

# A response to Chisholm's paradox

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**Abstract** Essentialists suppose that for every individual, if that individual exists at any possible world, then necessarily that individual exemplifies some non-trivial qualitative property essential to it, as such. Anti-essentialists deny this. One important argument leveled by some anti-essentialists against essentialism takes the form of a thought experiment, one originally introduced by Chisholm (Nous 1(1):1–8, 1967), sometimes referred to as *Chisholm's Paradox* (CP). In this essay, I defend essentialism against CP. I begin by presenting the argument and showing how it leads to a contradiction of the essentialist thesis. I then consider one of the most popular solutions to CP to date, that given by Salmon (Midwest Stud Philos 11:75–120, 1986, Philos Rev 98(1):3–34, 1989, Philos Top 21(2):187–197, 1993). Next, I critique Salmon's proposal and show that it is an insufficient response on behalf of the essentialist. And finally, I propose a novel solution to the paradox and discuss why it is that many metaphysicians in the past have found CP plausible, despite being fallacious.

**Keywords** Chisholm's paradox · Modal paradox · Essentialism · Anti-essentialism · S4 modal logic · Tolerance principle · Sorites paradox

## 1 Introduction

In 1970, the English singer-songwriter Nick Drake composed a song entitled “One of These Things First.” In it, he sings “I could have been a whistle, could have been

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a flute/A real live giver, could have been a boot.”<sup>1</sup> Nick Drake’s lyrical claims are pretty, but leaving aside their clearly figurative function, a metaphysician might ask: Could Nick Drake *really* have been a boot, instead of, say, a human being? Is this a state of affairs that is really a metaphysical possibility for Nick Drake, *as such*?

Presumably, whether one answers yes or no, one will answer based off of considerations that have nothing to do with Nick Drake in particular, but rather based off of one’s views about what’s metaphysically possible for things in general. That is, how one answers this question will likely depend on how one answers the more general question, put nicely by Timothy Williamson (2013): “How different could things have been, being the same things? How different could *they* have been?” (p. 126).

## 2 Context of dispute

To this question, there is a small set of metaphysicians that would answer: There are no substantial constraints on *de re* possibility. I shall call those who answer the question in this way *anti-essentialists* and define *anti-essentialism* as just the thesis that for any individual, *x*, there is no non-trivial qualitative property or set of properties that *x* must instantiate in order to exist at some possible world;<sup>2,3</sup> or, as Robert Stalnaker (1979) put it: “for every individual and every property, there are possible worlds in which the individual has the property and possible worlds in which it does not” (p. 344).<sup>4</sup> None of the substantial qualitative properties that an individual instantiates at this world are essential to it; none of them put constraints on what is metaphysically possible for it, as such.<sup>5</sup> So, even though Nick Drake at

<sup>1</sup> From Nick Drake’s 1971 album *Bryter Layter* (Side 2, Track 3).

<sup>2</sup> I understand the difference between qualitative properties and non-qualitative properties as indicated by Cowling (2015); e.g., things like mass and shape count as the former; things like “being Napoleon and being next to Obama” count as the latter (p. 275).

<sup>3</sup> See Menzel (2017) for a full explanation of what I intend to designate by the term “possible world.”

<sup>4</sup> The reason I have defined anti-essentialism in terms of “non-trivial” qualitative properties is because there may, in fact, be no metaphysicians who would seriously consider the thesis that an individual could exist at some world while exemplifying none of the qualitative properties that it exemplifies at the actual world. Such metaphysicians would say that, even if particulars are not entirely bare, they are, at least, as Lewis (1986) put it, “pretty scantily clad” (p. 242). I am grateful to my anonymous reviewer for bringing this point to my attention.

<sup>5</sup> I am classifying haecceitists among those who subscribe to anti-essentialism. Speaking loosely, haecceitists have equal right to be considered both essentialists and anti-essentialists. In a very weak sense of essentialism, they might fall into the class of those who subscribe to essentialism, since they too suppose that the existence of any individual at any possible world necessitates that that individual possess the (non-qualitative) property of being identical to itself. In a more traditional sense of essentialism, by which I mean qualitative property essentialism, however, they clearly fall into the class of anti-essentialists. Since I am concerned here only with qualitative properties, I am lumping them into the latter, since they too might put forward Chisholm’s Paradox as an argument against qualitative property essentialism.

the actual world was a human being, his humanity does not preclude that possibility that he really could have been a boot.<sup>6,7</sup>

By contrast, there is a larger set of metaphysicians, myself included, that would answer that there are constraints on what is metaphysically possible for individuals, as such.<sup>8</sup> I shall call those who answer the question in this way *essentialists* and define *essentialism* as just the thesis that for every individual, *x*, there is some non-trivial qualitative property or set of properties, *P*, such that if *x* exists at some possible world, then necessarily *x* is *P* at that world. If *x* exists, then something is *P* at that world; contrapositively, if nothing is *P* at that world, then necessarily *x* does not exist at it either. *P*, in this case, is an essential property of *x*, in the sense that, as Alvin Plantinga (1970) put it, *x* is *P* and there is no possible world at which *x* is non-*P* (p. 474). So, presuming that being human is an essential property, given that Nick Drake at the actual world was a human being, it is not metaphysically possible that he could have been a boot, since to be a boot is to be non-human.<sup>9,10</sup>

Historically, anti-essentialists have held the burden of proof in the dialectic between essentialism and anti-essentialism. For this reason, it ought to come as no surprise that there are more arguments directly against essentialism in the literature than there are directly against anti-essentialism. One of the most historically important arguments against essentialism takes the form of a thought experiment. The thought experiment was originally introduced by Roderick Chisholm (1967) in his essay, "Identity Through Possible Worlds: Some Questions." The thought experiment begins with only a handful of very plausible-sounding principles but

<sup>6</sup> In discussing essentialism throughout this paper, I use examples most consistent with *sortal essentialism*, the thesis that individuals have essential properties (as discussed below) and that those essential properties are best understood in terms of the sort or kind by which that thing is classified (see, e.g., Brody (1980) and Wiggins (1980, 2001) for more on this position). However, while I use examples from this variety of essentialism, I do not mean all that I say below to apply to this kind of essentialism alone.

<sup>7</sup> My definition of anti-essentialism ought to be understood as a stipulative precisification of the theory. Anti-essentialism has been variously defined. For a related, though importantly distinct definition of the position, consider, e.g., Heller (2005): "Anti-essentialism holds that no thing has any modal properties except relative to a conceptualization—or instance, relative to a description" (p. 600).

<sup>8</sup> In using the term "metaphysically possible," I wish to distinguish the kind(s) of possibility about which I am inquiring from mere logical possibility and (the very robust) physical (or natural) possibility. Roughly, something is said to be metaphysically possible (relative to our world) if there is at least one world at which that proposition is true that is governed by the same metaphysical laws that govern our world and that world is accessible via our world, as well. See Conee and Sider (2013, pp. 186-198) for more on each of these three grades of modality.

