

## Countability across varieties English

Research Proposal

Kurt Erbach

erbach@uni-duesseldorf.de

### Research Goals

The general goal of the planned project is to contribute to the description and typological comparison of countability systems across varieties of English via corpus studies and collaboration with speakers of the varieties. Working towards this goal will fill in the extensive research gap that exists from the lack of data on what Carter and McCarthy (2007) called the primary grammatical distinction of English nominal system. Notably, there has been some recent corpus work in this area (see, e.g. Mohr, 2016; Schmidtke and Kuperman, 2017), but there is still much work to be done to uncover the extent to which a count–mass distinction is manifested across varieties of English, and furthermore what might have motivated any variation that exists among the varieties.

The main research questions of this project are summarized below:

1. To what extent do the morphosyntactic characteristics of the count–mass distinction differ across varieties of English?
2. To what extent do nouns differ with respect to their count or mass use across varieties of English?
3. To what extent does the semantics of individual nouns, plural morphology, and or different determiners contribute to variation across Englishes?
4. To what extent could language contact said to be a contributing factor to any variation that exists in the variation in count–mass distinctions across Englishes?

Outer Circle Englishes are known to exhibit simplification, which results in a reduction of irregularities (Trudgill, 1986) and has the potential to greatly impact the extent to which the count–mass distinction is manifested across varieties of English. A crucial point of investigation, therefore, is the extent to which simplification has occurred within the set of morphosyntactic characteristics of the count–mass distinction across varieties of English. For example, morphosyntactic indicators of countability such as the *many/much* distinction, can be considered irregularities in the crosslinguistic context: Standard English may be irregular in having specific proportional quantifiers for count nouns and mass nouns respectively—i.e. *many* and *much*—as nascent evidence suggests many other languages do not—e.g. Greek, Hungarian, Japanese (Erbach, 2020). Given *many* and *much* perform the same quantitative function for count and mass nouns respectively, and many languages have a single quantifier for this that simply agrees with the noun in terms of number (e.g. *mucho(s)*, Spanish; *viel(e)*, German; *sok*, Hungarian) rather than countability, it might not be surprising to find changes in the distribution of these determiners across varieties in English.

Since at least Jespersen (1909), if not earlier, count nouns have been distinguished by direct co-occurrence with plural morphology, the indefinite article, numbers, and words like *many* and *few*, while mass nouns do not co-occur with these, rather with words like *much* and *little*. Quirk et al. (1985) refer to these co-texts as count syntax and mass syntax respectively, and since Jespersen (1909), additional co-texts have been added to the respective categories, such as Baker (1978), pointing out that only count nouns can be the antecedent of *one*. Looking even more closely at kinds of countability, Allan (1980) showed that count nouns have different distributions with certain categories of count syntax, such as with the use of the indefinite article as opposed to what he calls “fuzzy denumerators”, (*few*, *several*, *many*, *a dozen or so*, *about fifty*, and *70,000*), “other denumerators” (*each*, *every*, *either*, and *both*), and the ability of the noun to govern plural external number registration, for example with *they* as a pronoun. To mass syntax, Allan (1980) adds the co-occurrence of the noun with *all* and a singular verb. Allan (1980) distinguished eight different countability classes of nouns with

these five different categories of syntax, and more recently, via an analysis of the Corpus of Contemporary American English, Grimm and Wahlang (2021) have shown that a subset of Allan's tests, in tandem with occurrence as a bare singular or bare plural can be used to distinguish 15 countability classes of nouns. While these categories of syntax have been widely discussed in the context of "English", which I take to mean Standard English in the sense of Millward and Hayes (2012), much less work has been on the extent to which this or similar syntax is found in other languages or varieties of English, and to my knowledge, no work has been done on the extent to which different countability classes of nouns occur across varieties of English.

