

## **Necessity of Origins and Multi-Origin Art**

Joshua Spencer  
University of Wisconsin-Milwaukee

Chris Tillman  
University of Manitoba

### **Abstract**

The Necessity of Origins is the thesis that, necessarily, if a material object wholly originates from some particular material, then it could not have wholly originated from any significantly non-overlapping material. Several philosophers have argued for this thesis using as a premise a principle that we call “Single Origin Necessity”. However, we argue that Single Origin Necessity is false. So any arguments for The Necessity of Origins that rely on Single Origin Necessity are unsound. We also argue that the Necessity of Origins itself is false. Our arguments rely on a thesis in the ontology of art that we find plausible: Multi Work Materialism. It is the thesis that works of art that have multiple concrete manifestations are co-located with those manifestations.

Keywords: Necessity of Origins; Metaphysics of Art; Multi-Origin Materialism; Musical Materialism; Co-Location

# Necessity of Origins and Multi-Origin Art

Joshua Spencer  
University of Wisconsin-Milwaukee

Chris Tillman  
University of Manitoba

## 1. Introduction

The Necessity of Origins is the thesis that, necessarily, if a material object wholly originates from some particular material, then it could not have wholly originated from any significantly non-overlapping material. Single Origin Necessity is the thesis that, necessarily, no object wholly originates from each of two completely non-overlapping or discrete materials.<sup>1</sup> There is a close relationship between these two theses. Some philosophers have advanced arguments for The Necessity of Origins using Single Origin Necessity along with some sufficiency of origins principle as premises.<sup>2</sup> Others have argued for The Necessity of Origins using Single Origin Necessity along with some modal independence principle as premises.<sup>3, 4</sup> But we will argue that Single Origin Necessity is false and, hence, any arguments for The Necessity of Origins that use Single Origin Necessity as a premise are unsound. Moreover, we will also argue that the Necessity of Origins itself is false. Our case relies on a thesis in the ontology of art that we find plausible: Multi-Work Materialism. Multi-Work Materialism is the thesis that works of art that

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<sup>1</sup> Throughout this paper, we will assume that some materials, M1 and M2, are non-overlapping just in case they share no subportions of matter and we will assume that they are discrete just in case they are non-overlapping.

<sup>2</sup> Defenders of this kind of argument are inspired by Kripke's comments in footnotes 56 and 57 of *Naming and Necessity*. These defenders include McGinn (1976), Johnston (1977), Salmon (1979), Noonan (1983), and Forbes (1981 and 1985), and Hawthorne and Szabo Gendler (2000).

<sup>3</sup> This argument is primarily advanced and defended by Rohrbaugh and deRosset (2004 and 2006), though Cameron (2005) also constructs and criticizes a variant of this argument.

<sup>4</sup> Technically speaking, Rohrbaugh and deRosset argue for a thesis very similar to, but distinct from, the Necessity of Origins. We believe they are too cautious in their argument.

have multiple concrete manifestations are co-located with (and constituted by) each of those manifestations.<sup>5</sup>

The paper will proceed as follows. In section 2, we will formulate and clarify the Necessity of Origins and Single Origin Necessity, and we will show how one might argue for the former using the latter in two different ways. In section 3, we will formulate and clarify Multi-Work Materialism and we will present four cases which, under certain plausible assumptions, show that Single Origin Necessity is false. In section 4, we will argue that the Necessity of Origins itself is false and we will note that even though the Necessity of Origins is false, a plausible restricted version of it may still be true.

## **2. How to Derive the Necessity of Origin from Single Origin Necessity (and some other theses)**

The Necessity of Origins can be formulated as follows:

(TNO) Necessarily, for any material object, x, and for any material, M1, if it is possible that x wholly originates from M1 (in accordance with a particular plan P), then it is not possible that there is some material, M2, that does not overlap with M1, such that x wholly originates from M2 (in accordance with P).