<sup>9</sup> Compare this definition of essentialism to the list of various essentialisms collected by Robertson and Atkins (2018).

<sup>10</sup> It should be noted that "essentialism" might denote a very broad class of metaphysical theses. The variety of essentialism that concerns me here is sometimes referred to as *necessary essentialism*, so called because those who hold it suppose that, if it is possible that some object exists, then necessarily it must exemplify some particular property or other. By contrast, *sufficient essentialists* hold that, for every particular thing, there is some property such that, if that property is instantiated at some possible world, then it follows that that individual exists at that world too; that is, for every individual, there is some unique *differentiae* whose instantiation is sufficient for its existence. Both are very interesting theses; nonetheless, in this essay, I discuss only the former and take no stance with respect to the latter.

concludes that, as Quine (1976) put it, "... you can change anything to anything by easy stages through a connecting series of possible worlds" (p. 861), which is to say that a thing's qualitative properties put no constraints whatsoever on what it might have been. Chisholm's thought experiment is still often cited by anti-essentialists as a powerful argument against essentialism, despite its age.<sup>11</sup> Essentialists, in response, have come to refer to the thought experiment as *Chisholm's Paradox* (hereafter "CP").<sup>12</sup>

### 3 Thesis

In this essay, I will defend essentialism against CP. To this effect, I'll follow an indirect course: (I) I will begin by presenting CP and demonstrating how, if it is sound, it leads to a contradiction of the essentialist thesis; (II) I will then consider the most plausible response that has been given to CP to date, a suggestion first proposed by Hugh Chandler (1976) but popularized by Salmon (1986, 1989, 1993); (III) I will then critique Salmon's suggestion and demonstrate why, though seemingly plausible, it is ultimately an inadequate response on behalf of the essentialist to CP; (IV) next, I will propose a new solution to CP on behalf of the essentialist, one that is not susceptible to the same problems that Salmon's suggestion faces; (V) and finally, I will offer a diagnosis of why it is that metaphysicians have gone astray in supposing that CP is a plausible argument against essentialism and how essentialists how to make sense of whatever intuitive appeal CP may be thought to have.

### 4 Assumptions

Before formally presenting the premises of CP, I would first like to make explicit otherwise implicit premises that I presume that most essentialists and anti-essentialists alike accept upon first approaching the argument. These implicit premises are certain logical inference rules.

First, I will assume that both the essentialist and the anti-essentialist are at least willing to accept the inference rules of S4 modal logic, unless otherwise challenged. S4 permits the following inference rules:

Modal Transitivity (MT): For any three worlds,  $w_0$ ,  $w_1$ , and  $w_2$ , if  $R(w_0, w_1)$  and  $R(w_1, w_2)$ , then  $R(w_0, w_2)$ . Or, for any proposition,  $p$ , obtaining at any world,  $w$ , if  $\Diamond\Diamond p$  at  $w$ , then  $\Diamond p$  at  $w$  too.

Modal Reflexivity (MR): For all worlds,  $w$ ,  $R(w, w)$ . Or, for any proposition,  $p$ , obtaining at any world,  $w$ , if  $p$  at  $w$ , then  $\Diamond p$  at  $w$  too.

<sup>11</sup> See Cowling (2016).

<sup>12</sup> As Lewis (1986) famously said: "Well, one man's reason is another man's *reductio*" (p. 207). This seems to describe this dialectical situation very well.

It will also be assumed that all of the inference rules of classical extensional logic hold, including *modus ponens* and Transitivity of Identity (TI), as well as certain meta-logical commitments, such as classical propositional bivalence.<sup>13</sup>

Second, since the debate between the essentialist and the anti-essentialist turns on the numerical identity of different individuals at different worlds, I will assume one modal inference rule pertaining to transworld identity:

Modal Identity (MI): If there exists some individual,  $x$ , at some world,  $w_0$ , and for some property,  $P$ ,  $\Diamond(x \text{ is } P)$  at  $w_0$ , and there exists some world,  $w_1$ , and  $R(w_0, w_1)$ , and  $x \text{ is } P$  at  $w_1$ , then it follows that  $x$  at  $w_0 = x$  at  $w_1$ . Or, if a possibility exists for some individual, then the possibilities we are considering is numerically identical to it.

With these implicit premises made explicit, we can now present the explicit premises that are unique to CP.

## 5 Chisholm's paradox

The elements of CP are as follows: Suppose there is some individual,  $\alpha$ , that exists at our world,  $w_@$ . At  $w_@$ ,  $\alpha$  has numerous qualitative properties. We can suppose that there is a set,  $\Sigma$ , comprised of every qualitative property exemplified by  $\alpha$  at  $w_@$ . For ease in presentation, suppose that  $\Sigma$  is comprised of exactly 100 members, each logically independent of one another. We can represent the state of affairs that obtains between  $\alpha$  and  $\Sigma$  by writing:  $\alpha$  is  $\Sigma$  to 100% at  $w_@$ , meaning that  $\alpha$  exemplifies all 100 of the qualitative properties in  $\Sigma$  at  $w_@$ .

Having supposed that  $\alpha$  is  $\Sigma$  to 100% at  $w_@$ , Chisholm then asks: Is it metaphysically possible that  $\alpha$  is  $\Sigma$  to 99% instead of  $\Sigma$  to 100%, relative to  $w_@$ ? That is, could  $\alpha$  be  $\Sigma^*$  instead of  $\Sigma$ , where  $\Sigma^*$  is a set of qualitative properties that has all of its members in common with  $\Sigma$  except for just one?<sup>14</sup> Chisholm supposes that we will grant this. After all, we know relative to the actual world that objects change the set of qualitative properties that they exemplify by a degree of 1% on a regular basis<sup>15</sup>; indeed, it is difficult to cite even one example of an object that does not undergo qualitative change by a degree of 1% throughout the duration of its existence. And so, we are inclined to answer Chisholm's question in the affirmative.

<sup>13</sup> The reason that I explicitly mention this meta-logical commitment (i.e., classical propositional bivalence) is because it has been frequently discussed within the literature on CP. More on this later.

<sup>14</sup> Chisholm (1967): "Let us call our present world 'W1' and the possible world we have just indicated 'W2.' Is the Adam of our world W1 the same person as the Adam of the possible world W2? In other words, is Adam such that he lives for just 930 years in W1 and for 931 years in W2?" (p. 2).

<sup>15</sup> Chisholm (1967): "One first thought might be that the proposition that Adam is in both worlds is incompatible with the principle of the indiscernibility of identicals... Compare the question: How can Adam at the age of 930 be the same person as the man who ate the forbidden fruit, if the former is old and the latter is young? Here the proper reply would be... that these properties, though different, are not incompatible. And so, too, for different possible worlds... These properties, though different, are not incompatible" (p. 2).

