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Ontology is often described as the inquiry into what exists, but there is some disagreement among (meta-) ontologists about what “existence” means and whether there are different kinds or senses of “existence” or just one; that is, whether “existence” is equivocal or univocal. Furthermore, there is a growing number of philosophers (many of whom take inspiration from Aristotle’s metaphysical writings) who argue that ontology should not be concerned so much with what exists, but with what is fundamental or real (or something similar). Each of the positions in this debate is centered on a concept or small class of concepts that is intended to capture what ontology is about. Examples of such *ontological core concepts* are: *existence, subsistence, Dasein, being, independent being, being real, being fundamental, being a fundamental constituent of reality, being irreducible*. This paper intends to answer the twofold question of what (kind of notions) these ontological core concepts are, and how (and how much) they (can) differ. I will argue that there can be no difference between such concepts other than differing domains, and that any domain is a restriction in a maximally expanded universe, and therefore, equivalent to a (restricting) property. Furthermore, such differences between domains (or restricting properties) are intertranslatable, and consequently, there is not much room for *substantial* difference. Whatever difference remains is largely due to differences in focus or differences in the (phrasing of) questions ontologists try to answer.

An ‘ontological core concept’ – hereafter abbreviated as **OCC** – can be roughly defined as an existence-like notion or fundamental property that captures, according to the meta-ontological theory it is the centerpiece of, what ontology is (or should be) about. An OCC can be formally represented as the function ε in $\ulcorner \varepsilon(x) \urcorner$, where x is either a constant (*e.g.* Sherlock Holmes, or Mount Fuji) or a class or kind of objects or events (*e.g.* atoms, chairs, or *apceans*). In the former case, it may be more appropriate to write $\ulcorner \varepsilon(c) \urcorner$, in which c stands for a constant; while in the latter case, $\ulcorner \varepsilon(x) \urcorner$ abbreviates $\ulcorner \exists x[F(x) \wedge \varepsilon(x)] \urcorner$ or some similar formula (see below), where F represents the class of objects or events. (Of course, strictly speaking, F in $\ulcorner F(x) \urcorner$ is a predicate, and the corresponding *class* F is defined as $F =_{df} \{x | F(x)\}$.)

The examples of OCCs listed above can be grouped into two kinds: *being in some way* and *being something*; or in terms used in the rough definition: existence-like notions and fundamental properties. OCCs of the first kind are expressed in a variety of ways including adverbial constructions and “existence as ...”,¹ while those of the latter kind usually expressed by means of an adjective (or sometimes a noun phrase). Of the nine examples above, the first four belong to the first kind, the last four to the second, and the fifth could be understood as an example of either (if “being independent” is considered synonymous with “independent being”). It seems natural to formally represent the OCCs of the first kind (being in some way; existence-like notions) by means of an existential quantifier, and those of the latter kind (being something; fundamental properties) by means of a one-place predicate, and those indeed are the most common interpretations of the function ε (although this is more often expressed informally than in such formal terms).

If B^e stands for an appropriate one-place predicate and \exists^e for an appropriate kind of existential quantifier, then $\ulcorner \varepsilon(x) \urcorner$ would be $B^e(c)$ or $\exists^e x[c=x]$ in case of

1 It should be noted that not every notion of “existence as ...” is an OCC. OCCs capture what ontology should be about (according to some theory), and it is difficult to imagine a meta-ontological theory with “existence as monotreme” as its core concept, for example.

a constant c , and $\exists x[F(x)\wedge B^e(x)]$ or $\exists^e x[F(x)]$ in case of a class F of objects or events.² Although quantifiers and one-place predicates are the most common forms of OCCs (or most obvious interpretations if form is unspecified), this does not exhaust the theoretical possibilities. In principle, an OCC can also take the form of a more complex (n -place) predicate or a sentence-level operator (other than quantification), but such notions are very uncommon.

OCCs can differ between and within languages, frameworks, or conceptual schemes. The notion of a language or scheme in this context is a ‘thin’ notion: it is not a requirement that these are non-intertranslatable and neither do they (necessarily) presuppose sense data or the ‘third dogma of empiricism’ (Davidson 1974); languages or schemes in this sense merely differ in their OCCs. Mainstream analytical metaphysics rejects both difference between and within schemes. Hence, in such theories there is one and only one OCC, and according to ‘neo-Quineans’ such as Peter van Inwagen (1998; 2009) and Theodore Sider (2003; 2009) this is *unrestricted existential quantification*. ‘Neo-Aristotelians’ such as Jonathan Schaffer (2009) and Kit Fine (2009) argue for a *property* like *being fundamental*, *being real*, or *being a fundamental constituent of reality* as the one and only OCC.

