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Questioning Quine's Assertion that Mass Terms like 'Water' Ill-Fit the Singular/General Dichotomy

ABSTRACT*: In §19 of* Word and Object *Quine claims that mass terms ill-fit the dichotomy between singular terms and general terms. In so doing, Quine is able to demonstrate a serious problem regarding the criteria of identity of the class of objects/'stuff' to which mass terms refer. Nevertheless, Quine's account that mass terms are, in predication, ambiguous between singular/general, and that they therefore 'ill-fit' this dichotomy, faces several issues, and his onto-grammatical paradigm is therefore inadequate or incomplete in at least the following regards: (§2) Quine's account of the childhood development conceptual scheme is problematically committed to Skinnerian behaviourism; (§3) mass terms are not the only type of nouns which are ambiguous between singular/general [and therefore Quine is incorrect to see this ambiguity as unique and significant]; (§4) Quine failed to distinguish, within the category of mass terms, between stuff nouns and non-stuff nouns; (§5) the artificial reduction of mass terms to singular terms belies a problematic commitment to an ontology based in first-order predicate logic and naturalized epistemology; (§6) Quine's attachment to an object ontology gives rise to metaphysical inconsistencies, and (§7) there are merits to P.F. Strawson's opposing theory of the singular/general division, of instantiation by feature-placing, alongside various other views which provide a solution to Quine's problem of mass terms.*

KEYWORDS*: Quine, mass terms, sea*

1. Quine's Child, the Mechanism of Divided Reference, and Behaviourism

Quine argues that mass terms, like 'water', 'gold', and 'sugar', ill-fit the dichotomy between singular terms and general terms because mass terms belong to a pre-individuative phase of conceptual understanding. During this phase, the English child has not yet mastered the mechanism of divided reference/individuation. The grammatical consequence of this pre-individuative status of mass terms can be seen in their ambiguous role in predication.

Quine tells us that depending on the position of the mass term before or after the copula in a proposition, the mass term can act either as a singular term or as a general term. In this way, the mass term's classification as singular/general is 'ambivalent' – it can grammatically *behave* as either, but exclusively fits into neither

category. For example, when the mass term 'water' is used in a proposition, Quine says it can behave as either a singular term or a general term.[1] Concerning the use of mass terms as generals, in the proposition 'the lake is water', 'water' behaves as a general term. With regards to general terms, Quine says that they must be able to admit of a definite article [the], admit of an indefinite article [a, an], and admit of a plural ending [-s].[2] When a mass term behaves as a general term, it is therefore divided in reference as opposed to cumulative in reference, and so refers to identifiable bodies (e.g., 'body of water').

Oppositely, in the proposition 'water is a compound of hydrogen and oxygen', since it appears before the 'is' copula, 'water' acts here as a singular term.[3] When 'water' behaves as a singular term, by occurring before the copula, Quine argues that the object being referred to is a single, concrete, scattered object which denotes all of the world's water (or, more accurately, all the water in the universe).[4] Hence Quine's maxim that 'any sum of parts which are water is water'.[5] Now, this conception of 'water' as a singular term involves Quine's account of the referential behaviour of mass terms, and provides the difference between the reference of mass terms and general terms: mass terms refer cumulatively, whereas full-fledged generals like 'apple' divide their reference.[6] For example, a mass term like 'water', in subject position, refers to that "single though scattered object, the aqueous part of the world,"[7] and hence its reference is cumulative because it has an application to many objects, all of which add up into one aqueous body. Conversely, general terms like 'apple' divide their reference in that they have, inherent in our conception thereof, a built-in criteria of identity and distinctness.

