# Two Challenges to Moral Nihilism

## 1. Introduction

Quentin Smith has recently advanced an argument for 'moral nihilism'. He derives moral nihilism, unexpectedly, from *global moral realism* and a principle of *value aggregation*.[1] If moral nihilism is true, according to Smith, the proponent of this theory, then our lives are meaningless. There is nothing we can do, at any time in our lives, that would make any moral difference at all. We arrive at the unsettling conclusion that there is no better reason to live one way rather than another. All of our life choices, from the moral point of view, are pointless.

The derivation of moral nihilism from global moral realism and value aggregation is interesting and intuitive. But, for reasons I think are at least as interesting, the argument is unsound. The first challenge to the moral nihilism argument is that a world W containing an infinite amount of disvalue and a finite amount of positive value might be overall better than world W′ containing an infinite amount of positive value and a finite amount of disvalue. So even if we concede that every empirically possible action in W contributes at most a finite amount of positive value, it does not follow that all empirically possible action is pointless. The second challenge is that the premises of the moral nihilism argument, together with the transitivity of 'equally as good as', entail a contradiction. So, at least one of the premises of the moral nihilism argument is false or the relation 'equally as good as' is not transitive. Since 'equally as good as' is obviously transitive, one of more of the premises in Smith's argument is false. I conclude that the moral nihilism argument presents no problem for living a meaningful life.

## 2. The Moral Nihilism Argument

The initial assumption in the moral nihilism argument is that, necessarily, global moral realism (GMR) is true.

> GMR. Global moral realism is true if and only if all organisms, inanimate mass and energy, and space and time, and states of these entities, have value independently of whether conscious organisms believe they have value.

GMR is an unusual moral view, since it entails that everything, even empty space, has value. Smith does argue for this view elsewhere, though it is difficult to see how such a position could be made plausible.[2] It is difficult to see what the source of value might be for empty spaces or vacuums. But global moral realism is a much stronger assumption than Smith needs to generate the moral nihilism argument. Weaker utilitarian assumptions can produce analogous nihilistic conclusions.[3]

The second assumption in the moral nihilism argument is a specific version of the value aggregation principle (VAP).

> VAP. Aggregative value theory is true if and only if units of value can be totalised in some way, either by adding them, averaging over them, measuring the equality of their distribution, measuring the minimum, etc.

The moral nihilism argument assumes specifically that, necessarily, value is additive or that, in every possible world, we can sum the units of value at each of the loci of value to obtain the total value of the universe or world.

The final assumption in the moral nihilism argument is that, as a matter of contingent fact, the universe is both spatially and temporally infinite.

> . . . in addition to a massive amount of other, older evidence, the most crucial, new discovery that has convinced previously uncertain astronomers that future time [is infinite] is the 1998 observations of the recession velocity of distant supernovae that indicate the universe . . . will not contract but expand for an infinite amount of time.[4]

The scientific evidence supports the hypothesis that future time is infinite, according to Smith, and also the hypothesis that the universe is hyperbolic.

> The future is infinite if there is aleph-zero number of equal lengthened temporal intervals of some length, such as an aleph-zero number of hours. For the sake of familiarity, I will not use my theory that the past is infinite as well, but will use the more familiar theory that time began about 15 billion years ago with the big bang . . . According to the astronomical observations,

our universe is hyperbolic, which implies in big bang cosmology that at each time space is infinite, e.g., that there are aleph-zero, non-overlapping, equal sized cubes of space.[5]

Let's suppose that the universe contains infinitely many, at least aleph-zero, locations of value. There are infinitely many non-overlapping equal-sized cubes of space at each interval of time, and there are infinitely many, equal-sized, temporal intervals extending into the future.

These assumptions provide the basis for the moral nihilism argument. The argument can be formulated as follows.

