

# Experimenting with name meaning

On the relationship between empirical evidence and proper name semantics

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## 1. Introduction

An often heard narrative, perpetuated by the likes of Martin Heidegger (1972, 55-73),<sup>72</sup> paints the following picture of the relationship between science and philosophy: ever since sound scientific investigation got off the ground, science started to rapidly replace philosophy as the leading epistemic authority in many fields of research.<sup>73</sup> With every scientific discipline arriving at the scene, or so the story goes, philosophers were left with a more and more limited set of questions to which their answers were considered insightful. This view — that science is the superior method for knowledge acquisition — referred to as ‘scientism’ (Sorell 1991, 1; Bunge 2014, 24), has been met with vehement opposition from the philosophical community. It has not only been argued that scientific inquiry relies heavily on philosophical thinking (Putnam 2010, 95-96), but also that empirical findings don’t invalidate philosophical thought as thoroughly as is commonly claimed (Sorell 1991, 139-140). Still, some questions can undoubtedly only be answered empirically, and the consequences of scientific research for the practice of philosophy have not been insignificant. The scientific revolution has forced each philosophical branch to take a step back and closely examine the impact of science on both the content and methodology of their area of study.

One branch of philosophy that has long evaded this reflective exercise is *semantics*: the study of the meaning of language. Semantics doesn’t seem connected to empirical research in a straightforward manner, likely because of its historical ties to ideal language projects (Kluge 1980), its connection to mathematics (Searle 2010, 15-16), and its frequent use of abstract concepts from both logic (Newen and Schröder, 2011) and metaphysics.<sup>74</sup> However, in the last two decades the nature of the relationship between semantics and scientific research has become a topic of heated debate. This debate was instigated by Machery, Mallon, Nichols and Stich (henceforth ‘MMNS’) in 2004, when they broke with the traditional methodology of semantics — under the wings of an exciting new research direction, experimental philosophy<sup>75</sup> — by performing an experiment in which they examined some of the core intuitions used in semantic theorizing about *proper names*.<sup>76</sup> The results of that study appeared to challenge the *universality* of these intuitions, which diminishes their evidential value for semantic theories, according to MMNS (Mallon et al. 2009, 344-351).

72 In Heidegger’s 1964 lecture “The End of Philosophy and the Task of Thinking” one can find an explicit expression of the idea that philosophy (metaphysics specifically) has been replaced by science.

73 This view arguably has its roots in the attempts of natural philosophers in the late 18th century to (re)construct epistemic authority by invoking science after the skeptical crisis (*la crise pyrrhonienne*) of the late 16th and early 17th centuries (Dettelbach 1998). And although (largely) unintended, I think we can safely say that the characterization of philosophy as obsolete to most knowledge inquiries was perpetuated by the positivist movement of the early 20th century.

74 E.g. identity, necessity and possibility.

75 The aim of experimental philosophy is roughly to empirically test the content of ‘folk intuitions’ regarding philosophical thought experiments (Kauppinen 2014, 5).

76 ‘Proper names’ are a subset of *noun phrases* (syntactically speaking). Expressions that are considered to be proper names (in English) are phrases like ‘Donald Trump’, ‘The Golden Gate Bridge’, ‘Sarah’, etc. Proper names usually apply to single objects. They can be contrasted with *general* names that mostly apply to *classes* of objects. Whenever I use the term ‘name(s)’ in this paper, I am referring to (a) proper name(s).

If MMNS' conclusion is correct, the repercussions of their experiment for the semantic study of proper names (and potentially for semantics more broadly) are substantial. For the intuitions MMNS empirically researched concern two of the most influential<sup>77</sup> thought experiments in philosophical semantics: the 'Jonah case' and 'Gödel case', introduced by Saul Kripke (1981, 66-67, 83-84) in his seminal 'Naming and Necessity' (henceforth 'N&N') lectures at Princeton in 1970. The arguments that Kripke developed from these thought experiments delivered a near fatal blow to *descriptivism*, the theory of proper name meaning that had dominated analytic philosophy since the early 20th century (Martí 2014, 18). The two cases also provided evidence for Kripke's *causal-historical view*, a theory of reference he advanced in N&N that is widely regarded as a valuable contribution to proper name semantics. On top of that, Kripke's line of reasoning in N&N has provided the groundwork for a whole new approach to the study of meaning: *semantic externalism*,<sup>78</sup> "one of the most significant philosophical developments of the past fifty years" (Baghrahmanian and Jorgensen 2013, 594). So, if it turns out that the intuitions related to Kripke's thought experiments lack evidential power, a vast amount of monumental semantic thought is constructed on a rotten foundation. As a result, many of Kripke's important ideas, like the causal-historical view, would be discredited.

It should come as no surprise then, that most semanticists were reluctant to embrace MMNS' conclusion. The idea that scientific evidence could topple Kripke's argumentation in N&N proved to be rather provoking. A lively debate ensued among philosophers of language, persisting to this day,<sup>79</sup> about the impact of MMNS' study on proper name semantics.

In this paper I will focus on a particular reaction within this debate that I have dubbed *relevance critique*. Specifically, I will discuss some concerns about MMNS' inferences that Deutsch (2009) and Devitt (2011) have voiced. Both of these philosophers have downplayed the implications MMNS' test results have for the semantics of proper names. They have done so by arguing, in their own way, that the folk intuitions MMNS inquired into are of limited relevance to the assessment of semantic theories. I will argue in this paper that this view is misguided. I will introduce a principle condition semantic theories have to satisfy, the *Enumerative Consistency Requirement* (ECR), before their veracity can be explored. I maintain that knowledge regarding the folk intuitions that MMNS investigated is crucial for determining whether semantic theories comply with ECR. As such Deutsch and Devitt are wrong to devalue the importance of those intuitions for theory evaluation in semantics.

To help the reader appreciate how I intend to argue for my position, here follows a brief outline of this paper's structure: in section 2 I will give the reader the necessary philosophical tools to understand both the MMNS experiment and the relevance critique expressed by Deutsch and Devitt. An elemental categorization from semantics, as well as ECR will be discussed. Section 3 contains a brief overview of descriptivism and Kripke's causal-historical view, and outlines the methodology and results of MMNS' 2004 experiment. In section 4, the relevant parts of the responses of Deutsch and Devitt to MMNS are summarized. Section 5 constitutes my criticism of the relevance critique presented by Deutsch and Devitt, followed by a brief conclusion on the role of empirical evidence in semantics more broadly in section 6.

<sup>77</sup> Kripke's thought experiments from N&N are perhaps only rivaled in their importance to the development of 20th century semantics by Hilary Putnam's 'Twin Earth' thought experiment. See Putnam (1973) for his first version of this experiment.

<sup>78</sup> The philosophical view that broadly states that the meaning of linguistic expressions is (at least partly) given by aspects of the 'outside world' (Soames 2003, 336).