Concerning the mechanism of the divided reference of general terms, Quine provides a story of the English child's conceptual development, a phasal process during which the infant becomes indoctrinated into our 'sophisticated' adult conceptual scheme. Quine says that "[t]he general term and the demonstrative singular are, along with identity, interdependent devices that the child of our culture must master all in one mad scramble,"[8] and that "once the child has mastered the divided reference of general terms, he has mastered the scheme of enduring and recurring physical objects."[9] Therefore, on Quine's account of the

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1 Quine 2013, 89.
2 Quine 2013, 82-83. More will be said of general terms below in this same section, concerning the mechanism of divided reference.
3 Cf. §5 below, and Laycock 2021, 17, for a more exhaustive account of the use of mass terms, which demonstrates the incompleteness of Quine's overly simplistic account of this ambiguity.
4 Quine 2013, 89. Cf. §5 below for a problem with this unintuitive conception.
5 Quine 2013, 83. Cf. Laycock 1975, 428-429 for a more in-depth discussion of this mereological relationship.
6 Quine 2013, 83: "such terms [e.g., apple, rabbit] have built-in modes, however arbitrary, of dividing their reference". Cf. Quine 1957, 6, for the meaning of 'arbitrary' in this qualification.
7 Quine 2013, 89.
8 Quine 2013, 93.
9 Quine 2013, 86.

infant's language development, the mechanism of divided reference and criteria of distinctness/identity, as well as the adult conceptual scheme of mobile enduring and recurring physical objects, are acquired simultaneously.

Before the mastery of these conceptual mechanisms, the child's conceptual scheme is 'pre-individuative', meaning that the 'objects'[10] with which the infant interacts are not conceived of as having divided reference. Therefore, Quine's child can have no concept of the categories of singular and general, and it can be (roughly) imagined that the infant perceives a world of indiscriminate splotches of colour that have no names or conceptual relations to other objects or kinds.[11]

The main problem with Quine's account of the child conceptual development is its problematic commitment to Skinnerian behaviourism. In §17 of *Word and Object*, Quine gives an account of how the child learns to speak about objects.[12] Quine's account operates under the Skinnerian behaviourist model of operant conditioning, in which the English speaking child learns to speak through a process of what he calls 'reinforcement and extinction', in which (presumably) the parents reward the child for uttering a desirable phoneme, like the /m/ or /d/ phonemes which begin 'Mommy' and 'Daddy'.[13] Since by a large margin the most common first baby words in English are 'Mommy' and 'Daddy' (both two-syllable words and object nouns),[14] Quine's behaviourist account might *appear* plausible. Essentially, when a parent comes into the child's field of view, the babbling child's (initially) accidental utterance of the /m/ or /d/ phoneme is rewarded. Henceforth, a connection exists for the child between those phonemes and those relevant objects, which starts the process for attaching normal signs to accepted objects.[15]

However, the problem with Quine's account of child development is that it glosses over Chomsky's notion of an innate phonological acquisition device, which is now widely accepted to have empirically disproved the Skinnerian model of operant conditioning, in the realms of developmental psychology, neuroscience, and philosophy of language.[16] In sum, Quine's account of the ill-

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10 I say 'objects' with this inflection because, at this point in the child's development, there is no speaking of objects proper, which does not arise until the aforementioned mechanisms are mastered. Cf. Laycock 1975, 427.

11 Quine 2013, 75-77.

12 Quine 2013, 75.

13 Through this process, the parents guide the child, by operant conditioning, to an independent stage of language learning, whereby the child can amass language 'hand over fist' [75], and gradually acquire the conceptual mechanisms of divided reference, identification, etc.

14 Tardif et al. 2008, 932.

15 I use 'normal' in the sense of the linguistic or phonetic norm appropriate to a given culture. See Quine 2013, §18.

16 See footnote 3 on Quine 2013, 75 for this 'glossing over' of Chomsky's theory. Concerning the empirical inadequacy of Skinner's model, in developmental psychology Oller et al. 1975, 10 conclude that an innate phonological acquisition device links infant babbling to meaningful child speech, and Diane Lillo-Martin, in chapter 6 of *Relations of Language and Thought* (1997), supports Chomsky's language acquisition device, especially in the area of complex syntax. In neuroscience, Ding et al. 2016 say "our results indicate that a hierarchy of neural processing timescales underlies grammar-based internal construction of hierarchical linguistic structure".

fitting of mass terms into the singular/general dichotomy rests upon the notion that mass terms come from an 'infantile, immature, archaic' conception from the infant pre-individuative phase.[17] But since Skinner's model provides much support for this picture of child development, and Skinner's model is widely accepted as inadequate, this (arguably crucial) aspect of Quine's account can be considered empirically inadequate as well.