    1.  The total amount of value in the universe is infinitely large.

Premise (1) follows from the assumption of global moral realism, additive value, and the spatio-temporal infinity of the universe. (GMR) ensures that each of the infinitely many non-overlapping equal-sized cubes of space at each interval of time have at least one unit of value, and there are infinitely many, equal-sized, temporal intervals extending into the future. The additivity of value guarantees that the units of value at each of the infinitely many non-overlapping equal-sized cubes of space can be summed.

    2.  An action is morally indifferent if it makes no difference to the total value of the universe whether that action is performed or not.

Premise (2) is introduced as a definition of morally indifferent action. The principle does appear to have an axiological bias, but the moral nihilism argument assumes that the total value of a universe also reflects every instance of social, institutional, and individual justice. Individuals that live just lives, societies, and institutions that ensure the protection of basic rights and liberties or that ensure equality of opportunity instantiate the virtue of justice and contribute to the overall value of the universe.

Premise (1) and premise (2) entail our first conclusion that every possible action is morally indifferent.

    3.  Every empirically possible action is morally indifferent.

But exactly why does no possible action makes any difference to the total value of the universe? According to premise (1) the total amount of value

in the universe is infinitely large. We know from (GMR) that each of the infinitely many non-overlapping equal-sized cubes of space at each interval of time has at least one unit of value. There are in addition infinitely many, equal-sized, temporal intervals extending into the future. Consider the linear depiction of time in Fig. 1 with an infinite future divided into infinitely many, equal-sized, temporal intervals, $c_1, c_2, \ldots c_n$.
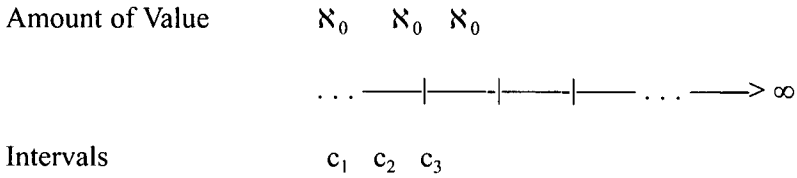
Amount of Value          $\aleph_0$     $\aleph_0$    $\aleph_0$

$\ldots \,\underline{\phantom{xxx}}|\underline{\phantom{xx}}\text{-}|\text{-}\underline{\phantom{xx}}|\underline{\phantom{xx}}\, \ldots \, \underline{\phantom{xx}}\!\!\longrightarrow \infty$

Intervals                $c_1$   $c_2$   $c_3$

**Fig. 1**

For each time-slice of the universe, $c_1, c_2, \ldots, c_n$, there is an infinite number of equal-sized cubes of space. Since each cube contains at least one unit of value, there is instantiated at each interval of time, $c_n$, an infinite amount of value, $\aleph_0$.

But we know that $\aleph_0 + n = \aleph_0$ and also that $\aleph_0 - n = \aleph_0$, for any finite number n. Perhaps more worrisome, we know that $\aleph_0 + \aleph_0 = \aleph_0$ and also that $\aleph_0 - \aleph_0 = \aleph_0$.[6] So there is no action or event $e$ that might occur at any interval of time $c_n$ in the history of the universe such that the value associated with the occurrence of $e$ would increase or decrease the total value of the universe. It does not matter ultimately, or in the long view, whether $e$ is performed or not.

According to Smith, moral nihilism follows directly from the fact that every empirically possible action is morally indifferent and the definition of moral nihilism. Smith introduces his concept of moral nihilism as follows:

4. Moral Nihilism is true if and only if, for any empirically possible action A, it is morally indifferent if A is performed or not performed.[7]

The inference to moral nihilism in (5) is based on the definition in premise (4) and the moral indifference claim in premise (3)

5. Moral nihilism is true.

If moral nihilism is true then it makes no difference what I choose to do or how I choose to live my life. There is no particular reason to prefer a superlatively moral life over an abysmally immoral life. There is in the long view no moral difference between these lives. There is no particular reason to dedicate one's life to improving the universe and no particular reason to dedicate one's life to worsening the universe. There is ultimately no moral difference between these choices. The consequences of moral nihilism might well extend beyond the futility of one's moral life and moral choices. Smith urges that additional consequences include the fact that no one has a right to life, persons have no intrinsic dignity, and that God does not exist.