Meta-ontological theories arguing for different OCCs *between* languages or schemes are generally based on Carnap (1950). Well known proponents of such a theory include Goodman and Putnam, and more recently, Eli Hirsch (2002), who claims that different conceptual schemes have different unrestricted existential quantifiers. Theories of difference *within* schemes are more common in Continental than in analytic philosophy. The best known

2 There are some further options such as $\forall x[(F(x)\wedge B^e(x))\rightarrow\exists^e y[y=x]]$, combining B^e and \exists^e ; and $\forall x[(F(x)\rightarrow\exists^e y[y=x])]$, which would have the (seemingly, at least) paradoxical implication that – if, for example, “horse(s)” is substituted for F – either fictional (or otherwise ‘unreal’) horses exist, or that a fictional horse is not a horse, somewhat like Gongsun Long’s famous argument that a white horse is not a horse. With regards to the analysis of the OCCs B^e and \exists^e these ‘further options’ do not differ significantly from the more basic options mentioned above, however, and for that reason, they will be further ignored here.

proponent of such a theory in analytic philosophy is Gilbert Ryle (1949). This kind of theories often employ multiple existence-like notions such as *being*, *subsistence*, *existence*, and *Dasein*, or distinguish different kinds or senses of existence by adding the preposition “as” followed by a descriptive noun phrase, or through adverbial modification. For example, “Sherlock Holmes exists *as* fictional object, but does not *really* exist.”³

An ontological claim $\ulcorner \varepsilon(x) \urcorner$ in a (ordinary, non-formal) language or scheme L can be represented in a *formal* language \mathcal{L} that consists of a syntax, a vocabulary V , and a model \mathcal{M} . The syntax is the set of logical symbols (and their associated rules for correct use) needed in formalization. Because we do not need to formalize whole languages but just existential claims, the standard logical symbols $\forall, \exists, \wedge, \vee, \rightarrow, \leftrightarrow, \neg$, with the addition of the identity sign $=$, should be sufficient. The vocabulary V is the set of non-logical symbols: constants, predicate symbols, function symbols, and so forth. The model \mathcal{M} consists of the universe (of the model) M and the interpretation function I , which assigns interpretations to the elements of V , such that for a constant c : $I(c) \in M$, for a one-place predicate F : $I(F) \subseteq M$, and so forth.

Syntax, universe M , vocabulary V , and interpretation function I can all differ between (formal) languages. If “atom” in the sentence “atoms exist” is interpreted differently in L_1 than in L_2 – either because of a difference in interpretation function I or in universe M – then “atoms exist” (or $\ulcorner \exists x[\text{atom}(x) \wedge \varepsilon(x)] \urcorner$) has a different meaning, and therefore possibly also a different truth value, in these two languages. The focus of this paper is on OCCs ε , however, and not on the things x that are said to exist or be real (and so forth) and for that reason I will assume agreement between languages with regards to the latter. (Nevertheless, much of the actual ontological

3 Sider and van Inwagen, the two main proponents of mainstream ‘univocalism’, defend their views against different opponents: the Sider - Hirsch/Eklund debate concerns the possibility of difference *between* schemes, while van Inwagen argues against theories that propose different OCCs *within* schemes. (e.g. Sider 2007; van Inwagen 2009.)

disagreement between schemes/languages may be caused by this kind of differences.) In terms of the four variants of $\lceil \varepsilon(x) \rceil$ distinguished above, B^c , $\exists^c x[c=x]$, $\exists x[F(x) \wedge B^c(x)]$, and $\exists^c x[F(x)]$, this means that c and F are considered to be invariant between languages.

Of the two common interpretations of the function ε in $\lceil \varepsilon(x) \rceil$, \exists^c *seems* to belong to the syntax of the (formal equivalent of the) language that the existential sentence appears in, while B^c (like c and F) is an element of V , and is mapped to universe M by interpretation $I(B^c)$. B^c can differ between languages in the same way as c and F (or “atom”). For example, if the predicate B^c implies being tangible in $L1$ and being visible in $L2$, then there probably are many cases of differing truth values between $L1$ and $L2$ for the claim “ x exists”. Assuming that Davidson’s (1974; 1988) (and others’) arguments against non-intertranslatable schemes or languages are valid (see also Brons 2011; 2012), such differences do not preclude the translation of existential statements from $L1$ to $L2$ and *vice versa*, and consequently, such variants of B^c differ about as much as temperature measurements in degrees Fahrenheit and Celsius (Davidson 1977, 224-5; 1989, 65).

The main alternative for interpretation of the function ε as a predicate B^c is interpretation as an existential quantifier \exists^c . In mainstream analytical metaphysics, for example, ε is claimed to be unrestricted existential quantification \exists . This raises the question what exactly existential quantification *is* (or does). Since Frege’s (1893, §§22-3) argument that “existence” is a ‘second-level concept’ it has become common in model theory⁴ to think of quantifiers as second-order relations: a quantifier is an operator that maps sets of individuals to sets of sets of individuals. The specific quantifier \exists means that that mapping is non-empty: \exists in \mathcal{M} is $\{A \subseteq M \mid A \neq \emptyset\}$ (Peters & Westerståhl 2006, 60). This implies, that \exists^1 and \exists^2 in formal languages $\mathcal{L}1$ and $\mathcal{L}2$ can only

4 Although other interpretations of quantification are possible, ‘the general notion of a quantifier is model-theoretic in nature’ (Peters & Westerståhl 2006, 74), and considering that (the semantics of) any (natural) language or scheme necessarily involves a model, the model-theoretic approach is especially appropriate in the present context.

differ if the two models have different universes: $M^1 \neq M^2$ (as there is, besides M , nothing that *can* differ in $\{A \subseteq M \mid A \neq \emptyset\}$).