One might here object to my criticism and claim that Quine is merely maintaining consistency regarding his naturalism, which requires that philosophy follow the best science available. That is, because behaviourism was (during Quine's time) the more widely accepted psychological science, it might not be so problematic for Quine to adopt the position that follows therefrom.[18] My response to this objection is that Quine's utilization of behaviourism does not result in a merely *outdated* developmental account of childhood grammar, or one that could still be salvaged by ignoring or working around the incorrect parts.[19] In fact, given that Quine's notion of divided reference *fundamentally relies* on a behaviourist childhood developmental account (which is now widely seen as an inadequate view), the problem I have identified persists as more than a matter of Quine working with relatively limited science – rather, its consequences threaten to undermine the account's validity.

2. Indecisiveness between Singular/General is not Unique to Mass Terms[20]

This difficulty with the child-development aspect of Quine's onto-grammatical paradigm is more a foundational criticism, in that the problem exists at the base of Quine's account: his account of the infant (which pulls much weight in his argument about the nature of mass terms) is, I have argued, empirically inaccurate. Setting aside this empirical criticism, there are other non-*foundational* criticisms against Quine's account, i.e., there are *consequences* of Quine's account which are either incomplete or inaccurate, based on how they (inaccurately) construe mass terms in our grammar. I turn to these issues in the following sections.

As for philosophical sources, Cowie 2008 tells us that "in his famous review of Skinner's book, Chomsky (1959) effectively demolishes Skinner's theories of both language mastery and language learning" (paragraph 12). Finally, in a realm more specific to criticism of Quine than to the general support of Chomsky's theory, Fei Xu says in section two of their "Count Nouns, Sortal Concepts, and the Nature of Early Words" (2009) that "infants are very competent in using linguistic information for other cognitive tasks such as categorization, individuation, and inductive inference as early as nine to thirteen months," providing even more tension for Quine's view. Therefore, with these criticisms taken together, it can be reasonably assumed that Quine's view, foundationally based upon a model of Skinnerian behaviourism, is empirically inadequate.
17 Laycock 1975, 427.
18 This objection was brought to my attention by an anonymous reviewer, to whom I am here indebted.
19 This ignoring/working around is precisely what is done, with moderate success, when the metaphysics and epistemology of Descartes is separated from his natural philosophy.
20 This indecisiveness aspect of English grammar was brought to my attention by Henry Laycock.

As seen already, Quine argues that mass terms, because of their ambivalent role in predication, ill-fit the dichotomy between singular terms and general terms. Quine's justification of this ambiguity is that mass terms are a vestige of a pre-individuative phase of the English child's conceptual development, acquired before the mastery of divided reference, in a conceptual scheme in which all objects are indiscriminate.[21] However, Quine failed to see that grammatical indecisiveness within the singular/general dichotomy is not unique to mass terms, but to other types of nouns as well. Similar to mass terms, the grammatical behaviour of abstract nouns and full-fledged general terms also ill-fit the singular/general dichotomy. Given this grammatical consequence, and Quine's failure to recognize the ambiguous behaviour of other noun types, his thesis about the uniqueness of the anomalous grammar of mass terms is significantly weakened.