However, in order to infer that  $\Diamond(\alpha \text{ is } \Sigma \text{ to } 99\%)$  at  $w_{@}$ , we first need to cite some principle to warrant the inference. Salmon has suggested that the principle to which we are intuitively appealing when answering Chisholm in the affirmative is a kind of Tolerance Principle. Metaphysicians have, by and large, followed suit. The Tolerance Principle Salmon suggests can be represented like this:

Tolerance: For all individuals,  $x$ , for any set of properties exemplified by  $x$ ,  $P$ , at any possible world,  $w$ , to any degree,  $N$ ,  $\Box(x \text{ is } P \text{ to } N\% \rightarrow \Diamond(x \text{ is } P \text{ to } N-1\%))$  at  $w$ .<sup>16</sup>

In order to make the reasoning less cumbersome in presenting CP, we can begin by instantiating some of these variables with constants relative to the first premise. Applying  $\alpha$  and  $\Sigma$  to Tolerance, we can then generate an applied Tolerance Principle of the form:

(Applied) Tolerance: For all possible worlds,  $w$ ,  $\Box(\alpha \text{ is } \Sigma \text{ to } N\% \rightarrow \Diamond(\alpha \text{ is } \Sigma \text{ to } N-1\%))$  at  $w$ .

With this final element introduced, we can now formally represent CP as follows<sup>17</sup>:

- |      |  |                  |
|------|--|------------------|
| 1.   | $\alpha \text{ is } \Sigma \text{ to } 100\% \text{ at } w_{@}$  | [Prem]           |
| 2.   | For all worlds, $w$ , $\Box(\alpha \text{ is } \Sigma \text{ to } N\% \rightarrow \Diamond(\alpha \text{ is } \Sigma \text{ to } N-1\%))$ at $w$ | [Prem]           |
| 3.   | $R(w_{@}, w_{@})$  | [MR]             |
| 4.   | $\Diamond(\alpha \text{ is } \Sigma \text{ to } 99\%)$ at $w_{@}$  | [1, 2, 3]        |
| 5.   | $R(w_{@}, w_1)$  | [4]              |
| 6.   | $\alpha \text{ is } \Sigma \text{ to } 99\% \text{ at } w_1$   | [4, 5]           |
| 7.   | $R(w_1, w_1)$  | [MR]             |
| 8.   | $\Diamond(\alpha \text{ is } \Sigma \text{ to } 98\%)$ at $w_1$  | [2, 6, 7]        |
| 9.   | $R(w_1, w_2)$  | [8]              |
| 10.  | $\alpha \text{ is } \Sigma \text{ to } 98\% \text{ at } w_2$   | [8, 9]           |
| ...  |  |                  |
| 398. | $\alpha \text{ is } \Sigma \text{ to } 1\% \text{ at } w_{99}$   | [396, 397]       |
| 399. | $R(w_{99}, w_{99})$  | [MR]             |
| 400. | $\Diamond(\alpha \text{ is } \Sigma \text{ to } 0\%)$ at $w_{99}$  | [2, 398,<br>399] |
| 401. | $R(w_{99}, w_{100})$   | [400]            |

<sup>16</sup> Compare this to Salmon's (1986) formulation, within the context of discussing the material constitution of a wooden table: "If a wooden table  $x$  is the only table originally formed from a hunk (portion, quality, bit) of matter  $y$  according to a certain plan (form, structure, design, configuration)  $P$ , then  $x$  is such that it might have been the only table formed according to the same plan  $P$  from a distinct but overlapping hunk of matter  $y$  having exactly the same mass, volume, and chemical composition as  $y$ " (p. 75).

<sup>17</sup> I take what follows to be the standard representation of CP, though usually it is represented elliptically and nowhere else so expressly.

402.  $\alpha$  is  $\Sigma$  to 0% at  $w_{100}$  [400, 401]

But now that (402) has been reached, we can begin applying Modal Transitivity to various lines in the argument. Given that  $R(w_{@}, w_1), R(w_1, w_2), R(w_2, w_3), \dots$ , the following can be inferred relative to  $w_{@}$ :

403.  $\diamond\diamond\diamond\dots\diamond(\alpha$  is  $\Sigma$  to 0%) at  $w_{@}$  [5, 9, ... 401]

...

481.  $\diamond(\alpha$  is  $\Sigma$  to 0%) at  $w_{@}$  [MT, 480]

From which it can be inferred:

482.  $\alpha$  at  $w_{@} = \alpha$  at  $w_{100}$  [MI, 401, 402, 481]

i.e. that there exists two things at two different worlds that are numerically identical to one another despite having no non-trivial qualitative properties in common whatsoever; from which it follows, contra the essentialist, that no non-trivial qualitative property or set of properties is necessitated by the existence of  $\alpha$ , as such—the precise negation of the essentialist thesis.<sup>18</sup>

## 6 Salmon's suggestion

A successful solution to CP on behalf of the essentialist must show two things: first, that CP is unsound; and second, that the denial of the essentialist thesis cannot be proven by the anti-essentialist, given any true premises of CP. CP, we have said, depends on several principles and two central premises. So, given that the argument, as presented, is valid, a defender of essentialism must choose one of these assumptions to deny in the hope of achieving these two goals.

The most popular suggestion in the literature has been given by Salmon (1986, 1989, 1993).<sup>19</sup> Salmon's suggestion (hereafter "(S)") advises that we deny a

<sup>18</sup> Readers familiar with CP will notice that I have left out a part of the thought experiment, as presented by Chisholm (1967). In the second part of his paper, Chisholm considers the possibility that there is another object at  $w_{@}$ ,  $\beta$ , that exemplifies a (partially or completely) distinct set of qualitative properties,  $\Sigma^*$ . Using the same reasoning, Chisholm then demonstrates that there is some world such that  $\alpha$  is  $\Sigma^*$  and  $\beta$  is  $\Sigma$ ; i.e., that their qualitative profiles have been swapped. The reason I leave out this part of the thought experiment is because, as indicated, I am concerned here only with what I have referred to as "necessary essentialism," not with "sufficient essentialism," nor with the even stronger "necessary and sufficient essentialism." That, e.g., Noah could have had all of Adam's properties and Adam could have had all of Noah's properties is only a problem for those who suppose that there is some sufficient essential property for every individual. So far as I am concerned, in such a world, both retain the non-trivial, substantial, qualitative property of, e.g., *being human*; and so, this part of the thought experiment does not concern me here. Of course, if  $\Sigma$  and  $\Sigma^*$  are completely distinct from one another, then it will concern me, since that would entail that the existence of neither necessitates any non-trivial qualitative property whatsoever—i.e., that *non-trivial qualitative property necessary essentialism* is false.

<sup>19</sup> The two other most popular responses are likely those given by Forbes (1984) and Williamson (2013). The details of their respective accounts can be given in brief. Forbes's suggestion (F) is, first, that we deny Modal Identity and transworld identity more generally in favor of counterpart theory, and, second, that we

modal inference rule that is valid is S4 modal logic. (S) advises that we deny Modal Transitivity.<sup>20</sup>

To the extent that (S) is a successful solution to CP, it works like this: Without MT, (403) above may be inferred. However, (403) is not a direct negation of the essentialist thesis. By applying MT numerous times to (403), however, (481) was inferred. But, from (481), (482) could be inferred by applying MI to it. And (482), we have said, leads directly to a contradiction of the essentialist thesis. But, if MT is denied, then, since MT is not reducible to any of other modal inference rules we've accepted, then, while (403) will still follow, (481) will not. And without (481), (482), therefore, will not follow by a direct application to MI. And if (482) cannot be deduced, then one cannot infer from it to the negation of the essentialist thesis. And so, apparently, the paradox is resolved.

