

**GAPPY PROPOSITIONS AND THE NATURE OF RIGIDITY**

**BY**

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**Table of Contents:****Abstract** – Page 2**Introduction** – Page 3**Chapter One: The Old Case for Obstinate Rigidity** – Page 6**Chapter Two: Introducing the Gappy Proposition View** – Page 21**Chapter Three: The New Case for Persistent Rigidity** – Page 30**Conclusion** – Page 40**Bibliography** – Page 41**Abstract:**

During the 1980s, there was much debate as to whether the potential rigidity of names allowed for such terms to refer to their objects in worlds where that object did not exist. Those who supported this idea supported an obstinate account of rigidity, and those who rejected the idea supported an account of persistent rigidity. No clear conclusion was ever reached between the two sides. In this thesis, I will raise a novel argument in support of persistent rigidity using a modern theory about singular propositions known as the gappy proposition view. My conclusion is that such a view can help resolve the earlier debate about the nature of rigidity by showing how gappy propositions may be utilised to undermine the strongest arguments once raised by the obstinate rigidity theorists.

## Introduction

First there was descriptivism. Descriptivism was the semantic account of proper names in which it was suggested the meaning of a name is an abbreviated set of descriptive statements that uniquely captures the object to which the name refers. Saul Kripke undermined this theory of the meaning of proper names by defending the direct reference theory instead. His defence involved an articulation of an alternative view of reference (i.e., the 'causal-historical' theory) along with some arguments against descriptivism (i.e., the modal argument, the argument from ignorance and error, and the semantic argument).<sup>1</sup> On a Kripkean account of names, the meaning of a name is just the object to which the name refers. A consequence of the direct reference account of names is that names must then be understood as being rigid designators, which means they are terms that refer to the same object in every possible world and never designate any other object. Although most philosophers adopted Kripke's ideas, there was some ambiguity as to whether a name should be understood as referring to the same object in literally every possible world, or only in those worlds in which the object exists. Those in the first camp support an **obstinate** account of rigidity, and those in the latter support a **persistent** account of rigidity. In an area of semantics independent from these questions, a new account for conceptualising propositions about non-existent objects sometimes known as the gappy proposition view has gained significant traction. The overarching purpose of this thesis is to introduce the gappy proposition view into the debate between obstinate and persistent rigidity theorists in order to produce a novel argument about the real nature of rigid designators. I will conclude that although obstinate rigidity was the more popular account when the debate was live, persistent rigidity better reflects our intuitions once a theory of gappy propositions is articulated.

John Stuart Mill is credited as the first to formalise the idea that the meaning of a proper name as it occurs in natural language is simply the object to which it refers.<sup>2</sup> Some concepts should be spelled out in detail to clarify the nature of this concept. The term 'meaning' is connected to the concept that a declarative sentence containing a name expresses a singular proposition which is determined by the semantic content of each term contained in that sentence.<sup>3</sup> The 'meaning' of names should thus be seen as equivalent to the 'semantic content' a term in a natural sentence would contribute to a singular proposition. Thus, the theory of direct reference more precisely is that the contribution a proper name makes to the proposition arising from when that name occurs in a declarative sentence is just the object to which the name refers.

Direct denotation between a term and a material object is not exclusive to names. Logical constants in an ideal/logical language are directly assigned to singular objects when evaluated in context. This fixes the variable such that "free variables can be used as rigid designators of unspecified objects."<sup>4</sup> Constants or variables are considered rigid designators in virtue of the fact that they are intended to represent one particular object from a given context. There is as of yet no similar consensus about whether names operate in the same way.

Thus, the primary phenomenon of interest in this investigation is the semantic behaviour of names, and in particular how they behave or how we appreciate them to behave in modal contexts. Often, philosophers evaluate the strength of a semantic account by taking everyday or obscure sentences and our gut intuitions about the truth of these sentences, then assessing how well the account can

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<sup>1</sup>Kripke, Saul A. (1980). *Naming and Necessity*. Harvard University Press.

<sup>2</sup>Mill, John Stuart (1884). *A System of Logic*. Longman.

<sup>3</sup>Spencer, Joshua (2016). The problem of empty names and Russellian Plenitude. *Canadian Journal of Philosophy* 46 (3):1-18, p18

<sup>4</sup>Kripke (1980), p49, n16

represent these intuitions in a formal manner. For example, Kripke was able to effectively dethrone Bertrand Russell's descriptivist account of proper names by demonstrating that a direct reference account could technically represent the truth of a contingent predicative sentence such as 'Aristotle might never have been a philosopher', whereas descriptivism apparently could not.<sup>5</sup> Examining how the various semantic accounts handle test sentences and intuitions will thus be my primary method of analysis in this thesis.

Considerations on these lines led to pushback against the direct reference account of names due to cases involving empty (sometimes 'vacuous') names. On a direct reference account, the meaning of a name is the object to which the name refers. Empty names are terms that appear to possess no referent in a specific world, such as the names of fictional entities, or merely possible entities. As such, there appears to be a tension between direct reference theories and the prevalence of empty names occurring in statements in natural discourse.<sup>6</sup> It should follow that empty names would be meaningless if we adopt a direct reference account of names (because an empty name is connected to no object, but the meaning of a name on a DR account just is the object), yet often when we use such empty names, they do not seem to be treated this way at all; we use empty names frequently in reality and seem to understand each other just fine. For example, neither of the two sentences 'Sherlock Holmes is a detective' or 'Santa Claus does not exist' seem to be at all meaningless. We can also typically distinguish between the sentences 'Pegasus is a winged horse' and 'Santa Claus is a winged horse' in spite of the apparent consequence that as the two names both have no meaning to contribute to a proposition, the two sentences should express the exact same proposition (if any). Full endorsement of the direct reference theory thus requires an explanation of these cases, which was the motivation both for the obstinate versus persistent rigidity debate, and the development of the gappy proposition view, albeit at different times.

A bit of historical context may help clarify the purpose of this investigation. The debates about the correct account of rigidity (obstinate vs persistent) were most active during the 1980s, and largely revolved around the problem of empty names.<sup>7</sup> One of the key justifications which lead to most philosophers supporting obstinate rigidity over persistent rigidity was that the former seemed a lot more readily capable of remedying this problem. However, it wasn't until the 1990s that the gappy proposition view became prominent as a way of explaining how direct reference accounts could handle empty names.<sup>8</sup> Given that the two strands of semantic theories both purport to address closely related problems, connecting the two threads of the literature will help develop both and potentially resolve the earlier debate.

My thesis will be divided into three chapters. The first chapter will review the arguments in support of obstinate rigidity. Although the main argument for obstinate rigidity was founded on the notion that it was more capable of capturing intuitions about the meaning and truth value of statements about an actual individual (@) in worlds in which @ does not exist, there are other arguments that may also be worth reviewing from the vantage point of more modern semantics. In this chapter I'll present each of these arguments and consider how the persistent rigidity theorist would have to respond to them to deflect the force of each argument. This will set the scene for my later analysis of the nature of rigidity that incorporates the gappy proposition view.

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<sup>5</sup>Kripke (1980)

<sup>6</sup>Kripke, Saul A. (2013). Reference and Existence. The John Locke Lectures. Oxford University Press, p5

<sup>7</sup> Brock, Stuart (2004). The Ubiquitous Problem of Empty Names. *Journal of Philosophy* 101 (6):277 - 298.

<sup>8</sup> Braun, David (1993). Empty names. *Noûs* 27 (4):449-469.

The second chapter will introduce and flesh out the gappy proposition view. In a nutshell, this view proposes to address the problem of empty names for a direct reference account through the claim that empty names that occur in declarative sentences result in semantic gaps in the otherwise singular proposition it picks out. This claim arguably leads to an array of its own problems. As such, this chapter will involve an analysis of these problem cases with the intent of making the gappy proposition view sound as compelling as I can make it (although the main argument of this thesis does not depend on an endorsement of the account).

It's the third and final chapter that will realise the main thrust of this thesis. Here I'll be seeking to retrospectively integrate the gappy proposition view into the debate about obstinate rigidity and persistent rigidity. This will entail a review of old arguments for persistent rigidity, in addition to those for obstinate rigidity from the first chapter, now utilising the gappy proposition view to help clarify or develop those analyses. Beyond this review, I'll be arguing that an endorsement of the gappy proposition view effectively demands a rejection of obstinate rigidity.

Before proceeding with the investigation, I'll note a couple of general details about the thesis. It is not my intention to absolutely settle the debate between obstinate and persistent rigidity, nor is it to develop a bulletproof account of proper names from direct reference and gappy propositions. The main goal is to explore an application of the gappy proposition view to the rigidity account debates. My main claim is thus conditional: *if* one endorses the gappy proposition view, one must also reject the obstinate rigidity account. I hope the exercise helps to refine some of our semantic notions too.

## Chapter One: The Old Case for Obstinate Rigidity

Most philosophers who supported the theory of direct reference also supported obstinate rigidity.<sup>9</sup> I speak in the past tense because these days the division between obstinate and persistent rigidity is not really discussed as much. Nonetheless, when the debate was live, most philosophers who held that the meaning of a proper name was nothing over and above the object to which the name referred also held that names rigidly designated their referents in all possible worlds, regardless of whether the object existed there or not. There were compelling arguments to support this view, but nonetheless, I believe they were flawed. In this chapter, however, I'll present and re-evaluate what I have gathered to be the four main arguments that supported obstinate rigidity. By the end, the finer points of the debates between the obstinate rigidity theorists and the persistent rigidity theorists should become much clearer.

Let us expressly define the two opposing concepts, paraphrasing the literature:

(OR) Obstinate rigidity: A term is obstinately rigid if it refers to the same object in all possible worlds, regardless of whether or not the object exists there, and never refers to any other object.

(PR) Persistent rigidity: A term is persistently rigid if it refers to the same object in all possible worlds in which that object exists, never refers to any other object, and does not refer to anything in worlds where the object does not exist.<sup>10</sup>

It might be useful to unpack these definitions a bit further. Rigid designators are called rigid because they only ever refer to one object. Contrast this to a flexible designator, such as certain descriptions, which may in one circumstance identify one particular object, and in another circumstance identify a different object.<sup>11</sup> For example, the phrase 'the current president of the United States of America' will pick out Barack Obama if evaluated in the year 2016, but in the year 2006 the phrase would pick out George Bush. In the event that the USA were to collapse, the term may even fail to pick out anyone at all. On the other hand, the name 'Barack Obama' (which is a rigid designator) will always refer to Barack Obama if and when it refers at all. Rigid designators will thus only ever refer to one unique object at most.

Names are considered to be rigid designators, on the direct reference theory, as stated earlier. This is because each unique name is directly associated with one unique object.<sup>12</sup> As the name can then only refer to the object it was stipulated to name, it cannot ever pick out any other object and so must be a rigid designator. A similar form of logic that applies to indexicals and demonstratives may thus apply to names.<sup>13</sup> An indexical (such as 'here', 'you', 'now', etc) or demonstrative (such as 'this', 'that', 'these' etc) will only refer to one object when used in a particular context, which will be the object to which the term actually refers in that particular instance. If I say "that table over there", I am talking about a specific table, rather than any table that might have fit the description of being 'over there' at the time of utterance. Likewise, a name will always refer to the same object (perhaps only if it refers at all) after we have associated the name to that object in a particular instance.

As the above definitions show, the locus of disagreement between the persistency theorist and the obstinacy theorist covers the situations where we are attempting to refer to an object by name in a world where that object does not exist. Obstinate theorists maintain that a name can still refer to an

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<sup>9</sup>Brock (2004), pp284-285

<sup>10</sup> Salmon, Nathan U. (1981). *Reference and Essence* (Princeton) pp33-34

<sup>11</sup>McGinn, Colin (1982). Rigid designation and semantic value. *Philosophical Quarterly* 32 (127):97-115. p98

<sup>12</sup>Kripke (1980), pp91-96

<sup>13</sup> Ibid, p164

object in such circumstances, whereas the persistency theorist denies this, and would instead argue that a name used in such contexts would have no referent.<sup>14</sup> Imagine a world in which Aristotle had never been born: when we use the name 'Aristotle' in this context, the OR theorist argues that the name still refers to the individual known to us as 'Aristotle' even in that Aristotle-less world, whereas the PR theorist argues that our use of the name refers to nothing at all in that world. Deciding who is more likely to be in the right here constitutes the key purpose of this investigation.

Confusion may arise here if the definitions are misinterpreted. We are not concerned about whether or not the names of non-existent objects refer to the individual or object we have in mind *as spoken within the language of a native denizen of one of these other possible worlds*. David Kaplan (who first proposed the concept of obstinate rigidity) sums up this point as "it is our terms and formulas whose denotation and truth value are being assessed with respect to the possible world in question".<sup>15</sup> We can take as granted that denizens of a world where Aristotle never existed will not successfully refer to anyone if they use the term 'Aristotle' when it is manifest from within their own language. We should also be disinterested in cases where a syntactic duplicate of the name 'Aristotle' is used to refer to someone or something other than the Aristotle from our world; this would be an irrelevant case of cross-world homonyms.<sup>16</sup> Putting these misinterpretations to one side, our focus is going to be on whether or not the name 'Aristotle' *as used by actual world English speakers* will still refer to the same object *in a world in which Aristotle never existed*.

From surveying the literature, I have identified four typical arguments raised by obstinate rigidity theorists to support their position. The first is the most popular and involves the claim that obstinate rigidity is able to accommodate contingency statements about an object and/or related statements about that object's non-existence in modal contexts, whereas persistent rigidity cannot. The second draws on an analogy between temporal contexts and modal contexts in order to show that temporal obstinacy sets the precedent for modal obstinacy. The third suggests that it can be demonstrated that the key distinction between names and definite descriptions is that names are obstinately rigid whilst descriptions can only be persistently rigid at most. And the fourth analyses the fundamental semantic difference between names and definite descriptions, which is presented as a matter of unmediated referentiality against a satisfaction relation, and argues that the nature of names must naturally entail their obstinate rigidity. Each of the four arguments will be considered in turn within this chapter, along with a consideration of possible responses persistent rigidity theorists might be able to make, but I will conclude for each that none of the arguments or defences amount to a complete knockdown of the opposing side at this stage.