Universes – and domains of quantifiers in general – are generally considered to be sets in model theory (*id.*, 48), but they can also be proper classes. In case of unrestricted quantification, the domain of the quantifier is the universe of the model. Restriction adds a limitation, a restricting property R such that $\exists_{R x}[\varphi(x)]$ is equivalent to $\exists x[R(x) \wedge \varphi(x)]$. Thus, anything quantified over by an unrestricted quantifier at least has the property of being a member of M , and anything quantified over by an R -restricted quantifier \exists_R has the additional property R (and is a member of the associated class $R = \{x \mid R(x)\}$, such that $R \subseteq M$). Consequently, if ε is \exists_{R_1} in \mathcal{L}_1 and \exists_{R_2} in \mathcal{L}_2 and R_1 is not the same property as R_2 , then $\ulcorner \varepsilon(x) \urcorner$ has different meanings in \mathcal{L}_1 and \mathcal{L}_2 . However, given the equivalence of $\exists_{R x}[\varphi(x)]$ with $\exists x[R(x) \wedge \varphi(x)]$, this difference is nothing but a difference of properties R_1 and R_2 (and these properties are additional requirements in the definition of existence, such as being tangible in \mathcal{L}_1 and being visible in \mathcal{L}_2 , as in the example mentioned above).

If R is a restriction of M , then conversely, M is an *expansion* of R (Fine 2006). If domains are understood to be sets, then R is a subset of M and M is a superset of R . If ε is *unrestricted* quantification in both \mathcal{L}_1 and \mathcal{L}_2 and their formal equivalents \mathcal{L}_1 and \mathcal{L}_2 , then, as mentioned above, \exists^1 and \exists^2 can only differ if the two languages have different universes: $M^1 \neq M^2$. However, for any two languages \mathcal{L}_1 and \mathcal{L}_2 that have the same syntax but different universes M^1 and M^2 , a *combination* can be constructed that is the smallest possible expansion of *both* M^1 and M^2 (in set-theoretical terms, this would be the union of M^1 and M^2). In the combined language \mathcal{L}_c that shares the same syntax, but that has universe $M_c = M^1 \cup M^2$, the translations of \exists^1 and \exists^2 are restricted existential quantifiers, restricted by the properties of being an element of (the translation of) M^1 and being an element of (the translation of) M^2 , respectively. While a combined language \mathcal{L}_c is an *ad hoc* solution to translate \mathcal{L}_1 and \mathcal{L}_2 into a common framework, it is also possible to conceive of a language \mathcal{L}_U

with universe M_U , such that *any* existential quantifier either has the same domain M_U or a subset thereof, and therefore, would be equivalent to a restricted quantifier in \mathcal{L}_U . If M_U is a set, then because of Russel's Paradox, it cannot include absolutely everything. One possible solution for this problem is conceiving of universes or domains as classes rather than sets. However, it should be noted that M_U does not *need* to include absolutely everything for \mathcal{L}_U to do the work it is supposed to do: it 'merely' needs to include all domains of all existential quantifiers. This may not seem particularly helpful, as we do not know what future generations may want to quantify over (while that needs to be in M_U),⁵ but that does not matter for two reasons. Firstly, we do not need to be able to *list* what exactly is in M_U ; we only need to know that if something is (or even can be) quantified over, it is in M_U . Secondly, the superset of all domains of all existential quantifiers is a subset of everything that *can* be existentially quantified over, and that is *nearly* absolutely everything: it only excludes that what cannot possibly be coherently said to exist (such as the set of all sets that are not members of themselves, thus avoiding Russel's Paradox); and for all purposes, M_U can be assumed to coincide with this set of everything that *can* be existentially quantified over.⁶

If any existential quantifier either is identical with \exists^U (the existential quantifier of \mathcal{L}_U) or is a restriction thereof, and any restriction R in $\lceil \exists_{R^x}[\varphi(x)] \rceil$ can be reduced to (*i.e.* is equivalent to) a property R in $\lceil \exists x[R(x) \wedge \varphi(x)] \rceil$ (see above), then any OCC that takes the form of a quantifier is either a maximally general notion of existence (see below for interpretation of \exists^U), or (reducible to) a

5 Speakers of languages with obligatory tense marking such as English may feel an intuitive need to restrict M^U to what exists *now* (or at some other point in time), but this would be a more restricted notion than the one I am suggesting here. Nevertheless, from a metaphysical point of view, such temporal restrictions may be very useful; and to formalize "existence" in such a language it would even be necessary.