## 7 Critique of Salmon's suggestion

However, while (S) works to this extent as a solution to CP on behalf of the essentialist, there are two big problems with it. The first problem has been discussed by Graeme Forbes (1984), and is intended to challenge the intuitive appeal of adopting (S). And I'll introduce the second problem here for the first time, which is meant to decisively demonstrate that (S) is an inadequate solution to CP on behalf of the essentialist.

Forbes begins his objection to (S) by noting that there are (at least) two ways that we might plausibly represent the principle to which we are intuitively appealing when answering Chisholm is the affirmative. The first way, suggested by Salmon, is Tolerance (represented above). And the second way, suggested by Forbes, is what he calls the *Sorites formulation* of Tolerance, or Tolerance\*:

Tolerance\*: For all individuals,  $x$ , for any set of properties exemplified by  $x$ ,  $P$ , at any possible world,  $w$ , to any degree,  $N$ ,  $\Diamond(x \text{ is } P \text{ to } N\%) \text{ at } w \rightarrow \Diamond(x \text{ is } P \text{ to } N-1\%) \text{ at } w$ .

Both formulations of the principle to which we may be intuitively appealing seem equally plausible. Moreover, if we assume S4 modal logic, our intuition that both are equally plausible is perfectly justified. This is because, in S4, Tolerance and Tolerance\* can be proven to be equivalent expressions. This is for the same reason that, e.g.,  $\Box(p \rightarrow \Diamond(q))$  and  $\Diamond(p) \rightarrow \Diamond(q)$  are equivalent.<sup>21</sup>

However, in order to prove that Tolerance and Tolerance\* are equivalent, one needs to appeal to MT in the proof. Without MT, one cannot demonstrate that the

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Footnote 19 continued

allow that counterpart relations are fuzzy. Williamson's suggestion (W) is, like Forbes's, that we challenge MI; in particular, (W) advises that we treat identity statements between individuals at different worlds as neither determinately true nor determinately false.

<sup>20</sup> Salmon (1986): "... the presumption that modal accessibility between worlds is transitive is illegitimate and must be rejected in its unrestricted form" (p. 80). "In deriving the paradoxes in S4, one commits the *fallacy of possibility deletion*..." (p. 82).

<sup>21</sup> Forbes (1983), p. 172.



two are equivalent. Two things follow from this: First, since it would follow that the two expressions are not equivalent if we adopt (S), it follows that an argument based on (1) and Tolerance is not the same argument as one based off of (1) and Tolerance\*. This is an unfortunate consequence, since it would mean that the principle to which we are intuitively appealing when answering Chisholm's question in the affirmative could be either Tolerance or Tolerance\*, but not both. And so, we are left to make a hard decision as to which of the two, if either, is actually the correct formulation of that principle.

And second, even if (S) works to resolve CP, it can be easily demonstrated that it cannot work to resolve CP\*, a version of CP that employs an applied version of Tolerance\* rather than Applied Tolerance for its second premise. To demonstrate this, presume everything that was assumed previously still holds, with the exception of MT and Tolerance. Assume also an applied version of Tolerance\* of the form:

(Applied) Tolerance\*: For all possible worlds,  $w$ ,  $\Diamond(\alpha \text{ is } \Sigma \text{ to } N\%) \text{ at } w \rightarrow \Diamond(\alpha \text{ is } \Sigma \text{ to } N-1\%) \text{ at } w$ .

With these assumptions, CP\* then runs as follows:

- |      |   |                     |
|------|---|---------------------|
| 1.   | $\alpha \text{ is } \Sigma \text{ to } 100\% \text{ at } w_{@}$   | [Prem]              |
| 2.   | For all $w$ , $\Diamond(\alpha \text{ is } \Sigma \text{ to } N\%) \text{ at } w \rightarrow \Diamond(\alpha \text{ is } \Sigma \text{ to } N-1\%) \text{ at } w$ | [Prem]              |
|      | $w$   |                     |
| 3.   | $R(w_{@}, w_{@})$   | [MR]                |
| 4.   | $\Diamond(\alpha \text{ is } \Sigma \text{ to } 100\%) \text{ at } w_{@}$   | [1, 3]              |
| 5.   | $\Diamond(\alpha \text{ is } \Sigma \text{ to } 99\%) \text{ at } w_{@}$  | [2, 4]              |
| 6.   | $\Diamond(\alpha \text{ is } \Sigma \text{ to } 98\%) \text{ at } w_{@}$  | [2, 5]              |
| ...  |   |                     |
| 102. | $\Diamond(\alpha \text{ is } \Sigma \text{ to } 0\%) \text{ at } w_{@}$   | [2, 101]            |
| 103. | $R(w_{@}, w_{100})$   | [102]               |
| 104. | $\alpha \text{ is } \Sigma \text{ to } 0\% \text{ at } w_{100}$   | [102, 103]          |
| 105. | $\alpha \text{ at } w_{@} = \alpha \text{ at } w_{100}$   | [MI, 102, 103, 104] |

from which it follows that essentialism is false, since  $\alpha$ 's existence is therefore entirely unconstrained by the qualitative properties it exemplifies at  $w_{@}$ .

But notice that, unlike CP, CP\* makes no use of MT at all, but just MR, *modus ponens*, and MI. And so, while (S) might resolve CP, it cannot resolve CP\*. This is problematic because it means that (S) has resolved CP at the cost of giving the anti-essentialist an equally plausible new argument, CP\*, which, in fact, would have been just the same argument as CP, had we not denied MT, as advised by (S). And so, while (S) seems to defend the essentialist with one hand, it leaves her defenseless with the other.<sup>22</sup>

<sup>22</sup> On the choice between choosing (S) and choosing some other solution, such as his own, Forbes (1983) says: "We can retain *modus ponens*, treat the two formulations of the Paradox quite differently, and regard the logical problems involved as pertaining strictly to modal logic" or we can turn to some other solution (p. 178).

Salmon (1993) has responded to Forbes's objections. He makes several claims in his defense. First, he says that it is not a problem that CP and CP\* are not equivalent; CP demands one solution and CP\* demands another. It does not follow that, since (S) does not resolve CP\*, it ought to be abandoned. Rather, it means that the essentialist ought to adopt (S) for resolving CP and adopt another solution for resolving CP\*.<sup>23</sup> Second, he says, CP is nonetheless the canonical form of Chisholm's Paradox, not CP\*.<sup>24</sup> And third, insofar as (S) was proposed to resolve CP, it is a successful solution to Chisholm's Paradox.<sup>25</sup>

The second major problem with (S), however, is that Salmon's third claim in his response to Forbes is false, at least insofar as it can function to show that the conclusion of CP cannot still be deduced from the premises of it. Leaving aside whether or not CP and CP\* are actually equivalent, (S) does not successfully resolve CP on behalf of the essentialist. Even if we deny MT, the anti-essentialist can still validly infer, given (1), (2), and the other assumptions, that  $\alpha$  at  $w_{@} = \alpha$  at  $w_{100}$ ; i.e., that there are two things at two different worlds that are numerically identical to one another despite having no common non-trivial qualitative properties whatsoever—the precise negation of the essentialist thesis.

