The Identity of Necessary Indiscernibles

Zach Thornton, Penultimate draft, May 2024

Abstract:

I propose a novel metaphysical explanation of identity and distinctness facts called the Modal Proposal. According to the Modal Proposal, for each identity fact – that is, each fact of the form $a=b$ – that fact is metaphysically explained by the fact that it is necessary that the entities involved are indiscernible, and for each distinctness fact –that is, each fact of the form $a\neq b$ – that fact is metaphysically explained by the fact that it is possible for the entities involved to be discernible. I argue that the Modal Proposal has greater payoffs at less cost than any of its competitors. It gives simple, uniform, and intuitive explanations of identity and distinctness that conserve longstanding philosophical insights about identity that go back to Leibniz. It does this while making our fundamental base more parsimonious, determining whether controversial cases of identity or distinctness are possible, and expanding our understanding of these central philosophical relations. It does all this while avoiding controversial ontological commitments.

I: Introduction

What, if anything, metaphysically explains identity and distinctness facts? [1] In this paper, I will argue for a general explanatory account of identity and distinctness that I will call the *Modal Proposal*:

[1] By metaphysical explanation, I mean a non-causal dependence relation between facts. Henceforth, when I say "explains," I mean "metaphysically explains." I will sometimes say "grounds," which, for the sake of this paper, I will treat as synonymous with "metaphysically explains." I will always mean full metaphysical explanation or full grounds unless otherwise noted.

> *Modal Proposal*: Necessarily, for all entities x and y, if x is identical to y, what metaphysically explains the fact that x and y are identical is the fact that it is necessary that x and y are indiscernible; and if x is distinct from y, what metaphysically explains the fact that x and y are distinct is the fact that it is possible for x and y to be discernible. [2]

According to the Modal Proposal, identity and distinctness facts are explained by modal facts. One might have expected the order of explanation to go the other way: that identity and distinctness facts explain necessary indiscernibility and possible discernibility facts, respectively. Later, I will argue that the Modal Proposal's order of explanation is superior to this one.

Why not suppose that identity and distinctness facts are fundamental, that is, without metaphysical explanation? Alexi Burgess (2012) articulates one reason using a metaphor:

> Imagine God creating a field of poppies. Once the flowers exist, there's no need for Her to survey the field and stipulate that this poppy will be identical to itself, and distinct from that poppy, that poppy, etc. Intuitively, the identity/distinctness facts come along for free… (p. 1)

This metaphor suggests that the idea of fundamental identity and distinctness facts may be incoherent. How could there be this poppy and that poppy and still a need for an extra step, a step

[2] I will be using the terms "indiscernible" and "discernible" in their metaphysical senses. Indiscernible entities share all their pure qualitative properties and relations, and discernible entities fail to share some pure qualitative property or relation.

Pure qualitative properties are properties whose instantiation does not depend on the existence of any particular entity. For similar characterizations of pure qualitative properties, see Adams (1979), Hawley (2009), and Rodriquez-Pereyra (2006; 2022, Ch. 1). This definition of purely qualitative can be extended to higher-order properties (properties of properties, properties of properties of properties, etc.) A pure qualitative property of order n is a property whose instantiation does not depend on the existence of any particular entity of order n-1. Henceforth, when I say "property" and "relation," I mean "pure qualitative property" and "pure qualitative relation" unless otherwise noted.

of legislating facts of identity?[3] The Modal Proposal avoids this worry and vindicates the intuition that identity and distinctness facts follow from the fundamental facts.[4]

My main argument for the Modal Proposal will be that it has greater payoffs at a lower cost than any alternative. Only the Modal Proposal does the following: It gives simple, uniform, and intuitive explanations of identity and distinctness that conserve longstanding philosophical insights about identity. Moreover, it does so while making our fundamental base more parsimonious, explaining the possibility (or impossibility) of controversial cases of identity and distinctness, and expanding our understanding of these central philosophical relations. It does all this while avoiding controversial ontological commitments.

We will start, in section II, by discussing the Leibnizian Proposal, a proposal adapted from Leibniz's famous principles of identity. The Leibnizian Proposal faces a counterexample in Max Black's (1952) famous case of distinct indiscernible spheres. In section III, I will present an alternative to Leibniz's principles which entails that Black's spheres are distinct. In section IV, I will adapt this principle into the Modal Proposal. In section V, I will present six payoffs of the Modal Proposal and argue that the Modal Proposal is better in these respects than any of the extant

[3] One might argue that God must have legislated the identity facts as She was creating the field of poppies. But what step in creating the poppies requires Her to legislate the identity facts? We can imagine she creates the field of poppies by creating each poppy one by one. Suppose she creates the first poppy and is about to make another. Must she first legislate that the first poppy is distinct from the one she is about to create? How could She, since the second poppy does not yet exist? Does She create the first poppy, call it "A," then create a poppy She calls "B" and legislate that "A" and "B" are distinct? I struggle to make sense of how there could be poppy A and poppy B without it yet being settled whether A and B are distinct.

[4] The Modal Proposal is consistent with modal facts being fundamental or non-fundamental. If they are non-fundamental, a further account is needed to tell us what grounds the modal facts. In payoff #1 of section V, I discuss some candidate explanations.

accounts.[5] Finally, in section VI, I will discuss two considerations that count in favor of other proposals and argue that, nonetheless, we should accept the Modal Proposal.

II: The Leibnizian Proposal

The Modal Proposal has its roots in ideas dating back to Leibniz.[6] In particular, it takes inspiration from a proposal based on Leibniz's famous principles of identity. These principles are the Identity of Indiscernibles, which states that, necessarily, for all entities x and y, if x and y are indiscernible, then they are identical, and the Indiscernibility of Identicals, which states that, necessarily, for all entities x and all entities y, if x and y are identical, then they are indiscernible.[7] Leibniz's principles do not on their own constitute an explanation of facts about identity. However, his principles do suggest the following account that does:

> *The Leibnizian Proposal*: Necessarily, for all entities x and all entities y, if x and y are identical, then what explains the fact that x and y are identical is the fact that x and y are indiscernible; and if x and y are distinct, then what explains the fact that x and y are distinct is the fact that they are discernible.

[5] As we will see, these are Litland's (forthcoming) Null Proposal, the Weak Discernibility Proposal (adapted from Saunders's (2006) weak discernibility principle), Shumener's (2020a) Quantitative Proposal, Shumener's (2021) Constitutive and Fact-Identity Proposals, and Rubenstein's (2023) Existence Proposal.

[6] Indeed, these ideas may go back much further than Leibniz. Mates (1986) ascribes similar ideas to Aristotle in *Topics* 152b27ff, Sextus Empiricus in *Outlines of Pyrrhonism*. II, 227, Plotinus in *Enneads* V, 7.2, and Aquinas in *Summa Theologia* Ia, qu. XL, a. 1 ad. 3.

[7] This formulation of the Principle of the Identity of Indiscernible is from Leibniz's *Discourse on Metaphysics,* section 9. It is the necessitated version of the principle as formulated in Mates (1986, p. 123) and Feldman (1970, p. 510). For discussion of Leibniz's formulations of the Principle of Identity of Indiscernibles, see Rodriguez-Pereyra (2014). There is controversy about whether Leibniz endorsed the Indiscernibility of Identicals, and if so, what formulation he gave. See Feldman (1970) and Curry (1971).

