A Neo-Pragmatist Approach to Modality

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Modality has long presented a range of philosophical problems and puzzles. For example, Are there (really) modal properties, modal facts, or possible worlds? If there are modal properties, how could they be related to non-modal properties or relations? If there are modal facts, properties, or possible worlds, how could we come to know about them, given that modal features of the world seem not to be empirically detectable, and that possible worlds seem to be, in principle, causally disconnected from us?

I will argue that we can make a better approach to the problems of modality if we start a step back. That is, I will suggest that we should begin not with metaphysical questions about what modal properties or possible worlds *are* (or whether there are any), or with epistemological questions about how we could know them. Instead, I will argue, we should begin by asking what *functions* modal discourse serves, and what *rules* it follows. This, of course, is to take a broadly neo-pragmatist approach to the problems of modality.[1] For as neo-pragmatists such as David MacArthur and Huw Price have put it, "pragmatism begins with questions about the functions and genealogy of certain *linguistic* items… It begins with linguistic behaviour, and asks broadly anthropological questions: How are we to understand the roles and functions of the behaviour in question, in the lives of the creatures concerned?" (2007, 95). One overarching theme is that a better understanding of the language in question can lead us to reevaluate many traditional philosophical problems. But the proof is in the pudding. Here I will aim to demonstrate the plausibility and usefulness of the neo-pragmatist approach with some modal pudding.

The neo-pragmatist approach faces two central challenges. First, since neo-pragmatists want to begin from questions about the functions of forms of language, they need to give a clear and systematic story about what linguistic functions *are*, and how we may identify them. Without that, neo-pragmatists are subject to suspicions that the proffered functional analyses are just *ad hoc* suggestions designed to avoid philosophical problems. Second, the approach faces the challenge of showing clearly why the pragmatic analyses of the discourse (its functions and rules) are *relevant* to the old philosophical problems. For the standard response from metaphysicians is to insist that the pragmatist's questions are just different (linguistic) questions, whereas they (metaphysicians) are concerned with *worldly* questions to which the linguistic questions are just irrelevant.

In this paper I will try to show how to respond to both of these challenges, using modal discourse as the case in point. I will begin in section one by laying out some of the difficulties in understanding modal discourse, given the complexity and variety of forms modal discourse can take. In section two I will review the general approach to understanding linguistic functions which I have developed elsewhere (2022), building on work from systemic functional linguistics.

[1] The neo-pragmatist approach has been developed, for example, in work by Price (2011 and 2013), Brandom (2008), and Williams (2011).

After considering some developmental questions in section three, I will go on in sections four through six to apply the general approach to linguistic functions to analyze the range of functions different forms of modal discourse serve, in a way that enables us to systematically answer questions about the functions and rules of various forms of modal discourse. In sections seven and eight I turn to the second challenge, aiming to show that this work on the functions and rules governing modal discourse *is* relevant to traditional problems about modality--in part by suggesting that many of the traditional problems arise out of misunderstandings about the discourse. By addressing the challenges of developing a general approach to understanding linguistic function, and showing its potential relevance, I hope that this work on modality can serve as a case in point to exhibit the usefulness of a neo-pragmatist approach, and to show how to develop it in promising ways.

1. Initial Problems: Complexity and Methodology

Most of those who have taken a broadly neo-pragmatist approach to modal discourse have taken the question to be simply: 'what is the function of modal discourse' and have offered a *unified* answer--at least for the sort of modality they are concerned with. So, for example, A. J. Ayer says that analytic statements "*illustrate* the rules which govern our usage" (1936/1952, 80); Simon Blackburn (1993) suggests that the function of modal discourse is to express the limits of our imaginative capacities--to say that something is necessary is to express the inconceivability of its denial (1993, 70); Robert Brandom argues that alethic modal vocabulary "make[s] explicit semantic or conceptual connections that are already implicit in the use of ordinary (apparently) non-modal empirical vocabulary" (2008, 99); and I argued that "modal language serves the function[s] of mandating, conveying, or renegotiating rules or norms in particularly advantageous ways" (2020, 15). But there is such a wide range of ways of expressing modality in language that it is questionable whether we should look for a straightforward, single answer to the question "What is the function of modal discourse?" at all.

Modal discourse is importantly varied across at least three dimensions. First, there are differences in what are sometimes called the *'flavors'* of modality. These include deontic and ability modals, physical, metaphysical, and logical modalities, and epistemic modals.[2] A complete account of modality should make clear what these varieties have in common, while also clarifying the differences among them. These distinctions *have* often been noted and respected in the neo-pragmatist literature to date. Many theorists have focused on just one 'flavor' of modal discourse--as Sellars (1958) and Ryle (1949, 121) focus on statements of scientific laws, Yalcin (2011) develops an expressivist approach to epistemic modal discourse, and I have focused on claims of *metaphysical* necessity and possibility (2020). Of course, that doesn't mean that we can't hope to find some unity across these stories that address particular flavors of modality. In earlier work (2020), I suggested that the *unity* behind various forms of modal discourse was that all serve to convey, mandate, or renegotiate rules or norms in useful ways,[3] while the *variety* can be captured in terms of the different *sorts* of rule or norm that are in question. Metaphysical modals, as I have argued (2020), are concerned with conveying,

[2] Linguists classify deontic and ability modals as 'root' modals (and though they have been of less interest in linguistics, it seems physical, metaphysical, and logical modalities would be categorized as 'root', too), and contrast these with 'epistemic' modals (Cournane 2020, 3).

[3] Namely, by enabling us to express rules or norms in the indicative mood, in ways that enable us to better reason with and from them, while making the regulative status explicit, making our ways of reasoning with them explicit, and enabling us to express permissions as well as requirements (Thomasson 2020, 63).

enforcing, and renegotiating *semantic* rules ('squares must have four sides of equal length'), which also regulate what sorts of *material* inferences we are entitled to or prohibited from making. Logical necessities regulate what logical *forms* of inference we are permitted and required to make, across different suppositions, as Greg Restall (2012) argues. *Deontic* modals (you *should* or *ought to* or *must* do X) can be seen as serving to regulate behavior according to *authoritative, prudential,* or *moral* rules or norms. Other root modals can be understood as having parallel regulative functions, where the relevant rules or norms vary. Ability modals can be understood as giving something like Rylean 'inference tickets': to say "I can reach that shelf" or "I can skate" is to not describe something one is doing at the moment, but to license the interlocutor to make certain (empirically grounded) inferences about what the speaker would do, in certain circumstances: it is to say what we *may* infer, and may not infer (don't infer that I won't be able to get to the cake if you put it on that shelf!). Here I will leave largely to the side these questions of how to respect and account for the unity and diversity across differences in 'flavor' of modality. For here I wish to consider instead, and show the relevance of, a dimension of variation that is less often acknowledged in the philosophical literature, but that is particularly relevant to philosophical problems: grammatical distinctions in our ways of speaking modally.

Grammatical distinctions in how modal claims are expressed are orthogonal to distinctions of flavor. For whether we are making deontic, physical, metaphysical, logical, or epistemic modal claims, there are various grammatical options for *how* we express them. One way is to use auxiliary verbs (asking if Sarah *should* lie to avoid upsetting her sister, if penguins *can* fly, if that *might* be Josie at the door, etc.) or semi-auxiliary verbs, asking if Sarah *has to* lie, or if it's *supposed to* rain. But we can also introduce 'lexical' modal terms, including modal adverbs ('maybe', 'probably'), modal adjectives ('is possible', 'is obligatory'), and nouns ('possibility', 'necessity') (Cournane 2020, 6). Using those modal terms, we can ask if it is *morally necessary* to always tell the truth, if it it is *possible* for penguins to fly, or if there is *a possibility* that Josie is the one at the door (see Cournane 2020, 5). From there, we can even go on to introduce talk of possible worlds, asking, say, if there are possible worlds in which a creature has the same physical properties as I do, but lacks mental properties.