This is because we have assumed all of the laws of classical extensional logic, including TI. Keeping this in mind, that the premises of CP still lead to a contradiction of the essentialist thesis, even without MT, can be easily demonstrated:

1.  $\alpha$  is  $\Sigma$  to 100% at  $w_{@}$  [Prem]
2. For all worlds,  $w$ ,  $\Box(\alpha$  is  $\Sigma$  to  $N\%$   $\rightarrow$   $\Diamond(\alpha$  is  $\Sigma$  to  $N-1\%$ )) [Prem]  
at  $w$
3.  $R(w_{@}, w_{@})$  [MR]
4.  $\Diamond(\alpha$  is  $\Sigma$  to 99%) at  $w_{@}$  [1, 2, 3]
5.  $R(w_{@}, w_1)$  [4]
6.  $\alpha$  is  $\Sigma$  to 99% at  $w_1$  [4, 5]
7.  $\alpha$  at  $w_{@} = \alpha$  at  $w_1$  [MI, 4, 5, 6]
8.  $R(w_1, w_1)$  [MR]
9.  $\Diamond(\alpha$  is  $\Sigma$  to 98%) at  $w_1$  [2, 6, 8]
10.  $R(w_1, w_2)$  [9]
11.  $\alpha$  is  $\Sigma$  to 98% at  $w_2$  [9, 10]
12.  $\alpha$  at  $w_1 = \alpha$  at  $w_2$  [MI...]
13.  $\alpha$  at  $w_{@} = \alpha$  at  $w_2$  [TI, 7, 12]
14.  $R(w_2, w_2)$  [MR]
- ...

<sup>23</sup> Salmon (1993): "As I have argued elsewhere, Chisholm's Paradox is also not a sorites paradox, in the usual sense. It is a paradox about modality" (p. 191).

<sup>24</sup> Salmon (1993), p. 194.

<sup>25</sup> After arguing that Williamson's Paradox, a close variant of CP, is reducible to CP, despite appearances, Salmon (1993) says: "And, of course, rejecting S4 provides a solution—indeed, I maintain, the correct solution—to what I take to be the canonical form of Williamson's Paradox," and so to Chisholm's Paradox too (p. 195).

541.	$\alpha$ at $w_{@}$ = $\alpha$ at $w_{99}$	[TI...]
542.	$R(w_{99}, w_{99})$	[MR]
543.	$\Diamond(\alpha$ is $\Sigma$ to 0%) at $w_{99}$	[2, 539, 542]
544.	$R(w_{99}, w_{100})$	[543]
545.	$\alpha$ is $\Sigma$ to 0% at $w_{100}$	[543, 544]
546.	$\alpha$ at $w_{99}$ = $\alpha$ at $w_{100}$	[MI, 543, 544, 545]
547.	$\alpha$ at $w_{@}$ = $\alpha$ at $w_{100}$	[TI, 541, 546]

i.e., that, again, essentialism is false.

But notice that in this version of the argument, MT is, again, never appealed to directly. Moreover, it is not the case that  $\Diamond(\alpha$  is  $\Sigma$  to 0%) at  $w_{@}$ , and so MI could not be applied to this possible line anywhere throughout the argument, as it was in the original version of CP. Nonetheless, since we allowed for TI, and MI and TI can still be appealed to throughout the argument, it still follows that  $\alpha$  at  $w_{@}$  =  $\alpha$  at  $w_{100}$ , even though  $\alpha$  is  $\Sigma$  to 100% at  $w_{@}$  and  $\alpha$  is  $\Sigma$  to 0% at  $w_{100}$ , which, we said, a successful solution on behalf of the essentialist must block. But since (S) cannot block this conclusion, even just given the premises of CP proper, for which it was designed, it follows that (S) is an inadequate solution to CP on behalf of the essentialist.

## 8 Objections and replies

I believe that the critique above, as I have presented it, is conclusive. Nonetheless, there are several reasonable ways one might dispute it. In this section, I consider three objections to my critique of (S) and respond to them, each in turn.

First, a defender of (S) might object to what I have just said by pointing out that this argument has a different inferential structure than the original version of CP. And so, technically, this argument is not CP (or the “canonical” version of it), but rather some additional alternative variation, CP\*\*. Once pointed out, a similar argument leveled against Forbes might be leveled against me: (I) (S) was designed to block CP, not CP\*\*; (II) (S) is successful at invalidating CP, for which it was designed; and so (III) while CP\*\* may be problematic, it calls for some additional solution, not some alternative one.

To this I respond as follows: There is no plausible solution to CP\*\* that would not also be a plausible (I would argue, a more plausible) solution to CP, as well. One suggestion might be to restrict the scope of TI to worlds, and so deny the transworld transitivity of identity. This solution, however, is bound to be ad hoc, for there is no principled reason that can be given for artificially restricting the scope of TI in this way. Other alternatives include denying MI (which would then make the whole dispute between the essentialist and anti-essentialist moot) or denying MR (which is highly counter-intuitive). And should one wish to deny (1) or Tolerance in CP\*\*, then, I ask, why not have just denied one of those premises in the first place? For that would have been much more conservative, and that alone would have been

enough to invalidate CP (and CP\*, the Sorites version of the argument, presented by Forbes). (This is precisely the suggestion I make in the next section of this essay).

Second, a defender of (S) might object to what I have just by pointing out that, technically, CP\*\* does not lead to a direct contradiction of the essentialist thesis. The essentialist is committed to the thesis that, e.g., it is not metaphysically possible that Nick Drake is a boot. In the model of CP\*\*, it can be seen that, in one sense, it is not metaphysically possible that Nick Drake is a boot. It is possibly, possibly ... possible, but it is not possible *simpliciter*. So,  $w_{100}$ , at which  $\alpha$  is  $\Sigma$  to 0%, is a world that is impossible relative to  $w_{@}$ . At  $w_{@}$ , the following proposition is true: It is impossible that Nick Drake is a boot. The essentialist's thesis, therefore, has not been contradicted, for it has only been shown that  $\alpha$  is numerically identical to an individual at some *impossible* world, which is no problem at all—to this, the essentialist would say that if  $\alpha$  is numerically identical to some individual at some world that lacks its essential attribute, then that world necessarily would be impossible; and so it is. (S), therefore, remains a sufficient solution to CP, and CP\*\* provides no refutation of this.