The Leibnizian Proposal's explanations of distinctness are highly intuitive and fit well with our ordinary experience and our ordinary explanations of identity and distinctness. The Leibnizian Proposal also has attractive theoretical upshots. For instance, it explains identity and distinctness facts in terms of facts we already accept, namely, facts about sharing (or failing to share) properties. It thereby makes our fundamental base more parsimonious by eliminating identity and distinctness facts from our fundamental base without adding additional facts.[8]

Some philosophers argue that the Leibnizian Proposal is inherently problematic. For instance, Rubenstein (2023) states, "Intuitively, the identity of the relata must be settled prior to the business of hanging relations between them." (p. 21) [9] If this is true, then identity must be determined prior to indiscernibility being instantiated, and so indiscernibility cannot explain identity. I disagree that identity must be determined prior to other relations being instantiated. Of course, it's true that relations cannot be instantiated while leaving identity and distinctness undetermined. However, according to the Leibnizian Proposal, it is the instantiation of indiscernibility and discernibility relations that determine identity and distinctness. So, there are never instances of indiscernibility or discernibility without identity or distinctness being determined.

Unfortunately, the Leibnizian Proposal faces a counterexample. Consider the famous case from Black (1952) that we'll call *Black's World*:

> Imagine a world where all that exists are two iron spheres alone in the void. The spheres are perfect duplicates of one another and one mile from each other. The universe they reside in is radially symmetric, so any plane drawn through the point halfway between the spheres will

[8] This is payoff #1 from section V. If the Leibnizian Proposal were free from counterexamples, it would also have payoffs #2, 3, 5, and 6.

[9] French & Krause (2006, p. 172) also raise this objection.

create two perfectly similar halves. The world we imagined contains indiscernibles, entities that instantiate all the same pure qualitative properties and relations.

One might try to defend the Leibnizian Proposal by rejecting the possibility of Black's World. There are several ways one might do so.[10] Here I assume such defenses fail.[11]

Another defense of the Leibnizian Proposal is to argue that it can explain the distinctness of Black's spheres. Suppose we name one of the spheres Castor and the other Pollux. Only Pollux instantiates the property 'being one mile from Castor.' So, the Leibnizian Proposal explains the distinctness of the spheres by the fact that they are discernible with respect to this property.[12]

This defense is mistaken. Differences in impure qualitative properties are explained (in part) by distinctness facts. This leads to circularity when the distinctness fact that explains a difference in impure qualitative properties is the distinctness fact being explained. In the case of Black's World, both spheres instantiate the pure qualitative property 'being one mile from an iron sphere.' However, they differ with respect to the impure qualitative property 'being one mile from Castor' because only one of them is (identical to) Castor.[13] But this explanation involves the distinctness fact that is being explained! So, differing with respect to the property 'being one mile from Castor' cannot explain the distinctness of the Black's spheres.

III: The Distinctness of Possible Discernibles

[10] See O'Leary-Hawthorne (1995), Hawley (2009), and Muller (2015).

[11] Several such defenses are considered and rejected in Black (1952) and Zimmerman (1992). In section IV, I will discuss Rodriguez-Pereyra's (2022) subtraction argument for the possibility of Black's World.

[12] Goodman (ms.) gives a sophisticated and more plausible version of this defense. I discuss his defense in payoff #1 of section V.

[13] Rodriguez-Pereyra (2022) agrees. He says, "*a* and *b* differ with respect to the property of *existing in time because a exists at time t* because they differ with respect to the property of *being identical with a*." (p. 116)

Suppose that we were unsure whether Black's spheres were identical or distinct but learned that if we were able to interact with Black's spheres, then we could cause one to have some property without causing the other to have that property. For instance, we could paint one of the spheres red without painting the other sphere red. From this information, we can conclude that the spheres are distinct. This is because if the spheres were identical, then it would be impossible for us to cause one to have a property without causing the other to have that property as well. This impossibility is not due to our limited causal powers but due to the logic of identity. If we were to learn that it is possible for the spheres to be discernible, whether due to our causal influence or otherwise, then we can infer that they are distinct.

This suggests the following principle:

Distinctness of Possible Discernibles: Necessarily, for all entities x and y, if it is possible for x and y to be discernible, then x and y are distinct.[14]

According to the Distinctness of Possible Discernibles, if it is possible for the spheres to be discernible, then they are distinct. This is true, even if the spheres are actually indiscernible from one another. It is possible for Black's spheres to be discernible, and therefore they are distinct.[15]

In the next section, I will present the Modal Proposal, which adapts the Distinctness of Possible Discernibles into an explanatory account of identity and distinctness.

IV: The Modal Proposal

[14] This principle is endorsed in Zimmerman (1992). Hale (2015, p. 188) endorses the biconditional version of this principle.

[15] Our best arguments for Black's World (e.g., Adams (1979) and Rodriguez-Pereyra (2022)) are arguments for distinct, contingently indiscernible spheres. In section IV, we will discuss a case like Black's World except in which the spheres are necessarily indiscernible.

Let's restate the Modal Proposal:

> *Modal Proposal*: Necessarily, for all entities x and y, if x is identical to y, what explains the fact that x and y are identical is the fact that it is necessary that x and y are indiscernible; and if x is distinct from y, what explains the fact that x and y are distinct is the fact that it is possible for x and y to be discernible.[16]

The Modal Proposal can explain the distinctness of the spheres at Black's World. According to the Modal Proposal, the spheres at Black's World are distinct because they are only contingently indiscernible – it is possible for them to be qualitatively different in some way. For example, it is possible for them to be different sizes or to differ in whether or not they are cracked. [17]

The Modal Proposal is fundamentally different from the Leibnizian Proposal, despite both involving the notions of discernibility and indiscernibility. The key idea behind the Leibnizian Proposal is that distinctness facts are metaphysically explained by facts involving extra-numerical differences, where extra-numerical differences are any difference between objects "other than differing with respect to which objects they are" (Rodriguez-Pereyra 2022, p. 5). In contrast, a key idea behind the Modal Proposal is that the distinctness of entities can be explained even if they

[16] More formally, facts about particular individuals such as [a=b] are metaphysically explained by facts such as [□ ∀P (Pa ↔ Pb)] about those individuals. Square brackets (" [ ] ") mark that what I am talking about is a fact. Facts about particular individuals such as [a≠b] are metaphysically explained by facts such as [◊ ∃P (Pa & ~Pb)] about those individuals. Additionally, the fact [∃x ∃y x=y] is metaphysically explained by the fact [∃x ∃y □ ∀P (Px ↔ Py)], and the fact [∃x ∃y x≠y] is metaphysically explained by the fact [∃x ∃y ◊ ∃P (Px & ~Py)].