Beyond these two axes of distinctions, of course is a third dimension capturing differences in the *strength* or *force* of the modal claim*;* for example, whether we are saying something *might* or *must* happen, whether it is *possible* or *necessary,* etc. (Cournane 2020, 2). These differences in *strength* are of course expressible in various *grammatical forms* for every *flavor* of modality.

Given all the complexity, it is hard to know where to begin in investigating the functions of various forms of modal discourse. I will suggest that we start at the *developmental* beginning, as this enables us to see, at each stage, what functions are added in developing progressively more sophisticated forms of modal discourse. Given the many variations, we also should not assume at the outset that we can simply ask 'What is the function of modal discourse?' For that seems to presuppose that all forms of modal discourse may be treated together, as having a unified function. However, we should not presuppose that all modal discourse serves just *one* function, nor that all forms of modal discourse serve the same *range of* functions. I will turn next to discuss how we can make use of work in Systemic Functional Linguistics to help us identify the *plurality of* functions served by various forms of discourse—including modal discourse of various forms.

2. The general challenge: Identifying linguistic functions

Central to the neo-pragmatist approach is the idea that we should begin with questions about the functions of the relevant forms of language, not with metaphysical questions, say, about the existence or nature of possible worlds. But how, in general, can we determine what the functions of a form of discourse are? While neo-pragmatists have long emphasized the importance of giving functional analyses, they also face recurring skepticism that anything helpful can be said about linguistic functions. Herman Cappelen, for example, has recently raised doubts that anything more can be said about linguistic function than the representationalist mantra that "the function of 'F' is to refer to the Fs" (2018, 187), adding, "If the goal is to find functions that are more substantive and informative than the disquotationally specified functions, then it will be unsuccessful" (2018, 187). This echoes concerns raised long ago that language is *used* in so many ways that it's hard to find anything *systematic* to be said about linguistic functions (Austin 1961, 234). It also echoes frequent suspicions that neo-pragmatist proposals about the function of, say, moral, modal, or mathematical discourse are *ad hoc* suggestions to serve a philosophical purpose. Elsewhere I have addressed the general question about how to determine linguistic functions (2022). I will begin with a brief sketch of the approach to functional questions I recommend there.

In addressing questions about the functions of (parts of) language, a common theme across neo-pragmatist literature is that we can begin by asking what the relevant linguistic forms enable (at least) some speakers to do that they could not do, or could not do so well or so efficiently, otherwise. One point to emphasize here is that there should be no requirement that fulfilling the function benefits *everyone,* nor that the linguistic form be absolutely *indispensable.* There is no similar requirement that, if archeologists or other outsiders (travelers, children) aim to identify the functions of concrete artifacts, the functions should be universally beneficial (think of weapons or fences), or that there is no *alternative* way to fulfill the relevant functions of (think of a butter knife or ice cream scoop). Moreover, whether or how well an entity fulfills a function always must be judged in a total context of other available equipment, a total set of purposes, local human capabilities and practices, etc.

Another common theme, prominent in the work of Huw Price (2011, 2013), is to insist that these functional questions about language are basically *empirical* questions, about the roles these forms of language serve in human life. Other functional questions are certainly addressed by empirical sciences, as (for example) biologists address questions of biological function, and archeologists address questions about the functions of the historical artifacts they discover.[4] Accordingly, functional questions about language might be best addressed in what Price refers to as 'subject naturalist' mode (2013, 5), by work in anthropology and/or linguistics.

Fortunately, there is relevant work to draw on. Work in systemic functional linguistics, which has drawn from and has been highly influential in anthropology,[5] addresses exactly these functional questions about language. It begins from the idea that "language has evolved in the service of certain functions" (Halliday 1973, 14) and asks about the ways in which the functions of language in human life are reflected in the way language is structured (Malmkjaer 1991, 159). I have argued elsewhere (2022) that we may make use of the framework and central results from

[4] Naturalistic ways of addressing questions about function, whether for biological entities or artifacts, are famously developed by Ruth Millikan (1987).

[5] The anthropologist Bronislaw Malinowski was particularly influential on the development of systemic functional linguistics (Eggins 2004, 88-9), especially through his influence on linguist J. R. Firth, who in turn was a teacher of Michael Halliday.

systemic functional linguistics to address questions about the functions served by various elements of the linguistic system, in ways that shed light on various old philosophical problems.

As Michael Halliday's work in developmental linguistics emphasizes, children (typically between ages 1 and 3) use a proto-language to serve a variety of functions--including instrumental (used to get goods or services), regulatory (used to control the behavior of others), interactional (used in greetings, partings...), personal (to express feelings of interest, pleasure, disgust), heuristic (used to investigate the environment), imaginative (used in pretending), and (a little later) informational or representational (Halliday, 2009, 101 and 1975, 20-21). Notably, early childhood language is functionally simple, with each utterance typically serving a single function (Halliday 2009, 85).

What changes when children reach mature language is that, in mature language, *each utterance typically serves more than one function at a time*[6] (Halliday 1975, 26). This distinctive feature of mature language helps explain the ways language is grammatically structured. For it is the variability in grammatical forms that enables different functions to be served simultaneously. As Halliday puts it, grammar "allows for meanings which derive from different functions to be encoded together, as integrated structures, so that every expression becomes, in principle, functionally complex. Grammar makes it possible to mean more than one thing at a time" (1975, 48).

But what functions are these? Halliday categorizes the into three "macro-functions", where (typically) each clause simultaneously serves functions in all three of the macro-functional categories (Halliday 1973, 34). These macrofunctions are:

Ideational: This is a matter of encoding and communicating a content (Halliday 2009, 110). It is often glossed as encoding a content *about the world or the speaker's experience*. But ideational content can also be given in highly abstract terms, far distanced from anything like direct experience (Halliday 2014, 712-20).[7] So, for example, we can also speak of the ideational content carried by "The perception of an inadequate retirement program consistently surfaces as a primary cause of our recruiting and retention problems" (Halliday 2014, 713), though this is far removed from anything anyone ever saw with their eyes. In later work, Halliday distinguishes two sub-components of ideational content: experiential (broadly construed) and logical (concerned with 'the expression of logical relations') (2009, 111, and 2014, 361-2).[8] From a philosophical standpoint we can see the import of this metafunction roughly as carrying a *propositional content*,[9] which we can use in communicating information (broadly construed), or

[6] Indeed each clause--with a few exceptions, such as *'How do you do?*' and "*No wonder!"* (Halliday 2009, 99).
[7] Thus, ideational content need not be *congruent*; it can involve all sorts of *grammatical metaphors* (for more on congruence and grammatical metaphors, see below). As Halliday puts it, "…the model of experience construed in the congruent mode is reconstrued in the metaphorical mode, creating a model that is further removed from our everyday experience—but which has made modern science possible" (2014, 718). This also shows that a form of discourse may possess ideational content without *tracking* certain features in the world (with which we are in causal contact) or being used to inform others about them—in Price's terms (2011, 20-21), it need not be e-representational.
[8] Where 'logical' is construed informally and broadly, to include causal relationships.
[9] Halliday uses 'proposition' to refer to a clause used to 'exchange information'; contrasted with a 'proposal': a clause used to 'enable the exchange of goods and services" (Eggins 2004, 148-9)

formulating proposals, and which (given its propositional form) can be used in *reasoning*.[10] This macrofunction has been the primary focus of philosophical attention.