<sup>79</sup> See Islam and Baggio (2020) for one of the most recent additions to this debate.

## 1. Semantics: some key principles

To come to the point at which we are able to critically analyze how theories of meaning and reference can be assessed, we need to know some very basic facts about the (philosophical) field of research that is semantics.

### Meaning and reference

As mentioned in the introduction, semantics has the meaning of language as its object of study. More specifically, semantics only studies the meaning of *linguistic expressions*: spoken or written strings of verbal communication, i.e. words and sentences. While we would normally say that signals like gestures or facial expressions can be meaningful (in the sense that they can be understood), those kinds of phenomena are not part of semantic study.<sup>80</sup>

Furthermore, compared to how ‘meaning’ is used in ordinary English speech, semantics has a rather narrow understanding of meaning (Palmer 1981, 3-9). In semantics, the term ‘meaning’ is reserved for a special kind of meaning: the kind responsible for the (non)synonymy of linguistic expressions.<sup>81</sup> This meaning is also referred to as the *semantic content* of a linguistic expression, or ‘content’ for short:

two expressions E1 and E2 have the same **semantic content** =df. two expressions E1 and E2 are synonymous

Another (linguistic) phenomenon that is of vital importance to semantics, especially the semantics of proper names (which is our main focus in this paper), is *reference*. Reference is a relationship between expressions and objects that I will define as follows, largely following the definition of Van Woudenberg (2002, 25):

an expression E **refers to** set S =df. S is the set of all objects in a possible world that expression E applies to

The word ‘cat’, for instance, applies to every cat in our actual world, so ‘cat’ refers to the set of all cats in our world. However, it doesn’t follow that the [set of all cats]<sup>82</sup> is the *semantic content* of ‘cat’. We wouldn’t say that ‘Tigger is a cat’ is *synonymous with* ‘Tigger is the set of all cats’. Reference is not the same linguistic phenomenon as semantic content, although the two are closely related. A key feature of the dynamics of the relationship between meaning and reference — identified by Frege (1948, 211) — is that expressions only refer in virtue of them having a certain meaning. As an example, take a word like ‘blackback’, which refers to the set of all adult male gorillas. It seems that the only reason why ‘blackback’ refers in this way is because that word *means* [an adult male gorilla]. This connection between meaning and reference plays an important role in semantics because it allows us to draw conclusions about an expression’s meaning on the basis of knowledge about that expression’s referent, and vice versa. This aspect of the meaning/reference relationship is relevant to most of Kripke’s argumentation regarding proper name meaning in N&N.

80 Though the meaning of such phenomena surely seems *related* to the meaning of linguistic expressions, they are nonetheless considered as belonging to the domain of a research program broader than semantics: semiotics, the study of signs (Nöth 1995, 103).

81 That is to say, when we conceive of ‘meaning’ *classically* as ‘whatever makes a sentence true or false’ (Speaks 2019) and we ignore the role pragmatic elements play in semantics.

82 The term between two square brackets represents the content of an expression only.

Before we continue, a clarificatory note on the use of the adjective ‘semantic’. Apart from my use of this adjective in the expression ‘semantic content’, I will only be using ‘semantic’ in a non-specific, catchall manner in this paper, meaning [having to do with (the study of) meaning]. So, when I speak of ‘semantic theories’ (for example) I mean [theories having to do with meaning]. As such, theories of reference qualify as semantic theories in my terminology, since meaning and reference are intimately connected. Similarly, the expression ‘semantic intuitions’ denotes intuitions regarding both meaning and reference, just to name another phrase we will frequently encounter.

### Classifying semantic theories

To understand whether and how (MMNS’) experimental findings relate to the evaluation of theories in semantics, we need to acquaint ourselves with a classification system based on the different kinds of questions those theories might answer. We can best understand this system by first looking at the explananda around which theories of *meaning* revolve.

‘Meaning’ is a multi-faceted concept that we can explore from different angles, and within semantics we can distinguish between projects that reflect these different perspectives. The distinction in the aims of these projects is manifest in the questions philosophers have put at the center of their respective semantic inquiries. Usually, one of three related but distinct questions is the focal point of attention:

- (1) For any particular expression in a language, what is its meaning?
- (2) What is the nature of meaning?
- (3) How do linguistic expressions acquire their meaning?

As these questions are formulated above, they pertain to the meaning of all expressions, to meaning *tout court*. But, we can also limit the domain to which the answers to these questions apply. We might, for example, decide to only look at the meaning of indexicals,<sup>83</sup> just to name a specific type of expression that philosophers have focused on a lot (Braun 2017). This is a sensible move to make, since there are good reasons to assume that ‘meaning’ is not a unitary concept. Not only does the meaning of words and sentences clearly differ,<sup>84</sup> but different word types seem to have a different nature too: for instance, there is an obvious difference in the way verbs and nouns function semantically. For different types of linguistic expressions we are likely to find different kinds of meaning associated with them.

For the purposes of this paper, we are solely interested in the meaning of *proper names*. Thus, all the theories and arguments we will cover in the rest of this paper concern proper names only (unless I explicitly mention otherwise). Nonetheless, I will give a more general sketch of the research programs behind questions (1), (2) and (3) in the next few paragraphs. I merely do so for the sake of completeness, however. Keep in mind that we will only be using the broader semantic framework outlined in the text below to classify semantic claims about proper names.

<sup>83</sup> Designating expressions whose reference is context-dependent. Think of expressions like: ‘you’, ‘we’, ‘this’, ‘tomorrow’, etcetera.

<sup>84</sup> What it means for words to be synonymous is something different than what it means for sentences. While we can use sentences to declare something, to state that something is the case, this is not true for words. Words are often only be said to be meaningful in the sense that they contribute some content to the meaning of the sentences in which they occur (Davidson 1967, 97). To emphasize this fact, we might add that the content of sentences is necessarily *compositional content* — a more complex meaning built on the content of its parts — while the content of words is necessarily not. While sentences have smaller meaningful elements, words do not: they are the smallest unit of language with content.

Question (1) incites us to determine what each expression in a particular language, like English, means. That is to say: we are supposed to identify the semantic content of each word or combination of words in a people's speech. This is a project akin to constructing a translation manual for a language. For every linguistic expression, such as 'bachelor', we are asked to produce an answer somewhere along the lines of "bachelor' means [unmarried man]". For the more mathematically informed reader: we have to provide a mapping from linguistic expressions (the domain) to semantic contents (the co-domain). Our mapping needn't be one-to-one (and so it needn't be a function, mathematically speaking): especially in natural languages, some expressions have multiple meanings, and different words or sentences might have the same content.