### ***Argument for Obstinate Rigidity from Contingency and Negative Existentials***

The argument from contingency is perhaps the primary source of motivation for supporting a theory of obstinate rigidity over persistent rigidity. It stems from a response to the problem of contingency and negative existential statements for direct reference theorists.<sup>17</sup> I'll briefly outline this dilemma now before explaining how the obstinate rigidity theorist has used it as a platform to support their account of rigidity.

Most philosophers are likely to agree that many individuals do not have a necessary existence, but a contingent one. In other words, the world might have been such that it did not include me, or you,

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<sup>14</sup>Carter, W. R. (1983). On obstinate and persistent designators. *Philosophical Studies* 43 (3):415 – 421. p416

<sup>15</sup> Kaplan, David (1973). Bob and Carol and Ted and Alice. In Jaakko Hintikka (ed.), *Approaches to Natural Language*. D. Reidel Publishing. pp. 490—518. p505

<sup>16</sup>Kripke (1980), pp7-8

<sup>17</sup> Smith, A. D. (1987). Semantical considerations on rigid designation. *Mind* 96 (381):83-92. pp86-88; Brock (2004), pp284-285

or Aristotle, or any particular person. If we agree, we should thus consider the proposition expressed by the following sentence to be true:

(1) Aristotle might not have existed.

We should hold the proposition to be true insofar as we can't rule out the possibility that Aristotle's parents might never have met, or that a severe earthquake might have decimated the whole region of Greece in the year 500 BC, or any other set of events entailing that Aristotle was never born. Perhaps one might wish to defend some metaphysical or ontological thesis that endows the status of necessary existence to everything that does exist, in which case this argument would be irrelevant. But let us presume that most of us do support the notion of contingency.

What would it take to make proposition (1) true? Nothing extraordinary, all we need to be able to imagine is one possible world (or timeline) in which the person we know as 'Aristotle' is never born. Several have already been given just now. These scenarios entail that (1) is true as we should think that the following sentence will express a true proposition in these worlds:<sup>18</sup>

(2) Aristotle does not exist.

(1) should therefore be true if we can imagine a single possible world in which (2) is true, as we can. At least, this is what our intuitions tend to incline us to believe. However, the task of semantics is to demonstrate how our intuitions can be formally represented. This is where it may be argued that a direct reference account starts to encounter difficulties.

The problem can be summed up as follows: on a theory of direct reference, the meaning of a proper name is considered to be the object to which the name refers, but if this is true, a name that refers to no object has no meaning. Recall that 'meaning' here is equivalent to the semantic content that the name contributes to the singular proposition a sentence expresses, so a meaningless term seems unable to contribute any such semantic content. As a result, when we have a sentence that contains an empty name, we have a sentence that seems to be trying to associate predicates with nothing at all, which is in itself contrary to how we interpret it in natural discourse (such sentences seem to be about something in particular, not nothing), and leads to further problems with assigning an intuitive truth value to the proposition it seems to express.

First of all, it is not even clear that the sentence in (2) would express any proposition at all. It has been argued that "a sentence expresses a proposition only if each of its parts has some meaning."<sup>19</sup> This would imply that sentences containing empty names fail to express propositions. Yet this doesn't seem to be the case at all; such sentences seem to clearly express propositions about a specific object.

A further problem is that even if you consider these sentences to express propositions, it would still be unclear what truth value could be assigned to them. Perhaps they would be considered false, or perhaps we should refrain from giving them either a true value or a false value. There are advocates for both of these views.<sup>20</sup> You are unlikely to find, however, philosophers who will grant that such propositions can be true. A true proposition should reflect a real state of affairs.<sup>21</sup> Yet meaningless terms reflect nothing, let alone something real, according to the direct reference theory.

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<sup>18</sup> Ibid.

<sup>19</sup> Brock (2004), pg281

<sup>20</sup> Braun (1993) would consider them false; Nathan Salmon considers them neither true nor false in Salmon, Nathan (1998). *Nonexistence*. *Noûs* 32 (3):277-319;

<sup>21</sup> Plumer (1989), p521



From the above, it would appear (2) cannot become a proposition to which we can ascribe a positive truth value on a straightforward application of the direct reference theory. Thus, it would seem that (2) can never be true on such an account. Either there will be no proposition expressed in Aristotle-less worlds, or it will express a false proposition in worlds that do contain Aristotle. Most people would think that (2) is true in an Aristotle-less world, and to the extent we have this intuition, this marks a problem for any semantic theory that can't give (2) a positive truth value, such as the DRT.

Even if we could ignore cases such as (2), there remains a worse problem: our failure to grant that (2) is ever true implies that (1) can't be true either, as in order for (1) to be true, we require at least one world where (2) is true. The suggestion that we are unable to consider (2) to be formally true because we are unable to discuss non-existing objects won't excuse us from a failure to grant that (1) is true, as (1) is in regards to an object that does exist. Furthermore, if (1) can never be true, not only has our semantics failed to match our intuitions, but it implies Aristotle is a necessary fixture in all possible worlds (because it can never be true that 'Aristotle might not have existed'). This would be a flattering compliment to make of Aristotle, but it is a significant defect in a semantic theory.

Here is where the notion of obstinate rigidity can be introduced. None of the above is a problem if you accept the doctrine that names can refer to objects in worlds where they don't exist. Such an account would maintain that the term 'Aristotle' is not meaningless in a world where Aristotle does not exist because the term continues to refer to the Aristotle from the actual world and we can use this referent to build a meaningful proposition. It will just so happen that the referent will not exist in the world where we evaluate that proposition. This allows the OR theorist to meaningfully assert proposition (2) and successfully give it a positive truth value in worlds where Aristotle doesn't exist. Equipped with a world in which (2) is true, the OR theorist can therefore grant that (1) is true too, and thereby do justice to our intuition that the world could have existed without Aristotle. Meanwhile, the PR theorist is argued to be unable to solve the above problem.<sup>22</sup>

Brendan Murday gives a slightly different version of the above argument (although he does not endorse it as being sound).<sup>23</sup> In this version, the difficulty for persistency theorists is not that the term 'Aristotle' is meaningless, but that the term has no extension at a world without Aristotle. If a term lacks extension, we seem unable to associate properties with that term, as there are no objects to express or lack such properties. Once again, the result is that PR theorists seem unable to give a positive truth value to the proposition that 'Aristotle does not exist', whilst OR theorists seem to be free from this dilemma, as they retain the original referent of 'Aristotle' to bear or deny properties, and thus can attribute non-existence to Aristotle in the relevant worlds, when existence is treated as either restricted quantification or predication to an object evaluated at a world.

In either version of the argument, the result is more-or-less the same: obstinate rigidity allows us to make true contingency statements about an individual's possible lack of existence in other worlds, whilst persistent rigidity struggles to establish these same generally-accepted truths. Thus, to the extent we have the intuitions that (1) and (2) express true propositions, we should also be motivated to support an account of obstinate rigidity over a persistency account. As these are strong intuitions, this may indeed be a powerful argument.

There are at least two branches of discussion worth considering before granting such a conclusion, on the other hand. One is whether or not the PR theorist might really have a way of accommodating contingency statements in spite of the surface contradictions outlined above. Another is challenging

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<sup>22</sup> Smith (1987), p86

<sup>23</sup>Murday, Brendan (2013). Names and Obstinate Rigidity. *Southern Journal of Philosophy* 51 (2):224-242. p13

precisely *how* a name on an OR account continues to refer to an object in a world where that object doesn't exist (i.e. challenge whether this account is consistent with our other semantic intuitions). Either of these paths could deflect the force of this argument. We will focus on the first branch at this stage, and more closely scrutinise the proposed mechanics of reference by the OR theorist in later sections. I do not believe that the model we are about to consider successfully helps the PR theorist's position, but it is worth analysing to help refine the scope of our investigation.

Let us then consider the possibility of a framework within which persistent rigidity might be able to support contingency and negative existential statements. After all, if this much can be shown, the motivation to accept obstinate rigidity and reject persistent rigidity will be gone. Although the direct reference theory does hold that the meaning of a name is just the referent of a name, there is more than one way to interpret this stipulation. Murday, writing in support of persistent rigidity, argues that we should make a clear distinction between the extension of a name and its content, where the two correspond to different elements of a name's meaning.<sup>24</sup> There is first the 'content', which is the semantic contribution a name makes to a proposition, derived from the original object to which the name was assigned, and the 'extension', which is constituted by the object or set of objects to which the name would refer at a given context. Further to this, it is claimed that a name can contain content from one world without necessarily being granted an extension at a different world, when there are no objects in that world that correspond to that content. Additionally, it is argued that a name will only 'refer' if it has some extension at a given context. The result from all these features is that we can talk about an object that doesn't exist at a world without 'referring' to it, on this model.

Considerations from the above put us in a position where the meaning of a name can be understood as both the physical referent of a name (which generated the content), but also as an abstract tool that can be used to identify the referent in different contexts. Armed with a framework such as this, contingency statements and negative existential statements might become more easily managed for a direct reference theorist without recourse to obstinate rigidity. We can generate the content of a name at the native domain of the object we're interested in and then transpose that content to a domain where the object doesn't natively exist. As the content of the name won't correspond to any extension in that domain, we can truthfully say 'X does not exist' in that world. Our use of the name 'X' here does not 'refer' to X because there is no X present to constitute any extension of 'X', but it remains nonetheless meaningful because we imported the name's content from a world in which X does exist. Thus, we may have a semantic model where persistent rigidity might accommodate negative existentials and related contingency statements.

In appreciating that a name may be argued to have content without extension, we can more finely distinguish persistent rigidity from obstinate rigidity. A persistent rigidity theorist would argue that a name can have meaningful content but no extension in worlds where the object that generated the content does not exist. An obstinate rigidity theorist would argue that a name with content in one world will then acquire extension in all worlds (if it's fair to translate their position into the language used by Murday). Such a position seems implied by David Kaplan, according to Murday, who claims that on his OR account we are able to "evaluate contents that may have no native existence at the circumstances but can be expressed elsewhere and carried in for evaluation".<sup>25</sup> It is this 'carrying in' metaphor that Murday takes as the cue for conceptualising the OR position as granting extension of a name to all worlds if it has extension in just one. Both of these accounts purport to be capable of handling the problem of empty names in contingency statements.

Murday argues that the idea of building semantic constituents into propositions before searching for

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<sup>24</sup>Ibid., pg5

<sup>25</sup>Kaplan, David (1989). Afterthoughts. In J. Almog, J. Perry & H. Wettstein (eds.), *Themes From Kaplan*. Oxford University Press. pp. 565-614. p569

extensions in other worlds is “needlessly revolutionary”.<sup>26</sup> He maintains that this is a reversal of how we treat other lexical items, where we generate the content first at a context-of-utterance, and then search for extensions in other contexts. If it’s true that the obstinate rigidity account requires us to determine extension before we evaluate content in other worlds, this may yet indeed be a counter-intuitive consequence of obstinate rigidity. At the very least, Murday points out that Kaplan himself must endorse some form of the two-stage model of semantic mechanisms (generation, evaluation) for all other lexical items, as the content-extension distinction originates from Kaplan.<sup>27</sup> Thus, we may have a slight reason to favour persistent rigidity if we follow Murday’s framing of the debate.

The overall proposal here seems to be that we don’t need to be able to ‘refer’ to an object in order to be able to evaluate propositions containing its name in worlds where it doesn’t exist. This would reinforce an account of persistent rigidity. Furthermore, one could argue that the idea of ‘referring’ to an object in a world where it doesn’t exist is counter-intuitive and surplus to requirements. On these grounds, one might have ample reason to consider persistent rigidity as the more intuitive account of rigidity.

Perhaps Murday’s arguments can be put into standard form as follows:

- P1) The direct reference theory holds that the meaning of a name is the object to which it refers
- P2) But ‘meaning’ can be split into two connected but separate elements: content and extension
- P3) We can import the content of a name (generated at a world where the named object exists) for use in propositions at a world where the named object does not exist (i.e. has no extension), which allows us to solve the problem of negative existentials and contingency statements
- P4) A name that has no extension at a world does not refer at that world (but may have content)
- P5) Persistent rigidity is compatible with P1-P4
- C1) Persistent rigidity can solve the problem of negative existential and contingency statements
- P6) Intuitively, names should not have extension at worlds where the named object does not exist
- P7) Obstinate rigidity grants names extension at worlds where the named object does not exist
- C2) Obstinate rigidity is a counter-intuitive account to defend

I am not prepared to grant all of Murday’s conjectures without some qualification. Direct reference is intended to construe the meaning of a name as nothing over and above the referent of a name. Murday is proposing in effect that we can split the two by using the referent of a name to produce a kind of abstract semantic tool, which we might then evaluate in contexts separated from the original referent’s native domain. But mightn’t this idea of an abstract meaning of the referent contravene the spirit of a direct reference theory? This model abandons the whole notion that the meaning of a name should be the material, physical referent of that name by attempting to move referents into worlds where they don’t exist. I will leave this objection here to consider, against P2 and P3 (and in effect, rejecting the whole model).

Another objection an obstinate rigidity theorist might raise against this framework is that they may accept a model of content-generation and extension-evaluation, but still deny that an account of obstinate rigidity matches Murday’s characterisation of OR within such a framework. Perhaps they might want to argue that the idea of generating content from a referent that can be evaluated in any possible world is exactly what they intended by the notion of obstinate rigidity, and wouldn’t accept that obstinate rigidity must entail granting extension of a named object to all worlds. Put another way, it’s perfectly possible that Murday’s framework is just a technical elaboration of what the OR theorists were already defending. This would be an objection to P7 and thus C2.

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<sup>26</sup>Murday (2013), p233

<sup>27</sup> Ibid. p227

Such an objection would be a powerful reprimand against Murday's entire argument. I believe there is a strong basis for sustaining the objection as well. A.D. Smith, defending obstinate rigidity, states explicitly that "naming with respect to a world does not involve quantifying into that world".<sup>28</sup> This seems to be in contradiction with Murday's suggestion that OR theorists intended names to express an extension in all worlds. Given that Murday's basis for characterising obstinate rigidity in this way stems primarily from the ambiguous metaphor about 'carrying in' referents used by Kaplan, I think perhaps it really would be unfair to claim that obstinate rigidity entails extension of names in worlds where the named object does not exist. However, once this characterisation is removed, the two forms of rigidity are identical on this model. The next question to ask would then be: which of the two rigidity accounts (if the two really are different) best fits this framework?