[17] The Modal Proposal grounds identity and distinctness facts in certain modal facts. One might wonder what grounds identity and distinctness between modal facts. According to the Modal Proposal, the identity between modal fact X and modal fact Y is grounded in X and Y being necessarily indiscernible – that is, one cannot obtain without the other obtaining, etc. If X and Y are distinct, their distinctness is grounded in the fact that it is possible for them to be discernible. One might worry that these explanations are circular because identity and distinctness facts involving modal facts are grounded in modal facts. However, this is not circular because no fact is explaining itself. The modal facts in the explanandum are modal facts about objects (such as Black's spheres, for example), while the modal facts in the explanans are modal facts about modal facts. Thanks to an anonymous reviewer for raising this worry.

differ *solo numero* – meaning that they are distinct and fail to differ extra-numerically.[18] To see how, suppose that the only properties are the purely qualitative properties. On such a view, Black's spheres differ *solo numero* since they are distinct and share every property *simpliciter*. Nonetheless, the Modal Proposal explains their distinctness by a relation they share, namely their possible discernibility.

One might object to my proposal with a *tu quoque*. We've ruled out the Leibnizian Proposal on the basis of the possibility of Black's World. But one might devise a variant of Black's World that contains distinct necessarily indiscernible iron spheres one mile apart from each other. Let's call this *Super Black's World*. Super Black's World, if possible, would constitute a counterexample to the Modal Proposal. If we accept the possibility of Black's World, then we might think that we must accept the possibility of Super Black's World as well.

However, while we have good reason to accept the possibility of Black's World, we have no good reason to accept the possibility of Super Black's World. There is an argument for the possibility of Black's World from very plausible premises, but no such argument for the possibility of Super Black's World. The argument for the former comes from Rodriguez-Pereyra (2022) and proceeds as follows:

> (1) There is a possible world W containing two iron spheres that share all their intrinsic pure [qualitative] properties…
>
> (2) Either the two iron spheres are the only objects in W or there are more objects in W.

[18] Difference *solo numero* is used in Leibniz's formulations of the Principle of Identity of Indiscernibles (in particular, see his formulation in his *Discourse on Metaphysics)*. See Rodriguez-Pereyra (2006; 2022).

(3) If the two iron spheres are the only objects in W, then the spheres share all their pure properties, intrinsic and extrinsic.

(4) If there are more objects in W, then there is a possible world W* containing only the two iron spheres and their parts, where these objects have the same intrinsic pure properties as they have in W…that is, in W*, the spheres, and their parts, share all their pure properties, intrinsic and extrinsic.

(5) Therefore, there is a possible world with two iron spheres sharing all their pure properties, intrinsic and extrinsic. That is, Black's World is possible. (p. 89)

Rodriguez-Pereyra's argument is a subtraction argument. It starts with a world W whose possibility is uncontested and generates Black's World, the world whose possibility is in contest, by subtracting away everything in W that makes the spheres extrinsically discernible.

There is no analogous argument for Super Black's World. This is because the spheres in Super Black's World are necessarily indiscernible, and a subtraction argument cannot show that some objects stand in a relation necessarily. Even if we start with a world that contains indiscernible spheres, it is consistent with the premises of a subtraction argument that those spheres are discernible in a world where *more* objects exist.[19]

One may argue that cases of distinct necessarily indiscernible objects arise from *Ontological Plenitude*, which is roughly the view that for each entity and every modal profile – a set of modal

[19] To establish the possibility of Super Black's World, one must argue that the spheres are indiscernible no matter what we add to the starting world. Let's call this an *addition argument*. (An addition argument is necessary, though not sufficient for establishing the possibility of Super Black's World. Thanks to an anonymous reviewer for encouraging me to emphasize this.) The premises of an addition argument seem highly implausible. Generating a world where the spheres are discernible seems trivial. All one must do is add some object that is closer to one of the spheres than the other. The only reason one would accept the premises of this addition argument is if she believed that the spheres in the starting world are necessarily indiscernible. For this reason, an addition argument seems question begging.

properties – consistent with that entity's non-modal properties, there is an entity completely overlapping with it that has that modal profile.[20] A modal profile consistent with the non-modal properties of Black's spheres is the modal profile in which an entity instantiates all of their non-modal properties necessarily. If Ontological Plenitude posits two simultaneously existing entities with such a modal profile, one co-located with each of Black's spheres, then it posits distinct necessarily indiscernible objects.

However, the standard reasons to accept Ontological Plenitude are that we should not rule out the existence of objects arbitrarily or for anthropocentric reasons.[21] But we have non-anthropocentric reason to rule out distinct necessarily indiscernible entities. This is that these entities instantiate a necessary connection that seems problematically extreme between distinct objects. Intuitively, distinct entities cannot be so intimately connected that they could never differ from one another.[22] Distinctness requires some degree of independence in which properties its relata instantiate. So, our denial of distinct necessarily indiscernible objects is not arbitrary nor anthropocentric, and the standard reasons for Ontological Plenitude do not refute it.

Another objection that one might raise is that the Modal Proposal collapses into the Leibnizian Proposal. One might believe that possible discernibility facts explain distinctness in a derivative way: if it is possible for entities to be discernible, then they differ in some world-indexed property, and this difference explains their distinctness. Consider the spheres at Black's World. It is possible for one sphere to be cracked while the other is intact. So, there is a world W_1 where one of

[20] This formulation of the view is not quite right, but it will serve our purposes here. See Fairchild (2019) for a more precise formulation.

[21] See Fairchild and Hawthorne (2018), Fairchild (2022).

[22] This is especially clear if we help ourselves to the idea that such necessary connections are grounded in essences. There is something deeply problematic about two entities whose essences are so intertwined that they must always exist together and can never differ from one another.

the spheres is cracked and the other is intact. Let's call the cracked sphere at W_1 Castor and the intact sphere Pollux. The spheres are distinct because they differ in the world-indexed property 'being cracked at W_1.' Castor has this property, but Pollux does not. This world-indexed property is impurely qualitative. However, the property does not involve the spheres, so it seems to avoid the circularity worries we discussed at the end of section II.

This objection is mistaken. Despite not being about the spheres, circularity worries still arise. Since the spheres are purely qualitatively indiscernible, there is a world W_2 that is purely qualitatively indiscernible from W_1 at which Pollux is cracked and Castor is not. If the spheres differ in the property 'being cracked at W_1,' then this is because the world where Castor is cracked, W_1, is distinct from the world where Pollux is cracked, W_2. If worlds W_1 and W_2 are distinct, then this is not explained by a purely qualitative difference between them. Rather, if they are distinct, then their distinctness seems to be explained by the fact that they differ in which sphere is cracked at them. If this is so, then differing in the property 'being cracked at W_1' is ultimately grounded in distinctness facts about the spheres. Therefore, differing with respect to world-indexed properties cannot explain the distinctness of Black's spheres.[23]

Finally, some might find the Modal Proposal's order of explanation surprising and counterintuitive. According to the Modal Proposal, necessary indiscernibility facts explain identity facts, and possible discernibility facts explain distinctness facts. In the next section, I will present my main argument for the Modal Proposal, and thereby its order of explanation. However, there is also

[23] One might try to avoid this circularity worry by accepting distinctness facts about worlds as fundamental. However, one who does this could not endorse the Leibnizian Proposal, since the Leibnizian Proposal is a general explanatory account of identity and distinctness and must explain distinctness between worlds. This would undermine the objection that the Modal Proposal collapses into the Leibnizian Proposal. Additionally, if one accepts distinctness between worlds as fundamental, then one misses out on many of the payoffs to be discussed in section V, in particular, payoffs #1, #2, #3, and #6.

