having an external versus internal elicitor of the radical transformation changes the nature of the transformation. Given both the breadth of this question and the variety of assimilationists, we cannot answer this question in any sort of detail with what little room we have left. Nonetheless, it is sufficient for our present purposes merely to point out that some assimilationists practiced theurgy and magic as means of enhancement (and some rejected these practices).[24] Theurgy and magic, of course, differ from modern technology and medicine, but they are similar in that they are external means aimed at improving one's condition. Thus, the assimilationists do not seem all together opposed to the idea of using external methods to aid in the radical transformation. Hence, although the transhumanists are uniquely concerned with developing and utilizing technology in order to aid in radically transforming human beings into a posthuman state, we do not think that their focus on technology necessarily precludes them from sharing with the assimilationists a commitment to the same general radical transformation thesis.

IV. CONCLUSION

Taking stock, we see that assimilationists and transhumanists both maintain that humans should aspire to be something ontologically greater than we currently are. This is partially motivated by an acknowledgment that there are some unavoidable defects tied to human nature, and the only way to overcome these defects is through radical transformation. This needn't be understood as developing characteristics that are alien to humans; rather, it can be understood as developing features that are currently human to such a high degree that one becomes a different kind of thing. Levin is right that transhumanists use intelligence and knowledge in a way that most ancient philosophers would find

superficial. Additionally, the assimilationists would have rejected any mere technological solution to serious ethical and intellectual problems. These criticisms are important and should not be understated; nevertheless, they shouldn't be viewed as cutting off those who view enhancement as a positive human endeavor from looking for allies in the past. Rather, what it should do is help enhance and reframe the ways that transhumanists think about technology, intelligence, and the good life. It also demonstrates that our drive to radically transform ourselves to an elevated state is not merely driven by contemporary interests in science-fiction and advanced technology; instead, it is a desire seen in ancient thought and may itself be a part of our human nature.

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NOTES

1 The set of things transhumanists are interested in overlaps greatly with the set of common science-fiction plotlines; see Humanity+ (2022a).

2 Sedley explains, "Try asking any moderately well-educated citizen of the Roman empire to name the official moral goal, or *telos*, of each major current philosophical system. Among others, you will hear that Plato's is *homoiōsis theōi kata to dunaton*, 'becoming like god so far as is possible.' Few people today, even those well informed about Plato, would come up with the same answer" (1999, 309).

3 Levin mentions the assimilation directive in Aristotle, but dismisses it (2017, 284–5).

4 There is a scholarly dispute as to whether Plato is sincere that the civic virtues of non-philosophers actually count as virtue. For a defense of the claim that they do, see Vasiliou (2012); for an argument that they do not, see Bobonich (2002, chap. 1–2).

5 A number of passages anticipate the duality of the highest goods. For example, in Book I 5 Aristotle examines several types of lives and leaves it open as to whether the philosophical life is greater than the political life. This conflict is further developed when Aristotle distinguishes between practical reason and theoretical reason in Book VI. This anticipates conflict because at the end of Book I 13, we are told that eudaimonia is intimately connected to virtue, which is the rational activity of the soul. Because there are two different types of rational activity—one corresponding to politics, the other, pure philosophy—we can anticipate that there will be two different ways to live according to reason.

6 There is no shortage of scholarly literature on this topic. For helpful introductions to this complicated issue, see Wilkes (1978); Rorty (1978); Kraut (1979a, 1979b); Cooper (1999, chap. 9); and Brown (2014).

7 See also, *Timaeus* 90a–d. On this passage, Annas says, "The form of the claim is clear enough: it is in transcending our human nature, not fulfilling it, that we find happiness" (1999, 58).

8 As one would expect, the writing on this issue is vast. A helpful place to begin is Buckels (2013), since it provides an overview of the various positions taken.

9 For different takes on the apparent conflict between the civic and the purificatory virtues, see Dillon (1996); Armstrong (2004); Baltzly (2004); Remes (2006); and Zovko (2018).