Like mass terms, abstract nouns are 'ambiguous' within the singular/general dichotomy. For example, the abstract singular term 'solidity' can be construed, through some transformation, as the abstract general term 'solid'. Before the copula, this concept would be presented as 'solidity', as in 'solidity is a secondary quality' or 'solidity is a state of matter', and after the copula it would be presented as, for example, 'ice is solid'. Now, one might object that abstract nouns are not like mass terms because the term 'water' can, equivocally, occupy either the subject or predicate position of the proposition, *without having its form changed* (unlike what we see in the example of abstract nouns) – i.e., *it is the same word 'water'* both before and after the copula, and therefore it is *truly* ambiguous. However, this objection is misplaced, because (as Quine rightly determines) in the process of child development, abstract singular terms and abstract general terms arise interdependently, we see that 'solid' and 'solidity' really do refer to the same, univocal concept.[22]

In further response to this objection, the full-fledged general term (e.g., 'lamb') is another non-mass term which is, without grammatical transformation, the same term with an equivocal and ambiguous meaning depending on its position before or after the copula. Quine infamously uses the example of two possible uses of 'lamb' in 'Mary had a little lamb'.[23] In this example, what 'lamb' refers to is ambiguous (in a different sense) between a kind of edible meat and what is presumably a girl's domesticated pet animal. Now, placing 'lamb' before and after the copula, as in 'lamb is tasty' and 'this meal is lamb', is a problematic usage: in the former case, 'lamb' is being used like Quine's mass term, in that it would (supposedly) denote the single concrete scattered object which is all the world's lamb-material.[24] However, since

21 From p. 84 of *Word and Object*, Quine says "[t]hey are all on a par: Hello! more mama, more red, more water," to support his argument that every object in the pre-individuative phase behaves as a mass term, and therefore that the grammar of mass terms is prior in conceptual development to the proper adult usage of terms. Cf. Quine 2013, 88 and 110 for the 'retrospective assessment' required by the child after mastering the conceptual mechanisms discussed above.
22 Quine 2013, 108-109. N.B. that there remain aspects of Quine's account, like this one, that are more plausible. Cf. §§5-6 below for a further discussion of the merits of Quine's paradigm.
23 Quine 2013, 83.
24 Quine 2013, 46-47.

'lamb' can also be construed as a sortal[25] when it admits of an indefinite or definite article, it shows that sortals (substances or things) are *also* ambiguous between the singular/general dichotomy: e.g., 'the lamb' in 'the lamb is tasty' and 'this meal is the lamb' is certainly not a mass term (because it is divided in reference and therefore is a general term), but it nonetheless is ambiguous in Quine's sense of the ill-fit, because it exclusively belongs to neither category but is comfortable in either.

In sum, since there are at least two types of terms besides mass terms which also ill-fit the dichotomy between singular/general, Quine's assessment of the grammatical behaviour of mass terms is not unique to that category; given that this grammatical phenomenon is not unique, its significance is weakened and it leads one to question the relevance of the so-called ambiguity of mass terms. Therefore, Quine's thesis is not only empirically inadequate [§2] but also grammatically inaccurate in its demonstration of the 'archaic' quality of mass terms as ambiguous between singular/general. Why are these other types of terms ambiguous between singular/general? Does this mean that they too are archaic like mass terms?[26]

3. Hacker's Distinction between Stuff Nouns and Non-Stuff Nouns

Thus far I have argued that Quine's onto-grammatical account is faulty on the grounds of its developmental psychology [§2], and that it also gives an inaccurate construal of English grammar (speaking to the uniqueness of the ill-fit of mass terms) [§3]. However, it is also the case that Quine's notion that "'water', 'sugar', and the like… category of mass terms remains, a survival perhaps of the undifferentiated occasion sentence, ill fitting the dichotomy into general and singular"[27] is incomplete, given his characterization of the category of mass terms itself. P.M.S. Hacker, in his "Substance: The Constitution of Reality", gives a much more complete analysis of the category of mass terms (which he calls mass nouns – N.B. that I use Hacker's terminology in this section only) than Quine is able to provide in *Word and Object*.

In an illuminating discussion, Hacker makes the distinction between concrete non-count nouns and abstract non-count nouns [e.g., 'progress', 'knowledge', 'safety', 'admiration'].[28] Within this category of concrete non-count nouns, Hacker further differentiates between mass nouns and pseudo-mass nouns [e.g., 'furniture', 'cutlery', 'footwear', which I return to below]. Finally, the category of mass nouns itself can be divided into stuff nouns [including 'water', 'sugar', and 'gold', but this is an immensely broad category[29]] and non-stuff nouns [e.g., 'light', 'fire', 'shade', 'rain'].