Contrary to Murday's presentation of the issues, I would argue that obstinate rigidity actually fits his model better than persistent rigidity. Persistent rigidity theorists hold that a name should refer to nothing in a world in which its natively-associated object does not exist. On this model, we seem to be referring to the object whilst claiming that we're really not. A lot of the motivation for preferring persistent rigidity over its obstinate counterpart is because there are many counter-intuitive consequences that arise from allowing us to talk about objects in contexts where they don't exist (and we'll explore these in more depth later).<sup>29</sup> So the original PR theorists would be likely to reject Murday's modern characterisation of their position, even if he is defending them. An additional reason to reject the model would be the earlier problem that it seems to lead to tension with the spirit of the DRT. Not to mention that Kaplan (the original OR theorist) invented the model, albeit for other lexical items. For these reasons, I would say that Murday's account would actually represent a model of obstinate rigidity and one that the PR theorists would not want to endorse. So we reject P5 and thus C1 (insofar as C1 depends on P5).

Lacking an alternative model as of yet, one may find that the argument from negative existential and contingency statements is a compelling reason to endorse obstinate rigidity over persistent rigidity. And during the 80s, an alternative model was not available, which may explain the popularity of the OR theorist's position. In later sections, however, we will see that the gappy proposition view may provide exactly the alternative needed to vindicate the PR theorist. But we should first consider other problems the OR camp pins onto the PR account.

### ***Argument for Obstinate Rigidity from a Temporal Analogy***

The next argument we'll consider appeals to purported analogies between temporal contexts and modal contexts. In a nutshell, the argument draws on the commonly accepted intuition that a name continues to refer to the same object (within the same world) before and after the object exists, and uses this notion of temporal obstinacy as a precedent to defend obstinacy in modal contexts too.<sup>30</sup> I'll argue that it is unclear that such an analogy can be used by pointing to dis-analogies between the two contexts, and further question the mechanics by which obstinate rigidity is argued to explain the relevant cases.

This particular type of argument generally goes as follows: first, take any given proper name, such as 'Aristotle'. Now, we would all tend to accept that the name 'Aristotle' still bears meaning before the man Aristotle actually existed in this world, and continues to bear meaning today, long after he has ceased to exist. In what sense do we accept this? Perhaps we endorse the propositions 'in the year 500 BC, Aristotle had yet to be born', and 'in the modern age, we have evidence that Aristotle was a

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<sup>28</sup> Smith (1987), p88

<sup>29</sup> Steinman, Robert (1985). Kripke rigidity versus Kaplan rigidity. *Mind* 94 (375):431-442.

<sup>30</sup> This argument can be found in Kaplan (1973), pp503-505; Salmon (1981), pp36-40; Almog, Joseph (1986). Naming without necessity. *Journal of Philosophy* 83 (4):210-242, p231

Greek philosopher’, or even ‘today, Aristotle no longer exists’. If we accept these claims as true, as most of us probably would, we seem to accept that we can refer to objects that don’t exist in at least one context, this temporal context; but then why not accept this is possible in the analogous context of modality? Thus, we appear to have a reason to support obstinate modal rigidity as consistent with some of our other semantic practices, at the very least.

Why should accepting such propositions as true entail the endorsement of temporal obstinacy? This follows from some surface intuitions about direct reference theory and ascriptions of truth values. Using the name of an object in a proposition at a time when that object doesn’t exist seems to lead to tension with the direct reference theory of names, as if there is no named object that exists at a certain time, it would seem to imply that the name should possess no meaning at these times. Yet we don’t tend to think assertions such as ‘in the year 500 BC, Aristotle had yet to be born’ should be meaningless at all; we tend to think they’re true. But we can’t give a formal positive truth value to an assertion that contains a purportedly meaningless term. The ostensible explanation for this dilemma might be that names continue to refer to objects even at times when the object doesn’t exist. This would allow for the name ‘Aristotle’ to have a clear meaning in any time context, thus allowing the name to be a meaningful constituent of a proposition at any given time, and allowing us to formally explain why such propositions can be true. And this would naturally exemplify a semantic model of temporal obstinacy, through an argument much the same as the one we previously examined.

One might deny that there is an analogy between modal contexts and temporal contexts at all as a first pass at objecting to this argument. We could grant that there is obstinate rigidity in temporal contexts whilst denying that it follows from this that there should thus be obstinate rigidity in modal contexts too, as different semantic rules may apply to each. As many others have granted “the now widely recognised close analogy”, it may be difficult to pursue this track.<sup>31</sup> The parallel is defended in more contemporary writing too.<sup>32</sup> Yet if one did reject this premise, it could benefit the PR theorist, as it would allow them to write off an argument typically accepted as supporting obstinate rigidity.

Let’s consider the possible motivation to deny an analogy between time and modality. One way to do this would be to try to demonstrate that we do intuitively subscribe to temporal obstinacy, but the structural foundations that support temporal obstinacy are not available in the modal context. The most immediately apparent case of successful temporal obstinacy might be found in sentences about entities that existed in the past but no longer exist, such as ‘Aristotle is no longer alive’. But I would argue that the basis for supporting obstinacy for names in sentences such as this one is not one that has an analogue in modal contexts.

Consider Kripke’s idea about historical chains of transmission for names.<sup>33</sup> An object is first baptised with a particular name which can be used to refer to that object alone, and then this name is shared from person to person, community to community, generation to generation, always connecting back to that originally named object. Names can thus transfer meaning across time because the name is inherited from the past. In the case of Aristotle, we might say that his contemporaries established the meaning of the name ‘Aristotle’ in virtue of using it to refer to him back in his day and age, and perhaps it is through a historical chain of transmission that the name managed to link to the present. Thus it could be inferred that we inherited the name and its content into our language from a time when Aristotle did exist, and this is why we can meaningfully use the name ‘Aristotle’ today.

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<sup>31</sup>Salmon (1981), p31

<sup>32</sup>Rini, Aa & Cresswell, Mj (2012). *The World-Time Parallel*. Cambridge: Cambridge University Press.

<sup>33</sup>Kripke (1980), pp91-96

From the above, we could argue that a name can be meaningful at a time when the object it names does not exist if we inherited the name from a historical chain of transmission linking back to a time when the object did exist. This might reflect a foundation for temporal obstinacy. However, it would mark a problem for the OR theorist as no analogous foundation can be observed for modal contexts. As David Ripley has said, “time’s linear order and metric structure, neither of which seems to have a modal analogue... is the most obvious structural difference between them”.<sup>34</sup> Elaborating on this in the modal case of other possible worlds, we will not be able to establish a chain of transmission for entities existing in one world but not another, as the two worlds would typically diverge precisely when the entity in question appears in the first but not the second. On this basis, it remains unclear how the modal OR theorist would bridge the gap in the same way as the temporal OR theorist, and further, this may incline us to reject the analogy as a whole. Again, rejecting the analogy would lead to the refutation of this argument for modally obstinate rigidity.

However, perhaps the chain of transmission has nothing to do with how an OR theorist would argue that a name is temporally obstinate. After all, such a mechanism could not explain cases where we seem to meaningfully use a name in regards to a time occurring before the named object exists. An example would be the proposition ‘Aristotle is not yet born’ evaluated in the year 500 BC. We might think this is true, but if so, it might imply the term ‘Aristotle’ is meaningful at a time when he does not exist and also at a time before his name’s chain of transmission existed. So perhaps the modal and temporal OR theorist alike would want to propose a different mechanism which could explain the appearance of obstinacy in these cases.

No new framework is needed to explain these temporal truth phenomena by way of an account of temporal obstinacy; we can simply reuse the semantic models explicated in the last discussion, in which the use of a name is split into content and extension. For these cases, we would generate the content of a name at a time when the object exists. For example, the name ‘Aristotle’ is meaningful because at the time when Aristotle was alive, people referred to him by this name, thus generating the content of the name. This content or meaning can then be transplanted to both before and after Aristotle’s time of existence, and can be used to evaluate propositions containing his name even at times when he does not exist. Thus, the OR theorist is capable of explaining why names can still be meaningful at times when the objects to which they refer don’t exist.

How does the model handle propositions evaluated at a time before Aristotle was alive? Clearly the historical chain of transmission can’t reach these time periods, as the chain hadn’t even begun yet. But perhaps when we’re talking about evaluating propositions, we don’t need that chain. Evaluating a proposition at a certain time does not mean asking whether or not an utterance of a sentence that might express that proposition from people who were alive at that certain time would be true; we’re asking whether or not the proposition would be true or not as uttered from a sentence where all the constituent parts are meaningful, transposed to that time. Such a time could be the present, if the chain of transmission works as described earlier, or such a time could be when the relevant entity did exist, and there would be no inconsistency here. Perhaps the latter suggestion is preferable, as this method could be argued to have a modal analogue (i.e. generate propositions at a world where all the constituent parts are meaningful, and evaluate them elsewhere).

Appreciated in this way, perhaps we could say that a name is like a photograph of the referent which we can use to identify the same referent at any other given time/world/place. We need the referent

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<sup>34</sup> Ripley, David (2012, October 13) *The World-Time Parallel: Tense and Modality in Logic and Metaphysics*. Reviewed by David Ripley, University of Connecticut. *Notre Dame Philosophical Reviews* Retrieved from <http://ndpr.nd.edu/news/the-world-time-parallel-tense-and-modality-in-logic-and-metaphysics/>

to exist if we are to take a photograph of it, but once we have that photograph, we can always use it to look for the referent again whether or not the referent exists within the domain we are searching. There's no inconsistency should the referent fail to exist at some given point; in that case, we'll simply acknowledge that the photograph/name doesn't correspond/refer to anything at that point, but retains meaning from elsewhere. This may exemplify both modal and temporal obstinacy.

Now all of this is fine and dandy if you are an obstinate rigidity theorist. Again, the PR theorist might want to invoke the same model in the name of persistency, as Murday did, but there are reasons why they might want to distance themselves from this model, primarily being that without it, PR can better reflect the spirit of the direct reference theory. So we arrive at a similar result as from the previous argument, where the OR theorists have a largely coherent model to explain tricky cases we often see in natural discourse, while the PR theorists lack an alternative model to resolve these same everyday cases. But again, we shall look for this alternative model in later sections.

### ***Argument for Obstnacy from the Modal Inequivalence of Names and Definite Descriptions***

Regarding the question of obstinate versus persistent rigidity, Kripke voices no fixed opinion, stating he "deliberately ignore[s] delicate questions arising from the possible nonexistence of an object."<sup>35</sup> But there appears to be an argument for obstinate rigidity that can be derived from Kripke's ideas, as first identified by A.D. Smith in his 1984 paper.<sup>36</sup> The general idea is that Kripke intended to show that proper names are semantically distinct from definite descriptions through analysing how the two must behave differently in modal contexts. Smith's claim is that there are ways of presenting definite descriptions as persistently rigid, whilst names alone can demonstrate obstinate rigidity.<sup>37</sup> From there it follows that if Kripke wanted to show names are different from definite descriptions through an appeal to modal behaviour, we must understand names as being obstinately rigid.

First, we should carefully familiarise ourselves with Kripke's classic arguments against descriptivism. Kripke's purpose with these arguments is to make it clearly visible that names cannot be substituted for any definite description. Many attribute the following 'modal argument' to Kripke, although it has been noted that he himself never constructed it in this manner.<sup>38</sup> It goes something like this: in certain statements, the use of a name will refer to the same object across different possible worlds, whilst an allegedly analogous description to that name will end up referring to a different object in those different possible worlds. For example, the statement 'Benjamin Franklin might not have been the inventor of bifocals' should strike us as true, as we should be able to imagine a world in which Benjamin Franklin did not invent the bifocals (either because no one did, or because someone other than Benjamin Franklin did). However, the supposedly equivalent descriptivist statement that 'the inventor of bifocals might not have been the inventor of bifocals' can be argued to be quite false, as in no possible world could the object picked out by that description also fail to meet the description (at first glance). Given that the two statements have differing truth values in some modal contexts, names must not be semantically equivalent to definite descriptions. So the argument goes.

Smith suggests that the argument demonstrates that names can be shown to be persistently rigid designators whilst definite descriptions generally are not, or at least, that there is an ambiguity in

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<sup>35</sup>Kripke (1980), p21, n21

<sup>36</sup>Smith, A. D. (1984). Rigidity and scope. *Mind* 93 (370):177-193.

<sup>37</sup> Murday (2013), p226

<sup>38</sup> Brock (2004), p285, n14

whether or not a definite description will be persistently rigid in modal contexts depending on the scope taken over the modal operator.<sup>39</sup>

There is a very well-known descriptivist response to this version of the modal argument. This is the argument from wide-scope. Wide-scope descriptivists argue that in modal contexts, as any definite description can be interpreted according to a wide or narrow scope, names can be an equivalent to definite descriptions “that always take wide scope over modal operators”.<sup>40</sup> An example of this is when we say that ‘X might not have been G’, where G is the description associated with X, we could interpret the statement as suggesting *either* that there is a possible world wherein which whatever particular object in that world which happens to meet the description G might at the same time fail to meet the description G (this is the contradictory narrow scope), *or* that there is a particular object that meets description G in a given world but that particular object might not meet description G in other possible worlds (wide scope). Adopting the position that names are definite descriptions that always take wide scope might deflect the force of Kripke’s modal argument, as “wide scope definite descriptions are [persistently] rigid too”.<sup>41</sup>

The difference is quite clear between the two logical representations of the descriptive statement:

$\Diamond(\exists xPx \& \neg Px)$

Narrow Scope (necessarily false)

$\exists xPx \& \Diamond \neg Px$

Wide Scope (possibly true)

Kripke also has a well-known rejoinder to this response, wherein he reconfigures parts of the modal argument to exclude the mention of any modal operators, in order to show that we tend to think names are rigid in a way that definite descriptions can never be. In this version, Kripke uses simple sentences (lacking a modal operator) containing names and demonstrates that the counter-factual possibilities of such sentences would change if you were to substitute a definite description in place of the name; thus, again, names could not be equivalent to definite descriptions. The example from Smith has us consider the truth value of a statement such as ‘Benjamin Franklin was a tailor’ when compared with the truth value of the statement ‘THE inventor of bifocals was a tailor’.<sup>42</sup> Both are false in our world, but the counterfactual possibilities for each one are argued to be different, as the first can only relate to Benjamin Franklin, even when evaluated in other worlds, whilst the second will relate to whoever invented the bifocals in the world where the statement is evaluated. A wide-scope interpretation is not available for the description in simple sentences such as this, as there is no modal operator to give rise to any scope distinctions. Thus, names are arguably shown not to be semantically equivalent to definite descriptions once again. But we might still ask whether names are modally equivalent to wide-scoped definite descriptions.