6 Rayo & Uzquiano (eds.) (2006) is a collection of recent papers on the problem of quantifying over absolutely everything. The suggestion offered in this and the preceding paragraph is loosely based on Kit Fine's notion of *expansion* (as the opposite of restriction) presented in his paper in that collection.

property. In other words, any difference between quantifiers is a difference of domains that can be reduced to a difference between restricting properties which are one-place predicates functioning exactly like, and with the exact same purpose as B^e in $\lceil \exists x[F(x) \wedge B^e(x)] \rceil$. According to Eli Hirsch (2002), different notions of existence in different schemes or languages are not differently restricted existential quantifiers, but different variants of the unrestricted existential quantifier. This, however, is impossible (but see below). Given the definition of existential quantification as $\{A \subseteq M \mid A \neq \emptyset\}$, the only possible difference is a difference in domains M , and any difference in domains is effectively (after translation in \mathcal{L}_c or \mathcal{L}_u , if necessary) a restriction. Moreover, because any property can serve as a restriction, and conversely, any restriction can be interpreted as (or reduced to) a property, there is no fundamental difference between a property like ‘being a fundamental constituent of reality’, a common neo-Aristotelian OCC, and the existence-like notion ‘existence as a fundamental constituent of reality’, or between $\exists x[F(x) \wedge B^e(x)]$ and $\exists x[F(x)]$.

Although by far the most common, quantification and predication are not the only possible interpretations of ε in $\lceil \varepsilon(x) \rceil$. As mentioned above, ε could also be a sentence level operator other than existential quantification, but suggestions of this kind are rare. Kit Fine (2009) argues that it is not existential quantification that matters in ontology, but “a certain concept of what is real” (p. 171), and defines the predicate R , ‘being real’, in terms of an *operator* on sentences R that means something like ‘it is constitutive of reality that’: $Rx =_{\text{df}} \exists \phi R[\phi x]$ (pp. 171-2). If $\lceil \varepsilon(x) \rceil$ is $\exists \phi R[\phi x]$ in \mathcal{L}_1 (and we ignore the definitional equivalence to Rx) then it may be the case that ε represents another function in \mathcal{L}_2 , or that \mathcal{L}_1 and \mathcal{L}_2 differ with regards to their interpretations of what it *means* to be ‘constitutive of reality’, and this latter possibility points at a problem. In “Ontological relativity” (1968), Quine pointed out that “a question of the form ‘What is an F?’ can be answered only by recourse to a further term: ‘An F is a G’”. The answer makes only relative sense: sense

relative to an uncritical acceptance of ‘G’” (p. 204). Fine’s proposal to define ‘being real’ in terms of a sentence-level operator ‘being constitutive of reality that’ seems to get things the wrong way around. Of course, he is well aware of the problem that his account depends on a previous understanding of the notion of reality, but he does “not see any way to define the concept of reality in essentially different terms; the metaphysical circle of ideas to which it belongs is one from which there appears to be no escape” (p. 175). We do, however, seem “to have a good *intuitive* grasp of the concept” (*id.*; italics in original). But even if we do have such an intuitive grasp, it is not necessarily the case that intuitions converge. Moreover, Fine’s proposal gets things the wrong way around in another, more problematic sense: his definition does not just rest upon the concept of reality, but on being *constitutive* of reality. In other words, the definition presumes a theory of what is constitutive of reality, *i.e.* a metaphysical theory, and consequently, Fine’s definition turns out to be that ‘being real’ is being real or fundamental or something similar according to some previously accepted metaphysical theory. The complications result from an attempt to define the predicate ‘being real’, specifically to define it in such a way that it corresponds with the neo-Aristotelian OCC of ‘being a fundamental constituent of reality’, but perhaps ‘being real’ should be taken to be the primitive notion. At least it seems much more intuitive than ‘being constitutive of reality’. (And it seems considerably simpler and more intuitive to define reality as the sum total of everything real than the other way around.) And if we ignore its problematic definition, then all we are left with is the simple and unproblematic one-place *predicate* ‘being real’ as OCC.

Although there is no obvious candidate, it is in principle possible that other sentence level operators are more successful in capturing an alternative (formal) notion of existence (*i.e.* another OCC). Nevertheless, this particular case arouses the suspicion that such an approach would be overly complex and/or stray too far from common conceptions of existence and what it means to exist.

Considering that a difference between quantifiers turned out to be a difference between restricting properties, all differences between languages or schemes considered thus far are semantic in nature (they are differences in vocabulary and/or differences in the meaning/interpretation of symbols in those vocabularies). However, it is also possible that languages differ in their syntax. An example of a *minor* difference in syntax could be the rejection of existential import for the universal quantifier \forall in one language involved. In that language, \mathcal{L}_1 , \forall^1 and \exists^1 would then effectively have different domains: the domain of \forall^1 would be M^1 , but the domain of \exists^1 would be those things in M^1 that can be said to exist in that language (or something similar): $E^1 \subseteq M^1$. However, if such a language would be translated into another language \mathcal{L}_T in which both \forall^T and \exists^T have domain $M^T = M^1$, then \exists^1 would be translated as a restricted existential quantifier \exists^T_R , where the restriction domain $R = E^1$.⁷ (Which suggests that rejection of existential import is a variety of restriction, and thus semantic rather than syntactic.)