Interpersonal: These cover the broadly social functions of language--enabling speakers to take up or show their relation or roles with respect to their interlocutors (as questioner, respondent, commander, polite or impolite...), to express their attitudes towards the subject matter, to show their level of certainty, and points of view, and to (attempt to) regulate the behavior of others (Eggins 2004, 11-12). In English, the mood and modal systems support these interpersonal functions--they are ways language is structured to enable *interaction.* (Eggins 2004, 184).[11]

Textual: The textual macro-functions enable us to organize a text as an extended piece of writing or speech, making evident the relations among ideas, the central theme, etc. These textual functions are carried (for example) by terms such as 'since, 'therefore', 'although', and 'so'. They are also carried by the ability to engage in transformations from one grammatical category to another, forming what Halliday calls 'grammatical metaphors' (2009, 116-138). Such changes enable us to, for example, change word order and grammatical structure to better identify the topic and show what the important or new parts of information are, and to add expressive power to the language in ways that are crucial for developing scientific theories and bureaucracies.

This framework can enable us to address the first challenge, of how to systematically identify linguistic functions. In the case of modal discourse, as I will argue below, this framework can enable us to make progress in understanding how functions may vary systematically across different *grammatical formulations* of modal discourse.

This framework should also lead us to suspect that the pragmatist's query 'What is the function of modal discourse?' (or of 'X'-discourse, where X is any topic: moral, modal, causal, mathematical...) may be not quite the right way to pose the question. For there may be typically more than one type of function served at a time, and the cluster of functions served may vary across different grammatical formulations of what has been treated as the same 'kind of' discourse (modal, moral, mathematical…).

3. Where to begin? The developmental progression

Given all the complexities of modal discourse and different dimensions of variation identified in Section 1, it can be hard to know where to begin in analyzing modal language. I propose that we start at the *developmental* beginning. If we can develop our account along these lines, we can do better in asking at each stage, what *additional* functions might be served by adding additional modal formulations to one's linguistic repertoire. So, a brief look at how and when children learn different forms of modal language will be useful in suggesting how to proceed.

In terms of variations in 'flavor', there is consistent evidence that the 'root' modals, including ability modals and deontic modals, are acquired before epistemic modals. Root modal

[10] Talk of the ideational content as 'representing' the world or our experience, or communicating 'information' here should clearly be understood in a deflated sense—not one in which it is tied to a philosophical form of Representationalism, a correspondence theory of truth, etc.

[11] As Eggins puts it, "when we ask, 'how is language structured to enable interaction?' we find the answer lies (principally) in the systems of Mood and Modality" (2004, 184)—so it seems that these are the *principal* ways interpersonal functions are carried, but perhaps not the only ways.

verbs enter language at around age 2, starting with ability verbs ('can') and then progressing to deontic modal terms (Cournane 2020, 7). Epistemic uses of modals begin later, around age 3.[12] (As far as I know, linguists have not specifically addressed questions about metaphysical or logical modalities). In terms of force, claims of *necessity* also come later than claims of *possibility* (Cournane 2020, 11-12), and children don't learn the strength of different modal claims until around age seven (Papafragou 1998, 8-14).

But it is *grammatical* variations I will focus on here, since less has been said about them in the philosophical literature, and yet (as I will argue) they are particularly relevant to understanding the emergence and persistence of philosophical problems about modality. Grammatically, modal expressions enter language in the form of auxiliary (and semi-auxiliary) verbs. 'Objectified' modal expressions such as 'it is possible that', 'there is a possibility that' are acquired later, between age 6 and 12. (Papafragou 1998, 22). This is confirmed by work in systemic functional linguistics, which classifies such objectified modal expressions as 'grammatical metaphors', and notes that children typically begin to process grammatical metaphors only around age eight or nine (Halliday 2009, 46). (More on this below). Possible worlds talk is so distinctively philosophical, that, to my knowledge, there has been no linguistic study of it at all. But clearly if it is acquired at all, it is acquired quite late in life, in specialized academic contexts.

Given this developmental history, it is striking to note that many philosophical investigations *begin* at the *end* of the story, asking what possible worlds are, if there are any, or what possibilities or modal properties are. Indeed the standard metaphysical approach to these problems is to take talk of possibilities, possible worlds, or modal properties as what is *primarily* of interest, and to ask whether there are such objects, what they are like, how they can be known, and perhaps even how the relevant *objects referred to* can explain, justify, or serve as truthmakers for our modal discourse—including the basic discourse expressed using modal auxiliary verbs (e.g. 'it might rain tomorrow' is thought of as *about* and *made true by* a possibility of rain, or a possible world in which it rains tomorrow…).

In taking a step back to ask first about the functions of the discourse, we reverse direction. For if we want to understand the functions originally served by introducing basic modal discourse, we have reason to begin our inquiries instead with modal verbs, and ask what functions it serves for a child to add these to their linguistic repertoire—as that marks the beginning of acquiring a modal system. What can a child do, in acquiring modal verbs, that they couldn't otherwise do (or couldn't do so effectively, in the context)? Of course, the child doesn't stop there--so we can go on to ask, at later stages, what functions it serves to *add* modal adjectives and nouns to the child's linguistic resources, and perhaps even eventually ask what it adds to add talk of possible worlds. We can also ask how these new adjectival, adverbial and nominative terms come to enter language: what introduction rules entitle us to add them to our language? Once we have better understood this progressive development and the functions progressively introduced, it may no longer seem so 'natural' to begin with the metaphysical questions.

4. Functions of basic modal discourse

I have suggested that, in pursuing our functional question, we should begin at the developmental beginning. We have also seen that, grammatically, the most basic form of modal

[12] There is an interesting debate about the reasons for this 'epistemic gap'. See Cournane (2020) and Papafragou (1998, 4).

discourse is expressed with modal auxiliary verbs. What new functions are introduced with a modal system?

A first thing to note, is that (in English) both mood and modal systems primarily carry 'interpersonal' functions (Halliday, 1973, 33; cf. Eggins 2004, 172-84). So, if we ask, "Why would we have a language with a mood or modal system?", the fundamental answer is: it enables us to establish and make evident social roles and relationships, show our attitudes, get people to behave in certain ways, and so forth. Modality is "a complex area of English grammar which has to do with different ways a language user can intrude on her message, expressing attitudes and judgments of various kinds" (Eggins 2004, 172).

The mood system emerges early in language learning (before the modal system), and mastery of it enables the child to speak in various grammatical moods--uttering declaratives, interrogatives, imperatives, etc. A proto-mood system can be observed in early language development, around 19 months (Halliday 2009, 14).[13] In a mature language, mood options enable speakers to take up a range of social relationships to their interlocutors, including questioner/respondent (with interrogative form), commander/commanded (with imperative form), etc. Among other things, a *mood* system enables speakers to use language to take on the task of regulating behavior, by uttering imperatives.

Use of a *modal* system, as we have seen, emerges somewhat later (around age two to three), even in its initial form. What does a modal system give speakers that they would lack if they had only a mood system at their disposal? We can identify at least four further advantages gained by using a modal system (rather than just a mood system). A first is that it enables us to fulfill regulative functions without overtly taking on the role of commander. So, as a professor, I can utter the imperative to my students: "Read Kant's *Groundwork".* But I could also use a modal verb instead, saying, "All students of Philosophy 1 *must* read Kant's *Groundwork".* This has the advantage not only of being more polite (I am now not barking orders, but impersonally laying out the requirements), but also of being explicitly *generalized,* making it clear that the regulation applies to any *students of the class, given their role,* not just to whoever happens to be hearing my command. Shifting to a modal formulation also enables speakers to present their regulations *impersonally,* as not as "not 'just their own' but [as having] some objective status" (Eggins 2004, 175).