Smith argues that names are obstinately rigid whilst wide-scoped definite descriptions can only be persistently rigid. His reasoning is that an obstinately rigid designator “has an integral and stable meaning such that statements containing the term can themselves be directly worked out at various possible worlds”, whilst wide scope definite descriptions “cannot be assessed directly at a possible

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<sup>39</sup> Smith (1984), pp181-184; it may be worth noting that Smith uses ‘weak rigidity’ vs ‘strong rigidity’ in place of the persistent rigidity vs obstinate rigidity terminology. I replace the words with their respective counterparts here for the sake of simplicity.

<sup>40</sup> Ibid., p182

<sup>41</sup> Ibid., p183

<sup>42</sup> Ibid., p185



but non-actual world”.<sup>43</sup> On this account, a name has a referent fixed to it such that if you were to evaluate the name in another world, it must retain the same referent, as the object to which the name refers has already been determined and there is nothing new to evaluate. Only if you were to change the language in which the name had its meaning fixed could you change its meaning, but as stated earlier, this would be an irrelevant case of homonyms, or different names, in effect. But in the cases of wide-scope definite descriptions, a particular variable is picked out by a definite description first at a world of evaluation, and only *after* this are the counter-factual possibilities regarding that variable considered. If we were to change the original evaluation world, the wide-scope definite description could pick out a different object or nothing at all. Thus, changing the evaluation world of a name does not change its referent, whereas changing the evaluation world for a description may change the referent, even on a wide-scope interpretation.

There is another kind of definite description that also expresses persistent but not obstinate rigidity. World-indexed descriptivism argues that names are equivalent to definite descriptions that involve an actuality operator that binds the description so that it is always evaluated in the actual world.<sup>44</sup> For example, an actualised definite description about Benjamin Franklin would be ‘the man who actually invented the bifocals’. When evaluating a description such as this at other possible worlds in the style of Russell, we look for the object that expresses the description in the actual world, but it does not matter if this object fails to express it in the evaluation world. Continuing the example, the description ‘the man who actually invented the bifocals’ will pick out Benjamin Franklin at a world where he didn’t invent the bifocals because he did invent them in the actual world. But descriptions of this kind are only persistently rigid, because “if there is no unique individual at *w* who is actually *F*, the description fails to denote”.<sup>45</sup> Names are thus uniquely obstinately rigid, argues the OR theorist.

Some interpret actualised definite descriptions as being obstinately rigid, but this interpretation is generally considered to be non-standard.<sup>46</sup> In order for the PR theorist to refute this argument (aside from arguing directly that names are not obstinately rigid), they would have to argue that names do not have to be semantically inequivalent to definite descriptions, or that they are inequivalent in some non-modal way. Perhaps Kripke’s rejoinder to the wide-scoped descriptivist response already exemplifies such a difference. Or, as I will argue later, the gappy proposition view may provide such a difference as well. But first there is one more argument in support of obstinate rigidity to review.

### ***Argument for Obstinate Rigidity from ‘Unmediated Referentiality’***

In my opinion, this is the most explicit argument for obstinate rigidity, as it attempts to illustrate the semantic mechanics that accommodate and entail obstinate rigidity, rather than discussing how our intuitions about particular statements might be explained by an obstinate rigidity paradigm without providing an explanatory framework for that paradigm. Many supporters of obstinate rigidity hold that direct reference can be characterised by the ‘pure’ or ‘unmediated’ referentiality of names, as contrasted to the satisfaction relation between definite descriptions and respective referents. It is furthermore argued that obstinate rigidity is an entailment of this unmediated referentiality.<sup>47</sup> I’ll evaluate the argument by considering whether or not an account of persistent rigidity couldn’t also be consistent with the idea of unmediated referentiality.

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<sup>43</sup>Ibid., p184

<sup>44</sup>Stanley, Jason (1997). Names and Rigid Designation. In Hale, Bob & Wright, Crispin (eds.) (1997). *A Companion to the Philosophy of Language*. Wiley-Blackwell, pp555-585

<sup>45</sup> Murday (2013), p227

<sup>46</sup> Ibid, n7

<sup>47</sup>We see this concept in McGinn (1982); Smith (1984; 1987); Almog (1986); Stanley (1997) and; Branquinho, João (2003). In defense of obstinacy. *Philosophical Perspectives* 17 (1):1–23.

Smith's main argument in his 1984 paper aims to show that names can't be definite descriptions, as names are of a different semantic type from definite descriptions, and although this type difference may be best exemplified when contrasting the modal behaviour of these two different types, the difference is not fundamentally a modal difference. For Smith, the difference between names and definite descriptions is intrinsically semantic insofar as names and definite descriptions are linked with their referents in different ways. He suggests that definite descriptions designate their objects through a satisfaction-relation between the description and an object, whilst names designate their referents by way of "*pure referentiality*".<sup>48</sup> Names, for Smith, will then always be rigid because they express this kind of pure referentiality, whilst definite descriptions may or may not be rigid in various cases, depending on metaphysical features about the particular descriptions and referents that are being considered, rather than any inherent semantic feature about the description or its referent.

When thinking about singular propositions, we might articulate the difference as follows: a name contributes an object into a proposition, whilst a definite description must be evaluated to pick out the object that will be contributed to the proposition. As there is a direct connection between the name and the object to which it refers, there is nothing to be evaluated or determined; an utterance of the name will build its one associated object into the corresponding proposition. But because a definite description needs to be evaluated with respect to a context, it could contribute different objects into a proposition depending on the world of evaluation. The difference between names and definite descriptions can thus be cashed out in terms of the way they contribute to propositions.

There are three main questions we might want to ask here. The first is whether or not names really do exhibit this semantic behaviour of pure referentiality. The second is whether or not this type of unmediated referentiality does entail that names are fundamentally rigid designators. The third and most relevant to this investigation is whether or not names can be pure referrers that are merely persistently rigid rather than obstinately rigid.

In order to answer these questions, we might first unpack the concept of pure referentiality in a bit more detail. But Smith's explanation of pure referentiality is largely based on appeals to intuitions. He notes that Kripke would deny that referents are designated by names through a satisfaction relation (where there is a condition to be met by a designatum) as occurs with definite descriptions, and instead, Smith suggests that an object designated by a name possesses a name-bearer relation with that name. Furthermore, it is in virtue of the fact that names are purely referential and express a name-bearer relation to their referents that names end up as persistently and obstinately rigid designators in modal contexts.<sup>49</sup> A name always inherently *names* a particular object; the meaning of the name is nothing more than the object itself, without being bound to any individual property that the object expresses. Using a name thus entails invoking a pre-established particular object into some given sentence. Names must then be rigid and won't ever refer to any other object, even in other possible worlds, because a name is explicitly associated with one particular object, which is in stark contrast to descriptive statements. Pure referentiality, as opposed to a satisfaction-relation, explains the key difference between names and definite descriptions, on this account from Smith.

Although I will focus on Smith's explanation of the concept of pure referentiality, I would reiterate that this is not an idiosyncratic concept he defends. Pure referentiality can perhaps be argued to be synonymous with the idea of 'de jure' rigidity. McGinn (who defends obstinate rigidity) unpacks the concept in saying "a *de jure* rigid designator will be associated with a constant function with respect to *any* dimension or point of evaluation, just because its reference is precisely independent of the

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<sup>48</sup>Smith (1984), p190

<sup>49</sup> Ibid.

circumstances of evaluation”.<sup>50</sup> Generally, endorsing a direct reference theory of names goes hand-in-hand with the claim that names are *de jure* rigid designators. I will nonetheless focus on Smith’s paper as it expresses the most explicit reasoning that links the *de jure* rigidity of names to their purported obstinate rigidity.

Analysing the difference between names and definite descriptions in such a way has various merits. It is demonstrably false to suggest that the difference between a name and a definite description is that names are rigid while definite descriptions are not; certain definite descriptions always do refer to the same object. An example given is the description ‘the positive square root of 4’.<sup>51</sup> In all worlds, the referent of this description will be the same object, which is the number 2. Kripke is aware of these rigid definite descriptions, and classifies them as ‘*de facto*’ rigid designators, whilst names on the other hand are to be understood as ‘*de jure*’ rigid designators.<sup>52</sup> *De jure* rigid designators are rigid because of their inherent semantic nature, whereas *de facto* rigid designators are rigid because of some non-semantic fact about the description or the relevant object. Smith is dissatisfied with the distinction Kripke draws, and argues that there is no genuine semantic difference between a definite description that is *de facto* rigid and one that is not rigid at all, as both designate their referents via the satisfaction-relation, and goes so far as to conclude that “the term ‘rigid designator’ does not pick out a semantic natural kind”.<sup>53</sup> Understanding names as uniquely purely referential thus has the advantage of being a natural semantic difference from definite descriptions, as opposed to basing our concept on what could be argued to be this more incidental property of ‘rigidity’.

Of course, if we were to simply accept that names are pure referrers because it distinguishes them from definite descriptions, we would beg the question against the descriptivist. But there is in fact no need for us to answer the question as to whether names do express unmediated referentiality or not for the purposes of our investigation. If names do not express unmediated referentiality, there is no argument for obstinate rigidity here, as this whole argument was that unmediated referentiality entails obstinate rigidity. Thus, we can continue our investigation by analysing what the acceptance of the premise that ‘names express pure referentiality’ would entail presuming it was true.

The question now becomes as follows: would pure referentiality imply names are always rigid? In regards to this question, I would say the answer should be a clear yes. If we embrace the idea that some particular object is the direct and sole constituent of a name’s meaning, and that every time we use that name we are using a term directly associated with one particular object, it sounds like there is no opportunity in this process at all for that name to ever pick out a different object. It is a straightforward tautological truth that an unmediated referrer will be a rigid designator. This leaves us only to consider whether or not unmediated referentiality must entail obstinate rigidity.

Smith’s explanation is that names are strongly (or obstinately) rigid because “a pure referrer has no descriptive content in virtue of which the expression might have a variable designation with respect to the different factuities in different possible worlds”.<sup>54</sup> Once the meaning of a name is generated, Smith seems to be saying, the meaning of that name will become indifferent to any facts about the given world in which the use of a name is evaluated. As a consequence, names should refer to the same object in all possible worlds, regardless of whether or not the object exists in that world, simply because the referent of the name once established doesn’t later depend on any other facts

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<sup>50</sup>McGinn (1982), p102

<sup>51</sup>Ibid., p188

<sup>52</sup>Kripke (1980), p21

<sup>53</sup> Smith (1984), p189

<sup>54</sup> Ibid. p190

about any world. In other words, the process of using a name inherently doesn't require us to check if the relevant object exists in the world we're talking about, so the successful reference of the name in a given world shouldn't depend on whether or not the object exists there. This is in stark contrast to definite descriptions, where a designatum must be re-established in the new evaluation context through the satisfaction of a descriptive condition, and thus does depend on variable facts about a given world. These are the grounds upon which Smith holds names to be obstinately rigid, given unmediated referentiality.

I remain unconvinced of Smith's position. Whilst it may be true that names must possess a fixed meaning once established and can only ever refer to one object, this does not logically entail that names can successfully refer to an object in a world where it doesn't exist. It seems consistent to argue that a name purely refers to its object in the sense that it can only refer to that object, but when that object does not exist, the name will fail to refer. Persistent rigidity can remain faithful to Smith's idea that a name has a unique relationship to one object in that it will always contribute the same object to a singular proposition, without granting that the name can refer to its linked object in worlds where that object does not exist. Thus, we should conclude again that this argument for obstinate rigidity remains unjustified.

Perhaps the results of this discussion highlight the importance of other arguments in the debate. If examining semantic behaviours about other matters (such as contingency or in temporal contexts) leads us to think names can refer to objects in worlds where said object does not exist, it could feed back into strengthening this argument, which would then feed back into strengthening those ones. However, each argument standing on its own struggles to prove itself. Until one of them gets off of the ground, the rest also seem unable to do the same.

### ***Summary of the Arguments for Obstinate Rigidity***

Four arguments support obstinate rigidity, compelling to various degrees. The main challenge facing accounts of persistent rigidity seems to be accounting for intuitive cases where we seem to naturally speak about particular objects in contexts where the relevant object doesn't exist, both in modal and temporal circumstances. There are frameworks available that seem to support obstinate rigidity insofar as they permit the content of a name to be split from its extension, which are able to account for such cases. Persistent rigidity should be considered incompatible with such frameworks if we are to respect the traditional conception of the position as distinct from obstinate rigidity. One way for the PR theorist to meet the challenge of the OR theorist is to provide a unique account that accommodates these same cases. As I will demonstrate in the subsequent chapters, I believe that the gappy proposition view can be combined with persistent rigidity to provide such an account.

Other arguments for obstinate rigidity posed similar challenges for persistent rigidity. We have been given reasons to think that names are distinct from descriptions because the former can be argued to be obstinately rigid whilst the latter can only be persistently rigid at most. Adopting an account of persistent rigidity may thus weaken our ability to distinguish names from definite descriptions. But we could also appeal to a semantic difference in how the two types of terms pick out their referents, which would lessen our motivation to adopt obstinate rigidity. On top of this, I'll argue that a gappy proposition view could further illustrate differences between names and descriptions in such a way that is compatible with persistent rigidity.

From the above, it seems clear that the next task should be to introduce and become familiar with the details of the gappy proposition view. This will take place throughout the next chapter. We will then return to consider how the view might help circumvent these arguments for the PR theorist.