Rothstein (2010) noted that it is not the case that all properties of the count–mass distinction occur in all languages, giving Hebrew as an example given it does not seem to distinguish between *how much* and *how many* as English does. Sudo (2016), shows that Japanese only seems to distinguish count and mass nouns via fuzzy denominators (e.g. *nan-byaku-to-ju*, 'hundreds of'), and in my PhD thesis, I show that Greek and Hungarian also seem to lack mass syntax and the same sort of correspondence between plurality and countability that English has. In tandem with showing that Japanese, Hungarian, and Greek have fewer indicators of countability, my thesis also shows that there are fewer object mass nouns in these languages (mass nouns that are comparable in terms of number of discrete objects as in Barner and Snedeker (2005)), and I hypothesize that there is a relationship between the two, namely between the amount of countability related morphosyntax and number of object mass nouns. In my submitted work on Sorani Kurdish with Delan Kheder, we show that not only does Sorani Kurdish have fewer categories of countability, but that it also seems to have fewer countability classes (six compared to Allan's eight and Grimm and Wahlang's 15), suggesting further that the relationship between syntax and noun classes is potentially even more complex, and that there is room for variation in the amount of countability morphosyntax and classes of nouns across varieties of English.

The project that I propose is to examine the extent to which classes of countability syntax occur across varieties of English by extending the work of Allan (1980) and Grimm and Wahlang (2021) to other varieties of English. Attempting to extend the work of Allan (1980) and Grimm and Wahlang (2021) will first require examining the extent to which the different categories of count and mass morphosyntax occur across varieties in English, which will in turn make it possible to examine the noun classes that can be distinguished via these syntactic categories within the varieties. This data will help (i) to further establish the extent which varieties of English vary, perhaps due to frequency of use or contact with local languages, and (ii) further examine the relationship between syntax and semantics in the sense that the sort of countability syntax available in a language seems to shape the semantic, countability categories of nouns that exist in that language.

### **State of the art**

English plural morphology has received a great deal of attention in both semantics and sociolinguistics (see, e.g. Chierchia, 1998; Sauerland, 2003; Hall et al., 2013; Mohr, 2016, 2017; Schmidtke and Kuperman, 2017), because, as noted since Jespersen (1909) and shown via corpus study by Grimm and Wahlang (2021), it is one of the key indicators of whether a noun is count or mass and because the count–mass distinction is the primary grammatical distinction in the English nominal system. However, relatively little work has been done on other syntactic indicators of countability in non-standard Englishes. Generally, the extent to which plural morphology is regularized and the extent to which the use of definite and indefinite determiners diverges from Standard English is documented (Kortmann et al., 2020), however, these only represent a fraction of the syntax relevant to the count–mass distinction. The central issues in semantics and sociolinguistics related to plural morphology and its relation to countability have been the distribution and range of meanings that plural morphology has in Standard English (see, e.g. Acquaviva, 2008) and World Englishes (see, e.g. Hall et al., 2013; Mohr, 2016, 2017; Schmidtke and Kuperman, 2017) respectively.

Corpus studies in the World Englishes framework have repeatedly shown that plural morphology has a differ-

ent distribution in norm-developing, Outer Circle Englishes (Hall et al., 2013; Mohr, 2016, 2017; Schmidtke and Kuperman, 2017). For example, Mohr (2016) and Schmidtke and Kuperman (2017) have shown that certain mass nouns—e.g. *equipment*, *evidence*—often occur with plural morphology in Ghanaian English, which is one characteristic of the language that sets it apart from Standard English in which these nouns do not occur with plural morphology. The pluralization of nouns like *equipment* and *evidence* is even more perplexing given certain theories (e.g. Sutton and Filip, 2018) explicitly predict that this should not be semantically possible because of the characteristics of this particular class of mass nouns, which refer to discrete entities, but grammatically pattern with nouns like *mud* that refer to undifferentiated stuff. What requires investigation is the nature of this use of plural morphology on mass nouns, for example whether it is L1 transfer, marks a novel, countable sense of the singular form, or whether it is a retention of the historical form<sup>1</sup> that might indicate something like abundance as I have shown to be the case with *water* in Standard English (Erbach, 2019).

In addition to the fact that plural morphology is used with a different distribution in Outer Circle Englishes, it is also known that the distribution of determiners also differs in Outer Circle Englishes (Meierkord, 2004). For example, Schmied (2004) claims that, not only is plural morphology extended in Tanzanian English compared to British English, but that there is little distinction between count and mass nouns in general, as seen in a tendency to omit articles and determiners. In Ghanaian English, singular nouns are often used without determiners in morphosyntactic environments where they would have them in Standard English—e.g. “I want to buy car” (Huber and Dako, 2004, p. 860). These differences in the distribution of plural morphology and determiners, along with the possible loss of marked forms that constitute indicators of countability, suggest that the count–mass distinction has a distinct, possibly reduced form in Outer Circle Englishes and varieties of English more broadly. Furthermore, (Erbach, 2020) predicts that such reduction in morphosyntax also results in the reduction of the number of object mass nouns. It is the goal of this research project to document the morphosyntactic indicators of countability across varieties of English, to examine the extent to which simplification or other changes have occurred, and attempt to understand why.