Examples of more significant differences in syntax are higher-order logics, plural logic, combinatory logic, the λ -calculus, and so forth, but it is difficult to see how such syntactic differences could lead to different truth values of simple existential statements that are more or less equivalent to $\exists x[F(x) \wedge B^e(x)]$ (to which the other options were shown to be reducible above). If we substitute “atoms” for F and “real” for B^e , then “atoms exist” could be formalized as $\exists x[\text{atom}(x) \wedge \text{real}(x)]$ in FOL. In plural logic, marking plural quantifiers and predicates with superscript P and representing plural variables with italicized capitals, this would be $\exists^P X[\text{atom}^P(X) \wedge \text{real}^P(X)]$, and with some effort $\exists x[\text{atom}(x) \wedge \text{real}(x)]$ could also be translated into combinatory logic, for example. None of these different formal representations has a different truth value, however, and neither is there another (metaphysically relevant)

7 The language of the translation, \mathcal{L}_T , would be a richer language than \mathcal{L}_1 as it would enable existential quantification over everything in $M^T = M^1$, hence unrestricted existential quantification, which is impossible in \mathcal{L}_1 , which raises the question whether \mathcal{L}_1 is a suitable language for formalizing existential statements (especially if \mathcal{L}_T is also available).

substitution for F that would result in differing truth values between different syntaxes. Perhaps this should not come as a surprise: the question what it *means* to exist is a semantic question, not a syntactic one, and a difference with regards to what it means to exist between languages is a semantic difference, not a syntactic difference.

It was shown above that a difference between quantifiers in formal languages can only be a difference between domains, and can therefore be reduced to a difference between interpretations of the predicate B^c in sentences like $\lceil B^c(c) \rceil$ and $\lceil \exists x[F(x) \wedge B^c(x)] \rceil$ (for constants c and kinds of objects or events F respectively). However, as mentioned, Hirsch (2002) insists that the difference between $L1$ and $L2$ is a difference of quantifiers, but *not* a difference of their domains. It was claimed above that such a difference between languages is impossible, but this claim needs some qualification. From the definition of qualifiers in *formal* languages it follows that such a difference between $\mathcal{L}1$ and $\mathcal{L}2$ is impossible, but that does not necessarily mean that it is impossible for *informal* languages $L1$ and $L2$ as well, provided that there are some kind of Kripkensteinian complexities in at least one of those languages.

Consider, for example, the sentence

(s1) “ a and b exist.”

which is uttered in three different languages $L1$, $L2$, and $L3$ that are all deceptively similar to ordinary English in grammar and vocabulary, but not completely identical. If a and b are simples, and ab is a composite consisting of a and b , then *correct* (and complete) translations of (s1) uttered in the three languages into ordinary English would be:

(t1) “ a and b exist (but not ab).”

(t2) “ a , b , and ab exist.”

(t3) “ ab exists (but not a and b).”

for L1, L2, and L3 respectively. If it is subsequently attempted to translate these three translations (t1) to (t3) into the three languages L1 to L3, then there are three options.

[1] *Some of the three sentences (t1) to (t3) cannot be translated into some of the other languages.* For example, in L1 it is impossible to say that *ab* (or any composite, for that matter) exists, and therefore, (t2) and (t3) cannot be translated into L1. This option, however, needs to be discarded immediately for two reasons. Firstly, this would mean that the domain of “existence” is restricted to simples in L1 while we are looking for (the possibility of) differences *other than* different domains. Secondly, it seems implausible that there are natural languages in which it is impossible to say something that can be said in another language. The extensive literature in the field of linguistic anthropology shows that it can be extremely *difficult* in some cases, but extreme difficulty is not impossibility. Furthermore, if language is causally related to external reality, as (among others) Davidson argues in his theory of *triangulation*, then it is always possible to find or construct a translation (see Brons (2012) for discussion of this argument).

[2] *Translation is possible but complex, but does not require additional predicates.* For example, the L1 translation of (t2) could be something like: “*a* and *b* exist, and *ab* as a composite also exists, in addition to *a* and *b*.” In this case, the difference between the three languages is a difference between defaults: lacking contrary indication, the domain of “existence” is assumed to consist of simples only in L1, of simples and composites in L2, and of composites only in L3, but the default restrictions in L1 and/or L3 can be overruled by specification (or context, perhaps). Hence, the difference is a difference of domains, albeit only of default domains.

[3] *Translation is possible but complex, and requires additional predicates.* For example, in L1 composites cannot be said to “exist”, but can be said to “*axist*”, which is correctly translated into ordinary English as “exist”. Then (t2) can be translated into L1 as “*a* and *b* exist, and *ab* *axists*.” L1 then, uses two different

existential verbs for simples and composites, in the same way that Japanese uses two verbs ‘to be’ for animates (*iru*) and inanimates (*aru*). And in the same way that a Japanese child would switch from *aru* to *iru* when learning that corals are not rocks and sea anemones are not plants, a learner of L1 would switch from *exist* to *axist* when learning that *ab* is a composite. However, although this third option is possible, it is irrelevant here, because effectively this splits up the domain of “existence” in ordinary English into two separate domains in L1: one for *exist* and one for *axist*, and both of these would, therefore, be restricted existential quantifiers.