When we say that an object wholly originates from some particular material, we do not just mean that that material is involved in a proximal cause of that objects existence, as, for example, a parent might be involved in a proximal cause of a child's existence. At the very least we mean

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<sup>5</sup> Multi-Work Materialism is a generalization of Musical Materialism. A version of Musical Materialism is formulated and defended by Alward (2004) and Caplan and Matheson (2006) and (2008). However, we prefer the version formulated and defended by Tillman (2011) and further developed by Tillman and Spencer (2012).

that that material is both involved in a proximal cause of that object's existence and that at the first moment of its existence, the object is (in some sense) made of the material. So, for example, a table might wholly originate from some wood, in that the wood is both involved in the proximal cause of the table's existence and, at the first moment of its existence, the table is made of that wood.

It is compatible with The Necessity of Origins that a particular object could have wholly originated from slightly different material than the material from which it in fact wholly originates. That is, a particular object could have wholly originated from some material that significantly overlaps the material from which it in fact wholly originates.<sup>6</sup> For example, if a table wholly originates from some wood, then it could have originated from slightly different wood. A finish carpenter might form the surface of a table partly by moving her planer along a particular path. But she could have moved her planer along a slightly different path. If she had done so, then the table she would have produced might have been the same table as the one she actually produced even though the wood that actually makes up the table is slightly different from the wood that would have made up the table in the counterfactual circumstance. What is incompatible with The Necessity of Origins is that a particular table in fact originates from, let's say, some teak, yet might have originated from some mahogany.

Single Origin Necessity can be formulated as follows:

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<sup>6</sup> It might be that materials have their sub-portions essentially (Zimmerman 1995). Our claim is compatible with that thesis. Our claim implies that if an object had originated from some material that significantly overlaps, but does not wholly overlap with the material from which it in fact originated, then it would have originated from numerically distinct material. Since (TNO) is stated in terms of overlap instead of identity, this claim is also compatible with (TNO). Thanks to an anonymous referee for urging us to clarify this position.

(SON) Necessarily, for any objects, x and y, and for any materials, M1 and M2, if x wholly originates from M1 (according to a particular plan P) and y wholly originates from M2 (according to P) and M1 and M2 do not overlap, then x and y are distinct.

Again, an object wholly originates from some material only if that material is both involved in a proximal cause of that object's existence and, at the first moment of its existence, the object is made of that material. So, if Single Origin Necessity is false, then it would have to be possible for an object, at the moment it comes into existence, to be made up of each of two non-overlapping materials.

Inspired by Kripke's footnotes 56 and 57 in *Naming and Necessity*, Patricia Johnston, Colin McGinn, and Nathan Salmon (among others), have argued for (TNO) using some variant of (SON) as a premise.<sup>7</sup> The focal point of those arguments is a sufficiency principle. A generalization of that principle, The Sufficiency of Origins, can be formulated as follows:

(TSO) Necessarily, if it is possible for an object, x, to wholly originate from some matter M1 in accordance with plan P, then necessarily, any object originating from M1 in accordance with P is the very object x and no other.<sup>8</sup>

It is fairly easy to derive (TNO) from (SON) and (TSO). Let x be an arbitrary possible object. Let M1 and M2 be arbitrary and non-overlapping materials. Let P be an arbitrary plan. Suppose, for conditional proof, that x could have originated from M1 in accordance with plan P. If x could

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<sup>7</sup> Salmon (1979), for example, uses a variant of (SON) that is restricted to tables. But it is clear that his restriction is merely for convenience and he ultimately believes some broader generalization such as (SON).

<sup>8</sup> This is a more general formulation of Salmon's thesis about tables. One difference between Salmon's formulation and ours is that we are using mass quantification over material whereas Salmon employed count quantification over hunks of material.

have originated from M1, then x could have originated from M1 while an object qualitatively just like x, e.g. y, originated from M2, both in accordance with P. But, given that M1 and M2 are non-overlapping, it follows from (SON) that x and y would be distinct. By (TSO) it follows that if a particular object could have been formed from some material according to a plan, then any object that could have been formed from that material according to that same plan would have been that very object. It follows that any object that could have been formed from M2 according to P would have been y. Since x and y are possibly distinct and possible distinctness implies necessary distinctness, it follows that x could not have originated from M2 (at least not by way of that particular plan). (TNO) follows.