A second advantage gained by using modal verbs in regulating behavior is that it introduces variability in *force,* enabling us to 'temper' what we say. Modal terminology introduces *degrees* by the processes of 'modalization' (moving from "Henry James wrote 'The Bostonians'", to "Henry James *might have written* 'The Bostonians'" (Eggins 2004, 173)); and 'modulation' (moving from 'Clean your room' to 'You *should* clean your room'). Both modalization and modulation are "grammatical resources for tempering what we say" (Eggins 2004, 181). Modalization introduces attitudes towards propositions, so that we aren't limited to: *it is* or *it isn't.* Instead, we can more subtly say: it *might* be, it *could* be, it *must* be.... Modalization enables the speaker to not just assert or deny, but to express their judgment of the certainty, likelihood, or frequency of something (Eggins 2004, 174). So, by shifting from "Henry James wrote 'The Bostonians'", to "Henry James *might have written* 'The Bostonians'", I *show*

[13] As Halliday puts it, the child studied distinguished in general utterances with a 'pragmatic' 'doing' function, from those with a 'mathetic' or learning function, by use of a rising and falling tone respectively (2009, 14).

my uncertainty while still *talking about* the author and text (Eggins 2004, 173).[14] Modulation, by contrast, enables speakers to express degrees of *obligation* and *requirement* (Eggins 2004, 179). Modulation enables us to attempt to direct behavior in more subtle and graded ways than we can manage using imperatives. So, rather than commanding "Clean your room", we can stringently insist "You *must* clean your room", or more mildly suggest, "You *should* clean your room". (Eggins 2004, 179). Like modalization, modulation introduces degrees; in this case, degrees of attitudes towards *proposals*, so we aren't limited to the: 'do x' or 'don't do x' of imperatives. Instead, we can say: you *may* do it, you *should* do it, you *must* do it... (Eggins 2004, 180).

A third advantage of introducing modal formulations (rather than using the imperative mood) is that we can aim to regulate behavior while using the *declarative* mood. And that in turn enables us to reason with and from these expressions in ways that are not available with imperatives. We can say, for example, 'If students *must* read Kant's *Groundwork,* then this is going to be a hard class'; whereas it isn't even grammatical to say: 'If: Read Kant's *Groundwork,* then...' By making this shift, to using the declarative mood, statements with modal verbs express their propositional content in a grammatical form that enables us to reason with them and from them in all the ways characteristic of declaratives, enables us to categorize them as true or false, etc.—thereby fulfilling additional *ideational* functions alongside their *interpersonal* functions.

A fourth advantage of introducing modal (rather than just mood) terminology is that, as Ryle observed, while we can issue *commands* (using the imperative mood) without modal terms, having modal terms also enables us to give *permissions* (1950/1971, 244).[15] These last two features bring advantages in enabling us to lay out generalized systems of rules and permissions: rules that apply to *everyone* (who meets certain stated conditions), from which we can reason about what follows from these requirements, and where *permissions* may also be expressly given or revoked. This may even play a key role in enabling us to move from the 'rule of man' (where a recognized ruler or rulers issue commands to those present) to the 'rule of law', where there are *generalized principles,* supposed to apply to *everyone* (meeting certain conditions), imposing certain general requirements or permissions.

An interesting upshot of this analysis is that it both shows that early prescriptivists, who took moral language to share important features with imperatives, were *onto something*, and yet it also makes it clear why more was needed to fully understand moral discourse. Carnap wrote, "a value statement is nothing else than a command in a misleading grammatical form" (1937, 24). Stevenson suggested that ethical judgments are "social instruments" (1937, 31) and have "a quasi-imperative force" (1937, 19), and their "major use" is "not to indicate facts, but to *create an influence"* (1937, 18), though unlike an imperative "it enables one to make changes in a much more subtle, less fully conscious way… [for] the ethical sentence centres the hearer's attention not on his interests, but on the object of interest" (1937, 26). Hare famously argues that "the language of morals is one sort of prescriptive language" (1952, 1). These prescriptivists were onto something (if the above analysis is correct) since modal language (of which moral *shoulds, musts,* and *mays* are one distinctive species) can be seen as a more sophisticated way of taking over some of the interpersonal functions of the mood system (especially of imperatives). But we

[14] This way of thinking about epistemic modal language is cohesive with Yalcin's (2011) interesting arguments that we should not (with descriptivists) take these to be *describing* the epistemic states of agents or some body of evidence.

[15] With perhaps this exception, suggested to me by Jamie Dreier: "Go ahead and do X, (if you want to)" is a way of giving permission without a modal verb. But this, being still in the imperative form, doesn't enable all the same sorts of reasoning as the modalized "You may X"--for example, the former cannot be embedded in the antecedent of a conditional ('If go ahead and do X...' isn't grammatical), while the latter can.

can also see why saying that alone is insufficient, given the developments of modal language that enable it to fulfill a range of other functions that imperatives cannot reach—including functions in reasoning, even in embedded contexts (this difference can be seen to lie behind the infamous Frege-Geach problem (Geach 1965)). I only have space to gesture towards these implications here; fuller discussion will have to be left for elsewhere.

5. Functions of sophisticated modal discourse

As we have seen above, modal discourse enters language in the form of auxiliary and semi-auxiliary modal verbs, which are introduced primarily to serve interpersonal functions, but also enable us to form expressions that serve additional *ideational* functions, since they can be expressed in indicative form, enabling us to reason with and from these claims.

Other modal expressions come as grammatical innovations that the child learns later, between ages six and twelve, adding 'objectified' modal expressions such as 'it is possible that' and 'there is a possibility that' (Papafragou 1998, 22). What functions are added here—why go on to learn other modal formulations, using not just modal auxiliary verbs, but introducing modal adjectives ('is possible', 'is obligatory') and nouns ('a possibility' 'a necessity', 'an obligation')?

These late developments in modal language, into modal adjectives and nominalizations, play a central role in prompting metaphysical perplexities. It is only with this sort of modal vocabulary that we can even ask questions such as: What are modal properties? How are the modal properties of an object related to its non-modal/categorical properties? How can two objects (the statue and the clay) have all the same *non-modal* properties, and yet have different modal properties (one being incapable, the other capable of surviving dramatic changes in shape)?[16] What are possibilities, or chances? What are possible worlds? Are there any? So, if we have interest in these philosophical problems, it is particularly useful to be able to understand these forms of modal discourse, their functions, and the ways they enter language.

Modal predicates and nouns enter language via grammatical transformations from more basic modal statements that use modal auxiliary verbs. So, for example, we can make a trivial inference from 'It *might* rain' (using a modal auxiliary verb) to 'Rain *is possible* tomorrow' (introducing a modal predicate) or to 'There is *a possibility of* rain' (introducing a modal nominalization).[17] In the parlance of systemic functional linguistics, making such grammatical shifts involve introducing what Michael Halliday calls 'grammatical metaphors' (2009, 116-38), so it is worth pausing for a little background on grammatical metaphors.

The first terms we learn in early language—across languages—are 'congruent' terms: nouns for things, verbs for processes, adjectives for qualities… (Halliday 2009, 117). (Or, more neutrally, we can say nouns are used for what is *perceived as* a thing, verbs for what is *perceived as* a process, etc.)[18] An early subject-verb-object utterance like 'man clean car' is congruent.

[16] This, of course, is the so-called 'grounding problem' (for discussion, see Bennett 2004).

[17] Talk of 'potential' and 'potentialities' similarly involves a grammatical metaphor, introduced from more basic talk using modal auxiliary verbs like 'can'. For example, 'The student could become a great painter' becomes 'the student has the potential to become a great painter' (Halliday 2009, 45).

[18] That is, to understand and make use of this way of understanding 'congruence' we need not interpret these as making any deep metaphysical claims about the 'real natures' of the things perceived, or the basic metaphysical categories of the world. Instead, we can easily see this initial form of language as connected to basic categories we use in *experiencing* and *navigating* the world as we perceive it—perhaps in ways that are pre-linguistic and shared with many non-human animals. (For interesting work on psychologically basic categories of 'core cognition' shared with cottontop tamarins and Rhesus macaques, see Susan Carey (2009)). Here we can see questions of developmental psychology interact with those of developmental linguistics.