Question (2) requires us to examine the *general* properties of semantic content. Instead of describing what specific expressions mean, we have to establish what it means for an expression to be meaningful on a more abstract level. What kind of things are the 'contents' in the co-domain of linguistic expressions exactly? What are some necessary or sufficient conditions for membership of the co-domain? Answers to (2) can often be put in the form of an identity statement, like 'the semantic content of linguistic expressions is  $x$ ', where  $x$  is a variable to be replaced with the proposed notion that supposedly corresponds to 'content'. For example, we might conjecture that 'the semantic content of linguistic expressions is the mental picture a competent speaker associates with those expressions'. Note that this semantic claim is a far cry from being a means to telling what the content of any specific expression is. An answer to (2) doesn't give us the meaning of 'bachelor' or any other (combination of) word(s) in a direct manner. However, the aforementioned claim does specify the conditions entities have to satisfy to be regarded as 'semantic content'. Contrastingly, an answer to (1) gives no such insight.

Question (1) and (2) are closely related in that both call for an explanation or theory that simply describes *what* semantic contents are (in either the specific or general sense, respectively). However, these questions do not urge us to explore why semantic content is what it is, or *how* specific expressions have come to obtain their meaning. These are the kind of enterprises we can expect to be encouraged by question (3). To answer this question, we need to identify by which processes or under what conditions words and sentences become meaningful.

Now that we have identified the three different questions central to semantic inquiry, how can we use them to classify theories of meaning? The common practice in semantics is to categorize theories of meaning based on their explanandum, based on which of the three questions they answer. A theory of meaning that gives us insights into problem (3), for example, is categorized as a *foundational* theory. Although a theory could hypothetically answer any combination of (1), (2) and (3), in practice almost no theory is extensive enough to answer multiple questions. So, for all intents and purposes we need no more than three categories<sup>85</sup> to capture the variation in the subject matter of theories of meaning.

85 Often, theories are even subdivided into only two types of theories in (philosophical) semantics: *descriptive* and *foundational* (or *meta-semantic*) theories (Pilatova 2005, 10; Stalnaker 2017, 903; Wikforss 2017, 98). The descriptive theories have (1) or (2) as their explanandum, foundational theories answer question (3). Descriptive theories are then sometimes subdivided into *weak* (or *modest*, see Dummett [2003, 5]) semantic theories and *strong* semantic theories (Häggqvist and Wikforss 2015, 115). These theories have (1) and (2) as their focal point, respectively. So, depending on whether one makes this last mentioned distinction, we end up with either two or three categories of theories of meaning.

However, for the purposes of this paper the commonly used categorization device is insufficient. Next to theories of meaning, we also want to be able to classify theories of reference, intuitions, predictions, and so forth. The classification system described above does not allow for this, but luckily, we can extend it so that it does. We simply have to realize that to each of the explananda (1), (2) and (3) corresponds a *level of application*, which means that each of these three questions delineates a certain subject matter to which theories, but also intuitions or predictions *apply*. For instance, if we make predictions about meaning at the *level of application* associated with (2), our predictions pertain to the nature of ‘meaning’ — since this is what question (2) is about, as explained earlier.

For easy reference, I will name the level of application dictated by (1) as the *enumerative* level, borrowing a term from the philosophy of welfare (Crisp 2006; Woodard 2013). The point of view related to (2) will be called the *conceptual* level. And finally, any phenomenon related to question (3) functions at the *foundational* level. For the sake of convenience, I will sometimes refer to the conceptual and foundational level together as *meta-semantic* levels.<sup>86</sup>

As intended, the ‘level of application’ categorization can be applied to theories of *reference*. The end result is this: an enumerative theory of reference maps expressions onto their referents; a conceptual theory of reference details what the essence of this reference relationship is; a foundational theory of reference lays out the facts in virtue of which expressions come to refer. Identifying the level of application at which a theory of reference functions will prove to be a fundamental aspect of the analysis of the evidential value of MMNS’ results. So, whenever necessary, I will address what kind of theory of reference we are dealing with.

### On enumerative consistency

There are a few important things we need to know about the relationship between the different levels of application before we can continue. First of all, there is a good reason I have grouped conceptual and foundational levels of application together under the name ‘meta-semantic’ levels: in the end, semantic theorizing at the conceptual or foundational level is contingent on enumerative semantic facts. In other words: the semantic mappings at the enumerative level are *primitive*, in the sense that without these mappings there is nothing to be explained at the conceptual or foundational level. Conceptual and foundational semantic theories are ultimately theories about enumerative facts: only at the enumerative level do expressions have the content that is semantics’ object of study. And so, the veracity of meta-semantic theories (and trivially: enumerative theories) depends on whether they are in agreement with enumerative semantic facts:

#### Enumerative Consistency Requirement (ECR)

Each theory of meaning or reference needs to be consistent with enumerative facts about meaning or reference, respectively.

To clarify, with enumerative semantic facts I mean true statements about the semantic mapping of an expression in a particular language. We have already encountered some examples of such facts, such as “bachelor’ *means* [unmarried man]’ and “blackback’ *means* [an adult male gorilla]’ for the English language.

<sup>86</sup> Usually, the term ‘meta-semantics’ is reserved for semantic projects at the foundational level only (Häggqvist and Wikforss 2015, 4).

Of course, when it comes to the evaluation of semantic theories, ECR is not the final word. When we use ECR to assess semantic theories we run into the same problem of *underdetermination* that we encounter when testing scientific theories. That is to say: multiple semantic theories may be consistent with the same set of enumerative facts. However, we can derive the following conditional statement from ECR that must be used in the assessment of semantic theories:

ECR<sub>CONDITIONAL</sub>    If a semantic theory ST is correct, then ST is consistent with the set of enumerative semantic facts about a language L

How many languages we should take into account when evaluating a semantic theory depends on the aspirations of that theory. If I have an enumerative theory about the semantics of Spanish, I need only account for enumerative facts about the Spanish language. However, most conceptual or foundational semantic theories are more ambitious, and presume that semantic phenomena like meaning and reference are universally shared, and function the same in all (natural) languages. In those cases, a semantic theory should be consistent with enumerative semantic facts about any language.

The importance of the ECR<sub>CONDITIONAL</sub> as an evaluative tool for semantic theories should not be underestimated. After all, it follows from ECR<sub>CONDITIONAL</sub> that a failure to comply with ECR immediately invalidates any semantic theory. As an example, say we uphold the following peculiar conceptual semantic theory: *Searlism*, the view that the semantic content of linguistic expressions is whatever John Rogers Searle believes it to be. Searlism only has a chance of being correct if Searle's semantic mapping lines up with all enumerative semantic facts about any language. If we take "bachelor' means [unmarried man]" to be an enumerative fact in English, and Searle believes that "bachelor' means [unpaid athlete]", the consequent<sup>87</sup> of ECR<sub>CONDITIONAL</sub> is false under Searlism. We can now apply *modus tollens*<sup>88</sup> to deduce that Searlism is an incorrect semantic theory. So, although ECR doesn't provide us with a method to *confirm* the veracity of a semantic theory — we can't say that a semantic theory is accurate because it satisfies ECR — we can use it to *discredit* semantic theories that are inconsistent with enumerative semantic facts.