Guy Rohrbaugh and Louis deRosset also argue for (TNO) using a restriction of (SON) as a premise.<sup>9</sup> However, the focal point of their argument is an independence principle, a generalization of which can be formulated as follows:

(Independence): Necessarily, given any object, x, and material, M1, if x wholly originates from M1 (according to plan P1) and it's possible that there is an object, y, and material, M2, such that y wholly originates from M2 (according to plan P2) and M2 is discrete from M1, then it is also possible that x wholly originates from M1 (according to P1) while y wholly originates from M2 (according to P2).

It is fairly easy to derive (TNO) from (SON) and (Independence). Let x be an arbitrary possible object. Let M1 and M2 be some arbitrary and non-overlapping possible materials and let P be an arbitrary plan. Suppose, for reductio, that x could have originated from M1 according to P, and

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<sup>9</sup> Rohrbaugh and deRosset use a principle specifically about tables which they call *origin uniqueness* or (*OU*) for short.

that x also could have originated from M2 according to P. Then, from the Independence Principle, it follows that x could have originated from M1 according to P while at the same time it also originated from M2 according to P. But, given (SON) and the fact that M1 and M2 are discrete, it follows that x would have been distinct from itself if it had originated from both M1 according to P while also originating from M2 according to P. But, it is impossible for any object to be distinct from itself. So, it is not possible that an object could have originated from some material and also could have originated from some other non-overlapping material. Hence, (TNO).<sup>10</sup>

Discussions of the first argument above have traditionally focused on the sufficiency principle (TSO) and discussions of the second argument have traditionally focused on the Independence principle.<sup>11</sup> But we believe that the common premise, (SON), is mistaken. We think the source of the trouble for (SON) stems from a view of artefacts that we find plausible: Multi-Work materialism. In the next section, we will present and explain Multi-Work materialism.

### **3. Multi-Origin Multi-Works**

Some works of art have multiple concrete manifestations. Musical works are concretely manifested at each of their various performances, photographs are concretely manifested in each of their prints, and cast sculptures are concretely manifested in each of their castings. The list

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<sup>10</sup> Rohrbaugh and deRosset draw the slightly more cautious conclusion that if a particular object could have originated from some material, M1, and something or other could have originated from some non-overlapping material, M2, then that particular object could not have originated from M2. We believe that Rohrbaugh and deRosset are being overly cautious and that The Necessity of Origins itself can be derived from Single Origin Necessity and Independence. Thanks to an anonymous referee for comments on this argument.

<sup>11</sup> Critiques of sufficiency style arguments are advanced by McKay (1986), Yablo (1988), Mackie (1987), and Robertson (1998 and 2000). Critiques of independence style argument are advanced by Cameron (2005), Robertson and Forbes (2006), and Cameron and Roca Royes (2006). Critiques of both arguments have been advanced by Ballarin (2013) and Damnjanovic (2010).

above fails to be exhaustive in at least two ways. First, there are other types of artwork that have concrete manifestations. Second, there are other types of concrete manifestations for each of the works listed above.<sup>12</sup>