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25 Strawson 1996, 168. This is the more typical construal of 'lamb'.
26 Cf. §5 below for other problematic aspects of grammar that Quine appears to ignore.
27 Quine 2013, 87.
28 Hacker 1979, 242, 246. These two types of non-count nouns are, of course, distinguished from the category count nouns, which are not of concern for the current discussion. However, see §6 below for a discussion of the countability of stuff/matter.
29 Hacker includes in the category of stuff nouns "natural elements, chemical compounds, physical admixtures, natural kinds of material, foodstuffs, edible flesh, [and] manufactured materials" (247).

Taking stock, three of the categories of non-count nouns which Hacker delineates here [pseudo-mass nouns, stuff nouns, and non-stuff nouns] are all grouped haphazardly by Quine under the single category of 'mass terms'. This grouping is especially apparent when Quine says that "further terms even are added to this archaic category, after divided reference is at hand; witness 'furniture', 'footwear'."[30] Quine is here equating terms like 'furniture', which Hacker rightly deems pseudo-mass nouns, with terms like 'water' and 'gold' – however, the class of objects to which these terms refer are quite different: for example, it is clear that furniture is 'non-dissective' and therefore is not a genuine mass noun. Rather, in line with Hacker's categorization, 'furniture' is actually a pseudo-mass noun.[31] I have argued that this makes Quine's characterization of the category he calls 'mass terms' incomplete, for failing to recognize the nuance between the different sub-types of mass nouns.

4. Quine's Reduction of the General to the Singular

The merit of Quine's system of ontology is that it expertly presents a problem with the reference of mass terms like 'water' – it does so by outlining the lack of inherent criteria of identity and distinctness in the stuff to which these mass terms refer.[32] The lack of inherent criteria of identity of stuff is clear, because (e.g.) water requires a container for distinctness, like a puddle or a glass, and containers provide 'proxy-distinctness'.[33] This issue, which unless I am mistaken is insurmountable[34], is demonstrated by Quine in the significant following passage:

"Let it not be imagined that in sanctioning scattered concrete objects we facilely reduce all multiplicities to unities, all generalities to particulars. This is not the point. There remain, besides the world's water as a total scattered object, sundry parts which are lakes, pools, drops, and molecules; and in singling out such sorts of parts for express mention we still need general terms as usual – 'lake', 'pool', 'drop', 'water molecule'. Treating 'water' as a name of a single scattered object is not intended to enable us to dispense with general terms and plurality of reference. Scatter is in fact an inconsequential detail. General terms are needed as much for distinguishing parts (arms, legs, fingers, cells) of an unscattered object (mama)

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30 Quine 2013, 87.
31 Cf. V.C. Chappel's discussion of the dissectivity feature universal to parcels of stuff (Chappel 1971, 72), as well as the following features which distinguish stuff (materials/features) from things (substances/sortals): collectivity, homogeneity, indifference to form, and lack of unity or independence.
32 N.B. that this problem, novel to the 20th century and owing credit to Dutch linguist Otto Jespersen, is absent in the discussion of substance in Aristotle's *Categories*, and (to the extent of my current knowledge) is not recognized by early modern philosophers either.
33 Laycock 1972, 31.
34 Cartwright 1970, 482, attempts to distinguish inherent criteria of identity of water through the advent of, *inter alia*, the precision of measurements of stuff, but there are problems with Cartwright's account on the grounds of failing to incorporate Russell's conditions of denoting.

as for distinguishing parts of the scattered object water. Scatter is one thing, multiplicity of reference another. Recognition of a scattered object as a single object reduces the category of mass terms to that of singular terms, but leaves the cleavage between singular terms and general terms intact" [*Word and Object*, 90].