Regardless of which of the three options specifies the details of the case, the difference between languages L1 to L3 is a difference of (default) domains of the existential quantifier(s). This example, therefore, does not illustrate or reveal any *other* kind of difference between existential quantifiers (which is what Hirsch suggested, and what we are looking for). There is, however, a further option. Consider a language L4 in which the following two sentences are uttered:

(s2) “*a* exists.”

(s3) “*ab* exists.”

The first of these sentences, (s2), is identical to its translation into ordinary English, “*a* exists”, but the second is translated something like “*ab* does not exist, but *a* and *b* exist”.⁸ In other words, if applied to simples, “exists” means the same in L4 as in ordinary English, but in case of composites it does not. This is somewhat similar to Kripke’s (1982) “quus” and Goodman’s (1983) “grue”, which are parallel with “plus” and “green”, respectively, up to a point after which they diverge. That is, they are explicitly defined as “plus” and “green”, *except* in some specific circumstances. Similarly here, “exist”_{L4} is defined as “exist”_{English} *except* in some specific circumstances, namely when applied to composites. It should be noted that contrary to the previous

8 Or perhaps “the simples *a* and *b* composing *ab* exist, but *ab* itself is just a convenient shorthand for those simples and does not really exist itself.”

example, attribution of “existence” is *not* restricted in L4. Both simples and composites can be said to exist, but ‘existential statements’ in L4 are differently translated into ordinary English if they refer to composites than when they refer to English. It may be argued, however, that “existence” in L4 is an implausibly, impossibly, or unnaturally gerrymandered concept, and I will address that charge below.

If it is attempted to translate the ordinary English sentence

(s4) “*ab* exists.”

into L4, then there are again three options.

[1] *Translation is impossible* because there is no way to express existence of composites in L4. This is improbable, if not impossible, for natural languages for reasons mentioned under option [1] for the previous example. Anything that can be said in one natural language can be said in another natural language, but what is easy to say in one language may be very difficult and lengthy to say in another. Translation may be impossible in case of artificial or semi-formal languages, but those are created with a purpose, and it is difficult to imagine any other purpose for a language that cannot in any way express the existence of composites than to confuse philosophers.

[2] *Translation is possible but complex, but does not require additional predicates.* An analogy in English could be the following:

(s5) “The cow is grazing.”

(s6) “The herd is grazing.”

Strictly speaking (s6) does not mean that the *herd* itself is grazing, but that the cows in that herd are grazing. Similarly, it may be possible in L4 to translate (s4) something like “*ab* itself, rather than *a* and *b*, exists.” However, if that is the case, then – as in case of option [2] for the previous example – the apparent difference between L4 and ordinary English is one of different *default* interpretations (*i.e.* default domains) of ambiguous sentences (about composites), and can be easily avoided by more precise use of language.

[3] *Translation is possible, but requires additional predicates.* If it cannot be said in L4 that composites “exist”, but they can be said to “*axist*”, which is correctly translated into ordinary English as “exist”, then the L4 translation of (s4) would be “*ab axists.*” In this case, “*axistence*” would be restricted, as it can only be attributed to composites, but “existence” would not. It seems that the aforementioned charge of gerrymandering is the only objection to this option, which raises a number of questions: To what extent is “exist” in L4 a gerrymandered concept? Are there reasons to assume that this option is impossible? And, does a difference of this kind matter?

The apparently similarly gerrymandered notions “quus” and “grue” (see above) were rejected by David Lewis (1986) with an appeal to ‘naturalness’, and this idea was borrowed by Sider (2003; 2007) to block gerrymandering notions of existence. The charge of gerrymandering and the notion of naturalness, however, depend on a privileging of (ordinary) English, arousing suspicions of cultural blinders. What if ordinary English “existence” is the gerrymandered concept, and the L4 concept is the ‘natural’ one? The easiest way to test this is to assess whether ordinary English is gerrymandering from the perspective of L4 by means of a comparison of a few ordinary English sentences and their L4 translations:

	ordinary English	L4
(s7)	“ <i>a</i> exists.”	“ <i>a</i> exists.”
(s4)	“ <i>ab</i> exists.”	“ <i>ab axists.</i> ”
(s8)	“ <i>ab</i> does not exist.”	“ <i>ab</i> does not <i>axist.</i> ”
(s9)	“ <i>ab</i> does not exist, but <i>a</i> and <i>b</i> exist.”	“ <i>ab</i> does not <i>axist</i> , and <i>a</i> and <i>b</i> exist.” ≡ “ <i>ab axists.</i> ”

The last of these sentences, (s9), was suggested above as the English translation of the L4 sentence (s3) “*ab axists.*” In L4, “*ab axists*” is synonymous to “*ab* does not *axist*, and *a* and *b* exist”, and consequently, either sentence would be an accurate translation of ordinary English (s9). The problem, of course, is in this sentence: English “not exist” is translated with L4

“exist” or *vice versa*. English may seem a bit simpler than L4, having only one concept of “existence” rather than two (“*axistence*” being the second), but considering the aforementioned case of the *iru/aru* distinction in Japanese, that is hardly an argument for the unnaturalness of L4. And aside from this difference, the two directions of translation seem very similar: if L4 is gerrymandered from the perspective of ordinary English, then so is ordinary English from the perspective of L4. That in turn means, that there is no ground to privilege English, which undermines both the charge of gerrymandering and the appeal to naturalness, or so it seems.