We endorse a variant of Musical Materialism according to which musical works are concrete objects that are co-located with and constituted by each of their concrete manifestations. At the very least, this thesis implies that The Pixies' *Tame* is a concrete object that is located at each of its performances.<sup>13</sup> If there are multiple performances of *Tame*, then it is multi-located. Multi-Work Materialism is a generalization of Musical Materialism. According to Multi-Work Materialism, any work of art that has multiple concrete manifestations is itself a concrete object that is co-located with and constituted by each of its concrete manifestations. So, in addition to the fact that *Tame* is located at each of its performances, so too Rodin's *The Thinker* is located at each of over 20 locations around the world, including the Detroit Institute of Art in Detroit, Michigan; the Musée Rodin in Paris; and The University of Louisville in Louisville, Kentucky.<sup>14</sup> *The Thinker* is anywhere where there is an official casting of *The Thinker*. Similarly, Philippe Helmsman's *Dali Atomicus* is located at each of several locations around the world, and it is co-located with each of the prints made by Helmsman himself.<sup>15</sup> Multi-Work Materialism, along with plausible assumptions about which objects are concrete manifestations of particular works of art and which are not, implies that Single Origin Necessity is false.

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<sup>12</sup> See Cray (2014).

<sup>13</sup> It may be co-located with the performance itself or it may be co-located with the sonic event or entity that results from that performance.

<sup>14</sup> Most castings of *The Thinker* were made under the authority and supervision of Rodin. We believe that *The Thinker* is co-located with and constituted by each of these castings. There were, however, a few castings made independently of Rodin's authority and supervision. We take no stand on whether *The Thinker* is co-located with or constituted by those castings.

<sup>15</sup> Again, there are other prints of Helmsman's work, some of them authorized by various authorities including Helmsman's estate, including those on display at MoMA and The Getty, and many of which are made for commercial distribution. We take no stand on whether the work itself is co-located with any of these other prints.



Before we present what we take to be successful counterexamples to (SON), we would like to briefly consider a case that we think is unclear. Suppose that a composer writes a work of music, known as *Mid-Continental*, which has two simultaneous initial performances, one in Milwaukee and one in Winnipeg. If musical works are co-located with and constituted by their concrete manifestations, then, one might argue, since *Mid-Continental* has two simultaneous initial performances, it must have two origins; hence, (SON) must be false.

Unfortunately, the case above does not constitute a clearly successful counterexample to (SON). Although we agree that performances involve concrete manifestations of musical works, we do not think that *only* performances involve concrete manifestations of musical works. Musical works might be concretely manifested on paper, when the sheet music for the work is printed out, or even in the head of a composer, when the composer thinks through the music during composition. One might plausibly argue, then, that even if there are two simultaneous initial performances of a work of music, there are concrete manifestations of the music that predate those performances. Hence the work does not *originate* from those performances.

A more fruitful source of counterexamples might be found by thinking about cast sculptures and photographs. In what follows, we will present what we believe are three *physically* possible cases, each of which involves a work of art that originates from two non-overlapping materials. Although the first is a bit outlandish, we employ it primarily as a warm-up exercise. We believe that the second and third cases are not only physically possible, but *technologically* possible.

Let's start with cast sculptures. A cast sculpture is made by first forming a hollow mould and then filling that mould with the material that will come to constitute the sculpture. That material is then allowed to set before it is removed from the mould. The result is a concrete

manifestation of the cast sculpture. If the mould is preserved through the process, then a second concrete manifestation might be made by appropriately reusing the mould. Cast sculptures are commonly made of metal. The metal is melted down and poured into the mould; it is then allowed to cool into a solid state before being removed from the mould.

We believe that if a mould can be multi-located, then two castings of a sculpture can be made simultaneously out of non-overlapping material. Moreover, if those castings are the first concrete manifestations of the sculpture, then that sculpture will originate from two distinct and non-overlapping materials. The trick, though, will be getting a mould that is multi-located in the first place.