## 2. Kripke's argumentation empirically tested

In this section, I will describe the 2004 MMNS study that Deutsch and Devitt criticize and some of the contents of Kripke's N&N on which that study was based, beginning with the latter.

<sup>87</sup> In propositional logic 'consequent' is used as a term for the second half of a conditional statement (as opposed to the 'antecedent').

<sup>88</sup> Modus tollens is a valid form of argumentation in propositional logic. It says that if we take a conditional and the denial of its consequent as our two premises, we can deduce that the denial of its antecedent obtains. In this case, ECR<sub>CONDITIONAL</sub> is our conditional statement.

### Descriptivism

N&N is famous for its argumentation against descriptivism, a view used both as a *conceptual* theory of proper name meaning and a *foundational* theory of reference for proper names. Kripke (1981, 27) introduces descriptivism in N&N by first discussing what he calls the “Frege-Russell view”. This name suggests that the view represents the combined ideas of Frege and Russell on names. Whether this is the case is a matter of dispute (Wettstein 1990), but for the purposes of this paper we may simply assume that Kripke’s depiction of Frege’s and Russell’s beliefs is correct. What are the contents of the Frege-Russell view? Kripke (1981, 27) tells us that “... a proper name, properly used, simply... [is] a definite description abbreviated or disguised.” In other words, the meaning of a proper name is a definite description. Kripke (1981, 24, emphasis original) defines definite descriptions as follows “phrases of the form ‘the  $x$  such that  $X$ ’, such as ‘the man who corrupted Hadleyburg’”, where  $x$  is some object and  $X$  is some property or predicate. Thus, the Frege-Russell view insists that while the outward (syntactic) appearance of a name is that of a simple expression, its semantic content takes the form of a definite description.

What kind of description makes up the content of a name? According to the Frege-Russell view, it is the *single* description a speaker  $S$  associates with the name. So, I might associate the description ‘The first Emperor of the French’ with the name /Napoleon/<sup>89</sup>, and then this description constitutes the meaning of /Napoleon/ for me. Some obvious problems<sup>90</sup> with this view of proper name have incited philosophers like Searle (1958) to adjust the Frege-Russell view. This modified theory, called the ‘cluster concept view’, allows for speakers to associate multiple descriptions with a name. Instead of a single description, a speaker (or a community of speakers) associates a cluster (or family) of descriptions with a name. The descriptions in the cluster could have a different weight attached to them, in the sense that some of them might contribute more to the semantic content of a name than others.

In N&N, Kripke is primarily focused on disqualifying the cluster concept view as a theory of name meaning. However, for the sake of simplicity he often brings up hypothetical situations (such as the Gödel case) in which a single description is associated with a name. This is unproblematic: for Kripke’s arguments to work, it doesn’t matter whether we take the meaning of a name to be a single description or a cluster of descriptions (Ahmed 2007, 15-16). His critique applies to the descriptivist project as a whole, to ascribing *any* descriptive content to proper name meaning. So, to ease understanding, I will make use of single descriptions only to talk about descriptivism in the rest of this paper. I will refer to the Frege-Russell view and the cluster concept view conjointly as ‘strong descriptivism’.

Strong descriptivism as I have described it above is a theory of name meaning. But often, the descriptivist view is also used as a theory of *reference* that is commonly referred to as ‘weak descriptivism’. Weak descriptivism is a foundational theory of reference that explains how proper name reference is determined. It states that whoever uniquely satisfies the description associated with a name is the referent of that name. If the description is not uniquely satisfied by anyone, the name fails to refer. So, to the question of *why* /Napoleon/ refers to the *person* Napoleon — the first Emperor of the French — weak descriptivism answers that Napoleon satisfies the description ‘The first Emperor of the French’ that we associate with the name /Napoleon/. It’s precisely this view of how reference is determined for proper names that is the main target of Kripke’s thought experiments like the Gödel case.

89 To oppose a name (the *expression*) to the person to whom that name refers, I will enclose a proper name between two forward slashes.

90 First, different speakers may identify different descriptions as the semantic equivalent of a name, which means the name would have a different meaning for these speakers. As worded by Kripke (1979, 240): “Differences in properties associated with such names, strictly speaking, yield different idiotelects.” Second, for hardly any proper name we would be willing to assert that a single description defines the name *fully*. We usually relate more than one description to a name, and often none of these apply to a person *uniquely*. To quote Kripke (1981, 30): “... even a single speaker when asked ‘What description are you willing to substitute for the name?’ may be quite at a loss.”



### The Gödel case

Kripke provides us with three different lines of reasoning against descriptivist theories of names in N&N. The thought experiments presented to participants in the MMNS study are only related to what Devitt (2010, 420) calls the ‘Ignorance and Error’ argument, so out of the three arguments that’s the one we need to take a closer look at. The Ignorance and Error argument can be summarized as the idea that the person matching the description coupled with a name need not be the referent of that name. Specifically, in situations in which a speaker has limited or inaccurate knowledge of an individual’s properties, weak descriptivism gives an erroneous picture of proper name reference. Kripke attempts to demonstrate this by presenting a number of cases in which the descriptions that we are likely to associate with a name intuitively pick out the wrong referent for that name. MMNS modeled their experimental vignettes after two of these cases: the Jonah case and the Gödel case. Of these cases, the one most widely discussed in the literature is the Gödel case. For the sake of simplicity, I will only detail the Gödel case in this paper.

The Gödel case is a thought experiment in which Kripke lets us imagine the following scenario: say that we are under the impression that Gödel is the man who proved the incompleteness of arithmetic, but other than that we know nothing about Gödel. As such, we associate only one description with the *name* /Gödel/, namely ‘the man who discovered the incompleteness of arithmetic’. As it turns out, however, unbeknownst to us Gödel did not discover the incompleteness of arithmetic. His friend Schmidt did, and Gödel simply stole his manuscript with the proof and took credit for it. Kripke now leaves us with the following question to answer: to whom does the name /Gödel/ refer? The thief of the proof — whom I will refer to as person *t*(hief) — or the mathematician who *actually* discovered the incompleteness theorem — whom I will refer to as person *d*(iscoverer)?

What’s the correct answer from the viewpoint of weak descriptivism (as we have sketched it above)? Given the assumption that ‘the man who discovered the incompleteness of arithmetic’ is indeed the lone description that any speaker *S* associates with /Gödel/, it’s clear that weak descriptivism would predict that person *d* is the referent of /Gödel/. After all, Schmidt uniquely satisfies the description associated with /Gödel/, and weak descriptivism subscribes to the biconditional ‘if and only if person *x* uniquely satisfies the description related to a name *X* then *x* is the referent of *X*’.