### Preparatory work

As a doctoral researcher in DFG CRC 991: *The Structure of Representations in Language, Cognition, and Science*, Project C09; *A frame-based analysis of countability*, my work focused on in-depth investigations into the countability of typologically distinct languages, namely Greek, Hungarian, and Japanese. For example, I showed that each of these languages show certain reflexes of a count–mass distinction, though in a progressively restricted way. In Table 1, ✓ indicates that a language has this countability property, ✓- indicates this property is restricted, and × indicates that the language does not have this property. To

Table 1: Comparison of Mass/Count Properties across Languages (Erbach, 2021)

Language	DET <sub>count</sub>	NUM+N	*N <sub>count</sub> → N.PL	DET <sub>mass</sub>
English	✓	✓	✓	✓
Greek	✓	✓	✓	×
Hungarian	✓	✓	×	×
Japanese	✓	✓-	×	×

account for the countability related phenomena in these languages, I extended the theory of countability first motivated by my advisors Hana Filip and Peter Sutton, which captures the distribution of nouns across countability classes with crosslinguistic validity, but required refinements and extensions to account for the nominal systems of the aforementioned languages. In my PhD thesis and several proceedings papers (Erbach

<sup>1</sup>“equipment, n.”. OED Online. December 2020. Oxford University Press. <https://www.oed.com/view/Entry/63796?redirectedFrom=equipment> (accessed February 11, 2021).

et al., 2017, 2019, 2021; Erbach, 2019), I compare the ability of several semantic analyses (Chierchia, 2010; Rothstein, 2010; Sutton and Filip, 2016) to accommodate novel data in typologically distinct languages. The empirical and analytical work that I completed for my thesis project constitute a solid foundation on which to complete project proposed here. My experience in investigating the count–mass distinction in typologically distinct languages will be a boon to this project examining the extent to which the count–mass distinction varies across varieties of English. In other words, my expertise in countability across languages will make examining countability across varieties of English a very straightforward process.

In addition to testing semantic analyses with novel data from multiple languages, the primary hypothesis motivated in my thesis is that there is a relationship between the amount of countability related morphosyntax in a given language (e.g. count and mass quantifiers like *many* and *much*) and number of object mass nouns (e.g. *furniture*, *jewelry*, *mail*) in that language. This hypothesis is further explored in Erbach (2020), along with hypotheses about the role that language acquisition plays in constructing this dynamic relationship. In Erbach and Kheder (2021), this hypothesis is expanded once more to include a relationship between countability related morphosyntax and the number of nominal countability categories, given that, compared to English, Sorani Kurdish has far fewer morphosyntactic environments related to countability, and likewise fewer nominal countability classes. If a certain variety of English has a simplified count–mass distinction, compared to that in Standard English, then it should be the case that there are fewer countability classes of nouns, and fewer object mass nouns. This hypothesis already seems supported by the fact that certain nouns that are object mass nouns in Standard English are used with plural morphology in certain varieties of English suggesting these nouns might not be object mass nouns in the latter varieties, and therefore that these varieties have fewer object mass nouns than Standard English.

Preliminary work for the proposed project has found additional support for the possibility that plural morphology works differently in Global Englishes than in Standard English. A search for plural nouns co-occurring with *much* in the Global Web-Based English corpus (GloWbE) corpus has revealed that *energies*, *entertainments*, and *attentions* as in (1), none of which co-occur in the Corpus of Contemporary American English (COCA).

- (1) a. According to them, they have invested too much energies and resources in pan-African pipe dreams
- b. It's an apparent fact that the world offers so much entertainments and more often than not, we like them.
- c. May 1 st (workers' day), a day when much attentions is focussed on the workers of the world.

The lack of occurrence of these nouns as plural with *much* in American English in contrast with their existence in the Global Web-Based English corpus constitutes further evidence of the difference between the count–mass distinction across varieties of English, namely that both plural morphology and indicators of countability like *much* do not seem to be used in the same way across these varieties of English. Instead, these examples tentatively support the hypothesis that plural morphology has taken on a more generalized use, perhaps as an emphatic marker across certain varieties of English, along the lines of what occurs in modern Greek, though the extent to which this occurs will need to be further investigated in order to examine the extent to which my analysis of plural mass nouns in Erbach (2019) can be upheld for certain varieties of English.