Granted that (S) works to restrict the *relative* metaphysical possibility that  $\alpha$  exists while lacking its essential attribute, it does nothing to restrict the *absolute* metaphysical possibility that  $\alpha$  exists and lacks its essential attribute.<sup>26</sup>

Roughly, some state of affairs is relatively possible at the actual world if there is some world at which that state of affairs obtains and that world and the actual world share a certain accessibility relation. To say that a state of affairs is relatively possible at the actual world is to say that that state of affairs could obtain at the actual world, just as it does at the possible world we are conceiving. By contrast, a state of affairs is absolutely metaphysically possible if there exists some possible world that shares the same metaphysical laws as our own at which that state of affairs obtains. To say that something is absolutely metaphysically possible is to say that its obtaining (at any world) would not violate a metaphysical law.<sup>27</sup>

Now, to be an essentialist is to say, as Penelope Mackie (2006) put it, that to suppose that there is a world at which, e.g., Nick Drake is a boot rather than a human being (his supposed essential property) is about as absurd as to suppose that there is a world at which exists a round square.<sup>28</sup> To be an essentialist is to suppose not only that an individual existing while lacking its essential attribute is relatively

<sup>26</sup> Others have recently argued that metaphysical possibility comes in a variety of forms, as well. In defense of S4, for example, Murray and Wilson (2012) have argued that metaphysical possibility is relative to a world as considered “indicatively actual,” and that there is more than just one kind of relative metaphysical possibility (i.e., more than one kind of accessibility relation between worlds). They use this response as a way to respond to CP, as well as Chandler-Salmon style arguments against MT more generally. I do not discuss this option in this paper because I suppose, with Yagisawa (2017) that a response that “produces as many varieties of metaphysical possibility as there are worlds to be considered indicatively actual... seems undesirable” (p. 246). And, at least when speaking of relative metaphysical possibility, “it seems that there is only one kind of possibility that is metaphysical possibility” (p. 246).

<sup>27</sup> i.e., that world possesses perfect causality, temporal persistence of objects, categories that carve it at its joints, and other similar metaphysical laws as those governing  $w_{@}$ .

<sup>28</sup> Mackie (2006), pp. 166–167.

impossible, but, more strongly, that it is absolutely impossible—that is, that such a state of affairs would be inconsistent with metaphysical law.

If a state of affairs is metaphysically possibly, possibly... possible, then it follows that it is absolutely possible, since such a model implies the existence of a world supposedly metaphysically consistent with our own.<sup>29</sup> In CP\*\*, therefore, it follows that it is absolutely metaphysically possible that  $\alpha$  is  $\Sigma$  to 0% while nonetheless remaining numerical identical (being the selfsame thing) as  $\alpha$  at  $w_{@}$ . This is to suppose such a state of affairs does not violate metaphysical law. But the essentialist must say that this state of affairs does violate metaphysical law; therefore, CP\*\* is a contradiction of the essentialist thesis and goes to show that (S) is an inadequate solution on behalf of the essentialist.

Finally, a defender of (S) might object to what I have just said by pointing out that, granted that (S) does not preserve the *letter* of essentialism, it at least, and nonetheless, preserves the *spirit* of it.

The essentialist, we have said, is inclined to answer the question, Could Nick Drake have been a boot?, in the negative; to suppose that he could would be perverse. However, a minimal essentialist, or a moderate anti-essentialist, very well might agree. Following David Lewis (1986), Mackie (2006) points out that in normal contexts in which we are engaged in modal reasoning, it is common to restrict the scope of possible worlds we consider when evaluating various modal claims.<sup>30</sup> For example: If Aristotle hadn't been a philosopher, what would he have been? Both the essentialist and the anti-essentialist can agree that answering, A neurosurgeon, would be perverse, even though (both can agree), absolutely, this is a metaphysical possibility for Aristotle, as such. This is because, when we engage in modal reasoning, we only consider those possible worlds that are directly *accessible*, *probable*, and *context-related*. So, a better answer in this context would be: A physician, since his father was a physician (making it more probable) and the occupation of neurosurgeon did not yet exist during his time (making this possibility nearer).

So, according to Mackie, a variety of moderate anti-essentialism can, by and large, preserve a core essentialist intuition; or, as Lewis put it, one can continue to “speak with the vulgar” while granting that, in fact, absolute metaphysical anti-essentialism is true.<sup>31</sup> The world at which Nick Drake is a boot can be considered a mere “remote contingency”; for all contexts in which one engages in modal reasoning, one can ignore this possibility, using just the same principles one uses to ignore, e.g., the possibility of Aristotle being a neurosurgeon. (S) preserves this essentialist intuition, since it makes sense of how Nick Drake being a boot could only be a remote contingency (a mere possible, possible... possibility), and so (S), if not a perfect solution to CP, is at least good enough.

<sup>29</sup> Salmon (1984), similarly, supposes that, without MT, impossible worlds can still be said to exist.

<sup>30</sup> Mackie (2006): “... *all* modal theorists, whether or not they are [radical anti-essentialists], must agree that there are many standard contexts in which the range of *de re* possibilities under consideration falls short of the full range” (p. 156).

<sup>31</sup> Lewis (1986), p. 240.

If it is true that one can accept absolute metaphysical anti-essentialism without needing to modify one's modal reasoning in any way whatsoever, then (S) is a sufficient (enough) solution to CP—the anti-essentialist will have won the day, but the price of conceding essentialism for such a weak variety of anti-essentialism will be low enough to preserve the majority intuition. However, I contend that this claim is not true; if one accepts absolute metaphysical anti-essentialism (even while affirming (S) all the while), then, when engaging in certain forms of modal reasoning, one will need to take worlds previously thought impossible seriously—worlds that directly conflict with essentialist intuitions.

To see that this is the case, consider that the proposition,  $w_{@}$  is the actual world, is, itself, an absolutely metaphysically contingent truth. There is no metaphysical law that mandates that  $w_{@}$  in our model above is the actual world; it is possible that some other world ( $w_1$ - $w_{100}$ ) might have been actual instead. Once one realizes this, certain consequences follow.

Consider this thought experiment: After many years of bitter complaint, God has decided to answer your prayers. He has agreed that  $w_{@}$  is not the best of all possible worlds, and that He should have made some other world actual instead. However, He acknowledges that He was right to choose the logical and metaphysical laws that He originally did; moreover, He believes that he was right to have created you—at whatever alternative world He makes, your existence, He says, is guaranteed. Everything else, however, He will determine by chance. He intends to collect all of the absolutely metaphysically possible worlds together into a hat and draw one at random. Whichever world He draws will be the new ' $w_{@}$ .' That is the *context*. Now, the question is: Will you be a human being in the new actual world?<sup>32</sup>

Those with essentialist intuitions will respond that, if your existence is guaranteed, then absolutely (or at least, very probably) you are a human being at that world. To say you wouldn't be would be perverse. However, this is a context in which the anti-essentialist would require us to fight back our intuitions. This is because, if absolute metaphysical anti-essentialism is true, then the chances that you are a human being vs. that you are not a human being are 50/50. When we are quantifying over the entire range of absolutely metaphysically possible worlds on the anti-essentialist model, the number of possible worlds at which you are human is  $\aleph_0$ ; the new world might be one at which you are a human being and there exists only one rock; ... that there are two rocks; ... that there are three rocks; etc. Similarly, the number of possible worlds at which you are non-human will also be  $\aleph_0$ ; the new world might be one at which you are non-human and there exists only one rock; ... that there are two rocks; ... that there are three rocks; etc. It is *equiprobable* on such a model that you will be human vs. non-human. Moreover, in this context, all of these states of affairs are *directly accessible*; God awaits only your approval to reset the actual world.<sup>33</sup>

<sup>32</sup> I use a theistic example here only to illustrate  $w_{@}$ 's contingent actuality. Of course, one need not be a theist in order to suppose that  $w_{@}$  could have been non-actual and that some other world could have been actual in its place.