The picture changes, however, if translation into a formal language is taken into account. If “existence” in ordinary English is unrestricted existential quantification, then in its formal counterpart \mathcal{L}_E , the four sentences (s7), (s4), (s8), and (s9) would be $\exists x[a=x]$, $\exists x[ab=x]$, $\neg\exists x[ab=x]$, and $\neg\exists x[ab=x]\wedge\exists y,z[(a=y)\wedge(b=z)]$, respectively (or something very similar). It is less obvious what formalizations of the L4 sentences in \mathcal{L}_4 would look like, however. If speakers of L4 are aware that the distinction between “exist” and “*axist*” is a mere grammatical difference, in the same way that Japanese speakers are aware of the similar distinction between “*iru*” and “*aru*”, then formalizations in \mathcal{L}_4 of the first three sentences would be identical to those in \mathcal{L}_E . For the two L4 translations of (s9) there would seem to be two competing \mathcal{L}_4 formalizations: $\neg\exists x[ab=x]\wedge\exists y,z[(a=y)\wedge(b=z)]$ and $\exists x[ab=x]$, but L4 speakers would immediately realize the contradiction between the two and solve that by rejecting the latter formalization (because rejecting the former would imply that (s4) and (s9) are synonymous in L4, which is not the case), thus revealing the gerrymandering nature of *their own* language.

It is implausible that the speakers of L4 would *not* be aware that the distinction between “exist” and “*axist*” is a mere grammatical difference, and even if that would be the case, an attempt at formalization would reveal the problem. Formalization of existence as unrestricted existential quantification and *axistence* as a one-place predicate (which may be shorthand for a restricted

existential quantifier) results in contradiction.⁹ *Axistence* would then imply existence because the formalization of the translation of (s4) $\exists x[\text{axist}(ab)\wedge(ab=x)]$ implies the formalization of the *shorter* translation of (s9) $\exists x[ab=x]$; but because of the synonymy of the shorter and longer translations of (s9), $\exists x[ab=x]$ is equivalent to the formalization of the *longer* translation $\exists x,y,z[\neg\text{axist}(ab)\wedge(ab=x)\wedge(a=y)\wedge(b=z)]$, which in turn implies the formalization of the translation of (s8) $\exists x[\neg\text{axist}(ab)\wedge(ab=x)]$, and thus existence implies non-*axistence*. In short: $\text{axist}(x)\rightarrow\text{exist}(x)\rightarrow\neg\text{axist}(x)$, which is an obvious contradiction. And stumbling upon this contradiction, the L4 speaker would quickly find the source of the problem.

These formalizations demonstrate that the charge of gerrymandering is not necessarily based on a privileging of the English language, but could even be made by a reflective L4 speaker herself (and thus no appeal to ‘naturalness’ is needed). If this reflective L4 speaker would occupy herself with ontology, she would quickly realize that her language is a possible source of obscurity and confusion, as English may be in other areas of inquiry (and perhaps in metaphysics as well), and introduce a technical term like “*axistence*”, explicitly defined (in L4) as “*axistence*” when attributed to composites and as “existence” when attributed to simples. (Conveniently, “*axistence*” would be identical to English “existence”.) However, even without such a terminological innovation, the difference between L4 and ordinary English would not be problematic: indeed, “existence” is a different concept in the two languages, and the difference is not one of differing domains, but upon closer reflection it would be clear – even to a speaker of L4 – that one of the two notions (namely the ordinary English one) is superior and could (and most likely would) be used as a basis for translating, interpreting, and formalizing existential statements.

9 Note that existence must be formalized as unrestricted existential quantification as that is one of the premisses of the current search for difference other than differing domains.

The examples discussed in the preceding pages show that although it seems to be possible that natural (rather than formal or otherwise artificial) languages have different unrestricted existential quantifiers in their lexicon, this would require a notion of existence that is gerrymandered to such a degree that this would even be noticeable to a (reflective) speaker of that language; gerrymandered to such a degree, in fact, that – in some circumstances – that speaker would need to introduce or borrow an un-gerrymandered notion of existence to avoid contradiction. Although this may be a hypothetical possibility, it is doubtful that such a natural language could even come into existence, and if it did that it would be stable, and not immediately evolve into a non-gerrymandered version. There is, therefore, very little reason to believe that there really can be any other difference between existential quantifiers than differing domains. In formal languages, that is – by definition of the existential quantifier – the only possibility; and in natural languages exception would require Kripkensteinian gerrymandering to an implausible – perhaps even impossible – degree.