## Chapter Two: Introducing the Gappy Proposition View

Empty names remain one of the most stubborn puzzle cases for the direct reference view of names. Even if obstinate rigidity could resolve the problem of negative existential / contingency statements, there are other instances involving empty names (such as named fictional entities) that could remain a thorny issue without further explanation. An account of propositions in recent development from the semantic literature known as the ‘gappy proposition view’ may be able to solve these puzzles in a single, unified treatment. Such a view embraces the technical meaninglessness of empty names when used in regular contexts whilst appealing to their potential pragmatic implications to make sense of many of our intuitions about such names. In this chapter of the thesis, I’ll aim to trace all of the core details of the gappy proposition view, assess its general soundness, and present it in its most viable form before we apply it retrospectively to the obstinate vs persistent rigidity debate in the third and final chapter.

### *The Problem of Empty Names and the Gappy Proposition View*

Recall that direct reference theorists hold that the meaning of a proper name is simply the referent to which the name refers. The term ‘referent’ means some particular object that exists in the world. Empty names are names that cannot be assigned to any material referent in a particular world, such as the names of fictional entities like ‘Sherlock Holmes’, hypothetical entities that proved not to exist (such as ‘Vulcan’), and objects that exist in other worlds but not the target one. If the meaning of a proper name just is the referent of that name, and if the meaning of a sentence is to be determined compositionally, every sentence that contains an empty name should be a meaningless sentence. Yet intuitively sentences like ‘Pegasus has wings’ are not meaningless; most of us have little difficulty understanding what is here being expressed. This tension between our intuitions and the technical implications of the direct reference theory can be regarded as a *prima facie* objection against to the theory, where this objection needs to be resolved, or at least addressed, should one wish to adopt a direct reference theory over descriptivism.

Empty names appear to be a plain counter-example to a theory of direct reference. As David Kaplan puts it, when dealing with proper names “what is characteristic of directly referential terms is that the designatum (referent) determines the propositional component rather than the propositional component, along with a circumstance, determining the designatum.”<sup>55</sup> Direct reference theorists hold that the object should give meaning to the name, rather than the meaning of a name identify an object in a circumstance (such as with definite descriptions). As there appears to be no referent when we are dealing with empty names, how do we ever meaningfully use them in sentences? That is the quintessential problem of empty names.

We can delineate subsets of the problem. There is the more general problem of how empty names can be used in any proposition, and the more specific case of negative existentials (true statements about the non-existence of some named non-entity). Solutions may differ between these problems. For example, there may be a sense in which ‘Sherlock Holmes is a detective’ may be true, and a very different sense in which ‘Sherlock Holmes does not exist’ may be true, given we might think both; it is hard to imagine how we can both deny an object’s existence whilst attributing it with properties unless there are such different senses at work here. Fred Adams and Robert Stecker distinguish the two primary circumstances where empty names occur as occurring in ‘predicative sentences’ and

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<sup>55</sup>Kaplan, David (1989). Demonstratives. In Joseph Almog, John Perry & Howard Wettstein (eds.), *Themes From Kaplan*. Oxford University Press. pp. 481-563, p497

‘existence sentences’, but prefer that both should be captured in a uniform treatment.<sup>56</sup> I believe this can indeed be achieved on the account to be proposed.

There are a number of underlying principles that incite the problem of empty names that are worth bringing under explicit attention. A major one could be described as a principle of compositionality. This is the notion that “the meaning of each complex expression... is determined by the meanings of the component expressions plus the way they are combined into the complex expression”.<sup>57</sup> From this principle, if a name used in a sentence lacks semantic content (i.e. an empty name), the whole sentence containing that name will lack semantic content too, and does not express a proposition.<sup>58</sup> This isn’t a foreign concept to our everyday lives: if someone spoke an otherwise coherent sentence to us but substituted some words in the middle for complete gibberish, it might collapse the whole meaning of the sentence as we wouldn’t be able to understand it as a coherent proposition (even if we could understand some of the other individual words).

From the above, we should be prepared to say that there are empty names that do lack referents, there are sentences that contain these empty names, and these sentences do seem to convey some kind of sense or meaning. Given that names can’t have meaning without a referent on a theory of direct reference, and that the principle of compositionality requires each part of a sentence to have some meaning in order for the whole sentence to express a proposition, combine all these elements together and you have the problem of empty names in a nutshell. David Braun notes that there are in fact a number of connected problems that arise from empty names for direct reference.<sup>59</sup>

Braun identifies four problems that arise from sentences containing empty names. The first is that of the proposition expressed: sentences containing empty names can’t express propositions. Second is the problem of nonsense: sentences that don’t express propositions should be nonsense, but we seem to understand many sentences containing empty names. Third is the problem of truth: sentences that don’t express propositions can’t be considered to be true or false. And fourth is the problem of belief: we can’t believe or disbelieve sentences that don’t express propositions.<sup>60</sup>

It is important that any purported theory of empty names answer all four of Braun’s problems. Each of the problems seems to stem from the same root issue: sentences containing empty names can’t translate into singular propositions because empty names don’t refer to any particular single object. It’s this incapacity to integrate empty names into singular propositions that leads to the rest of these woes for any direct reference theory, as we need propositions in order to have truth values, beliefs, and non-nonsensical claims. Interpreted in this manner, the problem of the proposition expressed is the key problem for the direct reference theorist, and even more specifically, it’s the premise that “a sentence containing a proper name that lacks a semantic value fails to express a proposition” that marks the fundamental issue in need of some response if a theory of direct reference is going to be able to withstand these critiques.<sup>61</sup>

Here’s where the gappy proposition view enters the frame. Many philosophers<sup>62</sup> credit David Kaplan as the originator of the view, although the idea did not gain real traction until it was further detailed

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<sup>56</sup>Adams, Fred &Stecker, Robert (1994). Vacuous Singular Terms. *Mind and Language* 9 (4):387-401, p389

<sup>57</sup>Sandu, Gabriel &Hintikka, Jaakko (2001). Aspects of compositionality. *Journal of Logic, Language and Information* 10 (1):49-61, p49

<sup>58</sup>Mousavian, Seyed N. (2011). Gappy propositions? *Canadian Journal of Philosophy* 41 (1):125-157, p127

<sup>59</sup>Braun, David (1993). Empty names. *Noûs* 27 (4):449-469.

<sup>60</sup> Ibid., pp451-453

<sup>61</sup> Ibid., pg451

<sup>62</sup>Mousavian, Seyed N. (2011). Gappy propositions? *Canadian Journal of Philosophy* 41 (1):125-157, p129

and defended by David Braun in his 1993 paper. Braun states it as the ‘unfilled proposition view’, but they are also discussed as ‘incomplete propositions’, ‘structurally challenged propositions’, and/or ‘gappy propositions’ (which will be the preferred terminology in this thesis).<sup>63</sup> The basic idea is that sentences with empty names can express a certain kind of proposition if we just acknowledge the absence of one meaningful term in our representation of the apparent claim. As asserted by Braun, simple propositions are generally characterised by two main elements: an ordered structure, and semantic objects (either individuals, properties, or relations).<sup>64</sup> Both are needed to accommodate the principle of compositionality as we often observe the meaning of a sentence will change if we swap the positions of two terms (e.g. ‘John eats food’ vs ‘Food eats John’). Semantic objects thus fit into propositions according to a certain structure, and this structure helps represent what object is the subject of the proposition and its relations to the other semantic elements. We may represent this characterisation of the structure of propositions as follows:

< {}, \_\_\_ >

Here, the <> brackets represent the boundaries of the proposition, the {} brackets represent where the subject must be, and the blank space \_\_\_ represents where the predicate being ascribed to the subject will be. For example, the sentence ‘Bush is a human’ can be expressed on this account as:

<{Bush}, being-human><sup>65</sup>

Once we are equipped with such an account of propositions, Braun maintains that we can construct propositions that have an empty semantic value in the subject position, and this is the essence of the gappy proposition view. On this view, a sentence containing an empty name like ‘Vulcan is a planet’ can be expressed as a proposition such as in the above form, but with a semantically valueless gap in the subject position instead of a regular object, like so:

<{}, being-a-planet><sup>66</sup>

Recall that the difficulty between empty names and direct reference was the incapacity of sentences containing empty names to be translated into propositions, thus leading to the array of other issues. Given the above, we now have a move that “allows the problematic sentences to express so-called unfilled propositions... semantic objects that (at the very least) strongly resemble propositions”.<sup>67</sup> Such a move should address the four problems as they are stated by Braun: now that such sentences can express (pseudo) propositions, the expression problem dissipates, they will not necessarily be formally nonsensical, may be evaluated for truth values, and may be believed or disbelieved, at least to the extent that these problems hinged on a failure of such sentences to express propositions. And the only catch is that the proposition expressed will contain a semantically valueless gap.

Although we can now construct propositions from sentences containing empty names, there is still a missing piece to this puzzle. We shouldn’t be satisfied with gappy propositions alone because these gaps are going to fail to capture the intended sense of these sentences more often than not without some kind of semantic supplement. If someone sincerely utters the sentence ‘Vulcan is a planet’, they intend to assert that some particular hypothetical entity has the property of being a planet. This is left more than ambiguous when the sentence is translated into a gappy proposition, as rather than

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<sup>63</sup> Ibid, p128

<sup>64</sup> Braun (1993), p462

<sup>65</sup> Ibid.

<sup>66</sup> Ibid., p463

<sup>67</sup>Gnatek, Zuzanna (2011). The No-Proposition and the Unfilled-Proposition Views on Empty Names. The Reasoner 5, no. 5: 8-10-, p8

talking about a specific entity, the person would now appear to be talking about nothing at all. So although we could concede that the problem of the proposition expressed and the problem of nonsense have been remedied by the gappy proposition view (gappy propositions are a kind of proposition expressed by sentences containing empty names, and aren't nonsensical because they will be propositions for which all of the constituent parts can be understood), the problem of belief and the problem of truth both seem to require further explanation, as will be demonstrated.

Let's say Person A (perhaps a child) utters the belief that 'Santa Claus exists'. Person B might instead believe in the claim that 'Sherlock Holmes exists' (perhaps they misread the novels as biographical). If we translate the first sentence into a gappy proposition, the result is as follows:

< {}, exists >

In other words, Person A believes in that proposition. However, if we translate the second sentence believed by Person B into a gappy proposition, the result is the exact same proposition as the above. Given that we would intuitively take Person A and Person B to be believing in different propositions, it's not very reassuring when our current account presents them as believing in what appears to be the same proposition. One could argue that our intuitions are in fact mistaken and that Person A and Person B here really do believe in the same proposition (both believe in some non-existent object), but in practice we would be more than likely to treat the two beliefs as quite distinct. If our practices and intuitions don't resemble a semantic account, it's probably going to be the semantic account that is the problem.

However, Braun does offer an explanation to this dilemma too. In his view, beliefs can be distinct from propositions, and "distinct beliefs may have the same unfilled propositional content."<sup>68</sup> The idea here is that sentences can have different 'cognitive values', separate from propositions, which cause distinct behavioural responses to the syntactic differences between sentences even though the propositional content of those sentences may be equivalent. In this sense, we treat the beliefs of 'Santa Claus exists' and 'Sherlock Holmes exists' as distinct in practice because of our mental states, but not in formal semantics. In the above case, the Person A and B both believe that a non-existent object exists, but the mental pathways that lead them to that belief stem from different sources. This could resolve the problem of belief for the gappy proposition view.

What about the problem of truth? Consider an intuitively true sentence that seems to attribute a property to a non-existent object such as 'Sherlock Holmes is a detective', once it's translated to a gappy proposition:

< {}, being-a-detective >

It's hard to understand how a proposition like this could be evaluated as true. Of course, Braun's response is that a proposition like this shouldn't be true, and in fact, any simple atomic propositions containing empty names should end up evaluated as false. This seems to follow from a compelling standard for truth conditions Braun offers, which seems to echo the work of Timothy Smiley:<sup>69</sup>

*"If P is a proposition having a single subject position and a one-place property position, then P is true iff the subject position is filled by one, and only one, object, and it exemplifies the property filling the property position. If P is not true, then it is false."*<sup>70</sup>

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<sup>68</sup> Braun (1993), p465

<sup>69</sup>Smiley, Timothy (1959). Sense without Denotation. *Analysis* 20 (6):125 – 135, p127

<sup>70</sup> Ibid., pp463-464



If we accept this view about the truth conditions for simple atomic propositions, gappy propositions are all going to be false because there will never be an object in the subject position that expresses the relevant property. Gappy propositions are derived from sentences containing empty names that lack material referents, so it might not be such a stretch to think that we shouldn't be truly assigning properties to non-existent objects in the first place. Following this rationale, the problem of truth is resolved by offering gappy propositions that are truth evaluable, but must be read as being false.

There's still one last problem the gappy proposition view needs to address: how to construct true negative existential statements such as 'Sherlock Holmes does not exist' as true propositions. This is a case where Braun does think a gappy proposition can indirectly lead to a positive truth value. It's a simple matter of negating an embedded false gappy proposition, on his account.<sup>71</sup> Since 'Sherlock Holmes exists' is going to result in a false atomic gappy proposition (for reasons given above), if we simply negate this proposition, we should get a true proposition that could be a fair representation of 'Sherlock Holmes does not exist', like so:

< NEG < {}, exists >>

All true negative existential statements could be resolved in this manner, as all of them will translate into the above true proposition.

I have tried to draw an outline of the gappy proposition view without yet giving too much critique so as to help the reader develop a working understanding of the account. In the next subsection, we'll start to further magnify some of the problems with the view, however, in order to provide a more balanced perspective on its merits and potential defects.

### ***Further Problems with the Gappy Proposition View (and alternative solutions)***

Braun's presentation of the gappy proposition view purports to resolve all of the sub-problems that arise when attempting to integrate a direct reference theory with the problem of empty names, but it may be fair to say that some of his results are counter-intuitive, and certainly, others have found further issues that may need to be addressed to round off the account. I'll expand on some of the remaining doubts and further challenges now.

On my evaluation, there are two major obstacles facing the gappy proposition view:

(1) Given the strong intuition that many sentences that employ empty names are true, should we accept the result that all such sentences will translate to false propositions? Or is there not some preferable alternative that might evaluate such sentences as translating to true propositions?