Congruent terms are "evolutionarily and developmentally prior" (Halliday 2009, 117). In early language development, these more basic 'congruent' nouns such as 'stick', 'car', and 'ball' are acquired in response to observations of interest in the environment: "In contexts of observation, recall, and prediction" (Halliday 1975, 27). As Halliday puts it, these terms function to contribute to the child's learning about the environment (1975, 27-28).

These congruent terms seem to be representational in what Huw Price identifies as the 'e-representational' sense: as having the job "to *co-vary* with something else—typically, some *external* factor or environmental condition" (Price 2011, 20). Congruent, observationally-acquired terms can then be used in declaratives in ways that carry ideational content and are used to track features of the world (and, of course, can also be used in requests, commands, etc.). So understood, there are two important features of congruent language: (1) it introduces terms of different grammatical categories corresponding to the *perceived categories of entities experienced* (object, process, property…); (2) it is introduced *observationally*, in response to observed features of the environment.

Later in language development, the child learns to go beyond congruent language, to understand and utter grammatical metaphors. 'Metaphor' derives from the Greek *metaphora*, a transfer or carrying-over.[19] While familiar (lexical) metaphors carry over one *semantic meaning*, transferring it for another (if we shift from speaking of a 'sharp knife' to 'sharp words'), in *grammatical* metaphors we carry over a term from one *grammatical category* to another, (if we shift from saying 'he has a knife' to 'he knifed someone', or from 'the barn is red' to 'the property of redness is possessed by the barn').[20] The ability to make such grammatical shifts is common across languages, although there may be variation in which kinds of shift are permitted and which kinds are common. Children typically do not acquire the ability to process grammatical metaphors until around age eight to nine (Halliday 2009, 46). Grammatical metaphors introduce new terminology to the language, by means of trivial inferences. The rules that enable us to introduce grammatical metaphors are the same as those supporting what I have elsewhere (2015) called 'easy ontological inferences'.

But now the functional question arises: Why would we want a language that permits such trivial inferences, enabling us to introduce new terms like these?[21] Here again we get an interesting answer from Systemic Functional Linguistics: the capacity to form grammatical metaphors enables our language to serve new, *textual* functions (on top of those *ideational* and *interpersonal* functions it already served). Such textual functions in general include showing the connections among ideas in a longer piece of text and enabling us to construct scientific theories and bureaucracies (Halliday 2009, 119-138; see also discussion in my (2022, 19-23)).

[19] Thanks to Manuel Gustavo Isaac for pointing this out in conversation.

[20] The terminology, thus, should not be taken to suggest that the resulting statements are anything less than literally true, and should not be confused with 'fictionalist' proposals about how to understand discourse about properties, numbers, etc.

[21] This is a question I did not consider in my (2015) *Ontology Made Easy*. I have since found that systemic functional linguistics provides an extremely interesting and helpful answer to this question, making clear why we would want a language that allows for trivial inferences.

Modal grammatical metaphors add some useful additional textual functions, beyond the interpersonal (and ideational) functions introduced by auxiliary modal verbs. With modal auxiliary verbs, we can say 'It might rain' or 'It might snow'. But by introducing modal adjectives and nouns, we can introduce graded comparisons, saying, 'Snow *is more possible* than rain tomorrow' or *'The possibility of snow* is greater than *the possibility of rain'*--introducing what Carnap (1962, 9) called 'comparative concepts'.[22] We can even go on from there to introduce what Carnap called 'quantified concepts', saying for example, "the possibility of snow is 70%; but the possibility of rain is only 20%" (1962, 8-15).[23] As Carnap emphasizes, quantitative concepts are particularly useful in developing precise scientific theories, enabling us to formulate precise general laws. So, for example, we might have classificatory concepts of 'warm' and 'cold', but we can only formulate the ideal gas laws if we have introduced a *quantitative* concept of *temperature*, defined in ways that make it measurable (Carnap 1962, 13). Similarly, we can only get precise probabilistic meteorological, physical, or medical theories if we introduce quantified modal concepts. Only then can we say not just "Taking the drug *might* help you avoid pulmonary complications" but rather "Taking the drug reduces *the possibility of* pulmonary complications by 42%".[24]

Talk of possible worlds, similarly, is a matter of introducing a new grammatical metaphor, by making trivial inferences from talk of what's possible. David Lewis himself originally suggested this (long before he presented his famous Inference to the Best Explanation arguments for possible worlds), writing:

> I believe there are possible worlds other than the one we happen to inhabit. If an argument is wanted, it is this. It is uncontroversially true that some things might have been otherwise than they are… But what does this mean? Ordinary language permits the paraphrase: there are many ways things could have been besides the way they actually are… I believe things could have been different in countless ways; I believe permissible paraphrases of what I believe; taking the paraphrase at its face value, I therefore believe in the existence of entities that might be called 'ways things could have been'. I prefer to call them 'possible worlds' (1973, 84).

[22] Carnap noted that these comparative concepts are more useful for scientific inquiry than merely 'classificatory concepts', though not as desirable as quantitative concepts.

[23] Of course, more should be said about what it takes to *successfully* introduce such quantitative concepts. Carnap held that to do so, we must not just nominalize, but give *rules* for assigning the relevant numerical values, defined by "exact rules of measurement" (1962, 14). In the case of 'temperature', for example, this was initially given in terms of the volume of mercury in a thermometer (Carnap 1962, 13); in the case of probability, Carnap linked this with long-term relative frequency (1962, 19). Moreover, Carnap suggests that such quantitative concepts would only be *retained* if they turn out to figure fruitfully in general laws (some quantitative concepts of psychology, for example, have turned out not to do so) (1962, 14). In any case, the point here is simply that the ability to introduce grammatical metaphors is a necessary precondition for introducing such quantitative concepts at all—not to lay out the conditions needed to successfully introduce quantitative concepts.

[24] Such precise probabilistic theories then of course can be better confirmed, figure in more precise scientific theories, and also can be better used in making decisions (whether to take the medication) and bureaucratic evaluations (whether the drug should be approved, covered by insurance, etc.).

As Lewis also showed, adding talk of possible worlds (beyond sentential modal operators) adds expressive power to a language, for example, enabling us to formulate global supervenience claims (1986, 12-17). That is, introducing talk of possible worlds, like introducing modal adjectives and nominalizations, can be done via trivial inferences from more basic forms of modal speech, and is useful because it adds additional *textual* functions to the language.

The advantages of being able to make these grammatical shifts work similarly for deontic modal vocabulary. We can say 'You *should* keep your promises' or 'You *mustn't* kill', using auxiliary modal verbs. But we can do more sophisticated things by introducing adjectives and nouns--enabling us to say that it is *more* obligatory to refrain from killing than it is to keep your promises; or that the former *obligation* is more stringent. Nominative talk of obligations and permissions enables us to formulate complex bureaucratic systems, saying not simply (in imperative mode) “Pay taxes”, or with modal auxiliaries, "You must pay your taxes", but rather to speak of the ways in which property owners in the state of Vermont incur a range of tax *obligations* and as well as *permissions* for modifications to their land, subject to *requirements* for planning *permission* and environmental stewardship.[25] We can also quantify and qualify obligations and requirements, saying that students must satisfy *five* requirements to pass Philosophy 80, and that these requirements are *more onerous* than those for Philosophy 1.

All in all, then, sophisticated modal discourse enables speakers to fulfill all three types of metafunction at the same time. Mood and modal systems enter originally to contribute interpersonal functions.[26] But they simultaneously serve *ideational* functions, carrying propositional content that we can go on to reason with and from in useful ways. Introducing grammatical metaphors to our modal discourse, in turn, brings about new *textual* functions that enable such expressions to play key roles in developing sophisticated scientific theories and bureaucracies.