There is then, only one kind of difference between notions of existence, and that is a difference of domains, and any such difference can be reduced to a difference of properties in the expanded universe M_U . By implication, there is no fundamental difference between existence-like OCCs (*i.e.* quantifiers) and OCCs that take the form of properties such as ‘being real’ or ‘being a fundamental constituent of reality’. This, however, does not imply that there are infinitely many notions of existence (or OCCs in general) that are all equally good as ontological deflationists would claim.¹⁰ Not every property or existence-like notion is equally appropriate for ontology. The final paragraphs of this paper briefly present some of the main answers to the question what it means for something to exist. Although none of these answers – that is, none

10 If the argument in this paper is deflationist, it is meta-ontological deflationist; not ontological deflationist.

of these OCCs – may be the single right answer or the single right OCC, all of them have their merits, and any answer to the question that is the title of this paper that deviates much from these is unlikely to be ontologically relevant.

Already mentioned a few times are the (neo-)Aristotelian property of ‘*being a fundamental constituent of reality*’ and similar notions such as ‘*being real*’ (whatever that may mean exactly) or ‘*being fundamental*’. In Buddhist philosophy, a common criterion for being real or fundamental (or for independent existence) is *being causally efficient*. Another, more formal interpretation of being fundamental is defended by Peter van Inwagen in his influential paper “Meta-ontology” (1998) and/or its most recent update (2009). Van Inwagen presents five theses based on the work of Quine. The first four theses can together be summarized as: “being” = “existence” = unrestricted existential quantification \exists . The fifth thesis is of a very different nature: rather than defining “existence”, it proposes a methodology for resolving metaphysical debates (*i.e.* for deciding what exists) based on Quine’s notion of ‘ontological commitment’. According to van Inwagen, metaphysical debates are to be resolved by specifying the (minimal) ontological commitments implied in everything the debaters want to affirm. This is done by means of formalization in FOL and discarding the alternative formalizations that existentially quantify over more ‘things’ than necessary. Only if it cannot reasonably be avoided to existentially quantify over x (by reduction to something more primitive that is accepted as existing, for example), then x exists. In other words, existence is *quantificational unavoidability*. (This is not a term van Inwagen uses, but is my attempt to capture the essence of his fifth thesis as clearly and briefly as possible.) By implication, if the first four theses are assumed to be consistent with the fifth, then the domain of van Inwagen’s preferred notion of existence is restricted in M_U by the property of being quantificationally unavoidable. This criterion leads him to suggest that fictional objects exist (1977) and that wholes and composites do not exist unless they constitute a life (1990).

In addition to these (neo-)Aristotelian and related OCCs a different kind of OCCs can be derived from the Kantian distinction between things-in-themselves and phenomenal appearances, or the Buddhist distinction between ultimate and conventional reality (Brons 2013). Avoiding potentially confusing terms (such as “noumenal”, which is interpreted rather differently by different philosophers) and terms that are too closely associated with particular schools of thought, we could distinguish the existence-like notions of ‘*independent existence*’ and ‘*phenomenal existence*’, or the associated properties of ‘*being independently real*’ and ‘*being phenomenal appearance*’.¹¹ A valid objection to these labels may be that it suggests that the phenomenal is somehow less real, which is disputable. Historically, in this kind of approach, ‘being independently real’ (being thing-in-itself, being ultimately real, etc.) is the preferred OCC, and although this overlaps with the (neo-)Aristotelian ‘being fundamental’ (etc.) it does not (necessarily) coincide.

Which of these OCCs is (or should be) preferred by ontologists depends on focus, and on the questions that are intended to be answered (or even on how exactly those are phrased). Perhaps there is a single best notion among those mentioned here, or among variants left unmentioned, but it seems more likely that OCCs are *essentially contested concepts* (Gallie 1956), implying that no impartial (and non-theory-laden) choice between the alternatives is possible.

There is, in addition to these OCCs one more key notion of existence: unrestricted existential quantification in M_U , *i.e.* \exists in the universe that includes everything in all other universes. In ordinary English, this can be described best as ‘*existence in some sense*’. Fictional objects exist in some sense; wholes and compositions exist in some sense (and so do simples); *apceans* and *incars*

11 Applying this same terminology, the general terms for Kant’s ‘thing-in-itself’ (and possibly ‘noumenal reality’) or Buddhist ‘ultimate reality’ (*paramārthasat*) on the one hand and Kant’s (world of) ‘phenomenal appearances’ or Buddhist ‘conventional reality’ (*saṃvṛtisat*) on the other, would be *independent reality* and *phenomenal reality*. On this distinction, and the (necessary) connections between these two ‘levels’ (or aspects, etc.) of reality, see Brons (2012; 2013).

exist in some sense; *everything exists in some sense* (this follows from the definition of M_U). In ordinary English, “existence” often means such ‘existence in some sense’ (albeit with a temporal restriction), but more often – especially in negations – it means something like ‘being real’. Existence in some sense is a maximally permissive notion (see also Eklund 2009). It is, however, *not* an ontological core concept (OCC). Because it is maximally permissive, because everything exists in some sense, the notion is nearly useless in ontology: what applies to everything distinguishes nothing.¹²

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12 This maximally permissive notion of existence has its use, of course, as a technical notion in formalizations in a language with M_U as its universe. Aside from that, it also seems to be the default if no domain is specified (either explicitly or contextually). Unqualified “existence”, unless there is a reason to assume otherwise, is this maximally permissive “existence”, and is, therefore, ontologically ‘meaningless’.

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