This passage is significant for several reasons. First, Quine here references the 'artificial' reduction of mass terms to the category of singular terms. In the remainder of this section, I will address a relevant question: What is Quine's motivation for this kind of reduction? Second, as I have mentioned above, this passage recognizes the inherent lack of criteria of identity in the stuff which is water, and delineates the requirement that 'water' can be divided in reference *only* through 'contained' proxy-distinctness terms ('lake of', 'pool of', etc.). Finally, this passage is significant because it effectively demonstrates Quine's thesis that 'any sum of parts which are water is water'.[35]

Leaving the mereological discussion aside, it is important to address some of the more general motivations behind Quine's ontology. Quine's ontology can, in a rough sense, be summarized through the interrelated maxims 'to be is to be the value of a variable', 'explication is elimination', and 'no entity without identity' (see below).[36] I argue that these maxims, together with the artificial reduction of mass terms to singular terms, demonstrate an inconsistency in Quine's ontology. Concerning the 'values of variables', Quine is generally committed to a predicate calculus à la Fregean logic, following the early 20th century analytic trend of logic being a *modus operandi* of philosophy. In broad terms, using predicate logic as a philosophical tool requires that any statement or expression in natural language be translatable into logical notation, and without its losing any meaning in the translation process. This translation complete, the verity/falsity and relational values of any statement can be easily generated, given the standardized mechanical techniques in the syntax of the logic. Ideally, predicate logic thereby becomes a powerful method for discerning proofs about the world.

Given that Quine shares this philosophical commitment to logic, one begins to see the relevance of the pithy maxims expressed above. By 'to be is to be the value of a variable' and 'no entity without identity', one can see Quine's comportment of all entities to variables in the predicate calculus.[37] However, since there is an inherent lack of criteria of identity in mass terms, classifying stuff like 'water' as the value of a variable in the predicate calculus becomes tricky. And by 'explication is elimination', one can see the relevance of Quine's elimination of mass terms through their artificial reduction to the singular term – i.e., one solves the problem of using mass terms as the values of variables *by reducing them to the category of singular terms*, thus doing away with the

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35 Quine 2013, 83. See §2 above.
36 Cf. Laycock 2021, 2.
37 One of the issues Helen Cartwright addresses all throughout "Heraclitus" is the difficulty of using a mass term like 'water' as the value of a variable, without requiring some implicit proxy-distinctness.

category.[38] So Quine's reduction of 'water' to a singular term [see §2 for the discussion of the stuff which is water as a single, scattered, concrete object – a *singular* term] eliminates this problem altogether, thus 'throwing out the baby with the bathwater'.

The issue with the primacy of the singular term in Quine's ontology, related to his overblown commitment to using first-order logic as a basis for ontology, is the assumption that *in our sensory experience we, presumably, only ever encounter individual things, objects, and individuals*. And the motivation behind this assumption is a source of doubt for Quine's ontology because, as I have argued, Quine's onto-grammatical paradigm has an explicit agenda: to comport 'ambiguous' mass terms to the subject position, *as concrete singular terms*, thereby affirming this thesis that the only existing entities are (experienceable) things, objects, and individuals.[39] Quine's commitment to naturalized epistemology *requires* him to fundamentally construe all mass terms as singular terms, in order to salvage the thesis that the only things experienced are individuals (which are best construed through singular terms). The result of this artificial reduction is an inaccurate representation of how English grammar works. But more significantly, I argue in §6, Quine's grammatical chicanery distracts him from the metaphysical issue of what stuff actually is – for it is very plausibly not a single, concrete, scattered object.

5. Problems with Quine's Commitment to an Ontology of Objects

Henry Laycock, in "Theories of Matter", gives an arguably more complete and comprehensive ontology of stuff than Quine,[40] especially concerning Quine's assumption that the only experienceable entities are things, object, and individuals. Laycock demonstrates that this doctrine, which he dubs 'the ontology of objects', or 'ontological individualism', is widely accepted but nonetheless problematic. This doctrine fundamentally states that "our world is… quite generally a world of 'objects' or 'individuals' or 'things', no matter whether concrete or abstract, whether particular or universal."[41] Some of the proponents of object ontology include Quine, P. F. Strawson, Aristotle, Hobbes, Leibniz, Locke, and Nelson Goodman.