As weak descriptivism would have it, Kripke observes, when we used the name /Gödel/ in the past (before the fraud was revealed), we actually referred to Schmidt all along, not to the manuscript thief. Kripke considers this conclusion to be counterintuitive. Why would the name /Gödel/ refer to person *d*, a man whose existence we were not even aware of? Moreover, when we do find out that person *d* proved the incompleteness theorem, it’s unlikely that we would now claim to know the true referent of /Gödel/. Rather, we would probably insist that Gödel, who we still label as /Gödel/, deceived us. We would hold the statement ‘Gödel is a thief’ to be true, which indicates that we regard person *t* to be the referent of /Gödel/.

If we agree with Kripke that the name /Gödel/ in his thought experiment refers to Gödel (person  $t$ ), we have found a case that challenges descriptivism as a foundational theory of reference. (It must be added: given that we also accept that speakers associate a description with /Gödel/, like ‘the man who discovered the incompleteness of arithmetic’, that is satisfied by person  $d$  in the Gödel case.) Extrapolating our conclusion concerning the Gödel case to other situations in which a speaker has vague or wrong beliefs about a person’s properties, we can say that weak descriptivism *in general* makes reference go awry in such circumstances. Those circumstances are ubiquitous, according to Kripke. For example, most of the time the description we relate to names (even the names of famous people) is too ill-defined to refer *uniquely*. Consequently, if proper name reference works like the descriptivist account sketches, widespread reference failure would obtain. Since this is not what we observe (on a daily basis), Kripke deems it implausible that the descriptions we associate with names have anything to do with how reference is commonly determined. Via a line of reasoning that space does not permit me to talk about,<sup>91</sup> we can also conclude that it’s unlikely that any descriptive content is part of a name’s *meaning* (as strong descriptivism defends).

### The causal-chain theory

As an alternative to weak descriptivism, Kripke presents another foundational theory of proper name reference in N&N, known as the *causal-chain theory* or the *causal-historical view*. According to Kripke, through some procedure — one might call this a *baptism*<sup>92</sup> — a speaker starts calling an individual by a certain name. That is to say: a speaker picks out a specific person and labels her by using a proper name. From that point onwards, the referent of the name is *fixed*: the name keeps on referring to the same person. The speaker’s use of the name might spread through a language community: “Someone, let’s say, a baby, is born; his parents call him by a certain name. They talk about him to their friends. Other people meet him. Through various sorts of talk the name is spread from link to link as if by a chain” (Kripke 1981, 91). Kripke argues that because each use of the name — each link in the chain — is causally linked to the original use, the original (fixed) reference relationship carries over from the initial use to subsequent uses of the name.<sup>93</sup> So if I introduce a name to refer to a specific person, and someone else adopts my use of that name, she necessarily refers to the same person I denoted.

It follows from the causal-chain theory that proper name reference doesn’t depend on any descriptions speakers might associate with a name (unlike weak descriptivism would claim). Although a description may be used to pick out the referent of a name initially (‘My firstborn son I shall call Ludwig’), after the baptism fixes the referent of the name, the description does not determine reference in successive uses of the name. Moreover, even though people might *associate* various descriptions with a name, the referent of a name needn’t satisfy any of these descriptions.

What would a causal-chain theorist say about the referent of /Gödel/ in the Gödel case? If we stipulate that the name /Gödel/ was originally introduced to refer to person  $t$  (Gödel), the causal-chain theory would predict this person to be the referent of /Gödel/. As such, Kripke’s foundational theory seems to be in line with our intuitions about the Gödel case, contrary to weak descriptivism.

91 In a nutshell, it is assumed that strong descriptivism entails weak descriptivism in such a way that if strong descriptivism is a true theory of name meaning, then the referent of a name is correctly determined by weak descriptivism. Given this assumption we can falsify strong descriptivism by showing that weak descriptivism fails to identify the referent of a name correctly.

92 The procedure needn’t *literally* be a baptism, nor need it be a statement along the lines of ‘As of now this person will be referred to as  $X$ ’.

93 Kripke (1981, 96-97) mentions an additional condition for reference to carry over: any subsequent speaker has to *intend* to refer to the same person as the speaker from which she adopted the name use.

### The MMNS experiment

What makes Kripke's thought experiment work against weak descriptivism? It seems that the evidential power of the Gödel case hinges on the fact that person *t* is the *intuitive* referent for /Gödel/. But do we have good reasons to believe that this is actually the case? According to MMNS the answer is no. Finding out what competent speakers intuit about reference in relevant cases is at heart an *empirical* question. But, as MMNS complained, most philosophers of language simply generalize their own intuitions about particular cases to the population of competent language users at large. That is to say: they simply assume that their intuitions about reference are widely shared by members of their language community (Machery et al. 2013, 621). Sytsma and Livengood (2011, 315) call this *a priori* assumption the *uniformity conjecture*. Any justification for this conjecture often lacks (Mallon et al. 2009, 339), or is simply given in terms of 'self-evidence'. A brief look at how Kripke (1981, 84) defends his intuitive judgement concerning the Gödel case reveals as much: "... since the man who discovered the incompleteness theory of arithmetic is in fact Schmidt, we, when we talk about 'Gödel', are in fact always referring to Schmidt. But it seems to me we are not. We simply are not." That intuitions of competent speakers might vary considerably is seldomly recognized.

So, in 2004 MMNS set out to experimentally research whether we can in fact say that referential intuitions are as universal as is often claimed (without empirical evidence) by theorists. If not, most philosophers of language appear to have categorically overestimated the evidential value of their argumentation that is based on the assumption that certain judgements are *intuitive*.

A prime motivating factor for MMNS to conduct their experiment were their suspicions that referential intuitions are not universal. These doubts did *not* come out of thin air: earlier research into laypeople's intuitions regarding philosophical thought experiments in epistemology had revealed intercultural differences in intuitions concerning what counts as 'knowledge' (Weinberg, Nichols and Stich 2001, 438-446). MMNS expected that were they to test and compare referential intuitions for different cultural groups, they would find similar results. To verify this, they performed an experiment in 2004 in which they presented a 'Western' and 'East Asian'<sup>94</sup> group of students — a group of American students, and a group of students from the University of Hong Kong — with stories modeled after Kripke's Gödel case (and Jonah case<sup>95</sup>).

Participants were given two Gödel stories, one that precisely mirrored Kripke's thought experiment in N&N (including the original names), and one that was slightly adapted from the original (featuring a Chinese name<sup>96</sup>). For easy reference, I will only familiarize the reader with the vignette in which the name /Gödel/ was used:

<sup>94</sup> Machery et al. (2004, B6) note: "A standard demographics instrument was used to determine whether subjects were Western or East Asian."