*Example: How can this view explain the intuition that a sentence like 'Sherlock Holmes is a detective' expresses a true proposition?*

(2) Precisely how or why do we treat similar sentences that differ only in terms of the empty name used in those sentences as unique in practice when on the gappy proposition view the two (or more) sentences would amount to the same semantic proposition?

*Example: How can this view explain the intuition that similar sentences such as 'Sherlock Holmes is a detective' and 'Pegasus is a detective' express distinct propositions?*

I've phrased the problems as vague questions to do justice to the complexity and nuance of some of the subordinate issues that stem from these obstacles as well. There are variations and similar kinds

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<sup>71</sup> Ibid.

of alternatives to the gappy proposition view that seek to improve upon its original conception, but I would maintain that these two issues remain the most immediate for any such account. The gappy proposition view shines brightest when handling the problem of true negative existentials, which in a sense is the most classic iteration of the problem of empty names, but if it imports results that are just as contrary to our intuitions as the previous situation when applied to other cases, it should still not receive our total endorsement.

Let's proceed with our discussion to the first problem. On Braun's style of gappy proposition view, any sentence that contains the use of an empty name will translate into a gappy proposition, and he further holds that all atomic gappy propositions should be evaluated as being false. For example, the sentence 'Pegasus has wings' will translate into something like the following false gappy proposition:

<{}, being-winged>

Although we may have initially thought the sentence should translate to a true proposition, Braun's assertion is that this is a misunderstanding of how propositions work. True propositions (for Braun) always require an object to fulfil a predicative criterion, a criterion that gappy propositions can't meet because they inherently order predicates with the absence of an object. As there is no object to which the name 'Pegasus' refers, we should accept the result that the name can't be used to express a true proposition.

This all sounds reasonable until you compare such superficially-true-but-really-false sentences with blatantly false sentences that contain empty names. Braun's account does not seem to do justice to that appearance of truth apparent in the former but not in the latter. When we compare a sentence like 'Pegasus has wings' to a sentence like 'Sherlock Holmes has wings', Braun's account does not at first seem to respect the keenly felt difference (in terms of apparent truth value) between the two. We could indeed write off the intuition as an erroneous one, but an account which preserves some theoretical representation of the intuition would be preferable.

Braun's likely response could be inferred from his treatment of beliefs. Beliefs can be separate from propositions (i.e. belief contents) on his account, and information about beliefs can contain and communicate certain non-semantic content.<sup>72</sup> While the sentences 'Pegasus has wings' and 'Holmes has wings' have the same content, in our minds we respond to them differently because there are different causal, historical, and pragmatic features we associate with the names 'Pegasus' and 'Holmes', giving them different cognitive values. We believe 'Pegasus has wings' is true because of the cognitive value we ascribe to the name 'Pegasus', and similarly disbelieve 'Holmes has wings' on this basis. Neither of the two sentences is really true but we are typically moved to think otherwise because of the different cognitive value we associate with the terms. Let's call this the pragmatic-belief view; empty names get pragmatically associated with certain descriptive sets of information, and when we talk about fictional characters, we're really talking about a hypothetical object that meets a certain set of descriptions. In this sense, when we say 'Pegasus', we still mean a gap (it's important to note that the *meaning* of the word is still not the set of descriptions), but we are pragmatically bringing to mind a hypothetical entity associated with being a winged white horse.

I've summarised the pragmatic-belief view above, but I would like to extend the category to include a range of other thinkers. Fred Adams, Gary Fuller, and Robert Stecker co-authored a view which is similar to Braun's own.<sup>73</sup> There are some differences, such as the denial that gappy propositions can

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<sup>72</sup> Everett, Anthony (2003). Empty names and 'gappy' propositions. *Philosophical Studies* 116 (1):1-36, p4-5

<sup>73</sup> Adams, Fred ; Fuller, Gary & Stecker, Robert (1997). The semantics of fictional names. *Pacific Philosophical Quarterly* 78 (2):128-148.

be true or false. But the main notion here is that they also hold such sentences to “*pragmatically* convey certain propositions which they do not encode”.<sup>74</sup> However, on this account, the pragmatic mechanism is a bit more sophisticated and may better preserve our intuitions.

Adams et al. effectively hold that we can interpret sentences that invoke fictional names as being meaningful if interpreted in the context of a fiction. On this account, a fiction is a described world imagined by an author within which many propositions are explicitly or implicitly held to be true in the hypothetical case that the fictional world was real. This may explain how sentences containing empty names may be true or false, as they will become dependent on real facts about our world (facts about what an author did or not assert or imply about a fiction). For example, we should not read the sentence ‘Sherlock Holmes is a detective’ as being literally true in our world, but instead, we should interpret it as really meaning ‘In Conan Doyle’s stories, Sherlock Holmes is a detective,’ which will be true in itself in virtue of the fact Conan Doyle stated as much.<sup>75</sup> In other words, the utterance ‘Sherlock Holmes is a detective’ translates to the following complex proposition:

<Fiction<sub>SH</sub><{}>, being-a-detective>><sup>76</sup>

This proposition says that in the fiction of the Sherlock Holmes stories, it’s asserted that some non-existent object is imagined to express the property of being a detective. Although the embedded proposition must be false or express no truth value (as it is gappy), the complex proposition as a whole is true in the sense that the embedded proposition is truly imagined as part of the fictional world. Contrast this to the hypothetical assertion that ‘Sherlock Holmes is a carpenter’:

<Fiction<sub>SH</sub><{}>, being-a-carpenter>>

Again, the embedded proposition is false or without a truth value because it’s a gappy proposition. But in this case, we see that the complex proposition as a whole is also false, because in the Sherlock Holmes stories it’s not asserted that he is a carpenter. Thus, we solve this problem by interpreting statements that use fictional names as being implicitly contained within fictional operators. It is in this sense that claims like ‘Sherlock Holmes is a detective’ can be true in our world; because they are really claims about the contents of fictional worlds. We’re really saying ‘In the Sherlock Holmes stories, we pretend it’s true that Sherlock Holmes is a detective’, which is a true claim.

On that note, let us move on to consider the second main problem. This problem is related to the substitution of different empty names. Given that all empty names are translated into propositions in the form of generic gaps or valueless spaces, it would follow that any given empty name can be substituted for any other empty name and the resultant proposition would be exactly the same. This leads to some counter-intuitive situations. Consider the sentence ‘Pegasus is a winged horse’ when converted into a gappy proposition:

<{}>, being-a-winged-horse>

That might seem like a fair semantic representation of the sentence, until you compare it to another similar sentence that uses a different empty name, such as ‘Sherlock Holmes is a winged horse’. The corresponding gappy proposition from this sentence will translate into the exact same proposition. It is very counter-intuitive to think that the two sentences mean the same thing, yet such is the result of the gappy proposition view, and thus this is a problem for proponents of the view.

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<sup>74</sup> Everett (2003), p6

<sup>75</sup> Adams et al. (1997), p134

<sup>76</sup> Brock (2004), p282

Our previous solution won't straightforwardly solve this second problem. All empty names end up as the same valueless gaps, even when embedded within an operator complex. Thus, according to our current account, it doesn't matter what empty name we use, as it will produce the same proposition with the same truth value. But we would tend to think that the name we use should impact on the truth value of such propositions. Compare the two sentences 'in the Pegasus stories, Pegasus is a winged horse' and 'In the Pegasus stories, Sherlock Holmes is a winged horse'. We should think only the first sentence is true, while the second is false. Yet the current account would translate both into the same true complex proposition:

<Fiction<sub>p</sub><{ }, being-a-winged-horse>>

This is true because in the fiction of the Pegasus stories, it's asserted that some non-existent object (relative to our world) expresses the property of being a winged horse. Of course, it matters to us which non-existent object we're talking about, so this solution doesn't satisfy the second problem.

We can refine the solution to accommodate these other troubling intuitions. Instead of claiming that in a given fiction some particular proposition is true, we should be claiming that in a given fiction some sentence that expresses a particular proposition is considered to be true. Such a move arises from the work of Nathan Salmon and Scott Soames.<sup>77</sup> Consider the following distinct propositions:

<{Plato}, being-a-philosopher>  
<{SENTENCE: "Plato is a philosopher"}, being-true>

The first represents the claim 'Plato is a philosopher'. The second represents the claim 'the sentence 'Plato is a philosopher' is true'. We can observe that the two propositions are different because they can have different truth values in modal contexts. For example, the first proposition might be true in a possible world where Plato is still a philosopher but was actually given the name 'Peter' (the name 'Plato' will still refer to him in a proposition constructed from our language). However, in that same possible world, the second proposition would be false because the sentence 'Plato is a philosopher' wouldn't be true in that world (because there would be no one named 'Plato', merely 'Peter'). This is because the embedded sentence is embedded as a sentence rather than as a proposition.

We can use this meta-linguistic distinction to amend our earlier solution so that it can address the substitution problem of empty names. Now the new proposal would be that instead of interpreting sentences that use empty fictional names as expressing true propositions in the relevant fiction, we should interpret them as merely implying *the sentence itself* would express a true proposition in the relevant fiction. For example, if someone claims 'Pegasus is a winged horse', they really mean the following proposition:

<Fiction<sub>p</sub><{SENTENCE: "Pegasus is a winged horse"}, being-true>>

Or, in simpler language, they really mean that 'in the stories of Pegasus, the sentence 'Pegasus is a winged horse' is true'. Now the substitution problem should dissolve because the name used in the embedded sentence does matter. Replacing the name 'Pegasus' with 'Sherlock Holmes' on the refined model will produce a distinct, false proposition:

<Fiction<sub>p</sub><{SENTENCE: "Sherlock Holmes is a winged horse"}, being-true>>

This proposition is false because the embedded sentence would not be true in the Pegasus stories, as traditionally told.

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<sup>77</sup> Salmon, Nathan U. & Soames, Scott (eds.) (1988). *Propositions and Attitudes*. Oxford University Press

It's important to note that fictional names on this account are still empty. However, sentences can be treated as abstract objects in themselves, objects to which we can refer in propositions, and it is this observation that allows us to indirectly distinguish empty names in propositions. We can have two sentences that would translate into the same gappy proposition, but the two sentences are still distinct objects *as sentences*, to the extent that there is a syntactic difference between them. We're not interested in their semantic translations in the actual world, in the above cases; we're interested in their hypothetical semantic translations in the relevant fictional world. We're not trying to refer to physical objects in these propositions so much as we're referring to abstract linguistic objects, which can be distinct even if they are semantically empty. Thus, we may have a resolution to the second problem for the gappy proposition view.

This concludes my presentation of the gappy proposition view. In summary, it is a view that aims to be consistent with the principle of compositionality, insofar as it holds that sentences will express propositions in virtue of their ordered structure and constituent semantic terms. However, it also slightly modifies the principle by allowing propositions to be expressed even when certain terms in the base sentence lack a semantic meaning by representing these terms as gaps in the structure of the resultant proposition. We now move to the final chapter, where we will consider how the view might intersect the debate the obstinate and persistent rigidity theorists.

### Chapter Three: The New Case for Persistent Rigidity

Having sufficiently outlined the gappy proposition view, we can now start to use it to adjudicate between the obstinate and persistent views of rigidity. I'll be arguing that the gappy proposition view is naturally complementary to the persistent rigidity view. This is because the GPV explicitly holds that names do not refer where a referent does not exist. The real point of interest will be in exploring how the GPV may bolster the position of the PR theorist. But the idea, put simply, is this: a sentence like 'Aristotle is a philosopher' is true in worlds in which the name 'Aristotle' refers and *he* has the property of being a philosopher, and it is false in other worlds, either because Aristotle has another profession in those worlds, or because he does not exist, *in which case the sentence expresses a (false) gappy proposition in those worlds*. Names should thus not ever express obstinate rigidity because where the referent of a name does not exist, use of that name in a sentence will produce a gappy proposition.

I'll proceed by first presenting the classic arguments used to support persistent rigidity and consider how the GPV may enhance these arguments. Next, I will review the old arguments for obstinate rigidity one more time, but now filtered through the GPV, and seeing if the GPV can help the PR theorist overcome some of the challenges raised by the OR theorist camp. This exercise should provide a comprehensive analysis of how the GPV and rigidity intersect.

#### ***Old Arguments for Persistent Rigidity***

Recall that both camps maintain that names are rigid designators (terms that refer to their objects in all possible worlds). But whilst obstinate rigidity theorists maintain that such terms can designate the same referent even in those worlds where the original referent doesn't exist, persistent rigidity theorists hold that such terms will simply fail to refer in those same worlds. Recall as well how the gappy proposition view holds that when a sentence contains a name with no referent, the sentence will express a proposition that has a valueless gap in the place of a usual object. Combine these ideas and it seems only natural that the GPV should favour a persistent account of rigidity rather than an obstinate account. However, we may be able to amplify this intuition by exploring how the GPV meshes with some of the original arguments for persistent rigidity.

Robert Steinman's paper on obstinate and persistent rigidity constitutes a valiant effort to defend the viability of persistently rigid names.<sup>78</sup> In this paper, Steinman responds to certain OR arguments from A.D. Smith's 1984 paper, in defence of persistent rigidity, before he unleashes a flurry of unique positive arguments for the PR account. Let us consider a few of them, specifically the denial of a seemingly necessary truth, an argument from essentialism, and the name bearer paradox.

One argument from Steinman is that obstinate rigidity would lead to the denial of the following formal truth:

$$\vdash \Phi a \supset (\exists x) \Phi x$$

In plain English, this formula states that it follows from the truth of a statement in which a particular object has a particular property that there must in that case exist at least one object which has that particular property (and we could index this by suggesting such an object must exist in the world in which the statement is true). On an OR account, this leads to some awkward consequences when

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<sup>78</sup>Steinman (1985)

making true statements about objects that don't naturally exist in a world.<sup>79</sup> For example, an OR theorist would hold that the statement 'Benjamin Franklin is not fat' will be true in a world where Benjamin Franklin does not exist (from the fact that Benjamin Franklin cannot express any positive properties in a world where he does not exist). Yet from the theorem above, it should follow from the truth of the statement in question that there must then exist some object that has the property 'not fat' in that world. But this does not necessarily follow. On an OR account, the statement will be true in a world that contains only fat objects, for example, which would lead to a contradiction with the formal truth. Given that this formal truth appears to us as necessarily true, this case can mark a problem for the obstinate rigidity theorist.