The main problem Laycock identifies within the ontology of objects is that matter/stuff, unlike objects, is not countable – matter cannot, therefore, be an 'individual thing', because individuals are necessarily countable, as *one* thing. Countability is, rather, a built-in feature of things, objects, and individuals: Laycock says that

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38 This is what Henry Laycock calls the 'latent' picture in Quine's ontology (Laycock 2021, 3).
39 N.B. that Quine admits of the existence of abstract objects in §25 of *Word and Object*. Nonetheless, the primacy of the singular term and the problem it creates is still apparent in his ontology.
40 See also Hacker 1979 and Chappel 1971 for helpful accounts of what stuff is. However, due to the limited scope of this discussion, I here only focus on Laycock's account.
41 Laycock 1975, 412.

"objects may be many, few or none, and each object singly must be counted as one,"[42] and that "an object… must have unity."[43] The problem presented for the ontology of objects is that "a world of objects… can be none other than a world of countables."[44] However, we see that 'stuff' or 'matter' [Laycock uses these terms interchangeably on p.411], which is the fundamental constituent of objects[45], has no inherent notion of countability. Laycock's proof of this matter is that "the bronze of some statue is not an *F* of any kind, not e.g. a 'quantity' or 'instance' of bronze: rather it is just *bronze*."[46]

Now, on Quine's account, the consequence of 'explication is elimination' is an artificial reduction of the category of mass terms to that of singular terms, in that 'any sum of parts which are water is water'.[47] Through this construing of 'water', it comes to be seen that the matter or stuff which is water (which Laycock rightly points out is not countable)[48] is referred to as though it were one object. This object is, of course, what Quine calls that concrete, single, scattered object which is all the world's water – *but it is, on Quine's account, an object nonetheless and would therefore need to be countable as one thing*, the object which is all the water. But if Laycock is correct that matter is not countable, the ontological inconsistency with Quine's paradigm is revealed: Quine assumes that the stuff which is water is a single, scattered (countable) object, while it is nonetheless clear that stuff/matter, e.g., water, is not an object, because it lacks inherent countability.

6. Conclusion and a Merit of Strawson's View

I have argued that Quine's onto-grammatical paradigm is empirically inadequate in its account of childhood development, due to its problematic commitment to Skinnerian behaviourism (§2). Further, Quine's grammatical account of the ill-fit of mass terms between singular/general is weakened because there are other types of nouns which are ambiguous in this dichotomy (§3), and Quine's category of mass terms itself lacks the nuance, completeness, and exhaustiveness characterized in Hacker 1979 (§4). In §§5-6 I argued that Quine's problematic commitments to first-order logic and naturalized epistemology, as well as an ontology of objects distracts him from an important metaphysical issue at stake here (of determining *what stuff is*). Further, these ontological commitments reveal several problems with the primacy of the construal of the mass term as singular, thus providing more tension for the singular/general ambiguity. To conclude, I briefly mention various

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42 Laycock 1975, 415.
43 Laycock 1975, 419.
44 Laycock 1975, 416.
45 Hacker 1979, 239.
46 Laycock 1975, 419. Emphasis in original.
47 Laycock 1975, 427-431.
48 See footnote 34 above for Helen Cartwright's important characterization of stuff like water as measurable. Nonetheless, even though water is measurable, it is not countable.

opposing views of what stuff is, all of which avoid the problem that so exercises Quine (that of the ambiguity of mass terms in the singular/general dichotomy).