6. Lessons so far

At the outset I mentioned two challenges for developing a neo-pragmatist approach to modal discourse. One was showing how we can, in general, develop a clear and systematic approach to determining the functions of a type of discourse. The other was showing the relevance of that analysis to reevaluating old philosophical problems.

So far, I have focused on the first challenge, and I hope to have pointed the way to a more sophisticated and multifaceted neo-pragmatist approach to modal discourse.[27] One lesson we can

[25] Notice also the other grammatical metaphors involved in this text, and the density of grammatical metaphors in a typical piece of bureaucratic prose.

[26] In my prior work, (2020) I have been particularly interested in the *regulative* functions, but do not mean to limit them to that.

[27] More sophisticated, at any rate, than anything *I* had offered before. When I wrote *Norms and Necessity* (2020), I was attuned to the functional differences that different parts of language could serve, and I developed the idea that metaphysical modal discourse serves regulative functions of conveying, endorsing, or renegotiating semantic rules. But I had not yet discovered the work in systemic functional linguistics, and the ways it provides of getting a more fine-grained understanding of the functions served by different parts and aspects of language, including those that are introduced via grammatical variations in modal discourse.

take from this is that we can draw on work in linguistics (especially systemic functional linguistics) to help us address questions about the functions of various areas of discourse.[28]

Another lesson we can draw so far is that the neo-pragmatist's question, if we formulate it as 'What is the function of modal discourse?' may be too broad, given the variations modal discourse may take. This variety doesn't mean, however, that our analysis of the functions of modal discourse must be a hopeless mish-mash. Instead, we can see how the different functions are layered up as modal language develops into more sophisticated grammatical forms. As we progress developmentally and come to master the entry rules for new expressions, different grammatical forms for modal discourse enable us to introduce modal terminology that adds new functions to the old, including ideational functions and textual functions, so that different forms of modal discourse may come to serve different *ranges of* functions. As we have seen, adding modal auxiliary verbs to a language enables us to serve *interpersonal* functions in useful ways, while also serving those *ideational* functions that come with being stateable in propositional form. Transforming modal auxiliary statements into forms that include modal adjectives and nominalizations adds additional *textual* functions, crucial in forming structured theories and bureaucracies.

Turning to work in developmental and functional linguistics thus enables us to develop both a more *justified* and a more *fine-grained* neo-pragmatist theory. It is more *justified* because it gives us empirical ways of determining which forms of modal language are more basic (developmentally), and what sorts of functions are added to language by adding a basic modal system, and by licensing grammatical transformations to introduce more sophisticated forms of modal expression. It is more *fine-grained* because it enables us to give a more detailed accounting of the range of functions added to language by these grammatically different forms of modal expression. At the same time, it also enables us to understand the entry rules that entitle us to introduce more sophisticated forms of modal expression (modal adjectives and nouns) by trivial inferences from more basic forms of modal expression.

This is, no doubt, just the start of a more complete neo-pragmatist account of the diverse forms of modal discourse, the functions they serve, and the rules governing their introduction and use. Nonetheless, now that we have taken a step back to address questions about the rules and functions of various forms of modal discourse, let us turn to see what relevance this might have for the traditional philosophical problems about modality with which we began.

7. What does all of this have to do with metaphysics?

At this stage, I can hear an army of impatient metaphysicians saying: "Interesting linguistic story. *But what does any of this have to do with metaphysics?"*

The burden on the neo-pragmatist is to show how the story about linguistic functions and rules can enable us to dissolve, avoid, or undermine alleged metaphysical (or other philosophical) problems. If we can show how this works for the modal case, this may also provide a model for other neo-pragmatist projects.

At the outset I mentioned several characteristic philosophical puzzles about modality:

[28] What I have focused on so far, one might call the 'formal', grammatical dimensions of function. We can still ask further questions about what we might call the 'material' dimension of function. That is, for example, we can identify talk of *numbers* and of *truth* as both involving grammatical metaphors, where grammatical metaphors typically add *textual* functions. But we can go on from there to also ask about the *differences* between the textual functions added by nominative number talk versus truth talk. On this material dimension of function, an approach such as that developed by Matthieu Queloz (2021) may provide a helpful complement.

1. Are there (really) modal properties, modal facts, or possible worlds?
2. If there are modal properties, how are they related to non-modal properties or relations?
3. If there are modal facts, properties, or possible worlds, how could we come to know about them, given that modal features of the world seem not to be empirically detectable, and that possible worlds seem to be, in principle, causally disconnected from us?

What new light can a subtle neo-pragmatist story shed on these old problems? Given the above linguistic story, we can see that all of these diverse problems arise, at least in their most troubling or worrying form, by treating talk about modal properties, possible worlds, etc., *on analogy to congruent, observationally acquired discourse*--discourse that has the function of tracking features of the world as we perceive it, and that enters language via observations of the environment.[29] By making clear the very different *functions* of modal discourse and the different *rules* by which modal discourse (of various forms) enters language, we can undermine the idea that there is a valid analogy here. We can thereby also challenge the idea that these are major problems that should lead us to deny that there are modal facts or properties, or deny that we could know them.

Congruent language comes early in language development, through observation of the environment. Children begin by learning congruent nouns ('goat', 'tree', 'ball'), verbs ('run', 'jump', 'wash'), and adjectives ('brown', 'tall'), used to track and learn about features of their environment. This early congruent, observationally acquired language tends to become our paradigm of how *all* language functions.

But it is crucial to notice that not all terms are congruent, and that not all terms enter (or are even *supposed to* enter) language observationally or via causal relations. Moreover, while basic declaratives using congruent terms may serve to describe the world in the sense of aiming to track and co-vary with features of the world, not all declaratives do that. For example, as we have seen, we might begin with imperatives that serve an interpersonal, regulative function ('Read Kant'), and transform them into declaratives with modal verbs ('Students *must* read Kant'). The latter serve additional ideational functions, carrying propositional content that we can reason with in all the ways characteristic of declaratives. But that does *not* mean that these terms should function (like congruent terms for sticks and cars) to track special (modal) features of our environment. Let us see why this should lead us to reconsider some central philosophical problems about modality.

Are there (really) modal properties, modal facts, or possible worlds? If so, how are they related to non-modal properties or relations?

First, consider debates about whether there (really) are modal properties, facts, or possible worlds. Doubts are often raised about the existence of such things because it is thought that they would be problematic, as they would seem to be entities that are not observable. But given the above story about the functions and introduction rules for modal predicates and nouns, we can begin to see why such debates are otiose, and we can better support the idea that such questions can be answered easily--without need for any deep ontological debates.

True enough, many (congruent) predicates are observationally introduced, and are used to refer to trackable, perceptible features of the world. We can introduce a predicate like 'is red' in

[29] Roughly, what Price (2013, 36) calls discourse that is representational in the 'e-representational' sense. Other problems, as we will see, arise from taking it as analogous to discourse about unobserved explanatory 'posits'.

the presence of a red ball, and we can track the presence of redness perceptually (as we can ask whether the redness has spread across the patient's face).

But as we have seen, modal predicates such as *'is possible'* are not introduced via observation to track perceptible features of the world. The fact that modal properties and facts are not directly perceptible is a reflection of the way these terms are introduced, and the functions they serve. Terms such as 'is possible' enter language not through direct observation, but rather via grammatical shifts that take us from modal verbs, which primarily serve interpersonal functions (as in 'It might rain'), to say instead 'Rain is possible'. And this grammatical shift does not aim to track new features of the world, but rather to adds new *textual* functions to our linguistic repertoire (so that we can, for example, go on to ask whether rain is *more possible* than snow). Since the discourse does not aim to track worldly features, it needn't be a problem if we can't introduce it via observation, and can't think of it as describing observable features of the world.