Let's warm up, first, with a strange, but physically possible, case. Suppose that Robert Zemeckis decides to turn away from film and start a new career as a cast sculptor. His first work is inspired by his film franchise *Back to the Future*. He forms a mould for a cast sculpture of Marty McFly with his iconic vest and skateboard. On October 25<sup>th</sup>, 2015, Zemeckis finishes the mould and decides to pour an initial casting the next day. But, as he walks home, Zemeckis comes up with an outlandish plan. He decides that, two weeks from that very date, he will send his mould back in time by two weeks and stow it away in his workshop. That way, when he arrives in his workshop on October 26<sup>th</sup>, he will find his mould sitting beside itself. Sure enough, when he arrives early the next morning, Zemeckis finds his mould, and its future self, so to speak, sitting side by side; the mould is multi-located. At exactly 1:15 AM, Zemeckis simultaneously fills the mould on his right and the mould on his left with bronze to create two initial castings of his sculpture. After waiting five days, he opens the mould(s) and removes the initial castings of his first work, which he then dubs *This is Heavy*. If Multi-Work Materialism is true, then *This is Heavy* is co-located with and constituted by each of the two bronze concrete

manifestations. Moreover, given that there are no previous concrete manifestations of the work, *This is Heavy* simultaneously originates from two distinct portions of bronze.<sup>16</sup> Hence, Single Origin Necessity is false.

The example above requires the possibility of time travel and we understand that many, for that reason, will find the example intolerably bizarre. However, we believe that time travel is inessential to our case against (SON). In the next example, we will show how one might get a multi-located mould and a resulting cast sculpture with multiple origins without time travel.

For our second case, suppose that Fowlerio is a sculptor who, following in the footsteps of Quag, decides to create a cast sculpture that involves the negative space within a particular hunk of iron.<sup>17</sup> He forms a mould that will produce a hollow casting, the interior of which is shaped like one of the ghosts from Pac-Man.<sup>18</sup> He then pours two iron castings of the hollow sculpture and dubs it *Shadow*. If Multi-Work Materialism is true, then *Shadow* is a cast sculpture that is co-located with and constituted by two distinct hunks of iron. *Shadow* is a multi-located work of art. Now suppose that rival sculptor, Nicholi, decides to make a new work using Fowlerio's *Shadow* as a mould. Nicholi borrows the two castings of *Shadow* and simultaneously pours copper into the holes formed by the two castings of *Shadow*. After the copper sets, he opens the iron castings of *Shadow* up to reveal two copper castings of a new work, which he dubs *Clyde*.<sup>19</sup> If *Shadow* is a multi-located work of art (as Multi-Work Materialism implies), then it seems that *Clyde* is also a multi-located work of art formed by using the multi-located *Shadow*

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<sup>16</sup> Furthermore, it could have originated from bronze poured into "one" of the moulds and not "the other". More on this below.

<sup>17</sup> Quag is a fictional sculptor introduced in "Lesser Kinds Quartet" (2007). In Hudson's example, Quag hollows out a hunk of marble so that the hole is in the shape of a head. He dubs the work *The Brooder*. One appreciates the sculpture by climbing inside the hole and examining the hole lining from within.

<sup>18</sup> In order to create a hollow casting, one might need to make a mould for two half castings which may then be pressed together to form hollow interior.

<sup>19</sup> It is important that *Clyde* is cast in a metal that has a lower melting temperature than the metal in which *Shadow* is cast.

as a mould. Moreover, given that there are no previous concrete manifestations of *Clyde*, it seems that *Clyde* simultaneously originates from two distinct portions of copper. Hence Single Origin Necessity is false.

For our final case, we turn to photography. A photographic print is made when an image is projected from a developed film negative onto photosensitive paper. An enlargement machine is used for this process. An enlargement machine consists of a film carrier and lens, a light source, and a table. The film carrier holds a developed negative; the light source projects light through that negative and lens onto photosensitive paper, which is placed on the table. We believe that if two images from the same source negative can be simultaneously projected onto two different pieces of photosensitive paper, then the resulting photograph will originate from two distinct and non-overlapping materials.