<sup>95</sup> Again, for simplicity the Jonah case will not be discussed in this paper.

<sup>96</sup> Instead of 'Gödel', the name 'Tsu Ch'ung Chih' was used. In the 'Tsu Ch'ing Chih' vignette the description 'the man who discovered the solstice times' was associated with that name (by a speaker 'Ivy').

Suppose that John has learned in college that Gödel is the man who proved an important mathematical theorem, called the incompleteness of arithmetic. John is quite good at mathematics and he can give an accurate statement of the incompleteness theorem, which he attributes to Gödel as the discoverer. But this is the only thing that he has heard about Gödel. Now suppose that Gödel was not the author of this theorem. A man called “Schmidt”, whose body was found in Vienna under mysterious circumstances many years ago, actually did the work in question. His friend Gödel somehow got hold of the manuscript and claimed credit for the work, which was thereafter attributed to Gödel. Thus, he has been known as the man who proved the incompleteness of arithmetic. Most people who have heard the name “Gödel” are like John; the claim that Gödel discovered the incompleteness theorem is the only thing they have ever heard about Gödel. (Machery et al. 2004, B6)

The vignette was followed up by the following probe question:

When John uses the name “Gödel”, is he talking about:

- (A) the person who really discovered the incompleteness of arithmetic? or
- (B) the person who got hold of the manuscript and claimed credit for the work?

(Machery et al. 2004, B6)

Subjects had to pick one of these two answer options. Notice that the description behind (A) is satisfied by Schmidt (person *d*) and the description next to (B) is satisfied by Gödel (person *t*). According to MMNS, this makes option (A) the reference outcome as produced by the *descriptivist* account of reference (of proper names), and option (B) the referent of /Gödel/ as predicted by the *causal-chain* theory of reference.

MMNS coded the answers of the participants in a binary way, such that the descriptivist answer (A) got a score of 0, and the causal-chain answer (B) got a score of 1. For each pair of Gödel stories in the experiment the scores of each participant were added up, so that a score of 2 represents two ‘causal-chain’ answers and a score of 0 represents two ‘descriptivist’ answers. MMNS hypothesized that the mean scores of the Western students were higher than those of the East Asian students. They based this hypothesis on research in cultural psychology that had indicated that “EAs [East Asians] are more inclined than Ws [Westerners] to make categorical judgments on the basis of similarity; Ws, on the other hand, are more disposed to focus on causation in describing the world and classifying things” (Machery et al. 2004, B5).

For the Gödel cases, MMNS’ hypothesis was supported by the experimental results: for both probes, Western students had significantly higher scores than the East Asian students (Machery et al. 2004, B7). The averages indicate that the East Asian students (MEAs = 0.63) were more inclined to pick the referent consistent with weak descriptivism, while Westerners (MWs = 1.13) chose the referent predicted by the causal-historical view. MMNS argue that the results of their experiments give *prima facie* evidence that at least sometimes (in Gödel cases specifically) our intuitions about what the referent of a name is depend on cultural background. This indicates that our referential intuitions cannot unproblematically be assumed to be the same across cultural groups.

On the issue of the uniformity of intuitions, the message that referential intuitions possibly depend on cultural background is not the most unsettling one we can take away from the MMNS study. Another important finding from MMNS' experiment is that the dispersion of scores *within cultural groups* is high, relative to the possible range (between 0 and 2) of scores. For example, the standard deviation for Westerners in their total score for the Gödel cases was SDWs = 0.88. So, for students with the *same* cultural background, intuitions about proper name reference (in Gödel cases) also vary considerably. Even within cultural groups, it seems that we can't safely assume that referential intuitions are shared by all. Of course, one might argue that the high within-groups variance simply reveals that the (untrained) undergraduates are confused by far-fetched thought experiments like the Gödel case. But remember, we are talking about one of the "best known thought experiments in recent philosophy of language" (Machery et al. 2004, B12) that is supposed to show beyond doubt that 'we' — laypeople included — would intuitively reject the descriptivist reference option.

So, the findings of the MMNS study seemingly indicate that the uniformity conjecture is false. But it's precisely this *a priori* assumption that allowed philosophers to use specific cases (such as the Gödel case) as evidence for (or against) a theory of reference. Seeing that MMNS' results suggest that the referential data for the Gödel case exhibit high variance, the two theories of reference we have discussed both appear to predict proper name reference incorrectly (at the enumerative level). Neither weak descriptivism nor the causal-historical view can explain the fact that intuitions about the referent of /Gödel/ vary substantially (across or within cultures). Thus, at first glance, both these theories of reference are falsified by the outcome of MMNS' experiment.

### 3. Relevance critique

Among the replies of semanticists to the 2004 MMNS experiment we can distinguish two common types of reactions that I have named 'methodological critique' and 'relevance critique'. Those who have put forth the first type of critique<sup>97</sup> predominantly focus on identifying problematic aspects of the experimental procedure MMNS use to measure referential intuitions. The main aim of this critique is to cast doubt on the *validity* of MMNS' results. Contrastingly, philosophers who have expressed some form of relevance critique have instead concerned themselves with the question 'If the 2004 MMNS study indeed proves that the referential intuitions tested are variable, what ought we conclude from this?' So, rather than worrying about whether MMNS' findings are correct (in a methodological sense), these semanticists have assumed them to be valid, and have subsequently looked critically at the *inferences* MMNS have made from them.

Unlike MMNS, these critical philosophers have argued that the 2004 empirical results have no bearing on, or are only indirectly related to the assessment of theories of reference. The conclusion that follows is that empirical studies like those of MMNS do not directly affect the semantic practice in a consequential manner.

In this paper we will not be looking at any methodological critique, but we will rather direct our attention to the specific kind of relevance critique that Deutsch (2009) and Devitt (2011) have voiced. Both Deutsch and Devitt have, in their own way, downplayed the implications MMNS' test results have for views on reference. They have done so by arguing that folk intuitions are of limited relevance to the assessment of semantic theories. While Devitt still connects some evidential value to particular folk intuitions, Deutsch seems to deny that such intuitions have any role to play at all in semantic theory evaluation. In what follows I will outline the reasoning of the two men, starting off with Devitt, the least radical thinker of the two.

97 I mainly have Lam (2010), Sytsma and Livengood (2011), and Heck Jr. (2018) in mind here.

### Devitt's defense of Kripke

Devitt grants that the intuitions of laypeople are somewhat relevant to the construction and the appraisal of theories of reference. But he criticizes MMNS' characterization of these intuitions as fundamental to semantics. Especially the specific intuitions MMNS have tested (those related to the Gödel case) are of limited interest to semanticists, Devitt maintains. The Gödel case is a hypothetical (somewhat fanciful) story, and those are not the best type of cases to consult laypeople on. The folk are not particularly good in thinking through hypothetical situations, which increases the likelihood of them making judgement mistakes. Folk intuitions regarding *actual* cases are far more reliable and hence more valuable for semanticists.