a direct argument for its order of explanation, one that offers at least some *prima facie* support for it. Plausibly, modal facts should have a uniform explanation. But identity and distinctness do not explain all modal facts. So, if they explain necessary indiscernibility and possible discernibility facts and these facts are not over-determined in terms of their explanations, then explanations of modal facts are not uniform, but disjointed. Therefore, if we accept this order of explanation, we must reject the plausible idea that modal facts should have a uniform explanation. On the other hand, the Modal Proposal is consistent with uniform explanations of modal facts. This is a reason to prefer the Modal Proposal's order of explanation.[24]

One might try to avoid this conclusion by accepting the view that identity and distinctness facts explain all modal facts. Here's how this might go: Take the set of all identity facts and call it *I*. (This includes not only first-order, but higher-order identities. So, not only does this include the fact that Hesperus is Phosphorus, but it also includes that to be made of water is to be made of H_2O, etc.) Let us say that a fact *f* is necessary if it logically follows from *I*, and that a fact *f* is possible if its negation does not follow from *I*.

While I can find no philosopher who explicitly endorses the above view in print, there are papers that suggest something like it. One way to arrive at this sort of view is to adopt Kit Fine's claim that modality reduces to essence, then account for essences in terms of identity. Fine himself does not do this; essences need not be uniquely individuating on his view. However, that approach is carried out in Correia and Skiles (2019) (see also their (2022)). If this view is coupled with Fine's reduction of modality to essence, then there is (transitively) a reduction of modality to identity. I reject this view because I think essences need not be uniquely individuating. For instance, Black's

[24] Thanks to [Redacted] for suggesting this argument.

spheres do not have unique essences.[25] Correia and Skiles must say that Black's spheres have unique essences, otherwise, their view entails that they are identical.[26]

V: Payoffs

In this section, I will describe six payoffs of the Modal Proposal. Along the way, I will introduce the other extant accounts and argue that each fails to have at least one payoff.[27] These payoffs are:

#1: It offers a more parsimonious fundamental base.

#2: It provides generality at minimal cost.

#3: It gives uniform explanations.

#4: It meets Della Rocca's challenge.

#5: It logically entails the Indiscernibility of Identicals.

#6: It improves our understanding of identity and distinctness.

Payoffs #1, 2, and 3 are desiderata of explanatory accounts in general. Payoffs #4, 5, and 6 are desiderata specific to explanatory accounts of identity and distinctness. These payoffs should appeal to metaphysicians of many stripes. I will not discuss in detail the implications of my view that might appeal to narrow sets of metaphysicians, such as the fact that it logically implies the necessity of identity and distinctness.[28] At the end of this section, I will summarize my argument for the Modal Proposal by briefly reviewing what makes it preferable to each of the extant accounts.

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[25] And, plausibly, electrons and other fundamental particles do not have unique essences either.

[26] Thanks to an anonymous reviewer for raising this issue and [Redacted] for presenting and discussing this view about the reduction of modality to identity.

[27] These accounts (in the order they appear) are the Leibnizian Proposal, the Weak Discernibility Proposal, the Constitutive and Fact-Identity Proposals by Erica Shumener (2021), the Quantitative Proposal by Erica Shumener (2020), the Existence Proposal by Ezra Rubenstein (forthcoming), and the Null Proposal by Jon Litland (forthcoming).

[28] It is easy to prove that the Modal Proposal entails the necessity of identity in S4. Suppose that a=b. It follows from the Modal Proposal that a=b iff it is necessary that a and b are indiscernible. So, it is necessary that a and b are

Payoff #1: It offers a more parsimonious fundamental base.

One of the greatest payoffs a general explanatory account of identity and distinctness may possess is that it makes our fundamental base more parsimonious than if we were to accept identity and distinctness facts as fundamental. Our fundamental ontology and ideology are our greatest metaphysical commitments. A theory that makes our fundamental base more parsimonious makes our overall metaphysical theory more economical, all else being equal. [29]

Everyone admits possible discernibility and necessary indiscernibility facts somewhere in their grounding hierarchy. So, the Modal Proposal does not add to our fundamental base in order to explain identity and distinctness facts.

As far as the Modal Proposal is concerned, these modal facts may or may not be fundamental. If one wants to accept these facts as non-fundamental, then there are many candidate explanations to choose from. For instance, a general explanation of modal facts in terms of non-modal facts will tell us what grounds possible discernibility and necessary indiscernibility facts. One such explanation could be given in terms of essences: The fact that some objects x and y are necessarily indiscernible is grounded in the fact that it is essential to x (and y) that they are

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indiscernible. S4 contains the axiom that if a fact is necessary, then it is necessary that it is necessary. So, it is necessary that it is necessary that a and b are indiscernible. Therefore, it is necessary that a=b. Philosophers who already endorse the necessity of identity will see this as an attractive upshot. For instance, see Hale (2015, ch. 8, fn. 20).

One might reframe this implication as an objection to the Modal Proposal since it is committed to denying the contingency of identity. This is true. However, this alone is not a cost of the Modal Proposal since the contingency of identity is a substantial, competing thesis about the metaphysics of identity. There are costs to missing out on the theoretical payoffs that accepting the contingency of identity provides. A discussion about these costs and how to weigh them against the payoffs of the Modal Proposal is beyond the scope of this paper. Thanks to [Redacted] and [Redacted] for discussions on this point.

[29] This payoff is especially attractive for theories of fundamental reality that are motivated by considerations of parsimony and that accept fundamental identity and distinctness facts, such as Shamik Dasgupta's (2009) Generalism and LA Paul's (2017) bundle theory.

indiscernible.[30] Alternatively, we might explain possible discernibility facts in terms of facts involving relations that are necessarily irreflexive. For example, the fact that Black's spheres are at a distance from one another in Euclidean space may explain the fact that it is possible for them to be discernible. On this view, necessary indiscernibility facts would be explained by the absence of whatever explains possible discernibility. The Modal Proposal is consistent with all these explanations. [31]

Two accounts that do not make our fundamental base more parsimonious are the Leibnizian Proposal, employing Jeremy Goodman's (ms.) defense of the Principle of the Identity of Indiscernibles, and the Weak Discernibility Proposal. This is because their explanations of identity and distinctness require us to add facts to our fundamental base.

Goodman (ms.) gives a sophisticated defense of the Principle of the Identity of Indiscernibles. He argues that the spheres at Black's World are discernible in virtue of their *de re* counterfactual properties, such as the property 'had the spheres differed in mass, it would be the heavier sphere.' [32] He argues that only one of the spheres has this counterfactual property. If this is so and differing in this counterfactual property is an extra-numerical difference, then the Leibnizian Proposal can explain the distinctness of Black's spheres by the fact that they differ in this property.

Supposing Goodman is right, his defense comes at a cost. Nothing determines which sphere has the counterfactual property 'had the spheres differed in mass, it would be the heavier sphere.'

[30] Given that x and y are indiscernible, if it is essential to one of them that they are indiscernible, then it is essential to the other that they are.

[31] It is also consistent with grounding necessary indiscernibility and possible discernibility facts in facts from other proposals I will discuss, such as existence facts or the null ground. However, doing so risks taking on the shortcomings of these proposals.