It is perhaps true that moral nihilism has the entire unwelcome set of consequences that Smith describes. Fortunately, these are consequences that need not concern us. In section (3) and (4) I show that the moral nihilism argument is unsound. In section (3) I show that a world containing an infinite amount of disvalue might be overall better than a world containing an infinite amount of positive value. Remarkably, contrary to the moral nihilism argument, individual actions, each of which contributes a finite amount of positive value, can improve a world containing an infinite amount of disvalue. In section (4) I show that the premises of the moral nihilism argument, together with the transitivity of 'equally as good as', entail a contradiction. So, at least one of the premises of the moral nihilism argument is false or 'equally as good as' is not transitive.

## 3. First Challenge to Moral Nihilism

The assumption of value additivity allows us to determine in a simple way the overall value of the life of any person. Let the overall value of a person's life L equal the sum of the total negative value in L and the total positive value in L.[8] For any person S, if the total negative value in S's life is less than the total positive value in S's life, then S's life is overall positively valuable.

Consider a possible world W in which there is an infinite number of locations of value. In particular, there's a countably infinite number of persons in W and the life of each person in W is a location of value. We assume that there are no other locations of value in W apart from the lives of the countably infinite number of persons in W.[9]

Suppose further that in W a countably infinite number of people are in hell and a finite number of people are in heaven. We do not assume that hell is infinitely bad and we do not assume that heaven is infinitely good. We suppose that the infinite set of persons in hell is mapped onto the set of natural numbers. Each person will, of course, be assigned a distinct finite number in the naturals. Let the number assigned to each person determine the number of seconds she spends in hell. It is true for each person in hell that she will spend a finite amount of time there. She will then have the opportunity to go to heaven and remain there everlastingly. Let's suppose that each will freely choose to go to heaven after their finite time in hell.

It is true in W that there will always be an infinite number of people in hell and there will always be a finite number of people in heaven. That is, at all times t in the history of W, there will be an infinite number of people in hell and a growing, but finite, number of people in heaven. But the overall value of the world W is positive. Indeed, the overall value of W is infinitely positive. Recall the assumption that there is a countably infinite number of persons in W, the life of each person in W is a location of value, and there are no other locations of value in W. Recall further that, for any person S, if the total negative value in S's life is less than the total positive value in S's life, then S's life is overall positively valuable. Let L be any arbitrarily chosen life of any person in W. The overall value of L will be equal to some finite amount of negative value—the finite amount of time she spends in hell—plus a much larger amount of positive value— her everlasting life in heaven. We do not assume that any person spends an infinite amount of time in heaven. We assume only that life in heaven is everlasting. Strictly, we need only assume that, for any finite amount of time a person spends in hell, she will spend a greater amount of time in heaven.

We conclude that the overall value of each life in W is positive. Each will have a finite amount of time in hell and thereafter choose everlasting life in heaven. There are countably many persons, and so countably many lives, in W; since each life has overall positive value, the overall value of W is infinitely positive. We have reached the remarkable conclusion that W will always have infinitely many persons in hell, each person in W will produce a finite amount of positive value, and the overall value of W is infinitely positive. We should conclude, contrary to the Moral Nihilism Argument, that worlds that include an infinite amount of disvalue might be vastly improved by moral agents that contribute, individually and collectively, a finite amount of positive value.

Suppose we reconsider a Smith world in which all of the infinitely many cubes of space have some negative value. It is possible that each of the infinitely many cubes of space is mapped onto the natural numbers. Each spatial location will, of course, be assigned a distinct finite number in the naturals. Let the finite number n assigned to each location determine number of seconds it is disvaluable. Let the spatial location thereafter have positive value. The change in value to individual spaces might well be due to the finite contributions of individual moral agents. The *overall value* of each location could be positive—as the sum of the total amount of positive value and the total amount of negative value at that location— and the value of the universe—as the sum of the overall value of each spatial location—might be infinitely positive. And this is true despite the fact that the world will always contains an infinite number of disvaluable locations and a finite number of valuable locations.