## Methods

A mixed-methods design will be used to answer this project's research questions. The methods will include a novel corpus study in the style of Grimm and Wahlang (2021) and collaboration with speakers of the

respective varieties of English to build the data set.

The first work package of the planned project is to manually explore corpora of varieties of English for the extent to which the known countability syntax in Standard English occurs in other varieties. For example, the Ghanaian English subcorpus of GloWbE will be manually searched for the extent to which fuzzy denominators (*several, many, few, etc.*), other denominators (*each, every, both, etc.*), *all* with a noun and singular verb, are used. Attention will also be paid for count and mass syntax that is potentially novel to each variety of English. This work package contribute data to answer the first research question on the extent to which the morphosyntactic characteristics of the count–mass distinction differ across varieties of English. Each manual corpus search will examine the extent to which specific syntactic contexts, such as the use of fuzzy denominators is used across the varieties of English investigated. At this point, it should be possible to form a typology of countability syntax across varieties of English.

Once this investigation has been conducted for a given variety, I will make the necessary adjustments to the corpus methods of Grimm and Wahlang (2021), so their sort of model can be applied to distinct varieties (e.g. including novel syntax, spelling, etc.). The second work package of the planned project, therefore, is to conduct a corpus study in the style of Grimm and Wahlang (2021) for each variety of English that has a corresponding parsed corpus. This will result in clarifying the picture from the first work package, of the extent to which different morphosyntactic contexts are used across varieties of English, and it will also result in a set of countability classes of nouns for each variety of English, thereby allowing a complete typology of countability systems across varieties of English to be created. This typology will allow for several research hypotheses to be tested, such as those about the relationship between syntax and semantics (Erbach, 2020), those about the relationship between geography and morphosyntax (Kortmann, 2013), and those about language contact.

The third work package follows the third research question, and aims to get a closer look at the semantics of count and mass syntax, as well as the nouns themselves across varieties of English. For example, as noted above, previous corpus studies and preliminary work have already revealed that certain nouns that are generally not used with plural morphology (e.g. *equipment*) seem to be in some varieties of English (e.g. Ghanaian, Tanzanian). the goal of this work package is to attempt to uncover what differences in the meaning might exist between standard English and the divergent patterns seen in the corpus studies. In the case that an explanation for such phenomena cannot be derived from corpus data alone, this research package would seek speakers of the respective varieties to collaborate with, for example by discussing contexts in which such forms are used, and possibly designing questionnaires to aggregate additional data. This work package will provide further detail to the typology of English countability systems developed in the first two work packages, and provide information to test and develop semantic theories of countability.

The fourth and final work package of this research project would be to examine the extent to which there is a relationship between the way a variety of English's count–mass distinction has changed and the other languages that are spoken in the local context. Continuing to use Ghanaian English as an example, this work package would involve consulting grammars of local languages such as Dagaare, Ewe, Ga, etc. to see if any characteristics of these language's nominal systems such as use of number marking, determiners, etc. parallel the sort of characteristics seen in the local variety of English. Admittedly, this is the least developed and most speculative of the research packages, primarily because it involves a great deal of work that is not currently an area in which I have expertise, namely in language change, language contact, and outer and expanding circle Englishes more broadly. Along side the progress of the first three work packages, my goal is to read through research on these topics to develop the necessary expertise to refine these research questions and goals, and to develop more fully into a functional linguist with expertise on the aforementioned topics.

By collecting and analyzing the data in the aforementioned manner, this project will provide an account of countability across varieties of English, thereby providing an understanding of the way English's primary grammatical distinction in the nominal domain functions more broadly. The ultimate goal of this project is to publish a book on countability across varieties of English, and I would also aim to publish papers along the way, when findings are novel and substantial enough to warrant publication in high tier journals. Ideally, this book would serve as a Habilitation project, so I might continue an academic career in Germany.