<sup>33</sup> In setting up this thought experiment, I have used the language of a naïve possibilism, whereby it makes sense to speak of non-actual existents at other possible worlds. For this reason, it might appear that

It follows, then, that this is a context in which the essentialist supposes she need not take the possibility of being a boot seriously, but in which the anti-essentialist must. But this just shows that anti-essentialism (even of a moderate variety) cannot preserve the core intuition that it is highly unlikely (if not absolutely not the case) that Nick Drake could have been a boot. Since (S) cannot block the possibility that some such moderate anti-essentialism is true, then, it follows that (S) cannot even work to preserve the essentialist spirit, let alone the genuine essentialist thesis.

From all of this it follows that, despite enjoying some initial plausibility, (S) is, as I have said, an inadequate response on behalf of the essentialist. Some alternative solution to CP is needed.

## 9 Plan (B)

CP, we have said, depends on several principles and two central premises. We have said also that a defender of essentialism must choose one or more of these assumptions to deny in the hope of finding an adequate solution to CP on behalf of the essentialist. At this point, the defender of essentialism could continue to employ (S) and also deny some other principle, such as TI or MI. Both of these options are very theoretically costly and would make for an implausible solution to CP. And so, the defender of essentialism would do better to abandon (S), reaffirm MT—in the hope of finding some new solution that works to block CP (and CP\*)—and so deny some one or other of the principles or premises under-girding both CP and CP\*.<sup>34</sup>

In this section, I'll propose an alternative solution to CP (and CP\*). My solution, (B), is this: It can be demonstrated that Tolerance (and so Tolerance\*) and essentialism are incompatible theses. If one assumes Tolerance, one necessarily assumes that essentialism is false. But this means that, regardless of the actual truth value of Tolerance, if one assumes Tolerance, one assumes at the outset that anti-essentialism is true. But if CP is to be an argument against essentialism, then it cannot assume at the outset a premise that directly entails that essentialism is false. This amounts, rhetorically, to begging the question, and so the essentialist could respond to the anti-essentialist citing CP that he has begged the question against her.

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Footnote 33 continued

I am excluding an actualist from seriously considering the experiment. I do not, however, think that this is necessary. With a sophisticated enough modal semantics, an actualist might still suppose that, in some sense, our world might not have been the privileged one that it is.

<sup>34</sup> As indicated earlier, the two other most popular proposals to CP in the literature are likely those given by Williamson (2013) and Forbes (1984). Another option, not considered, is to turn to one of these accounts in search of a more plausible solution. However, I hesitate to make this move for the follow reason: Both of these proposals suggest that we deny classical bivalence. Forbes (1983) notes: "Some may think that it must always be preferable to alter our modal logic if the alternative is to change non-modal propositional calculus" (p. 178). I would agree with him on this point and add that there are some, myself included, that would rather make any change in a logical system than change non-modal propositional calculus. And so, for this reason, I pass by both accounts quickly, taking both to involve adopting some highly counter-intuitive principle. If one can only block the conclusion of CP by denying classical propositional bivalence, then one would do better to preserve bivalence and concede the dispute to the anti-essentialist.

In order to see that essentialism and Tolerance are incompatible, we must first revisit the essentialist thesis and what it is to which the essentialist is committed. The essentialist, we have said, is committed to the following: For every individual  $x$ , there is some non-trivial qualitative property of set of properties,  $P$ , such that if  $x$  exists at some possible world, then necessarily  $x$  is  $P$  at that world. If  $x$  exists, then something is  $P$  at that world; contrapositively, if nothing is  $P$  at that world, then necessarily  $x$  does not exist at it either. Return now to  $\alpha$ . We have said that, at  $w_{@}$ ,  $\alpha$  exemplifies exactly 100 qualitative properties, those comprising the set  $\Sigma$ . We can be more explicit about the properties in this set. Suppose that the members of  $\Sigma$  are  $\{P_1, P_2, P_3, P_4, \dots, P_{99}, P_{100}\}$ . The essentialist, then, is committed to saying that at least one of the properties  $P_1$ - $P_{100}$  is essential to  $\alpha$ , as such. Suppose that that essential property is  $P_1$ . In that case, the essentialist will say that if  $\alpha$  exists at any metaphysically possible world,  $w$ , and  $\alpha$  at  $w_{@} = \alpha$  at  $w$ , then necessarily  $\alpha$  is  $P_1$  at  $w$ ; otherwise the two are not identical and what we refer to as “ $\alpha$ ” at  $w_{@}$  does not enjoy transworld existence at  $w$ .

Now, when Chisholm asks, Could  $\alpha$  be  $\Sigma$  to 99% instead of  $\Sigma$  to 100%?, there are really two questions we might suppose that he is asking. The first is the properly necessary question. It is of the form: Relative to  $w_{@}$ , could  $\alpha$  be  $\Sigma$  to 99% instead of  $\Sigma$  to 100%, on every interpretation of  $\Sigma$  to 99? To this, the essentialist will clearly answer in the negative, because she has supposed that  $P_1$  is essential to  $\alpha$ , as such, and there exists some interpretation of  $\Diamond(\alpha$  is  $\Sigma$  to 99%) at  $w_{@}$  that she will deny, even though  $\alpha$  is  $\Sigma$  to 100% at  $w_{@}$ . Namely, she will deny the interpretation of  $\Diamond(\alpha$  is  $\Sigma$  to 99%) such that  $\alpha$  exemplifies all of the properties  $\{P_2, P_3, P_4, \dots, P_{99}, P_{100}\}$  but not property  $P_1$ . The individual that would exist at the possible world, she must say, cannot be  $\alpha$ , and so, in that model, it will be false, according to the essentialist, that  $\Diamond(\alpha$  is  $\Sigma$  to 99%) at  $w_{@}$ .