10 To demonstrate the existence of this tension, Levin uses an example from Bostrom (2008), which we include here in a fuller form:

> Have you ever known a moment of bliss?... I am summoning this memory of your best experience—to what end? In the hope of kindling in you a desire to share my happiness. And yet, what you had in your best moment is not close to what I have now—a beckoning scintilla at most. If the distance between base and apex for you is eight kilometers, then to reach my dwellings would take a million light-year ascent. The altitude is outside moon and planets and all the stars your eyes can see. Beyond dreams. Beyond imagination … The challenge before you: to become fully what you are now only in hope and potential. (Bostrom 2008, 2–3)

In this quote, Bostrom is imagining the advice a future posthuman might give to a current human. This quote suggests that there is a continuity between us regular humans and the posthuman—the basic experience of bliss—but that the posthuman is so different from the human that their experience is beyond the ability of current humans to even imagine. Consider also the following statements from Bostrom: "The conjecture that there are greater values than we can currently fathom does not imply that values are not defined in terms of our current dispositions … Some of our ideals may well be located outside the space of modes of being that are accessible to us with our current biological constitution" (Bostrom, 2005, 8). This quote suggests that our basic capacity for valuing (and the values that come out of using such a capacity) will be shared with posthumans, but fully understanding and achieving these ideals will require us to radically change. A passage from Hopkins (2008) also demonstrates the tension:

> If in the presence of body-changing biotechnology, we seek to keep our old human cognitive natures, with all its primate impulses, we will become not transhumans, but only superhumans. Human psychologies with the added traits of superhuman abilities—intelligence, lifespan, strength. Supermen. Superprimates. Still angry, lustful, hierarchical, but with greater capacity to effect our desires and play out our conflicts. Without changing the self, without changing or at least nurturing certain aspects of character and will, we will not change the human condition, but only magnify it—bad elements as well as good. (Hopkins, 2008, 6)

Here, Hopkins makes it clear that, although transhumanists advocate for enhancing our existing capacities, enhancement alone is not enough to reach the ideal posthuman state—we must undergo a radical change to ourselves as well.

11 Levin is explicitly critical of the way in which transhumanists compare their quest to become posthuman to the Aristotelian idea that the human *telos* is to develop our rational capacities. She writes, "Attempting to forge continuity with Aristotle, Bostrom conflates the view that our best moments most fully realize our human nature as rational beings—Aristotle's own stance in the *Nicomachean Ethics*—with the notion, declared by Bostrom as his own, that these moments reflect a kind of intensity or purity that we not only want but could have without interruption on a higher ontological plane" (2017, 282). Nevertheless, the quotation above from Aristotle demonstrates that he views the life of contemplation not only as superior to the practical life, but also as being on a higher plane of existence.

12 Another key similarity in the ontology of transformation between transhumanism and assimilationism is that for both there is an element of spirituality. Consider the preface to Tipler's (1994) influential book, *The Physics of Immortality*, in which he states that the book unifies science and religion; see Kurzweil (2005, 389–90) and Prisco (2013). There are clear parallels with these ideas in Christianity.

13 Persson and Savulescu (2012) provide several excellent examples of how our "biological" natures (including the types of evolutionary pressures and conditions that shaped our cognitive adaptations) can interfere with (and, on their view, preclude) our ability to act morally in the situations that we face in modern society. They argue that the common-sense morality that we rely upon to make judgments is limited by psychological biases. For instance, we tie moral responsibility heavily to perceived causation, so that we feel morally responsible for harms that we cause (killing someone) but rarely feel moral responsibility for benefits we fail to cause (preventing starvation by donating to charity). We are also psychologically susceptible to loss aversion (we experience loss more negatively than we experience the pleasures of gains), delay discounting (we care more about what is happening now than what will happen in the future), and in-group biases (we give preferential treatment to people we deem in "our group" vs. outsiders). These psychological biases impact our everyday sense of morality, shaping and transforming our moral judgments and feelings about wrongness, fairness, and justice. Persson and Savulescu point out that the common-sense moral judgments stemming from these cognitive biases are likely to have been adaptive in the conditions in which humans evolved but are ill-suited for the conditions of modern society: our common-sense morality, which evolved as we lived in small groups, is simply not equipped to deal with the kinds of judgments afforded by modern technology—judgments that can result in destruction and inequality on a global scale. Because of the discrepancy between the conditions our common-sense morality evolved to handle and the conditions of modern society, Persson and Savulescu argue that we should be pursuing "moral bioenhancement"—using technology to change our biology so that we are better able to make moral judgments that suit modern society.