Devitt insists, however, that even within the domain of actual cases, folk intuitions are mostly relevant for *ordinary* uses of names. There are real life (less murderous) analogues to the Gödel case — the Peano axioms being attributed to Giuseppe Peano instead of Richard Dedekind is a famous example Kripke uses in N&N (Kripke 1981, 84-85) — but these cases are not your run-of-the-mill uses of names, and reference might work abnormally in those instances. It's far more important to look at folk intuitions for *humdrum* cases, because laypeople are very acquainted with such cases, and thus a layperson is "... likely to be able to judge in a fairly immediate and unreflective way what an expression refers to" (Devitt 2011, 426). In short: the intuitions MMNS tested are of little relevance to semantics compared to folk intuitions about actual, humdrum cases.

In a 2013 article, MMNS have responded to this criticism by stressing that there are as many humdrum uses of names that speak for as against descriptivism (Machery et al. 2013, 625). So, if Devitt wants to defend Kripke's anti-descriptivist argumentation, he can't count on humdrum cases to bolster his defense. Furthermore, MMNS claim that "intuitions about possible cases are likely to be needed to determine what the correct theory of reference is" (Machery et al. 2013, 623). At some point, they reckon, we will have to resort to thought experiments like the Gödel case to decide between rival theories of reference (Machery et al. 2013, 623). Actual cases are simply not divisive enough: they are consistent with too many different perspectives on how reference is determined.

But Devitt has another ace up his sleeve: an additional way in which he diminishes the relevance of MMNS' findings, is by pointing out that Kripke presents *more* arguments in N&N against descriptivism. Devitt emphasizes that these arguments do not (solely) rely on referential intuitions. Particularly the Modal argument<sup>98</sup> (which will be elaborated on in section 5) depends on metaphysical intuitions about identity and rigidity to work, not on intuitions about reference. Furthermore, laypeople are unlikely to possess such *metaphysical* intuitions, let alone reliable metaphysical intuitions. If we want to know whether some features of a person are essential to her, or if we want to know whether some designator is rigid, we have to turn to experts in metaphysics, i.e. educated, practiced philosophers. It's their metaphysical intuitions that have evidential value for the premises in Kripke's Modal argument, not the intuitions of the folk. If arguments such as Kripke's Modal argument can invalidate descriptivism, we have a different way of judging theories in semantics, next to the method of cases. So, empirical results related to that method, like those of MMNS, become less decisive in the evaluation of semantic theories.

### The triviality of intuitions

Deutsch (2009) is of the opinion that the success of arguments such as Kripke's Ignorance and Error argument do not depend on (folk) intuitions. To discredit weak descriptivism, he asserts, Kripke makes use of referential facts such as 'person *t* is the referent of /Gödel/ in the Gödel case'. The veracity of such facts is not determined by what laypeople *intuit*. Whether or not competent speakers believe Gödel to be the

<sup>98</sup> The 'modal' argument is a combination of two lines of reasoning Kripke introduces in N&N. Devitt (2010, 420) calls these 'Unwanted Necessity' argument and the 'Lost Rigidity' argument, respectively.

referent of /Gödel/ is irrelevant. Referential facts are true propositions about an expression and its referent, not about an expression and what people intuit to be its referent. For Deutsch, referential facts are “*data* for theories of reference” (Deutsch 2009, 449, emphasis original) that need to be explained, not predictions of a theory that need to be empirically verified. Kripke does not appeal to any intuitions in his Ignorance and Error argument (let alone folk intuitions), nor should he. Semanticists care about whether their views are true, not about whether they are in line with the intuitions of competent speakers.

While Deutsch recognizes that some philosophers might make use of folk intuitions to construct semantic theories, he denies that semanticists (implicitly) turn to intuitions to decide what theory of reference is the right one. MMNS’ claim that theories of reference are judged on the basis of how well their predictions overlap with intuitions is false: “Majority opinion does not determine the truth, or constitute the primary source of evidence in philosophy” (Deutsch 2009, 465). So, Deutsch rejects the method of cases as an assessment tool. What decides philosophical disputes according to him is philosophical argumentation, and such argumentation mostly relies on *a priori* knowledge. Deutsch conjectures that skepticism towards the existence of *a priori* knowledge has led experimental philosophers to the conclusion that the method of cases is the only proper approach to validating semantic theories. If *a priori* knowledge does not exist, referential facts must be *a posteriori* knowledge, or so the experimental philosopher reasons (according to Deutsch). Deutsch contests this: what competent speakers believe to be the case is not what makes referential facts true. Kripke’s argument is not weakened by the variability in intuitions MMNS found. Whether variable or not, intuitions support nor refute theories of reference (or semantic theories more generally).

#### 4. The constitutive role of enumerative intuitions and the significance of ECR

Both Devitt and Deutsch attach little evidential value to (folk) intuitions because the methods they deem important to the evaluation of theories in semantics do not rely on them. Devitt considers expert intuitions relevant to the assessment of semantic theories, and brings up that Kripke has additional arguments (next to the Ignorance and Error argument) to discredit (strong) descriptivism. Deutsch, in turn, claims that referential facts are central to the appraisal of theories of reference, and the veracity of those facts is established by *a priori* argumentation. While I agree that all these types of evidence are relevant to the evaluation of theories of meaning and reference, I will try to defend the view that in semantics any evidence in favor of one theory or another must eventually always have a basis in the enumerative intuitions of competent speakers. I believe Devitt and Deutsch underestimate the pervasiveness of enumerative intuitions in semantics because they 1) fail to recognize that enumerative intuitions are *constitutive of* semantic facts,<sup>99</sup> and 2) depreciate the role of ECR in theory evaluation, as I hope to show.

99 See Cohnitz and Haukioja (2015, 620-627) for a more elaborate defense of this position.

I will start off by discussing Deutsch' referential facts. To repeat from the previous section: referential facts are true statements about reference at the *enumerative* level, like 'Gödel/ refers to person *t* in the Gödel case.' According to Deutsch, these referential facts are about terms and their referents, by which he appears to imply that terms have referential properties in some objective sense. I believe this view to be mistaken. I am of the opinion that the reference relationship expressed by referential facts is what Searle (1998, 113-114) calls an *ontologically subjective* phenomenon. That is to say: reference, as a linguistic phenomenon, depends in its existence on the consciousness of human subjects, or animals like us. Without speakers ascribing referents to expressions, expressions don't refer. Put differently: the referring feature that some terms have belongs to the class of "[o]bserver relative features of the world" (Searle 2005, 3). This is not to say the referent — the object being referred to — is ontologically subjective.<sup>100</sup> No semanticist would argue that because /Napoleon/ refers to Napoleon, the existence of Napoleon depends on human consciousness. However, were it not for human intentionality, expressions like /Napoleon/ could not refer at all. The 'pointing out' property that expressions like names have is not something they possess in some objective sense: a word doesn't point out anything in and of itself. A word only points out something *to us*. Thus, the semantic reality that referential facts capture is not a reality that exists independently of human consciousness. It's the collective beliefs of a community that bring the semantic properties of expressions, including their referential properties, into existence. We say that these collective beliefs are *constitutive of* referential facts. If we go along with this view of reference for the time being, where do enumerative intuitions enter the picture?