But, then, this would be an instance at which the essentialist thesis and Tolerance are shown to be incompatible. Tolerance will affirm in this model that  $\Diamond(\alpha$  is  $\Sigma$  to 99%) at  $w_{@}$ , but the essentialist, qua essentialist, will deny this. That is, being an essentialist, the essentialist must deny the strong necessary claim of Tolerance: just because  $\Diamond(\alpha$  is  $\Sigma$  to 100% at  $w_{@}$ ), it does not follow that  $\Diamond(\alpha$  is  $\Sigma$  to 99%) at  $w_{@}$ , too. And so, the essentialist must deny both Tolerance and Tolerance\*, since, if she accepts either, then she presumes straight-away that essentialism is false.<sup>35</sup>

Without Tolerance, it will clearly follow that both CP and CP\* will fail to generate any paradoxical conclusions for the essentialist. This is because she will only be left with the first premise of both arguments, from which nothing relevant follows. And since nothing will follow from CP or its true premises with the denial of Tolerance, it follows that, since (B) suggests we deny Tolerance, (B) is a solution that both demonstrates that CP is unsound and also blocks any conclusion of the form that particular things have metaphysical modal profiles such that they can exist

<sup>35</sup> Salmon (1993) has mentioned in passing that he believes that “the position defined by the conjunction of infinitely iterated necessitations of [Tolerance] and [essentialism] is at least a coherent metaphysical position, and that S4 modal logic is thereby *seen to be* fallacious” (p. 192). I have now argued that this is not the case. See also page 188 of the same essay for his statements on “modal tolerance” and “modal intolerance, or essentialism.”



at possible worlds unconstrained by their qualitative properties at the actual world or bear numerical identity to any individuals at any world that does so lack certain similar properties. But we have said that any solution that can defend the essentialist from these two conclusions is an adequate solution to CP. And so, it follows that (B) is an adequate solution to CP.<sup>36</sup>

## 10 Tolerance revisited

In this section, I will provide a diagnosis of, first, why the essentialist might have been inclined to accept Tolerance, and so will have taken CP to present a genuine paradox for the essentialist thesis, and, second, why, of the three most popular proposals to CP in the literature, none of the three thought to address Tolerance directly, but have instead erroneously denied some other principle or principles.

We have said that there are two ways that Chisholm's question might be interpreted. If the first way it might be interpreted is affirmed, then one will draw from it the (applied) principle: For all possible worlds,  $w$ ,  $\Box(\alpha \text{ is } \Sigma \text{ to } N\% \rightarrow \Diamond(\alpha \text{ is } \Sigma \text{ to } N-1\%))$  at  $w$ , for *every* interpretation of  $\Sigma$  to  $N-1\%$ . This, we have seen, is clearly antithetical to essentialism, and so the essentialist must deny this claim's veracity. However, there is another way that the question might be interpreted, which, I suspect, is the way that most have interpreted the question when answering it in the affirmative. This is the clearly uncontroversial (applied) principle: For all possible worlds,  $w$ ,  $\Box(\alpha \text{ is } \Sigma \text{ to } N\% \rightarrow \Diamond(\alpha \text{ is } \Sigma \text{ to } N-1\%))$  at  $w$ , for *some* interpretation of  $\Sigma$  to  $N-1\%$ . That is, given the entire set of non-trivial qualitative properties exemplified by some thing at the actual world, necessarily there is some possible way that it could be (or could have been) such that it is changed qualitatively by a degree of just 1%.

The reason this principle is uncontroversial is because it is equivalent to what may be called the *accidental* thesis: It is not the case that every qualitative property that something at the actual world exemplifies is essential to it, as such. As indicated, it is difficult to cite even one example of an object for which any qualitative change whatsoever is metaphysically impossible; objects undergo minor qualitative change on a regular basis, indicating that such a change was a genuine possibility for them, as such. Now, with a few exceptions,<sup>37</sup> most essentialists are also accidentalists; they hold that *some* qualitative property is essential to each thing, but not necessarily that *all* of them are. Moreover, the anti-essentialist is also necessarily an accidentalist; if the existence of, say, Nick Drake, implies the instantiation of no qualitative property whatsoever, then it follows that there is at least one qualitative property whose existence is not implied by Nick Drake, as such.<sup>38</sup> So, this principle is fairly uncontroversial.

<sup>36</sup> From my survey of the literature on CP, I have seen this suggestion neither advocated for nor mentioned. I take it, then, that this is a novel suggestion for resolving the paradox.

<sup>37</sup> Leibniz (1686) famously held that all of a thing's qualitative properties are essential to it, as such.

<sup>38</sup> This follows via immediate inference. In Classical Logic, it is the inference from an E proposition to its corresponding O.

I suspect that this is really the principle that we are intuitively appealing to when answering Chisholm's question in the affirmative. It is a kind of inductive generalization we make by considering how individuals relate to their set of qualitative properties over time at the actual world. The mistake the essentialist will have made, and that every other solution to CP has made, is by supposing that we are appealing to a controversial principle like Tolerance instead. It is by misrepresenting our intuitions and not seeing the inherent contradiction involved in affirming both essentialism and Tolerance that previous defenders of essentialism have been led astray.

Moreover, it should be noted that, if one is an essentialist, then one is also better off additionally contending that what is possible for things (relatively or absolutely) cannot be known a priori, as CP would suppose possible. In Chisholm's original example, he asks, Could Noah have lived one less year than he actually did? We are inclined to answer in the affirmative, but why? We answer in the affirmative because we know this is possible a posteriori, not a priori. We have observed individuals remaining constant over time, and we do not suppose that one's lifespan is an essential attribute. Now, this *satisfies* the accidentalist principle, but it should be noted that it is not *warranted* by it. When the question is put generally and formally,—Could  $\alpha$  be  $\Sigma^*$  instead of  $\Sigma$ , where  $\Sigma^*$  is a set of qualitative properties that has all of its members in common with  $\Sigma$  except for just one?—it should be fairly obvious to the essentialist now that this question must be treated as indeterminable. We know that  $\alpha$  could be different in some way, but which particular possible world are we considering? Is it a world at which the essential property remains or is dropped? More information is needed; for while modal reasoning can be evaluated in terms of validity a priori, modal premise verification demands a posteriori confirmation or disconfirmation, as the case may be.

## 11 Concluding remarks

In this paper, I set out to defend essentialism against the anti-essentialist citing CP. I began by presenting CP and demonstrating how, if it is sound, it would work to demonstrate that essentialism is false. I then considered the most popular response in the literature to date on behalf of the essentialist, that advocated most markedly by Nathan Salmon. I then presented two major problems for (S) and demonstrated (especially in my second critique) how it is an inadequate solution to CP on behalf of the essentialist. Before presenting my own novel solution to the paradox, I then considered certain salient rebuttals to my critique and addressed them. I concluded the essay by providing the rationale under-girding my own solution to CP and speculating as to why it is that essentialists and defenders of essentialism alike have gone astray in the past and overlooked how controversial Tolerance is. In conclusion, I have shown that the anti-essentialist citing CP against essentialism rhetorically begs the question against the essentialist in her argument. In this way, CP does nothing to move the dialectic forward in the debate between essentialism and anti-essentialism. If CP was intended to demonstrate that, e.g., Nick Drake

could have been a boot, then it fails; for it will only work to convince if one assumes at the outset that essentialism is false.<sup>39</sup>

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