14 By distinguishing between biological and rational parts, we do not mean to suggest a dualistic divide between body and mind; rather, we can think of the biological parts as those parts that have been constrained by evolutionary pressures, for example, the difficult to control desire for high calorie food or the quick, but not necessarily accurate, psychological heuristics we often utilize when making decisions. A life of careful contemplation is not necessarily compatible with or conducive to a life of survival and reproduction in a harsh environment, and so it seems plausible that some of the capacities that promote survival can take precedence over and otherwise interfere with the capacities involved in rational thought. Furthermore, there may be other biological limitations on rational thought that are simply due to the biological "hardware" that can be evolutionary supported: brain size is limited by size of the birth canal and information processing speed is limited by the biological realities of neural transmission. Removing these biological obstacles to rational thought would allow us to exercise our rational capacities without interference from biological processes that are adapted to promote survival, rather than to promote contemplation.

15 Boyer and Meadows (2015) make a similar argument to us, only from a Thomistic perspective. They argue that, for Aquinas, if a species has certain powers, say rationality, and these powers become complete, the being has not changed into a new species. For a being to change into a new species it must acquire powers that it did not possess already (e.g., a cow becoming rational). From this perspective, because posthumans actualize powers humans are already endowed with, they are not a new species. Nonetheless, they argue that the version of posthumanism in which the mind is uploaded to a computer would result in something radically different (see Boyer and Meadows, 2015, 187n25). Although we are largely sympathetic to their argument, we are not concerned with questions regarding species membership. With respect to Aquinas, one additional comparison is worthy of note. For Aquinas, we supersede our rationality by opening ourselves to divine grace, for the transhumanists, it is through technological advancement, and for the assimiliationists, it is through the cultivation of virtue.

16 For arguments in favor of Socrates being happy, see Vlastos (1991, epilogue); Smith (2016). For arguments against, see Jones (2013, 2016).

17 It is a common misconception that transhumanists loathe the biological body. Transhumanists see some aspects of the body as defective and insofar as this is the case, they should be improved (see More, 2013, 15).

18 From the "Transhumanist FAQ," transhumanism involves "The study of the ramifications, promises, and potential dangers of technologies that will enable us to overcome fundamental human limitations, and the related study of the ethical matters involved in developing and using such technologies" (Humanity+, 2022b).

19 It should be noted that this quotation from Levin includes a citation to Bostrom's book *Superintelligence* (2014, 33). The citation is in regards to the term "irrelevant," which is presumably taken from the cited page of Bostrom's book. However, this quotation of Bostrom here is puzzling since the issue Bostrom is discussing on the quoted page seems orthogonal to transhumanism discussion. The quoted "irrelevant" and discussion of insight comes during a discussion of possible paths to superintelligence, in which Bostrom is discussing the possibility of whole brain emulation. Whole brain emulation would be a computer program that scans and then emulates the "computational structure of a biological brain" (Bostrom, 2014, 30). In discussing ways in which we might accomplish whole brain emulation, Bostrom notes that there is a tradeoff between what he called "theoretical insight," which is knowledge about the computational architecture of the brain, and technological advancement, which is our technological ability to scan and then emulate low-level chemical and electrical processes in the brain. The tradeoff is such that the more we know about the computational architecture of the brain the less technological power we need to emulate so many low-level neural events, and the less we know about the computational architecture, the more we will have to rely on our technology to "brute force" simulate the low-level chemical and electrical processes in the neurons in order to emulate the brain. The goal of whole brain emulation is to emulate the computational properties of the brain, so that the program can do intelligent tasks, and so "much of the messy biological detail of a real brain is irrelevant" (Bostrom, 2014, 33). Thus, Bostrom isn't necessarily saying that the type of value-laden knowledge endorsed in Plato's theory is irrelevant, as Levin's quotation of him seems to imply. Bostrom seems to be talking about something only tangentially related to the question of what intelligence is, and his use of the term "insight" is not at all related to the type of Platonic insight Levin is discussing. Anyway, one can hold that whole brain emulation is a tool for helping researchers to understand potential candidates for intervention or augmentation, without holding that once we have emulated the brain we therefore have gained understanding of intelligence.