### 4. Second Challenge to Moral Nihilism

Consider the following epistemically possible world described by Jose Bernadette and John Hawthorne.[10]

> Consider a world where a series of walls are laid out on a two-mile stretch of road in the following way: The road has two endpoints A and B. At B, which is two miles from A, there is a surface of a wall which is a foot thick, the other surface being two miles away plus one foot from A. At the point between A and B that is one and a half miles from A, there is the surface of a wall which is half a foot thick, the other surface being one and a half miles plus half a foot from A. At the one and a quarter mile point, there is a wall that is quarter of a foot thick . . . and so on. For convenience, let's suppose that each wall has a number tag such that the wall at B is numbered '1', the wall next furthest from A is numbered '2' and so on.[11]

Suppose the world W has infinite positive value. Each of the countably infinite walls in W has at least one unit of positive value and there exists nothing else of value in W. According to Smith, it makes no difference to the overall value of W if wall L1—the wall standing at point B—is destroyed. Since the world W has infinite positive value, there is no loss in finite positive value that could make any difference to the overall value of W. We will find that this claim is incoherent.

The distance from B to A is finite; it is in fact 2 miles. In the finite stretch from B to A there are infinitely many walls, and each of those walls

has finite positive value. Suppose S drives a bulldozer from B to A, destroying wall L1 first, then wall L2, then L3 . . . and so on. Suppose further that the destruction of each wall in the sequence removes the positive value contributed by the wall to the world W. S will arrive at A in a finite amount of time having destroyed infinitely many walls.

According to Smith, as S traverses the space from B through A, each empirically possible action is morally indifferent. The world $W_1$ after the destruction of wall L1 is not overall worse than it was before the destruction of L1. After all, the destruction of L1 removes a finite amount of positive value from an infinitely valuable world. The world $W_2$ after the destruction of L2 is not overall worse than it was before the destruction of L2, and so on. The reasoning plainly entails that the world remains infinitely valuable after S traverses the entire space from B through A. But, of course, that's false. The infinitely many walls standing in the space from B to A have been destroyed, and W no longer has infinite positive value when S arrives at A. The argument has the following formal representation.

1′. There is a finite sequence from B to A containing a countably infinite number of walls, L1, L2, L3 . . . LA . Assumption

2′. Each wall in the sequence has at least one unit of positive value. Assumption

3′. Let $W_0$ be a world in which every wall in the sequence is standing, $W_B$ be a world in which every wall is standing except $L_1$, $W_2$ be a world in which every wall is standing except $L_1$ and $L_2$ . . . and let $W_A$ be a world in which no walls are standing.

4′. $W_0$ has infinite positive value. From 2′ and 1′

5′. Every empirically possible action is morally indifferent. From (1), (2)

6′. The value of $W_0$ equals the value of $W_1$. From 4′, 5′

7′. The value of $W_1$ equals the value of $W_2$, the value of $W_2$ is equal to the value of $W_3$ . . . the value of $W_{n-1}$ equals the value of $W_n$. From 4′, 5′, repeated applications

8′. The value of $W_0$ equals the value of $W_A$. From 6′,7′, & transitivity

9′.  The value of $W_0$ does not equal the value of $W_A$. Contradiction

There are just two assumptions that could be false. Either premise (5′) is false and not every empirically possible action is morally indifferent or the relation 'equally as good as' is not transitive. But it's obvious that 'equally as good as' is transitive, so we must conclude that premise (5′) is false. Of course, premise (5′) is just premise (3) in Smith's Moral Nihilism Argument. So the Moral Nihilism Argument is unsound.[12]

## 5. Conclusions

In section (3) we showed that actions and events that produce a finite amount of positive value might alter the overall value of a world that includes infinitely many negatively valued locations. A world containing an infinite amount of negative value and a finite amount of positive value might be better than a world containing an infinite amount of positive value and a finite amount of negative value. This is inconsistent with the claim that, in worlds containing infinite amount of negative or positive value, every empirically possible action is morally indifferent.