Suppose a photographer puts two pieces of photosensitive paper on the baseboard of an enlargement machine. Then she places a developed negative that has never been printed before into the film carrier. Instead of placing a single lens below the negative, she decides to put two lenses side-by-side and angled slightly away from each other. Then the photographer turns the light on, projecting from the negative through both lenses so that two images of the negative appear, one on each piece of photosensitive paper. Two prints of the photograph will be produced simultaneously. If Multi-Work Materialism is true, then the photograph is co-located with and constituted by each of the photographic prints. Moreover, given that these prints are the first concrete manifestations of the photograph, it seems the photograph simultaneously originates from two distinct pieces of photosensitive paper. Hence, Single Origin Necessity is false.

Each of the cases above supports a compelling argument against Single Origin Necessity. However, each has its own weaknesses. The first, of course, requires the possibility of time travel and the assumption that the initial castings of *This is Heavy* are the first concrete manifestations of the work. One might reject the possibility of time travel or one might claim that there is a concrete manifestation of *This is Heavy* that predates the initial casting. In support of the second objection, one might point out that many moulds for castings are made with an initial model, sometimes carved from stone or made of plaster, and that that model might be the first concrete manifestation of the work.

We believe that both of these worries are sidestepped in the second example. The second example does not involve time travel. Moreover, even if a model was used in the formation of *Shadow*, that model certainly wasn't a concrete manifestation of *Clyde*. After all, *Clyde* is the work of Nicholi and not Fowlerio whereas the model for *Shadow* is a work of Fowlerio and not Nicholi. One might think that the hole in *Shadow* is a concrete manifestation of *Clyde*. But, again, the hole in *Shadow* was created by Fowlerio and it is an essential aspect of *Shadow* whereas *Clyde* was not created by Fowlerio and is not an essential aspect of *Shadow*.<sup>20</sup> We believe that there are two serious objections to this example. According to the first objection, the initial idea of *Clyde* in the mind of Nicholi is a concrete manifestation of *Clyde* that predates the initial castings. If that is the case, then *Clyde* does not, contrary to our argument, originate from two distinct portions of copper.<sup>21</sup> According to the second objection, the multi-located *Shadow* is not a mould for any work of art created by Nicholi, though the hunks of iron that constitute

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<sup>20</sup> Though it might be essentially involved in the creation of *Clyde*.

<sup>21</sup> We disagree with the claim that some idea in Nicholi's mind is a concrete manifestation of *Clyde*. One cannot create a cast sculpture by simply having an idea; one must *do* something. Nicholi has not yet done anything when he gets the idea to create a work using *Shadow* as a mould. Hence, *Clyde* has not yet been created when Nicholi gets his idea and so cannot yet have any concrete manifestations.

*Shadow* are. If that's the case, then the two hunks of copper that seem to constitute a single work, *Clyde*, in fact constitute two works that are nearly indiscernible from one another.<sup>22</sup>

Whatever one thinks of these two objections, both are sidestepped by our third example. A photographer might have nothing in particular in mind as she takes various pictures. The photographer might even allow a certain amount of randomness to be involved in the exposure of some portion of film. The ideas that lay behind these randomly exposed bits of film seem too inchoate to be concrete manifestations of the photograph.<sup>23</sup> Moreover, whereas it may be unclear whether the castings made by Nicholi were cast from a single mould (the multi-located *Shadow*) or two moulds (the hunks of iron that constitute *Shadow*), the prints are clearly made from a single negative in the photography case. So it seems that the photography case sidesteps the strongest objections to either of the cast sculpture cases. Admittedly, one might worry that the exposed and developed negative is a concrete manifestation of a photograph.<sup>24</sup> But we do not agree. The concrete manifestation of a photograph might essentially involve sharp contrasts that are created by a skilled photographer using light blocking methods during the printing process. These sharp contrasts will not appear in the negative, but only in the prints. So, the negative cannot be a concrete manifestation of the photograph.

#### **4. The Necessity of Origins**

Each of the cases above can easily be extended to show that The Necessity of Origins itself is false. Consider our second case and suppose *Clyde* is a multi-located work of art that

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<sup>22</sup> We do not actually find this objection persuasive since whether or not two hunks of copper are concrete manifestations of a particular work of art is partly grounded in the mental and social activities of the artist and the community from which the artist originates. We see no reason why Nicholi couldn't insist, and his community appropriately accept, that he used the multi-located *Shadow* as a mould to create a single, multi-located work of art.