[32] In general, these counterfactual properties have the form 'if the spheres differed with respect to some property P, then it would be the sphere with P,' where P is some property that the spheres contingently share.

So, his defense requires us to accept as fundamental the fact that Black's spheres differ in such counterfactual properties.[33] So, his defense requires us to add to our fundamental base in order to explain the distinctness of Black's spheres.

Turning now to the Weak Discernibility Proposal, it states that necessarily, for all entities x and y, if x and y are identical, then what explains the fact that x and y are identical is the fact that they are not weakly discernible, and if x and y are distinct, then what explains the fact that x and y are distinct is the fact that they are weakly discernible.[34] Entities are weakly discernible iff they instantiate a weakly discerning instance of a relation, that is, an instance of a relation where at least one of its relata does not instantiate that relation with itself.[35] For example, Black's spheres are weakly discernible because they are at a distance from each other, which is weakly discerning since neither sphere is at a distance from itself.

The Weak Discernibility Proposal, as it is described above, seems to be circular. The fact that an instance of a relation is weakly discerning seems to be explained by the fact that at least one of its relata is distinct from everything it stands in that relation to. The Weak Discernibility Proposal aims to explain distinctness facts in terms of weak discernibility facts, so distinctness should not be involved in explaining weak discernibility.

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[33] Goodman (ms.) is explicit about this. He says, "My suspicion is that, in many cases, such incredulity [about his defense] stems from a prior commitment to the metaphysical vision according to which all qualitative truth bottoms out in the pattern of instantiation of some small list of fundamental properties and relations… Counterfactuals impose their own structure on modal space, and that structure projects down onto the material world." (p. 15)

[34] To my knowledge, this view has not been defended in the literature. However, it deserves consideration because, like the Modal Proposal, it is adapted from a weakened version of the Principle of the Identity of Identity of Indiscernibles. This principle is the weak discernibility principle, which was originally developed in Saunders (2006) and further developed in Muller and Saunders (2008), Muller (2015), and Wörner (2021).

[35] More formally, an instance of some relation R between entities x and y is weakly discerning iff Rxy & (~Rxx ∨ ~Ryy).

A proponent of the Weak Discernibility Proposal may try to avoid this worry by adopting Wörner's (2021) explanation of what makes relations weakly discerning. He says, "For *a* and *b* to differ weakly with regard to *R*… holds in virtue of the following facts: [*Rab*], [~*Raa*], [*Rba*], [~*Rbb*]" (p. 4276)[36] According to Wörner, the fact that an instance of a relation is weakly discerning is explained by four facts about that relation and its relata, none of which involve distinctness.

The problem with this response is that two of the facts Wörner identifies involve repetition, [~*Raa*] and [~*Rbb*].[37] Facts involving repetition are not facts we already accept as fundamental.[38] Rather, facts involving repetition seem to be naturally explained by, or identical to, facts involving identity. For instance, the fact [~*Raa*] seems to be explained by, or identical to, the fact [~*Rac* & *a*=*c*].[39] A proponent of the Weak Discernibility Proposal cannot accept this, since this would make their account circular. So, to avoid circularity, a proponent of the Weak Discernibility Proposal must accept that either weak discernibility facts or facts involving repetition as fundamental.

Payoff #2: It provides generality at minimal cost.

[36] The formatting and use of square brackets are mine.

[37] Strictly speaking, the facts do not involve repetition, rather, the strings that designate them do. The facts I am pointing to are the facts designated by strings that involve a repetition of an element designating an object within the scope of an element designating a predicate (under our usual interpretation of strings). For ease of expression, I will continue calling these facts, "facts involving repetition," despite this name being slightly misleading.

[38] One might disagree and argue that the Weak Discernibility Proposal makes our fundamental base more parsimonious by grounding identity facts in facts involving repetition. If so, then it is still the case that the Modal Proposal is preferable to the Weak Discernibility Proposal because proponents of the Modal Proposal can make our fundamental base more parsimonious by metaphysically explaining facts involving repetition. Thanks to an anonymous reviewer for raising this objection.

[39] I am inclined to believe that facts involving repetition are identical to facts involving identity. This is because I am inclined to believe that the strings "[~Raa]" and "[∃x ~Rax and a=x]", where "a" in both strings is a constant and "x" is a bound variable, are descriptively equivalent, and descriptively equivalent strings designate identical facts. See, Gallois (2005) for an argument that such strings are descriptively equivalent. For a discussion of descriptive equivalence and identity, see Correia (2020).

Not all explanations of identity and distinctness are general, and some are general at the cost of making controversial ontological commitments. In what follows, I argue that the Constitutive, Existence, and Quantitative proposals fail to be general or achieve generality at a significant cost. This discussion will also serve to demonstrate how the Modal Proposal handles problem cases of identity and distinctness involving facts, non-existent entities, and abstract objects.

Shumener's (2021) Constitutive Proposal is an explanatory account of identity and distinctness facts between objects. It states that if entities x and y are identical, it is because they are constituents of all the same facts, and if they are distinct, it is because there is some fact that one is a constituent of that the other is not. [40] This proposal is not general because it does not explain identity and distinctness between facts.[41]

According to the Modal Proposal, the identity or distinctness of facts is explained in the same way as the identity or distinctness of first-order entities. Facts are distinct when it is possible for them to be discernible, and identical otherwise. For instance, the facts [Shakespeare wrote Macbeth] and [an iron sphere exists] differ in many ways: only the former is a singular fact, only the latter involves an iron sphere, etc.

Singular facts involving indiscernibles, such as the facts [Castor is made of iron] and [Pollux is made of iron], do not differ in their pure qualitative properties at Black's World. However, it is possible for them to differ in their pure qualitative properties. For instance, consider the world W

[40] In addition to not having payoff #1, the Constitutive Proposal is circular. This is because the proposal explains distinctness by differences in impure properties involving the entities whose distinctness is under consideration. For instance, Shumener says that in the case of Black's World, "Castor is distinct from Pollux because Castor is a constituent of [Castor is 5 kg of mass] and Pollux is not a constituent of this fact." (2021, p. 1035) The property 'is a constituent of [Castor is 5 kg of mass]' is an impure property involving the spheres. As I argued in section II, differing with respect to such an impure property leads to circularity.

[41] Shumener herself is not subject to this objection because she gives a different explanation of identity and distinctness between facts, namely her Fact-Identity Proposal. I will discuss it below in payoff #3.

where only Castor exists. The facts [Castor is made of iron] and [Pollux is made of iron] are discernible at W because only [Castor is made of iron] involves an object that exists at W.

Rubenstein's (2023) Existence Proposal[42] and Shumener's (2020a) Quantitative Proposal achieve generality but only in conjunction with certain controversial ontological views on issues that seem independent of the metaphysics of identity.