In section (4) we showed that either premise (3) in the Moral Nihilism Argument is false or 'equally as good as' is not transitive. Since the relation 'equally as good as' is obviously transitive, we have a counterexample to the (3) that, in worlds containing an infinite amount of negative or positive value, every empirically possible action is morally indifferent

Since the Moral Nihilism Argument depends on the truth of premise (3), we should conclude that the argument is unsound. If moral nihilism were true, then our lives would be meaningless. There would be nothing we could do, at any time in our lives that would make any moral difference at all. But the Moral Nihilism Argument gives us no reason to believe that moral nihilism is true.

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## NOTES

1.  See Quentin Smith's "Moral Realism and Infinite Space-Time Imply Moral Nihilism," in Dyke, Heather, ed., *Time and Ethics: Essays at the Intersection*, (Dordrecht-Holland: Kluwer Academic Publishers, 2003), 43–54.

2. See Smith's *Ethical and Religious Thought in Analytic Philosophy of Language* (New Haven, Yale University Press, 1997).

3. See James Cain, "Infinite Utility," *Australian Journal of Philosophy*, 73 (1995), 401–404; Mark Nelson, "Utilitarian Eschatology," *American Philosophical Quarterly*, 28 (1991), 339–47; Krister Segerberg, "A Neglected Family of Aggregation Problems in Ethics," *Nous*, 10 (1976), 221–44; Peter Vallentyne, "Utilitarianism and Infinite Utility," *Australasian Journal of Philosophy*, 71 (1993), 212–17 and his "Infinite Utility: Anonymity and Person-Centeredness," *Australasian Journal of Philosophy*, 73 (1995), 5–26; Peter Vallentyne and Shelly Kagan, "Infinite Value and Finitely Additive Value Theory," *The Journal of Philosophy*, 94 (1997), 5–26.; L. Van Liedekerke, "Should Utilitarians be Cautious about an Infinite Future?" *Australasian Journal of Philosophy*, 73 (1995), 405–407.

4. See "Moral Realism and Infinite Space-Time Imply Moral Nihilism," op. cit., p. 44. There is a nontechnical discussion of this new evidence in the January 1999 and 2001 issues of *Scientific American*.

5. *Ibid.*, p. 45.

6. It is of course not as simple as that. If you subtract all of the odd numbers from the even numbers, then it is true that $\aleph_0 - \aleph_0 = \aleph_0$. But if you subtract all of the natural numbers from the natural numbers then $\aleph_0 - \aleph_0 = 0$. Addition and subtraction are not well-behaved for Cantorian infinites.

7. See "Moral Realism and Infinite Space-Time Imply Moral Nihilism," op. cit., p. 43.

8. What I am calling the overall value of a person's life might be better described as the overall welfare of a person. I deliberately leave aside complicating questions about the instrumental value of the lives of persons, e.g., in the lives of other persons, etc. I do not mean to restrict valuable lives to only those who qualify as persons. Non-persons might have lives that are valuable as well.

9. Of course, Smith proposes that GMR is necessarily true, so the world I am describing is perhaps metaphysically impossible. I claim only that the world is epistemically possible. The case I discuss here is based in part on an example proposed in another context by Jon Kvanvig and Robert Johnson.

10. See John Hawthorne, "Before Effect and Zeno Causality," *Nous*, 34 (2000), 622–33, and Jose Bernadette, *Infinity: An Essay in Metaphysics* (Clarendon: Oxford, 1964). This specific case is due to Hawthorne, but there are several versions of the case in Bernadette.

11. John Hawthorne, "Before Effect and Zeno Causality," op. cit., p. 623.

12. For comments and discussion on this paper I gratefully thank Vlastimil Vohánka, Christian Lee, Alex Pruss, Heath White, and Jon Kvanvig.