While more must be said to fully address all the arguments that have been given against there being modal properties, the point here is that once we have the linguistic back-story, the burden of proof shifts. For why should we think that it's a general rule that 'to exist is to have causal powers', that we should accept the existence only of *observable* properties, or accept any similar constraints? Once we have the pragmatic linguistic story in hand, we can see that such principles arose and looked natural by considering only the paradigm of *congruent* discourse. We can then place the challenge on the skeptic to say why these are good principles to apply *across the board*, even once we understand how other (non-congruent) forms of discourse are introduced to language, what functions they serve (often serving them perfectly well), and why these functions are useful.

Much the same goes for modal nouns. Congruent nouns like 'goat' are introduced observationally, in the presence of visible creatures, and enable us to track and investigate goats. Here, it makes sense to say: if no one has ever actually had causal commerce with a goat, the term may be problematic; there may be a 'block' in the chain of reference (to use a phrase of Donnellan's (1974, 23-4)), and we should perhaps say that it turns out that goats, like unicorns, don't exist. But while terms like 'a possibility' and 'a chance' are *grammatically* parallel to 'a goat', they are introduced via a completely different route, via different rules, to serve completely different sets of functions. Modal nouns are not even supposed to track a new 'kind of thing' that we could observe and investigate in the ways we investigate goats. Instead, introducing these nouns adds new *textual* functions to the interpersonal and ideational functions served by other forms of modal discourse--not new perceptual connections to previously unnoticed or unnamed things in the world.

Debates about whether there are possible worlds typically proceed by asking whether our best overall theory quantifies over possible worlds, whether the theoretical benefits of 'positing' possible worlds outweigh the costs. David Lewis explicitly develops his argument for possible worlds in these terms, writing "The benefits [in theoretical unity and economy] are worth their ontological cost. Modal realism is fruitful; that gives us good reason to believe that it is true" (Lewis 1986, 4). Now it is easy to see, in the case of as black holes, say, why one might ask whether positing black holes provides a better overall physical theory or not, what the posit explains, etc. The function of introducing a term for 'black holes' presumably is to enable us refer to and track entities that can play a causally explanatory role in our cosmological theories.[30] But

[30] I suspect that the introduction rules and functional roles of terms for unobserved entities to serve as explanatory 'posits' in empirical theories are importantly different from those governing congruent terms for observable parts of

if the above linguistic story about the functions of possible worlds talk and the rules for introducing it is correct, then it is misguided to attack or defend the existence of possible worlds on these grounds. For on this model, talk of possible worlds does not aim to posit some entities that should explain our observations.

Once we understand the functions and introduction rules for these forms of modal discourse, we can also get new support for the idea that the relevant existence questions are 'easy' to answer, in the sense given by 'easy ontology' (Thomasson 2015). We are entitled to make a trivial inference from 'It might rain' to 'There is a possibility of rain', and that inference is guaranteed to succeed, provided the initial statement is true.[31] We can similarly, given the rules for introducing modal nouns such as 'possibility' and 'chance' give an 'easy' answer to the questions, 'Are there possibilities?' and 'Are there chances?': Yes, of course there are. Talk of possible worlds, in turn, is licensed via trivial inferences (grammatical transformations) from more basic forms of modal speech. If we can legitimately say that there could have been talking donkeys, then we are licensed to infer that there is a possible world in which there are talking donkeys. There is no need to make an 'inference to the best explanation' argument for 'positing' these things, or to enter protracted arguments about whether they add 'explanatory power' to our 'theories'. The entry rules alone license us to introduce terms for possible worlds, and to say that there are such things—and these terms don't fall short in fulfilling their *actual* functions (adding textual functions, including expressive power) even if they don't themselves serve as *explainers* in our theories.

In short, better appreciating the different functions and rules of different forms of discourse gives us reason to think that the earnest ontological debates are misplaced, and that we can use an easy ontological approach to answer the question 'Are there possible worlds?'[32] Of course, many objections have been raised to the idea that such 'easy' arguments are valid—I can't go into those here, but have responded to many of them at length elsewhere (2015). The point here is simply to say that, once we understand the functions of the relevant forms of discourse,[33] and the rules that enable us to introduce such discourse to fulfill these functions, the idea that we can make harmless 'easy' inferences to their existence should seem far more natural, and less problematic. And the burden of proof shifts to those who think there is some big problem if these 'entities' can't be observed or lack explanatory powers. For the skeptics must say why that should matter, once we can see the bigger linguistic picture, and why that isn't simply based on a false generalization.

The pragmatic linguistic story can also help us see ontological 'placement problems'[34] in a new light. These 'placement problems' ask what sorts of things modal properties could be, how they could 'fit into' the natural world, and how they would be related to non-modal (say, physical) properties. For at least some kinds of modal properties (e.g. *metaphysical* modal properties) this is

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our world. Both of these kinds of discourse are again importantly different from discourse introduced via trivial inferences to refer to numbers, properties, etc.

[31] I realize of course that this leaves a remaining question of how we should understand the truth of basic modal statements. I have elsewhere given a story for the case of metaphysical modal discourse (2020) but will have to leave the rest for another occasion. Those who have doubts that such trivial inferences succeed are referred to my (2015), where I respond to many common objections to the claim that they do.

[32] For a technical development of a pleonastic account of possible worlds, including showing what is needed to introduce talk of possible worlds as complete and maximal, see Steinberg (2013).

[33] Which I had not yet identified in my (2015).

[34] The terminology of 'placement problems' comes from a discussion in Price (2011, 6); these sorts of problems were identified earlier by Frank Jackson, who called them 'location problems' (1998, 3).

thought to raise particularly troubling questions, since it seems we can't even say that metaphysical modal properties *supervene on* natural properties. For the statue and the clay (for example) have all the same physical properties, and yet different metaphysical modal properties—as the clay could survive radical changes in shape while the statue could not.[35] Such ontological puzzles arise when we think of modal adjectives and nouns on the model of congruent adjectives and nouns and wonder what 'features of reality' we could be responding to or tracking with these terms, and how those features relate to supposedly less problematic 'natural' properties.

But once we have the functional story in place, we can come to realize that modal language enters language not with a world-tracking function, but rather with *interpersonal* functions. And we can come to see that the rules that introduce modal adjectives and nouns differ from those for congruent terms as well. As we have seen, sophisticated modal terminology (including modal adjectives and nouns) is introduced on the back of more basic modal terminology, via trivial inferences that leave no room to wonder if there *really* are modal properties, possibilities, or possible worlds (for we can derive claims that there *are* from trivial inferences from undisputed truths). These new adjectives and nouns (unlike their congruent counterparts) are not even *supposed to* pick out or track ostended features of the environment. Instead, they add ideational and textual functions to the interpersonal functions carried by more basic modal language.

Thinking that such terms must 'refer to' odd features of the world, so that it's surprising that these modal features wouldn't supervene on physical features (in the way the observable macro-level properties of water supervene on its micro-level properties), results from thinking of these terms on analogy with observationally acquired congruent adjectives like 'liquid' or 'transparent', where it makes sense to ask how these observed features arise from underlying microphysical features. But modal adjectives and nouns aren't introduced to track observable properties. Understanding the functions and introduction rules of these non-congruent modal adjectives and nouns should help dispel objections to thinking that there 'really are' such things, and dispel mysteries about how they could 'fit' into a physical world.

If there are modal facts, properties, or possible worlds, how could we come to know about them, given that modal features of the world seem not to be empirically detectable, and that possible worlds seem to be, in principle, causally disconnected from us?