<sup>23</sup> And, as noted in the statue case above, one must *do* something to bring about a photograph.

<sup>24</sup> Thanks to Damian Melamedoff for this objection.

simultaneously originated from two distinct portions of copper. Although *Clyde* was simultaneously cast in two portions of bronze, it could have been cast in only one portion of bronze. Let B1 be the portion of copper that Nicholi in fact poured into the younger instance of the time traveling mould and let B2 be the portion of copper that he in fact poured into the older instance of the time traveling mould. Although Nicholi in fact poured B1 into the younger instance of the time traveling mould while simultaneously pouring B2 into the older instance of the mould, he could have just poured B1 into the younger instance of the mould while leaving B2 unpoured and the older instance of the mould empty. Moreover, he could have poured B2 into the older instance of the mould while leaving B1 unpoured and the younger instance of the mould empty. If Nicholi had done the former, then he would have produced a casting of *Clyde* that originated from B1 and not B2. Moreover, if Nicholi had done the latter, then he would have produced a casting of *Clyde* that originated from B2 and not B1. It follows that *Clyde* could have originated from B1 and not B2 and it could have originated from B2 and not B1. But, if it could have originated from B1 and not B2 and it could have originated from B2 and not B1, then it could have been that it originated from B1 and not B2, but also could have originated from B2 and not B1.<sup>25</sup> Since B1 and B2 are non-overlapping,<sup>25</sup> it follows that The Necessity of Origins is false.

Consider the third case, too, and suppose that the photograph is a multi-located work of art that simultaneously originates in two distinct sheets of photosensitive paper. Again, although the photograph was simultaneously printed on two distinct and non-overlapping sheets of photosensitive paper, it could have been printed on only one sheet. Suppose that S1 and S2 are the sheets of paper onto which the photograph is initially printed. Either one of S1 or S2 could

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<sup>25</sup> The formula  $(\diamond\phi \ \& \ \diamond\psi) \rightarrow \diamond(\phi \ \& \ \psi)$  is provable in any system that includes the characteristic axiom of (S5):  $\diamond\phi \rightarrow \square\diamond\phi$ . However, we put forward the proposition in the text as an independently plausible premise and not as a logical truth.

have been placed on the table of the enlargement machine without the other. If S1 had been placed on the table of the enlargement machine without S2, then the photograph would have originated only on S1; if S2 had been placed on the table of the enlargement machine without S1, then the photograph would have originated only on S2. It follows that the photograph could have originated solely on S1 and it could have originated solely on S2. Hence, it could have been that the photograph originated solely from S1 and yet could have originated solely from S2.<sup>26</sup> Since S1 and S2 are distinct and non-overlapping, it follows that The Necessity of Origins is false.

Although (TNO) is false, there may be a replacement principle. Works of art seem very different from “natural” objects like people and trees. Whether or not a natural object is concretely manifested typically has nothing to do with the mental states of any people. However, whether or not a multi-work is concretely manifested does have to do with the mental states of the artist or of the members of the artist’s community.<sup>27</sup> So, maybe we can replace (TNO) with The Natural Necessity of Origins:

(NNO) Necessarily, for any natural object, x, and for any material, M1, if it is possible that x wholly originates from M1 (in accordance with a particular plan P), then it is not possible that there is some material M2, material that does not overlap with M1, such that x wholly originates from M2 (in accordance with P).

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<sup>26</sup> Again, using as a premise the formulated noted above.

<sup>27</sup> As noted above, we do not believe that in general the mental states of an artist or of the artist’s community are by themselves sufficient for bringing about a concrete manifestation of a work of art. We believe that the mental states must be combined with the right kind of material conditions. In this paper we have been primarily focused on arguing for the possibility of certain material conditions which we think are necessary to generate counterexamples to (SON) and (TNO). Thanks there to an anonymous referee.