Through the notion of feature-placing, P.F. Strawson is able to avoid the unintuitive consequences of Quine's view without the problematic and artificial reduction of mass terms to the category of singular terms. Strawson's view is that "the notion of a particular individual always includes, directly or indirectly, that of placing, whereas the notion of a general thing does not,"[49] and that "the notion of an individual instance of some materials and substances can be regarded as a logical compound of the notions of a feature and of placing."[50] In other words, instead of a feature like 'water' being a single, concrete, scattered object, it can exist as a particular instance of a general feature. With respect to object ontology, Laycock tells us that in feature-placing sentences like 'there is water here', "assertions of the existence of matter – or indefinite references to its 'incidence' – are *categorially distinct from any talk of objects*,"[51] affirming that Strawson does not fall into the same ontological inconsistencies as Quine. Therefore, Strawson's view appears more expansive than the onto-grammatically limited one that Quine presupposes, and avoids the unnatural comportment of the category of mass terms[52] into the category of singular terms, while preserving an onto-grammatically accurate representation of what stuff actually is.

To be sure, there have been other solutions to the logico-linguistic problem of mass terms identified by Quine and discussed here throughout – it would do well for completeness' sake to mention these here. N.B. that, given the scope of this discussion, I will focus on the aspects of these theories which directly concerns the grammar of mass terms. Foremost, George Bealer has proposed a theory of how to assimilate the problematic grammar of mass terms. Bealer views his theory as a version of the 'abstract-singular-term analysis' advanced by Terry Parsons, which has been criticized for having an un-parsimonious ontology (an objection with which Bealer does not agree). Concerning the metaphysics of stuff, Parsons sees mass terms like 'water' as indicating the name of the stuff which is water, with stuff being neither a universal nor a particular; rather, sentences with mass terms deal with the *properties of* and *relations between* stuff.[53] Now, Bealer's view itself uses a special theory of the copula; on this view, it follows that "if *B* is a stuff, '*A* is *B*' is true *iff A* is composed of *B*."[54] Metaphysically speaking, a definition of what it is to be stuff follows therefrom; in this definition, Bealer provides a list which includes that stuffs are not particulars, whatever is composed of a stuff is itself a stuff or a particular, stuff cannot exist unless some particular is composed by it, and stuff is composed of itself.[55]

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49 Strawson 1953-1954, 256
50 Strawson 1953-1954, 249.
51 Laycock 1975, 432.
52 I.e., 'materials', which Strawson comes to call 'features' in *Individuals* (1959).
53 Parsons 1970, 362-364, 370-373. Cf. Bealer 1975, 500-1. See also §4 of this essay for a more detailed account of stuff, referencing the work of V.C. Chappel and P.M.S. Hacker.
54 Bealer 1975, 502.
55 Bealer 1975, 503.

   This account seems to avoid the problem I have indicated in Quine, namely that mass terms like 'water' indicate one aqueous, worldwide body/particular; i.e., Bealer's account gives metaphysical room for there being stuff, like water, which is not a particular, while simultaneously accounting for particulars. Now, it is further worth noting that Bealer sees abstract-singular-term analysis as a response to the 'general term analysis' which has been proposed by Richard Grandy and Tyler Burge, itself a solution to mass terms which Quine had rejected.[56] In a rough sense, general term analysis holds that problematic sentences containing mass terms [see §2 of this paper for a discussion of these sentences in Quine's view] are simply to be treated as universals (like sets or properties) or particulars, using the equipment of first-order predicate logic.[57] Bealer levels various criticisms against theories like those of Burge and Grandy, including (most significantly) that it can lead to an equation of a type of stuff with the properties of that stuff [this being partially what leads Bealer to his modified copula on p.502]. I do not intend here to provide an exhaustive comparison between these different positions, but rather to draw attention to the possible merits of other views in light of the main argumentative thrust of this paper (which seeks to demonstrate various problems and inconsistencies with Quine's own logico-linguistic account).

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56 Bealer 1975, 497-500.
57 Cf. Burge 1975, 459-77, for more detail of his 'Relational Approach', specifically for using quantificational logic to symbolizing difficult mass term sentences. In a similar manner, Grandy 1975, 479-85, advocates using Fregean functions, the apparatus of higher order logic, to sort out the operative use of mass terms.

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