The Existence Proposal states that identity and distinctness facts are explained by existence facts.[43] For example, the fact that Mark Twain is identical to Samuel Clemens is explained by the fact that Mark Twain exists. This proposal is a general explanatory account only if there are no singular facts about non-existent entities.[44] To see why, suppose that there are singular facts about non-existent entities, and one such fact is [a=a], where a is a non-existent object. The Existence Proposal cannot explain [a=a] since there is no existence fact involving a. To achieve generality, the Existence Proposal must thus claim that there are no singular facts about non-existing entities. However, the issue of whether there are singular facts about non-existing entities seems to be independent of what explains identity and distinctness facts. The fact that the Existence Proposal is committed to a view on this issue is a cost.[45]

[42] A. Burgess (2012) discusses but does not endorse the Existence Proposal. Epstein (2015) and Salmon (1987) seem to endorse the Existence Proposal, but do not give a sustained defense of it. We will focus on the most compelling presentation of the account from Rubenstein (2023).

[43] These are facts about actually existing objects, and not facts about objects that merely possibly exist. A version of the Existence Proposal that includes the latter may avoid the problem I raise here, but it cannot avoid the problems I raise in payoffs #4 and 5.

[44] According to Williamson (2013), there are no singular facts about non-existent objects, and according to Merricks (2015), there are. One might reject singular facts about non-existent entities because such facts would conflict with the Being Constraint, the principle that states that something can have a property or stand in some relation only if it exists. Dorr (2016, pp. 55-57) argues that the Being Constraint is false.

[45] Litland (forthcoming) makes a similar argument against the Existence Proposal.

On the other hand, the Modal Proposal is neutral about this issue. Suppose that there are singular facts about non-existent entities, and one such fact is [*a*=*a*], where *a* is a non-existent object. According to the Modal Proposal, the fact [*a*=*a*] is nonetheless explained by the fact [necessarily, *a* is indiscernible from *a*].

Shumener's (2020) Quantitative Proposal similarly achieves generality at the cost of making controversial commitments. The Quantitative Proposal states that necessarily, if some entity x is identical to some entity y, then this is because they stand in all their R-fundamental quantitative relations in virtue of their existence, and if x and y are distinct, this is because there is some R-fundamental quantitative relation that they fail to instantiate in virtue of their existence.[46] The R-fundamental quantitative relations are relations that a Relationalist, a proponent of the view that reality is fundamentally composed only of relations, takes to be fundamental. These are comparative relations, such as the relations 'more massive than' or 'same spin as.' [47]

The Quantitative Proposal is a general explanatory account only if it is combined with nominalism about abstract entities. This is because, as Shumener acknowledges, the Quantitative Proposal cannot explain the distinctness of abstract entities because the R-fundamental quantitative relations are physical relations and physical relations cannot be instantiated by abstract entities.[48]

[46] The term "quantitative" is not in contrast with "qualitative" in the sense that I have been using it. Indeed, many quantitative properties are pure qualitative properties, such as the property 'being 50 yards long.'

[47] Shumener, following Hartry Field (1980), claims that the totality of these comparative quantitative relations can explain facts about quantitative relations that involve numbers and units.

[48] Even if R-fundamental quantitative relations included relations instantiated by abstract objects, such as structural relations, the Quantitative Proposal would still face a problem. Mathematical objects stand in relations to one another necessarily. This makes it plausible that abstract objects stand in relations to one another in virtue of their existences. If this is so, then the Quantitative proposal would imply that all mathematical objects are identical.

However, the rejection of abstract entities is highly controversial. So, the Quantitative Proposal's generality comes at the cost of being committed to nominalism about abstract objects.[49]

In contrast, the Modal Proposal is consistent with the existence of abstract objects; it can explain identity and distinctness facts involving fictional entities, mathematical entities, etc. According to the Modal Proposal, these entities are distinct because they are possibly discernible. For instance, the numbers 1 and 2 are distinct because only the former is the first positive integer, and Hercule Poirot is distinct from Dr. Manhattan because only Poirot is a (fictional) detective.

One case of distinct abstract objects that seems to pose a problem for the Modal proposal is the complex numbers i and -i. These numbers occupy isomorphic positions in the underlying abstract mathematical structure, and thereby instantiate all the same structural properties and relations. Since they are mathematical entities, they instantiate these relations necessarily. If mathematical structuralism is true, meaning that numbers only instantiate structural properties and relations, then i and -i seem to be necessarily indiscernible.

However, there are plausible ways of differentiating i and -i according to their structural properties. For example, following Linnebo (2018, p. 25), we can define complex numbers as pairs of reals with operations of addition and multiplication. Doing so eliminates all non-trivial automorphisms between complex numbers, including i and -i. If we accept one such definition in terms of pairs of reals as privileged, then we can explain the distinctness of i and -i by differences in the structural properties or relations of their privileged definiens.

Of course, strategies like Linnebo's are controversial, so the Modal Proposal incurs some theoretical cost here. But notice how minor it is. If structuralism is true, then the Modal Proposal is

[49] A proponent of the Quantitative Proposal may avoid this problem by adopting a separate explanation of identity and distinctness facts involving abstract objects. This would, however, make the proposal less unified.

committed to there being *some* strategy like Linnebo's according to which i and -i are discernible, but no particular one.

Payoff #3: It gives uniform explanations.

The Modal Proposal's explanations are uniform, meaning all identity facts are explained in the same way and all distinctness facts are explained in the same way. It is desirable to have a uniform account because, plausibly, only a uniform account is "traceable to the nature of the identity relation itself." (Litland forthcoming, pg. 5)

An account may have payoffs #1 and #2 and fail to have this payoff. For instance, Shumener (2021) takes a disjunctive approach to explaining identity and distinctness facts. She proposes two explanatory accounts: the Constitutive Proposal, which, as described in payoff #2, concerns objects, and the Fact-Identity Proposal, which concerns facts. The Fact-Identity Proposal states that if facts F and G are identical, it is because they ground all the same facts and are grounded in all the same facts; and if facts F and G are distinct, it is because one grounds a fact that the other does not or one is grounded in a fact that the other is not. These proposals taken together have payoffs #1 and #2 because they explain all identity and distinctness facts without adding to our fundamental base or making a controversial theoretical commitment. However, Shumener does not unify these proposals. So, her approach to explaining identity and distinctness facts does not have payoff #3 because it is disjunctive. Therefore, her explanations do not seem traceable to the nature of the identity relation itself.

Payoff #4: It meets Della Rocca's challenge.

In "Two Spheres, Twenty Spheres, and the Identity of Indiscernibles," Michael Della Rocca raises a challenge to theories of identity that deny the Principle of the Identity of Indiscernibles. His challenge starts by having us consider the following:

> On my desk there is apparently one sphere. But in this case there is actually not just one sphere, but 20 indiscernible spheres in exactly the same place at the same time. They each have the same size, shape, weight, etc. In fact, they have all the same parts too. Let us stipulate that none of the spheres moves and that each exists for precisely the same period of time. (pp. 485-6)

Della Rocca challenges the opponents of the Principle of the Identity of Indiscernibles "to find a reason to differentiate Black's two-sphere world and my twenty-sphere case, a reason that shows that the former case can be legitimate even if the latter is not." (p. 486) By this, I take Della Rocca to be demanding a principled explanation of the metaphysical possibility of Black's World that can also explain the metaphysical impossibility of the 20-sphere case.