The plausibility of the principle would, of course, turn on a satisfying account of what it is to be “natural”<sup>28, 29</sup>.

### **References**

- Alward, Peter. 2004. The Spoken Work. *Journal of Art and Art Criticism* 62(4): 331-337.
- Ballarin, Roberta. 2013. The Necessity of Origin: A Long and Winding Route. *Erkenntnis* 78: 353-370.
- Cameron, Ross P. 2005. A Note on Kripke's Footnote 56 Argument for the Essentiality of Origin. *Ratio* 18: 262-275.
- Cameron, Ross P. and Sonia Roca Royes. 2006. Rohrbaugh and deRosset on the Necessity of Origin. *Mind* 115: 361–366.
- Caplan, Ben and Carl Matheson. 2006. Defending Musical Perdurantism. *British Journal of Aesthetics* 46: 59–69.
- 2008. Defending ‘Defending Musical Perdurantism’. *British Journal of Aesthetics* 48: 80-85.
- Damjanovic, Nic. 2010. No Route to Material Origin Essentialism? *Erkenntnis* 72: 93-110.
- Forbes, Graeme. 1981. On the Philosophical Basis of Essentialist Theories. *Journal of Philosophical Logic* 10: 73-99.
- 1985. *The Metaphysics of Modality*. Oxford: OUP.
- Hawthorne, John and Tamar Szabo Gendler. 2000. Origin Essentialism: The Arguments Reconsidered. *Mind* 109: 285-98.

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<sup>28</sup> We leave this as an exercise for the authors or the readers.

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- Johnston, Patricia. 1977. Origin and Necessity. *Philosophical Studies* 32: 412-18.
- Kripke, Saul. 1980. *Naming and Necessity*. Cambridge, MA: Harvard University Press.
- MacKay, Thomas. 1986. Against Constitutional Sufficiency Principles. In Peter French, Theodore Uehling, Jr., and Howard Wettstein, eds. *Midwest Studies in Philosophy: Studies in Essentialism XI*: 295-304. University of Minnesota Press.
- Mackie, J. L. 1974. De What Re is De Re Modality? *The Journal of Philosophy* 80: 551-61.
- Mackie, Penelope. 1987. Essence, Origin, and Bare Identity. *Mind* 96: 173-201
- 1998. Identity, Time, and Necessity. *Proceedings of the Aristotelian Society* 98: 59-78.
- McGinn, Colin. 1976. On the Necessity of Origin. *The Journal of Philosophy* 71: 127-35.
- Noonan, Harold. 1983. The Necessity of Origin. *Mind* 92: 1-20.
- Robertson, Teresa. 1998. Possibilities and the Arguments for Origin Essentialism. *Mind* 107: 716-25.
- 2000. Essentialism: Origin and Order. *Mind* 109: 299-307.
- Robertson, Teresa and Graeme Forbes. 2006. Does the New Route Reach its Destination? *Mind* 115: 367-373.
- Rohrbaugh, Guy and Louis deRosset. 2004. A New Route to the Necessity of Origin. *Mind* 113: 705-25.
- 2006. Prevention, Independence, and Origin. *Mind* 115: 375-386.
- Salmon, Nathan. 1979. How not to Derive Essentialism from the Theory of Reference. *The Journal of Philosophy* 76: 703-25.
- Tillman, Chris. 2011. Musical Materialism. *British Journal of Aesthetics* 51: 13-29.
- Tillman, Chris and Joshua Spencer. 2012. Musical Materialism and the Inheritance Problem. *Analysis* 72: 252-9.

Yablo, Stephen. 1988. Review of *The Metaphysics of Modality* by Graeme Forbes. *The Journal of Philosophy*, 85: 329-337.

Zimmerman, Dean. 1995. Theories of Masses and Problems of Constitution. *Philosophical Review* 104:53-110.