Persistent rigidity accounts wouldn't suffer the same problem. On a PR account, the sentence may be argued to be false or express no truth value because the name 'Benjamin Franklin' won't refer in a world where Benjamin Franklin doesn't exist. The formal truth only relates to situations where it's true that an object expresses some property, so there is no contradiction with the PR account here.

We could easily see how the gappy proposition view would fit into this argument. In a world where Benjamin Franklin doesn't exist, the claim 'Benjamin Franklin is not fat' will express the following false gappy proposition:

<{}, not-being-fat>

This would be consistent with a PR account of rigidity because the PR account explicitly holds names won't refer in worlds where the named object does not exist. Semantic gaps can thus be understood as a representation of a case of non-reference. We can contrast this to the proposition that should be implied by the OR account:

<{Benjamin Franklin}, not-being-fat>

It's apparent from this case that the OR account and the GPV produce different propositions from the same claim in this instance. The GPV's proposition may be preferable as it will be false because there is no object to consider. If there is no object to consider, neither can there be any tension with the formal truth. Meanwhile, the OR's proposition is true, and thus seems to imply that there is an object that expresses the property of not being fat, or an object that doesn't express the property of being fat. Yet, for reasons noted above, this should not follow, marking a conflict of intuitions that seems to favour the PR and GPV accounts.

A.D. Smith responds to this argument in defence of obstinate rigidity in his 1987 paper (which is an equally valiant response to the efforts of Robert Steinman but from the opposing camp).<sup>80</sup> Smith's proposal here is that OR theorists can opt to distinguish between internal and external negation (relative to a world) and restrict the truth of Steinman's cited formula to internally granted truths.<sup>81</sup> When we exclude Benjamin Franklin from the set of objects expressing 'fat', for example, we must distinguish whether we do so because he exists as a non-fat object in a world (internal negation) or because he does not exist in the world at all (external negation). A truth based on an object that does not express a certain property should not imply an object lacking that property exists in a given world if the truth arises from external negation, Smith offers. He grants that this does amount to a

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<sup>79</sup> Ibid., p434

<sup>80</sup> Smith (1987)

<sup>81</sup> Ibid., pp83-85

restriction on a formal truth that “seems to tell us something quite incontrovertible”, but further argues it’s not a major drawback of an OR account because the PR account must also restrict it.<sup>82</sup>

Smith allegation is that the PR account must also restrict the formula to exclude ‘non-existence’ as a property fitting  $\Phi$  because otherwise in a world where Plato does not exist, for example, the truth of the claim ‘Plato does not exist’ would imply there exists an object that does not exist in that world. Perhaps this made sense when he originally levelled this accusation. But the gappy proposition view may paint a different picture. Using the GPV, a PR account could say the claim ‘Plato does not exist’ is true in a world without Plato because it merely expresses a negation of a false gappy proposition. Thus, the GPV may allow a PR account to support the unrestricted necessity of the formula, which was not a move the PR account could make in the past. Nonetheless, Smith’s restriction of the formula is a minor one, and thus perhaps this should not be considered a decisive argument.

Perhaps a more forceful argument from Steinman is his reasoning that obstinate rigidity accounts are incompatible with the assignment of essential properties to objects. If we are committed to the notion of essential properties, Steinman argues, we may thus be inclined to deny obstinate rigidity.<sup>83</sup> This argument is short and sweet: essential properties require  $\Phi N$  to always be true of an object, yet  $\Phi N$  will be false in a world where N does not exist on an OR account. Meanwhile,  $\Phi N$  won’t ever be false on a PR account, as either N will exist and express its essential property, or N won’t exist and no propositions can be stated about N whether truthfully or falsely. Thus, if we feel that essential properties are fundamentally important, we should lean towards a persistent account of rigidity rather than an obstinate one.

Let’s consider one more brief argument from Steinman’s paper: the name-bearer paradox.<sup>84</sup> This argument goes as follows: we should hold the statement ‘the bearer of N might not have been the bearer of N’ to be true, as can be understood by considering a world in which N does not exist (and thus doesn’t bear a name), but an obstinate rigidity account can’t capture this. It would be easy to misunderstand Steinman’s point here, so I should clarify he is not saying ‘the bearer of N might have been named something other than N’. This is not considered a tricky statement to validate for either form of rigidity. Instead, Steinman is saying that there should be a world in which the name ‘N’ from our language does not refer to the object N. But if obstinate rigidity theorists are trying to show that N might not bear the name ‘N’ by pointing to a world in which N does not exist, they’ll fail, as in that world, N will still be the bearer of ‘N’ in virtue of the fact we’re referring to the object via that name. On the other hand, N is not the referent of ‘N’ in a world where N does not exist on a persistent rigidity line.

Once again, the GPV can be deployed here to help illustrate the PR account’s argument. In a world in which Aristotle does not exist, Aristotle won’t be the bearer of the name ‘Aristotle’ of our language, as in that world, the name will be empty and lead to a semantic gap instead.

We can take being the bearer of a name to be synonymous with being the referent of that name. PR accounts can demonstrate the truth of Steinman’s tricky claim because in a world where Aristotle does not exist, using our language’s name of ‘Aristotle’ won’t refer to him because it won’t refer at all; it will produce a semantic gap. On the other hand, an OR account can’t explain this case because our language’s ‘Aristotle’ will still refer to him in a world where he doesn’t exist, suggesting that he must always bear our language’s name of ‘Aristotle’ in every possible world.

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<sup>82</sup> Ibid., p84

<sup>83</sup> Steinman (1985), pp434-435

<sup>84</sup> Steinman (1985), p438



Smith isn't too impressed by this argument either. His response is that Steinman has failed to fully appreciate distinctions between names and definite descriptions.<sup>85</sup> Smith interprets the phrase "the bearer of N" as a definite description that is satisfied by the condition of being the object that bears the name 'N'. On neither account of rigidity should the proposition in contention then be difficult to prove as true, as the relevant phrase has nothing to do with rigid designators. In a world where there is no N, N will not be 'the bearer of N' because no object there will satisfy the condition of being 'the bearer of N', even on an obstinate rigidity account.

From the above arguments, we have seen a couple of instances where the PR theorist does seem to legitimately push the OR theorist onto their back foot. Yet perhaps these were not major grievances. The next argument we will consider, however, seems to provide the strongest motivation to support persistent rigidity over obstinate, as most PR theorists discuss it in some way or another.<sup>86</sup> This is the argument from ontological dependence.

Brendan Murday (advocating for persistent rigidity) mentions the 'ontological dependence thesis' where "singular propositions cannot exist at a world unless their constituents exist at that world".<sup>87</sup> For Gilbert Plumer, "a proposition is true at a time only if it exists then", and "a singular proposition just is an object(s) and a "property" (or relation) in a certain structure".<sup>88</sup> These principles mark an undercurrent of motivation for PR theorists' attacks against obstinacy, which is the idea that objects must exist in order to be successfully referenced in propositions, or that propositions exist only to the extent that their constituents exist at a world. Obstinate rigidity seems to allow propositions to be built out of non-existent objects. As Joao Branquinho puts it, "it entails that it is possible to refer to mere *possibilia*, objects that do not exist but might have existed."<sup>89</sup>

How might we generalise this argument against obstinate rigidity? Perhaps as follows: objects must exist in order to become components of propositions in a world, but obstinate rigidity allows objects that do not exist to be built into propositions, thus obstinate rigidity should be rejected. In a non-actual world B where Aristotle does not exist, for example, the proposition 'Aristotle does not exist' is considered to be true by most obstinate rigidity theorists. Why? Because with obstinate rigidity, we can refer to the object <Aristotle>, then observe that this particular object does not exist in this world, and thus grant Aristotle the property of non-existence at World B. Obstinate rigidity theorists might consider this a commendable result, as it allows us to justify an intuitively true proposition, but persistent rigidity theorists may consider such a move to be a logical transgression. Those who believe that denotation should only apply to existent objects will thus have a reason to support persistent rigidity over obstinate rigidity.

In direct reference theory, the meaning of a name just is the object to which the name refers. When there is no object, it seems straightforward enough to suggest that there should be no reference, or that a name might become meaningless. Yet obstinate rigidity disregards all of this and embraces reference towards non-existent objects. So why entertain the theory at all? This line of thinking is perhaps the primary motivation to reject obstinate rigidity and adopt persistent rigidity instead, as it appeals to a natural intuition about the direct reference theory, the theory to which both camps explicitly subscribe.

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<sup>85</sup> Smith (1987), pg88

<sup>86</sup> Cf. Plumer, Gilbert (1989). Mustn't whatever is referred to exist? *Southern Journal of Philosophy* 27 (4):511-528; Stanley, Jason C. (1997). *Rigidity and content*. In Richard G. Heck Jr (ed.), *Language, Truth, and Logic*. Oxford University Press; Murday (2013)

<sup>87</sup> Murday(2013), p240

<sup>88</sup> Plumer (1989), p7 and p10

<sup>89</sup> Branquinho, João (2003). In defense of obstinacy. *Philosophical Perspectives* 17 (1):1–23, p4

Gappy propositions bolster this argument too. Direct reference can be argued to entail that claims require objects in order to be able to successfully refer. The GPV naturally fits into this interpretation of the theory as it provides an account of what happens when we try to refer to something where there is nothing to which we can refer: we get a gap. This solution preserves the intuition that we can't refer to non-existent objects in a very clear fashion.

The response from obstinate rigidity theorists is well-traversed enough. As encountered earlier, the original defender of obstinate rigidity discussed the notion of 'carrying in' objects from worlds where the object does exist to be used in propositions in worlds where the object does not exist.<sup>90</sup> Another way of thinking about it is offered by Branquinho who (defending obstinate rigidity) encourages us to distinguish between "reference with respect to a world and reference in a world".<sup>91</sup> Although the object in propositions similar to the above may not exist *in* the world in question, the object does exist somewhere else, and we can use the object in propositions *with respect to* that world where it does not natively exist. Considered in this way, obstinate rigidity does not bluntly result in situations that allow reference to non-existent objects.

There are two reasons why we might not want to consider this explanation to be satisfactory. First, there is no need to refer to non-existent objects having established the gappy proposition view. The main instance in which we might have needed obstinate rigidity were cases of negative existentials, but the gappy proposition view can resolve these instead. Perhaps obstinate rigidity was useful in some temporal cases, but the justification there was questionable, as we discussed. We will revisit both of these situations soon, nonetheless. From where we're already standing, however, it looks like the GPV could make a strong case for OR being superfluous, if not outright contradictory, and so we first of all lack any motivation to undermine the ontological dependence thesis, now that we are in possession of the GPV.

Second, we've observed that accepting obstinate rigidity imports counter-intuitive consequences. It would undermine certain necessary logical truths and a strong account of essentialism, and now also requires us to aggrieve an intuition about the nature of propositions and their relation to objects. Referring to objects outside of contexts where they exist can simply be argued to be an oxymoron. And when we try to do so, we run into tensions with our other philosophical intuitions.

From all of these considerations, I would hold that the arguments for persistent rigidity are a strong indictment against obstinate rigidity. Under this light, obstinate rigidity appears to be both surplus to requirements and counter-intuitive. However, we know that the response from OR theorists will be that we do need obstinate rigidity in order to account for other, perhaps more primary intuitions. Thus we should not consider our investigation complete until we re-consider those motivating factors with the gappy proposition framework now serving as a potential counter-balance.

### ***Gappy Propositions vs Arguments for Obstinate Rigidity***

In the first chapter, we considered four arguments raised by obstinate rigidity theorists. The primary challenges against persistent rigidity were purported cases that only obstinacy could accommodate, and additionally the idea that only obstinacy allowed names to be unique from descriptions. But the GPV may be able to clear persistency of some of these charges. As indicated from the start, I believe that the GPV can weaken some of the key OR arguments, and may clarify the PR account to make it the clearly preferable position of the two. We may recall that the four OR arguments were those from negative existentials and contingency statements, from an analogy to temporal contexts, from

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<sup>90</sup> Kaplan (1989)

<sup>91</sup>Branquinho (2003), p5

an inequivalence to definite descriptions, and from the notion of unmediated referentiality. All of these arguments will get one last analysis before we move to summarise the overall investigation.

Let's begin with the argument from unmediated referentiality this time. This was the argument that the theory supported by both rigidity camps which holds names to be directly referential naturally entails that names are 'unmediated referrers', and that this property of unmediated referentiality itself naturally entails that names are obstinately rigid. My conclusion at the time was this is not a sound argument because we could conceptualise names as being pure referrers that nonetheless do not refer in some cases (where the single object associated with the name does not exist).

The gappy proposition view would be in alignment with this account of persistent rigidity and most likely contradict an obstinately rigid account. McGinn (defending obstinate rigidity) claims that "to understand a sentence containing a name you must associate a constant function with the name as its sense i.e. know that in any world the corresponding intension gives the same value".<sup>92</sup> We can take this way of thinking as motivating the idea of the unmediated referrer. But this also suggests a straightforward contradiction with the GPV, which holds that if there is no object corresponding to a given name at a certain world, the name will be empty and thus without a semantic value.

On the other hand, we can modify the concept of an unmediated referred to align itself with the GPV and PR account. An unmediated referrer refers to one object in virtue of the fact that it is stipulated as such. But if there is no object to which we can re-identify as the name's referent, the name won't refer. In this sense, a name can be full in some worlds and empty in others. This would be consistent with unmediated referentiality and the GPV/PR account, further weakening the force of the original argument for obstinacy.

Another argument for obstinate rigidity to review is the argument from modal inequivalence. This was the argument that only obstinate rigidity can account for the distinction between names and definite descriptions. As a key feature of the direct reference theory seems to be that it considers names to be of a different semantic kind from definite descriptions, it was argued that only an OR account could capture a difference in modal behaviour between the two semantic kinds. This was because wide-scoped definite descriptions could be seen as persistently rigid, as could names, but only names could (arguably) express obstinate rigidity. But could the gappy proposition view invite any new considerations about these issues?