The puzzles of modal epistemology might be thought to arise from a similar source. If metaphysical modal properties don't supervene on physical, or observable, properties, then it makes sense to think that we can't come to know them through ordinary observation or other

[35] Why should supervenience hold for one kind of modal property (say, physical or nomological modal properties or dispositions, which do seem to supervene on the 'categorical' non-modal properties of the world), yet not for another (say, metaphysical modal properties)? I will have to leave full discussion of this for elsewhere. Here I can only suggest that this has to do with different introduction rules for different sorts of modal claims, given differences in their functions. Suppose, say (with Carnap 1962, 19), that talk of probabilities is introduced via observations of long-term relative frequencies, in order to enable us to better predict future observations, adjust our credences and behaviors, etc. Then it makes sense to have rules that allow no variation in the probabilities attributed without variation in past observations. But if, by contrast, claims of metaphysical modality reflect rules of use *for our terms*, then we are not constrained to assign 'possibly survives a crushing' in the same way to a statue versus a lump of clay, even if all the physical properties instantiated in a given region remain the same.

empirical methods.[36] But then modal skepticism seems to threaten. For example, Robert Nozick argues that to have justified beliefs in a given domain, we must have a reliable faculty for forming beliefs of that sort, the existence of which is best explained in terms of natural selection. But, he argues, where metaphysical modal beliefs are concerned, "…we do not appear to have such a faculty, and it is implausible that evolutionary processes would instill that within us" (2001, 122). He argues that we have no good explanation of why we should have developed a reliable faculty for detecting metaphysical necessity, and that as a result we should be skeptical about claims that we have such knowledge—and even about the claim that there are such necessities (2001, 125). Nozick concludes that "there are no interesting and important metaphysical necessities" (2001, 120-21).

These doubts about metaphysical modal knowledge rely on a generalized picture according to which knowledge of things of any kind K requires a good explanation of why we should have a 'reliable faculty for *detecting*' Ks. This demand is plausible for knowledge of Ks, where 'K' is a congruent noun, observationally acquired (we have a reliable faculty for detecting wolves but not auras). But once again we should not expect it to generalize to a requirement for acquiring knowledge about *any Ks whatsoever* (where 'K' is *any* noun term). Terms for metaphysical modal properties and possible worlds are unlike congruent adjectives and nouns that are introduced to detect and track features of our environment. For, as we have seen, these are forms of language introduced to add textual functions to the interpersonal and ideational functions already served by more basic forms of modal expression. We have no need for a good evolutionary story about why we should have evolved to have a reliable faculty for 'detecting' the relevant features or worlds. What we can get instead is a good naturalistic story about why such forms of vocabulary would have evolved as they did, and why they would have stuck around in our language.[37] And we can tell that story by identifying what uses they might have for us, where these *needn't* always be uses in detecting or tracking features of our environment--as our language serves a wide range of other functions as well.

This, of course, is not to deny that we need a good story of some sort about how we *can* come to have modal knowledge of various sorts (acknowledging that somewhat different stories might be required for knowledge of modal claims of different sorts--of metaphysical necessity versus physical necessity, for example). I have myself tried to develop one such story--for knowledge of metaphysical modalities--elsewhere (2020 Chapter 7), arguing that we can come to know basic *metaphysical* modal truths by *mastering* the rules of use for applying and refusing expressions, and learning how to explicitly *convey* those rules and what follows from them in object-language indicatives (2020, 163-4). (Other, derivative, metaphysical modal truths may

[36] There has been a recent surge in the development of empiricist approaches to modal epistemology (for examples, see Vetter (2015), Williamson (2007), Bueno and Shalkowski (2015), Leon (2017), and Roca-Royes (2017)). As I argue elsewhere, however (2020, 150-165), such approaches hold promise for explaining our knowledge of *empirical* modalities (empirically grounded counterfactuals, dispositions, etc.)—but not for explaining our knowledge of specifically *metaphysical* necessities and possibilities (which include many of modal claims of *philosophical* interest), since these are cases in which we might have the very same empirical information, and yet ascribe different modal properties (say, to the statue and the clay).

[37] I begin to develop this story in my (2020, Chapter 7).

also require empirical knowledge.) Accounts for other forms of modal discourse will have to be developed and assessed separately.

There has, of course, been a great deal of discussion about whether past pragmatist approaches to various areas of discourse enable us to circumvent old epistemological problems—for example about whether (broadly) expressivist approaches to understanding *moral* discourse can or cannot avoid problems of moral epistemology.[38] There is not space here to assess those debates or how they would fare, given the new neo-pragmatist proposal at hand.[39] The goal here is not to settle those old debates, but rather to begin to construct a linguistic platform that can enable us to climb out of the weeds to get a good overview of the territory. Once we do that, and can see the diversity of functional roles and introduction rules, it begins to seem misguided to think that there is a major *barrier* to giving an account of modal knowledge--a barrier that might appropriately lead us to a form of modal skepticism. The misguided thought that there is an insuperable barrier arises by illegitimately generalizing thoughts about how we can come to know the things tracked by our congruent, observationally acquired, terms, and applying that model to *all discourse whatsoever*. Once the pragmatist's linguistic story is on the table, the challenge for the skeptic is to show that their reservations are not just built on a faulty overgeneralization that arises from failing to appreciate the variety of linguistic rules and functions.

8. General lessons

I hope that the work done here may prove valuable across a variety of neo-pragmatist projects. The challenges faced by neo-pragmatists are, first, to give a clear, systematic story about how we can identify linguistic functions, and second, to show why this work on linguistic functions and rules is relevant to traditional philosophical problems (for the metaphysician always wants to say that the pragmatist's analyses just ignore the 'real metaphysical problems' by taking up linguistic questions instead).

I hope to have made progress on both of those challenges here. On the first, I have shown how we can build on work in linguistics to develop a more clear and systematic approach to understanding linguistic functions. I have also shown how applying this to the case of modal language enables us to address questions about the functions of, and rules governing, modal discourse in a fine-grained way. This then enables us to restructure the classic neo-pragmatist question about the 'function of modal discourse' by noting the differences in functions served across different modal terms with different grammatical roles and origins.[40] On the second challenge, I have aimed to show why starting a step back, and addressing questions about the functions of the various forms of modal language, and the rules by which they are introduced, *is* relevant to classic philosophical problems about modality. I have argued that understanding how

[38] See, for example, Blackburn (1984, 1993, ms), Gibbard (1990, 2003), Street (2006, 2011), Dreier (2012), Berker (2014), Vavova (2015), Schechter (2018), and many more. Of course, it would require considerable discussion to examine whether the problems outlined for expressivist theories of morality would carry over to other forms of pragmatist approach to modality. I made a start (for the normativist approach I defended there) in my (2020, Chapter 7).

[39] I provide more detailed discussion of these past debates, and their relevance to my earlier normativist view of metaphysical modality, in (2020, Chapter 7).

[40] One might similarly ask what differences it would make to address questions about the functions of moral discourse, causal discourse, number discourse, etc. in this way. (For a start on moral discourse, see Warren and Thomasson (forthcoming)).

the relevant puzzling forms of language work enables us to reconsider certain classic (alleged) ontological problems and epistemological problems. For we can come to see some of them as arising from mistaken overgeneralizations we are prone to make when we take congruent terms, introduced observationally, as our only model; and others we can see as easily answerable, given the rules of the discourse.

I hope that this case study has suggested how we can develop a neo-pragmatist approach systematically. I hope it has also shown that a neo-pragmatist approach that begins a step back, by examining the functions parts of language serve and the rules they follow, can lead us to reassess various old philosophical problems. For it can give us new ways of seeing why many traditional puzzles may arise from mistakes, requiring not earnest debates, but the kind of dissolution (or easy solution) that can come from properly understanding how these puzzling forms of language work.[41]

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