Say that a subject from MMNS' experiment judges that /Gödel/ refers to person *t* in the Gödel case (for John), what does this tell us? I believe that a subject's judgement can best be seen as a *report* of her enumerative intuitions. These intuitions are the spontaneous output of a subject's linguistic competence. In this case, that competence consists of a speaker's ability to both apply and interpret expressions in accordance with the prevalent enumerative referential facts in her community.

However, what those referential facts look like is determined by a group of speakers {S1, S2, ... , Sn} themselves. That person *t* is the referent of /Gödel/ is only a referential fact if the group *collectively accepts* it to be one. So, while the enumerative intuitions of a competent speaker S1 provide *evidence for* what the prevalent referential facts of her community {S1, S2, ... , Sn} are, more importantly, those intuitions are also *constitutive of* those facts.

What I have said above about referential facts and referential enumerative intuitions, of course applies, *mutatis mutandis*, to enumerative facts and intuitions about meaning. Like reference, meaning is an ontologically subjective phenomenon, and the meaning of a term is the content that is collectively accepted as such.

Unless a semantic theory is normative (i.e. revisionist), it must be consistent with semantic facts if it is to be accurate, as ECR dictates. Since enumerative intuitions are constitutive of these facts, semantic theories have to be consistent with these intuitions as well. Note that this is a *principle* requirement for semantic theories. Because semantic theories are immediately invalidated if they fail to meet ECR (as I showed in section 2), when we evaluate a semantic theory we ought to first check that it satisfies ECR before we consider any other type of evidence. The *a priori* argumentation praised by Deutsch and Devitt only becomes relevant once we have confirmed that ECR is met: such argumentation is *secondary evidence*. One might have the most intricate *a priori* argument supporting a particular semantic theory, it wouldn't matter if that theory turned out to fail ECR.

<sup>100</sup> In other words: the referent of a term needn't be *internal* to speakers. Semantic externalism is compatible with reference being ontologically subjective.



Furthermore, because semantic phenomena are ontologically subjective, even if we do use *a priori* argumentation in the evaluation of theories, the soundness of any argument used in favor or against a theory in semantics at one point or another hinges on the make-up of the enumerative intuitions of a linguistic community. We can exemplify this by revealing the inner workings of a part of Kripke's Modal argument that according to both Deutsch (2009, 452) and Devitt (2011, 421-423) disproves strong descriptivism. One aspect of Kripke's Modal argument against descriptivism is what Devitt (2011, 420) calls the 'Unwanted Necessity' argument. It roughly goes like this: if strong descriptivism is true, a name like /Napoleon/ means something along the lines of [the first Emperor of the French]. If this is true, then according to the *substitution principle*<sup>101</sup> we ought to be able to exchange /Napoleon/ with the expression 'the first Emperor of the French' *salva veritate* — 'with preserved truth', i.e. with the truth value of the statement remaining the same — in the modal statement (m):

(m) It is necessarily true that Napoleon, if he existed, was the first Emperor of the French.

Kripke, Deutsch and Devitt would say that (m) is a false statement: it is not true that Napoleon is the first Emperor of the French in all possible worlds (in which he exists). After all, it seems reasonable to say that Napoleon might not have become the first Emperor of the French if things had taken a different course.<sup>102</sup> But, the argument continues, if we substitute /Napoleon/ with 'The first Emperor of the French' in (m), statement (m) becomes true instead of false. And so, as the substitution principle tells us, /Napoleon/ and 'The first Emperor of the French' cannot mean the same: strong descriptivism is a false theory of name meaning.

However, whether a statement like (m) is true depends (at least partly) on what the name /Napoleon/ means. This, in turn, depends on the enumerative intuitions of a linguistic community, since those are *constitutive of* the meaning of /Napoleon/ (and other names). If a community collectively accepts that /Napoleon/ means [the first Emperor of the French], then these expressions *can* be substituted *salva veritate* in (m). Thus, even Kripke's Modal argument — which supposedly only relies on modal intuitions — implicitly relies on enumerative semantic intuitions. If we want to assess a theory in semantics, we can't escape enumerative intuitions because these are constitutive of the facts about meaning and reference that such theories are ultimately about.

## 5. Closing

I believe to have sufficiently shown that the attempts by Deutsch (2009) and Devitt (2011) to downplay the evidential value of MMNS' findings for semantic theories fail to be convincing. I have argued that the supposedly *a priori* argumentation semanticists use to (in)validate theories ultimately rests on enumerative intuitions, because those intuitions are constitutive of the semantic facts employed in a priori argumentation. I conclude, pace Deutsch and Devitt, that if referential intuitions exhibit high (intercultural) variance, the ramifications for the assessment of theories like the causal-historical view are considerable.

<sup>101</sup> If two expressions A and B have the same meaning, they can be substituted for on another in a statement *salva veritate*.

<sup>102</sup> Napoleon might have died while serving as an artillery officer before becoming an emperor, for example.

What are those ramifications then? Given that we assume that /Gödel/ was originally introduced to refer to person  $t$  (in the Gödel case), we must conclude that the causal-chain theory is not consistent with enumerative facts about reference. After all, that theory posits that person  $t$  is the referent of /Gödel/, a claim that cannot be upheld if there is no consensus between two cultural groups about whom the referent of /Gödel/ is. The causal-historical view does not leave room for referential pluralism at the enumerative level. So, if we would have empirically shown that such pluralism obtains, ECR would disqualify the causal-historical view as a theory of reference for proper names. In a similar vein, weak descriptivism would be discredited, since that theory neither predicts that the referent of /Gödel/ changes depending on the cultural group surveyed.

To conclude: empirical results like those of MMNS' 2004 experiment could potentially have major implications for some prominent semantic proper name theories. If that experiment shows that referential facts differ cross-culturally, theories like the causal-historical view and weak descriptivism fail to satisfy ECR, which renders them defective. Whether MMNS' study is indeed an experiment that proves referential pluralism obtains — something which proponents of *methodological critique* dispute — is another question entirely. That issue needs to be (and has been) discussed separately. What we can say, however, is that both Deutsch and Devitt underestimate the role that folk intuitions have to play in the evaluation of semantic theories. The veracity of a semantic theory cannot be determined without an appeal to empirical results.

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