Della Rocca argues that a theory of identity that fails to meet this challenge must accept the impossibility of the 20-shere case as brute. This brute fact is problematic because it is an addition to our fundamental base and because the impossibility of the 20-sphere seems to call out for explanation given our acceptance of Black's World. Plausibly, an explanatory account that meets Della Rocca's challenge can also explain the possibility or impossibility of other controversial cases of distinct indiscernibles, thereby helping us avoid further additions to our fundamental base.

While I agree with Della Rocca that accepting the metaphysical impossibility of the 20-sphere case as brute is problematic, I disagree with his claim that if a theory of identity does not explain the metaphysical impossibility of the 20-sphere case, it must accept its impossibility as brute.

This is because a theory of identity might explain the metaphysical possibility of the 20-sphere case. Indeed, this is what we ought to do, if the twenty spheres are only contingently indiscernible.[50] I suggest that Della Rocca's 20-sphere case is under-described. He neglects to say whether the spheres in the case are necessarily indiscernible. He thus fails to include all the information relevant to determining the possibility or impossibility of the case.

We can complete his description in two ways: first by stipulating that the spheres are contingently indiscernible, and second by stipulating that they are necessarily indiscernible. If the spheres are contingently indiscernible from one another, then, like Black's World, the case is possible (at least by the lights of our general metaphysical explanation of identity).[51] This is a principled answer to the case, and one that avoids positing new fundamental facts. If it is necessary that twenty spheres are indiscernible from one another, then the 20-sphere case is impossible because it conflicts with our general metaphysical explanation of identity. Therefore, the Modal Proposal meets Della Rocca's challenge because it gives a principled explanation of the possibility of Black's World that can also explain the impossibility (or possibility) of the 20-sphere case.

Alternatively, Litland's (forthcoming) Null Proposal and Rubenstein's aforementioned Existence Proposal do not meet Della Rocca's challenge. According to the Null proposal, both identity facts and distinctness facts are null grounded, meaning that they are grounded but no fact is their grounds.[52] Both the Existence and Null proposals explain identity facts in the same way as they

[50] Thanks to an anonymous reviewer for encouraging me to clarify this.

[51] One might argue that the 20-sphere case is impossible whether the spheres are contingently or necessarily indiscernible. This is consistent with the Modal Proposal. It may be the case that one's theory of concrete objects rules out the possibility of twenty distinct indiscernible overlapping spheres. If so, then the 20-sphere case would be impossible for reasons independent of our theory of identity.

[52] Kit Fine (2012a) discusses null grounding. The Null Proposal is discussed, but not endorsed, in Fine (2016) and Shumener (2020b).

explain distinctness facts.[53] Neither proposal can differentiate Black's World from the 20-sphere case. So, they do not meet Della Rocca's challenge.

Payoff #5: It logically entails the Indiscernibility of Identicals

Every general explanatory account of identity and distinctness ought to logically entail Leibniz's Indiscernibility of Identicals, which states that, necessarily, for all entities x and y, if x is identical to y, then x and y are indiscernible.[54]

The Modal Proposal logically entails the Indiscernibility of Identicals.[55] Indeed, it logically entails a stronger principle: that, necessarily, for all entities x and y, if x is identical to y, then, *necessarily*, x and y are indiscernible.

In contrast, neither the Null Proposal nor the Existence Proposal logically entails the Indiscernibility of Identicals. This is because there is no logical connection between their explanans of identity – that is, the null ground and existence facts, respectively – and indiscernibility.

Additionally, the Quantitative Proposal does not logically entail the Indiscernibility of Identicals. To see why, consider the following case:

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[53] One might argue that we can differentiate the Existence Proposal's explanation of identity from its explanation of distinctness by how many atomic facts are involved in the explanation. On this view, explanations of identity facts, e.g. [a=b], involve only one atomic fact, e.g. [a exists] (or [b exists]), while the explanations distinctness fact, e.g. [$a \neq b$], involve two atomic facts, e.g. [a exists] and [b exists]. However, if a proponent of the Existence Proposal gives this response, then he faces a dilemma. Either he accepts identity and distinctness between facts as fundamental, in which case he gives up payoff #1, or he accepts an additional proposal that explains identity and distinctness between facts, in which case he gives up payoff #3.

[54] In his *Introduction to Logic*, Tarski says, "Among the logical laws concerning the concept of identity the most fundamental is [the Indiscernibility of Identicals]." (p.55) Many other philosophers similarly claim that the Indiscernibility of Identicals is central to the notion of identity, e.g., Noonan & Curtis (2022).

[55] If we treat grounding as a logical connective, as Fine (2012b) does, and assume that grounding is factive, meaning that if [A] grounds [B], then both [A] and [B] obtain, then the Indiscernibility of Identicals follows from the Modal Proposal using second-order modal logic.

> Consider a world that contains sphere *a* and sphere *b*, and nothing else. Sphere *a* and sphere *b* are at a distance from one another and indiscernible in every way, except that one is larger than the other. Additionally, these spheres are ontologically dependent on one another such that one cannot exist without the other existing, and their natures are intertwined such that they stand in the same R-fundamental quantitative relations to one another in every world where they exist. This includes the 'larger than' relation, in which the larger sphere always stands in to the smaller sphere.

According to the Quantitative Proposal, *a* and *b* are identical because they stand in every R-fundamental quantitative relation to one another in virtue of their existence. However, *a* and *b* are discernible since one is larger than the other. So, the Quantitative Proposal is logically consistent with a case of something that is discernible from itself. Therefore, the Quantitative Proposal does not logically entail the Indiscernibility of Identicals.

A proponent of the Quantitative Proposal may respond by arguing that this case is metaphysically impossible. This may be true but nonetheless the case is still logically consistent with the Quantitative Proposal. So, it demonstrates that the proposal does not logically entail the Indiscernibility of Identicals and, thereby, that it does not have payoff #5.

Payoff #6: It improves our understanding of identity and distinctness.

There is an explanatory itch that we want our theory of identity and distinctness to scratch. We want a theory that dispels wonder about problem cases such as Black's World and improves our

understanding of identity and distinctness in general.[56] Unlike the other payoffs, this payoff is epistemic.[57]

The Modal Proposal is an illuminating account of identity and distinctness. The explanations it gives of particular identity and distinctness facts are highly intuitive, even in problem cases like Black's World and the 20-sphere case. Additionally, it tells us how identity and distinctness facts emerge from facts we already accept. Surprisingly, these facts are modal facts. This means that identity and distinctness are, in an important sense, modal phenomena. Moreover, it tells us why the Leibnizian Proposal seemed like such a promising proposal to start. The Leibnizian Proposal is right that explanations of identity and distinctness involve indiscernibility and discernibility. What the Leibnizian Proposal misses is the modal dimension.

The Modal Proposal improves our understanding of identity and distinctness more than the Existence Proposal, Null Proposal, and Quantitative Proposal. Each of these proposals' metaphysical shortcomings amount to epistemic shortcomings. The Existence Proposal and Null Proposal do not dispel wonder about problem cases since their explanations of identity are the same as their explanations of distinctness. They cannot give us answers to contrastive why questions such as "Why are these objects distinct rather than identical?" The Quantitative Proposal, on the other hand, does not give a general explanation of identity and distinctness, so the understanding we get from it is incomplete.