Perhaps this is one instance where the GPV can do nothing to support the case of the PR theorist. On the GPV, names must be persistently rigid, as using a name at a context where the named object does not exist will produce a semantic gap rather than refer to the referent. If descriptions are also persistently rigid, then names and definite descriptions can indeed be modally equivalent, as world-indexed definite descriptions and those that take wide scope over modal operators are persistently rigid as well. The name 'Aristotle' would produce a gap in a world where Aristotle did not exist. The same might be said for the actualised definite description 'the actual teacher of Aristotle'; if there is no Aristotle, it might produce a semantic gap when translated into a proposition too. However, given that we have explored how names may be semantically inequivalent to definite descriptions anyway, in how the two pick out their referents at a given use, this may be a small point to concede. And we can still return to Kripke's later modal argument where he shows that definite descriptions outside of modal operators aren't rigid at all, if we really need to show their modal inequivalence to names.

A third argument we considered was the argument from an analogy to temporal contexts. Here the reasoning was that we already intuitively accept obstinate rigidity in statements across time and that

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<sup>92</sup>McGinn (1982), p109

modal contexts are analogous to temporal contexts, thus we should accept modal obstinacy as well. This was because there were cases where some expressions seemed to intuitively behave in such a way as to demonstrate temporal obstinacy. In order to refute this argument, the PR theorist would need to provide a semantic account that can explain these cases in another way. I believe that the GPV may be able to provide this account.

It may be worth re-emphasising that this argument may have already been refuted. In the case of referring to an object that once existed but no longer does, we may say that a name expresses temporally obstinate rigidity. But we could deny there is an analogy to modal obstinacy here as the basis for temporal obstinacy may arise from the historical chain of transmission of names, where we have inherited the meaning of a name from a time when the object did exist. No analogous chain can be established for modal obstinacy, so we could deny there is an argument here at all.

A chain of transmission couldn't explain cases of referring to an object *before* it exists, however. So if we think such cases are coherent and natural, temporal obstinacy may not be founded upon chains of transmission. Some would challenge that using a name about a future referent is not possible,<sup>93</sup> on the other hand, in which case the modal obstinacy theorist would still lack an argument. But if such cases are possible, the GPV and PR advocate would need to be able to account for using these through an alternative explanation than temporal obstinacy if they wanted to totally safeguard themselves against this argument.

In order to review the OR theorist's position, we have to go back to the distinction between the meaning of a proposition and its evaluation. We can talk about it in terms of content and extension, or as others such as Plumer have talked about it, "tokenings" and "evaluation".<sup>94</sup> Joseph Almog calls this a two-stage theory of evaluation, where "the proposition is generated *before* it is evaluated".<sup>95</sup> Again, this is just the idea that we may utter a sentence at a given context which then 'tokens' or 'generates' a singular proposition, which fixes for the proposition its content or meaning.

Propositions should be imagined as "constructions" where "we cannot construct anything from missing building blocks".<sup>96</sup> So in other words, we can't generate or token a complete proposition from a time where an object we have in mind does not exist if we're trying to use that object in the proposition. However, if we are interested about expressions that seem to relate to a particular object at a time when it doesn't naturally exist, we may be able to generate the relevant proposition as if we were uttering it at a particular context where the object does exist and then evaluate that proposition at the context in which we're interested. To put it another way, we can construct propositions out of 'building blocks' from other contexts and then evaluate them elsewhere. At least, this is what the OR theorist should want to argue.

We should all be in agreement that if we were to utter, token, or generate a proposition at a context where a particular object does not exist that attempts to name that particular object, the resulting proposition will be partially empty and meaningless. This is because we would not have the available building blocks in this context to construct a complete, non-gappy proposition. There should thus be no question that a statement such as 'Aristotle is a philosopher' would be false or meaningless if we tried to generate that proposition in a time context before Aristotle was born if using the language available to native denizens of that time context. The more interesting question for our purposes would be to ask what happens if we were to generate a proposition from the same sentence uttered

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<sup>93</sup>Murday (2013), p238

<sup>94</sup>Plumer (1989), p513

<sup>95</sup>Almog (1986) p220

<sup>96</sup> Ibid., p231

at a time context when Aristotle was alive (e.g. the year 340 BC), then evaluated the resultant proposition at a time context before his existence. Although we considered the question earlier, we can now compare what the OR theorist has to say about these situations and contrast this to what the GPV and PR proponent would have to say.

The answer from the OR theorist has already been mentioned from our earlier discussion. Holding such a view, it would follow that the proposition of <{Aristotle}, being-a-philosopher> generated in the year 340 BC but evaluated in the year 500 BC would be false. They would consider it false for the reason that the man Aristotle himself does not express the property of being a philosopher at the time of evaluation, or perhaps that Aristotle does not fit within the set of objects that express 'being a philosopher' at 500 BC. Meanwhile, the proponent of the GPV may have a different answer.

There are two responses a proponent for the GPV and PR might have to say about these cases. The first is that they might deny that propositions can be exported or imported across times or worlds. This response may align itself with the ontological dependence thesis, where propositions can only exist at a time where all its constituent parts exist. Perhaps then the question would become not about what happens to a proposition about Aristotle evaluated at a time context before he exists, but about what kind of proposition would be expressed by a sentence containing his name *using the language of 340BC* uttered at a time before he naturally exists. The first question should seem to be incoherent to a supporter of the GPV and PR, whilst I can see no reason why the second question should be considered illegitimate. Another response might be that propositions can be exported from one context and imported into another for evaluation, but the evaluation would require us to translate the proposition into a form that can exist at the new context.

Following either line, the result would end up more-or-less the same: the proposition analogous to 'Aristotle is a philosopher' generated at 340 BC would be '<{ }, being-a-philosopher' if it were instead generated at 500 BC. This is because the object referred to as 'Aristotle' at 340 BC wouldn't exist to be a part of any propositions at 500 BC, thus attempts to use that name in a proposition will fail and produce a gap instead. And we should notice that what we have here is a model that explains the alleged cases of obstinate rigidity without invoking obstinate rigidity. Thus, there isn't necessarily an argument for obstinate rigidity from temporal contexts, as the intuition that we can use names trans-temporally can be explained by persistent rigidity too, using the GPV.

One might wonder about which of the two accounts should be preferred to explain cases of using names trans-temporally: the OR model, where a proposition is generated out of parts at one time and then imported wholesale into another time for evaluation, or the PR and GPV model, where we ask what proposition a sentence composed in the language of one time would express if uttered at a different time. In the OR case, we would tend to get propositions at the second time containing all the same elements as the first time, whereas on the PR/GPV model, we may either get propositions containing all the same elements (if all the same elements still exist) as the first time at the second, or gappy propositions (when some of the elements from the first time fail to exist at the second). The discussion on older arguments for persistent rigidity can explain the value of preferring the PR and GPV account. There are at least two intuitions that might be undermined if we accept the OR account: the idea that all the constituents of a proposition must exist at the time of evaluation in order for the proposition to be true, and that objects can have essential properties. The PR + GPV account is preferable to the extent that it preserves these intuitions.

How does the OR account fail to preserve these intuitions? Let's consider another proposition, the claim that 'Aristotle is not a human being'. Again, we'll presume that being a human is an essential property of Aristotle. This proposition will be false if we generate and evaluate it in the year 340 BC.

When we evaluate it in the year 500 BC, on the other hand, OR theorists would have to say that it is true *because Aristotle fails to express the property of being a human at that time*.<sup>97</sup> The problem is that this explanation contradicts both of the intuitions noted above. It suggests that Aristotle can fail to express his own essential properties, and that propositions can be true even when objects that are part of the proposition don't exist to be a part of that proposition. For these reasons, we should not accept that these cases should be explained through temporally obstinate rigidity.

We should not ignore potential issues that arise on the GPV and PR analysis of the same proposition. On this account, the proposition would translate to the gappy proposition  $\langle \{ \}, \text{not-being-a-human} \rangle$  if generated in the year 500 BC from the language of 340 BC. As it's an atomic gappy proposition, it will have to prove to be false or meaningless, which may be a problem because we might tend to think 'Aristotle is not a human being' should be true with respect to the year 500 BC. Yet there may be a way to navigate around this issue. We could observe that the claim 'Aristotle is a human being' becomes the false gappy proposition of  $\langle \{ \}, \text{being-a-human} \rangle$  too, and then negate that proposition. This may be a true and fair translation of 'Aristotle is not a human being' (i.e.  $\langle \text{NEG} \langle \{ \}, \text{being-a-human} \rangle \rangle$ ). So this account does allow us to show that the claim is true as our intuition would suggest, without saying Aristotle can ever fail to express his essential properties. Instead, this account shows that the claim is true because we are negating a meaningless falsehood. We are effectively saying it's false that a non-existent object is a human being at the given context.

This explanation allows us to clarify the other intuition where propositions should be constructed of existing, correctly corresponding objects and properties from a context to be true at that context. At first blush it may seem like the proposition  $\langle \text{NEG} \langle \{ \}, \text{being-a-human} \rangle \rangle$  fails to preserve this intuition because some of the parts don't seem to exist and yet the proposition is considered to be true. But perhaps complex propositions involving operators may be exempt from this condition in some cases. This seems necessary because operators tend to modify propositions in such a way as to require us to think about ways that a given context is not manifest, such as counter-factual truth values. In the case of the negation operator, it is merely moving us to evaluate if it's true that you aren't going to find the components of the embedded proposition arranged in the appropriate relation. Given that gappy propositions imply this will always be the case, it does seem consistent to hold negations of these propositions to be true. As the GPV and PR account can thus be seen to preserve intuitions better than an OR account, we can reject the argument from temporally obstinate rigidity.

Finally, we return to the last argument for obstinate rigidity, which was also the first: the argument from negative existential and contingency statements. As it happens, this would be both the most popular argument raised in support of obstinate rigidity, and the argument which most explicitly contradicts the gappy proposition view. One last time, it goes as follows: we often hold objects to exist merely on a contingent basis, in the sense that the world could have existed without them. Statements like 'Aristotle might not have existed' are thus considered to be true, true in virtue of there being worlds where the statement 'Aristotle does not exist' expresses a true proposition. Obstinate rigidity theorists can make sense of this data because in a world without Aristotle, his name will still refer to him, so we can meaningfully use his name in a negative existential and evaluate it as being true because Aristotle won't exist there.<sup>98</sup> It's further argued that persistent rigidity theorists couldn't make that same proposition meaningful because the name 'Aristotle' would not refer on such an account.

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<sup>97</sup>Ibid., p219

<sup>98</sup> Smith (1987), p86

This argument can be almost completely overturned by the gappy proposition view, which provides the PR theorist with the alternative model it required to endure the OR theorist's critique. Using the GPV, the PR theorist can say that at a context where a named object does not exist, we can express the purported object's non-existence using a gappy proposition. The claim 'Aristotle does not exist' can be shown to be true on the GPV/PR model at a world where Aristotle does not exist because it will express the gappy proposition  $\langle \{ \}, \text{existence} \rangle$ , which will be false or without a truth value, and in turn, the complex proposition  $\langle \text{NEG} \langle \{ \}, \text{existence} \rangle \rangle$  will be true, which may be a fair reflection of the claim's intended sentiment. This model is entirely compatible with persistent rigidity because it does not allow names to refer at contexts where they don't exist.

The argument for obstinate rigidity from negative existentials thus won't fly in the face of the gappy proposition view. Furthermore, we can see now the incompatibility between OR and the GPV more sharply than ever because there is a direct contradiction between the two. OR theorists hold that expressions containing names that lack native referents may still produce propositions containing the intended object (imported from a world where the referent does exist), whilst the GPV holds that the same expressions can only express gappy propositions. Beyond this contradiction, the GPV undermines the OR account because it solves the same problem for the direct reference theory that motivated advocates for OR to defend the account in the first place without recourse to an appeal to obstinacy, making an OR account superfluous to our semantic requirements.

It would make sense to ask which of the two treatments for the problem of negative existentials is the most viable at this point. But we need only restate the arguments for persistent rigidity from earlier to resolve this debate. The OR account's solution requires us to predicate properties onto non-existent entities, will lead to situations where objects fail to express essential properties, and allows propositions which lack constituent parts from a given context to be true in that context. On the other hand, the GPV's solution sidesteps all of these counter-intuitive consequences whilst disproving the OR theorist's claim that their account was the only explanation of the problem. For these reasons, I must conclude that the GPV and PR account is the more preferable of the two.

There are no more arguments left to review. The analysis revealed a consistent trend that the GPV was both compatible with the PR account, and could generally serve to vindicate the account from problem cases raised by the OR camp. In addition to this, the GPV generally seemed incompatible with the OR account, as it sought to repaint as meaningless precisely those same terms that the OR account sought to prove were meaningful. One interesting result was that the GPV pushes the PR theorist to accept the result that names might be modally equivalent to definite descriptions, a result that the OR theorist can still deflect in their own case. But on the whole, I would argue that the GPV has allowed persistent rigidity to appear much more preferable to obstinate rigidity.

## Conclusion

We thus reach the end of our investigation. From the beginning, the purpose of this thesis was clear: consider the impact of the gappy proposition view when applied to the debate about the nature of rigidity between obstinate and persistent rigidity theorists. Our analysis revealed that the principles of the gappy proposition view most closely aligned themselves with the persistent view of rigidity, and as a result, weaving the GPV into this debate strengthens the persistency view by undermining the arguments in support of the obstinacy view.

Both the obstinate rigidity view and the gappy proposition view sought to resolve the problem of empty names for the theory of direct reference for proper names. But the two theories attempted to resolve the problems in quite different and arguably contradictory ways. Given that the gappy proposition view is the more comprehensive of the two, and resolves a wider gamut of issues for the direct reference theory, I believe that its solutions should be preferred above those offered by the obstinate rigidity view. This opinion would be reinforced by the arguments against the obstinate account of rigidity raised by the persistent rigidity theorists.

Regarding the wider questions of descriptivism versus direct reference theory, the true account of proper names, or even obstinate rigidity versus persistent rigidity, nothing in this thesis could be said to remotely amount to the final word. But one firm conclusion can be drawn: if the field of semantics intends to embrace the gappy proposition view of singular propositions, it should likewise modify or abandon the obstinate account of rigid designators.



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