20 The transhumanist literature often makes assumptions about AI, understanding, and consciousness that are contentious in contemporary philosophy of mind. Although functionalist views of the mind are popular, the claim that human intelligence can be captured by machines does not come for free, and there are significant conceptual problems that still have not been sufficiently addressed, such as the "symbol-grounding problem"; see Searle (1980).

21 It should be noted that the transhumanists see the advancement of technology as increasing exponentially until we reach a situation that they refer to as the "singularity": a point at which technology has advanced so much that we can no longer predict what the universe (including the lives of humans) would plausibly be like. We will have reached something like a technological event horizon, with no way of knowing what life will be like beyond it. The major facilitator for the singularity is the creation of super intelligent

machines (e.g., machines that surpass human intelligence), as these machines will then be able to create their own technology that is more advanced than human intelligence could invent (see Vinge, 2013). Furthermore, transhumanists see the singularity as inevitable given the rate at which technology has advanced. Platt (1981) likens it to being carried along toward a waterfall: "we are like people on a raft running through a great rapids or waterfall of history, toward which we have been carried inexorably for a long time." Given that they think the singularity is inevitable, part of the transhumanist project is then figuring out what to do about it. As Platt, puts it: "We cannot turn back, but we can use our new knowledge and powers to steer away from the clear dangers and to guide ourselves in the most promising directions."

22 Kurzweil (2005) is a good example of how these two theses become muddied together in the transhumanist literature. Kurzweil seems to think that technological advancement will involve advancing both biological and machine intelligence separately, but these advancements will reinforce and build off each other. Thus, the superintelligent beings that will replace human beings will be on a continuum with human beings that are augmented with technology—or, perhaps, that they will develop in tandem and provide feedback to one another, resulting in an eventual merger of the two. He says, "The Singularity will represent the culmination of the merger of our biological thinking and existence with our technology, resulting in a world that is still human but that transcends our biological roots. There will be no distinction, post-Singularity, between human and machine or between physical and virtual reality" (Kurzweil, 2005, 9). Interestingly, he does not think this poses any threat to what humanity deems valuable; in fact, his view seems to be just the opposite, as he claims that "our technology will match and then vastly exceed the refinement and suppleness of what we regard as the best of human traits" (Kurzweil, 2005, 9). Thus, on Kurzweil's account, preserving what is valuable to human beings seems to come more or less for free with the development of superintelligent beings, because he views superintelligent beings emerging and evolving in tandem with augmented human beings. However, we do not think one has to view these two types of advancements in intelligence, biological and machine, as necessarily merging together to result in one type of superintelligent being. In fact, there might be good reason for keeping the two theses apart, at least in principle: running them together seems to commit one to a particular metaphysical view of the mind (a view Kurzweil seems happy to commit to, although he does not argue for it), and one might want to consider transhumanism without having to make such commitments.

23 We don't even think it is necessarily the case that the transhumanist consideration of AI is value neutral either: in his AI-centric book, Bostrom argues that, since the development of AI is inevitable, the first superintelligent AI that we create ought to have the values that will allow us to preserve our humanity, which includes "good humored decency" (2014, 260). The only point we need to make for our purposes, though, is that *even if* a superintelligent AI were incompatible with Socrates' craft-theory, this doesn't preclude transhumanism in general from being incompatible with Socrates' craft-theory, since the issue of AI isn't a necessary feature of transhumanism.

24 Theurgy refers to the practice of spiritual (sometimes magical) rituals with the intent to evoke deities as a means of self-improvement. For discussions on theurgy and Neoplatonism, see Dodds (1951, Appendix 2.2); Armstrong, (1955); Merlan (1953); Dillon (2007); Finamore, (1999); and Helleman (2010.) For a discussion on technology, theurgy, and ancient traditions, see Steinhart (2020).

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