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[56] This desideratum does not come from the demands for being a metaphysical explanation, as metaphysical explanations needn't be informative. Rather, it comes from the problems and questions one confronts when theorizing about identity specifically. Thanks to an anonymous reviewer for encouraging me to clarify this.

[57] This payoff is especially beneficial given certain meta-metaphysical views that emphasize understanding, such as LA Paul (2012).

One might think that the Weak Discernibility Proposal does better. But it is uninformative if it is fundamental that certain relations are weakly discerning. Compare the Weak Discernibility Proposal with a proposal that says that if entities x and y are distinct, it is because they instantiate either the relation R_1, or R_2, or R_3… or R_n. According to this proposal, there is nothing that unifies R_1, R_2, R_3…R_n. Rather, it is a brute fact that each of these relations explains distinctness facts and nothing else does. Suppose that these relations are all and only weakly discerning relations. The difference between this proposal and the Weak Discernibility Proposal would be whether the fact that these relations are weakly discerning is relevant to an explanation of distinctness.

It seems as though the Weak Discernibility Proposal ought to be more informative than a proposal involving a list of brute explanations of distinctness. However, if it is fundamental that certain relations are weakly discerning and others are not, then the fact that a relation is weakly discerning is no more informative than the fact that it is one of these brute explanations. This is because the fact that certain relations are weakly discerning would itself be brute.

The onus is on proponents of the Weak Discernibility Proposal to convince us that it improves our understanding of identity and distinctness in general. It could do so by making explicit what distinctive understanding we gain about identity and distinctness even if it is fundamental that certain relations are weakly discerning. Or it could do so by giving an informative explanation of what makes certain facts weakly discerning and others not. Until then, the Weak Discernibility Proposal fails to improve our understanding of identity and distinctness facts in general.

Summary

I have highlighted six payoffs of the Modal Proposal and, in doing so, argued that it is preferable to all the extant accounts. To summarize, let's look at how the Modal Proposal matches up against each:

The Modal Proposal is preferrable to the Leibnizian Proposal (with Goodman's defense of the PII) due to payoff 1.

The Modal Proposal is preferrable to the Weak Discernibility Proposal due to payoffs 1 and 6.

The Modal Proposal is preferrable to the Constitutive & Fact-Identity Proposal due to payoffs 2 and 3.

The Modal Proposal is preferrable to the Quantitative Proposal due to payoffs 2, 5, and 6.

The Modal Proposal is preferrable to the Null Proposal due to payoffs 4, 5, and 6.

The Modal Proposal is preferrable to the Existence Proposal due to payoffs 4, 5, and 6.

This section did not give an exhaustive list of payoffs that an explanatory account of identity might provide. However, the above payoffs demonstrate the most important virtues a theory of identity might have, such as explanatory power, neutrality, theoretical usefulness, and conservativeness. If there are other payoffs that the Modal Proposal does not provide, I predict that it will nonetheless come out on top, all things considered, because it provides these important payoffs.

VI: Competing Considerations

Naturally, at this stage, one might wonder what reasons count in favor of others' proposals that do not count in favor of mine. There are two such reasons that we will consider before we conclude.

The first starts with the intuition that identity and distinctness facts come easily without involving much metaphysical machinery. Brian Epstein (2015) expresses this intuition when he says that "it does not take much to ground the fact that x=x." (Ch. 12, fn. 12)[58] This intuition counts most in favor of the Existence Proposal and Null Proposal since their grounds of identity and

[58] This intuition is also expressed by Lewis (1986, p. 192-3) and Salmon (1987, p. 517).

distinctness facts have minimal content. In comparison, the Modal Proposal employs more metaphysical machinery with its use of modality and indiscernibility.

I agree that this is a cost of the Modal Proposal. However, I think this cost is worth paying. Like many philosophical concepts, identity may at first seem simple and unproblematic, but scrutiny reveals complexity. In the case of identity, our investigation has revealed intuitions about identity's explanatory connection to necessary indiscernibility and that certain theoretical benefits come from taking the latter to explain the former. These theoretical benefits justify a more metaphysically complex account of identity.

Second, Rubenstein (2023) argues that we should accept the Existence Proposal because it follows "from a general connection between essence and ground." (p. 12) Rubenstein presents an account of essential properties that states that, for every object *o*, if *o* has some property *P* essentially, then the fact that *o* exists grounds the fact that *o* has *P*. Given this conception of essential properties, the Existence Proposal quickly follows. Since every object is essentially self-identical, the fact that an object is self-identical is grounded in its existence. Similarly, it is essential to every plurality of objects that they are distinct. So, the fact that those objects exist grounds the fact that they are distinct.

The Modal Proposal does not follow from a general connection between essences and ground. However, I see this as counting in favor of the proposal. This is because I believe that there is a common core understanding of identity and distinctness that can be appreciated by metaphysicians of many different stripes, including those who do not accept essences. This common core is what the Modal Proposal offers. Only a theory that is neutral on many controversial substantive issues, such as the connection between essence and grounding, could offer such an understanding. For this reason, the Modal Proposal's neutrality is one of its most attractive features.

Those persuaded by Rubenstein's theory-specific understanding of identity should still accept the Modal Proposal. The two proposals are compatible, and the Modal Proposal covers what the Existence Proposal lacks. As Rubenstein acknowledges, the Existence Proposal does not "scratch the explanatory itch we started with." (2023, p. 21) The Modal Proposal scratches this itch.

One might then consider accepting a combined proposal in which identity facts are directly explained by necessary indiscernibility facts and also directly explained by existence facts. This Combined Proposal would have the epistemic benefits of the Modal Proposal while also capturing the idea that the grounds of identity and distinctness follows from a connection between essence and ground. On this proposal, identity and distinctness facts would be overdetermined because they are directly explained twice over, but this would be harmless because there is a grounding connection between its direct explanations. Plausibly, for every object, there is something that it is essentially indiscernible from (namely, itself). It follows from Rubenstein's view that, for each object, the fact that said object exists explains the fact that it is indiscernible from itself.

Conclusion

In this paper, I have presented and defended the Modal Proposal, a general explanatory account of identity and distinctness facts. It states that identity facts are metaphysically explained by facts about necessary indiscernibility, and that distinctness facts are metaphysically explained by facts about possible discernibility.

The primary reason to accept the Modal Proposal is that it has more payoffs at less cost than any of the extant accounts in the literature. I presented six payoffs, each of which is itself a reason to accept the proposal: (1) It offers a more parsimonious fundamental base, (2) It provides generality at minimal cost., (3) It gives uniform explanations, (4) It meets Della Rocca's challenge, (5) It logically

entails the Indiscernibility of Identicals, (6) It improves our understanding of identity and distinctness. Additionally, the Modal Proposal is flexible enough to be combined with many theories of fundamental reality and even with other explanatory theories of identity and distinctness. The Modal Proposal also has payoffs that philosophers of specific stripes will find attractive. For example, it entails the necessity of identity.

The Modal Proposal strikes a balance between being conservative and consequential. With its epistemically simple and metaphysically uniform explanations, it conserves longstanding philosophical insights about identity that go back to Leibniz. It does this while making our fundamental base more parsimonious, determining whether controversial cases of identity or distinctness are possible or impossible, and expanding our understanding of these central philosophical relations.

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