## References

- Acquaviva, P. (2008). *Lexical plurals: A morphosemantic approach*, volume 19. Oxford University Press.
- Allan, K. (1980). Nouns and countability. *Language*, 45(3):541–567.
- Baker, C. L. (1978). *Introduction to Generative-Transformational Syntax*. Prentice-Hall.
- Barner, D. and Snedeker, J. (2005). Quantity judgments and individuation: Evidence that mass nouns count. *Cognition*, 97(1):41–66.
- Carter, R. and McCarthy, M. (2007). *Cambridge grammar of English*. Cambridge University Press.
- Chierchia, G. (1998). Plurality of Mass Nouns and the Notion of “Semantic Parameter”. In Rothstein, S., editor, *Events and Grammar: Studies in Linguistics and Philosophy Vol. 7*, pages 53–103. Kluwer.
- Chierchia, G. (2010). Mass nouns, vagueness and semantic variation. *Synthese*, 174(1):99–149.
- Erbach, K. (2019). A unified analysis of plural nouns in Greek. In Espinal, M. T., Castroviejo, E., Leonetti, M., McNally, L., and Real-Puigdollers, C., editors, *Proceedings of Sinn und Bedeutung 23*, volume 1, pages 415–433. Universitat Autònoma de Barcelona, Bellaterra (Cerdanyola del Vallès).
- Erbach, K. (2020). Predicting object mass nouns across languages. In *Proceedings of the Linguistic Society of America*, volume 5.1, pages 228–241.
- Erbach, K. (2021). *Object Mass Nouns: A Frame Based Analysis*. Phd thesis.
- Erbach, K., Filip, H., and Sutton, P. R. (2019). Bare nouns and the Hungarian mass/count distinction. In *Logic, Language, and Computation: 12th International Tbilisi Symposium on Logic, Language, and Computation, TbiLLC 2017, Lagodekhi, Georgia, September 18-22, 2017, Revised Selected Papers*. Springer.
- Erbach, K. and Kheder, D. (2021). Countability in Sorani Kurdish. Submitted.
- Erbach, K., Sutton, P. R., Filip, H., and Byrdeck, K. (2017). Object mass nouns in Japanese. In Cremers, A., van Gessel, T., and Roelofsen, F., editors, *Proceedings of the 21st Amsterdam Colloquium*, pages 235–244. Institute for Logic, Language, and Computation at the University of Amsterdam.
- Erbach, K., Sutton, P. R., Filip, H., and Byrdeck, K. (2021). *Object Mass Nouns as Arbiter for the Mass/Count Category*, pages 1–19. Cambridge University Press.
- Grimm, S. and Wahlang, A. (2021). *Determining Countability Classes*. Cambridge University Press.
- Hall, C. J., Schmidtke, D., and Vickers, J. (2013). Countability in world englishes. *World Englishes*, 32(1):1–22.
- Huber, M. and Dako, K. (2004). *Ghanaian English: morphology and syntax*, volume 2, pages 854–865. Mouton de Gruyter.
- Jespersen, O. (1909). *A modern English Grammar on Historical Principles*. Allen and Unwin.
- Kortmann, B. (2013). *How powerful is geography as an explanatory factor in morphosyntactic variation? Areal features in the Anglophone world*, pages 165–194. De Gruyter.
- Kortmann, B., Lunkenheimer, K., and Ehret, K., editors (2020). *eWAVE*.
- Meierkord, C. (2004). Syntactic variation in interactions across international englishes. *English world-wide*, 25(1):109–132.
- Millward, C. M. and Hayes, M. (2012). *A Biography of the English Language*. Cengage Learning.
- Mohr, S. (2016). From Accra to Nairobi—The use of pluralized mass nouns in East and West African postcolonial englishes. *Aspects of (post) colonial linguistics*, pages 157–187.

- Mohr, S. (2017). Plural nouns in Tswana English. *World Englishes*, 36(4):705–725.
- Quirk, R., Greenbaum, S., Leech, G., and Svartvik, J. (1985). *A comprehensive grammar of the English language*. Longman.
- Rothstein, S. (2010). Counting and the mass/count distinction. *Journal of Semantics*, 27(3):343–397.
- Sauerland, U. (2003). A new semantics for number. In *Semantics and Linguistic Theory*, volume 13, pages 258–275.
- Schmidtke, D. and Kuperman, V. (2017). Mass counts in world englishes: A corpus linguistic study of noun countability in non-native varieties of english. *Corpus Linguistics and Linguistic Theory*, 13(1):135–164.
- Schmied, J. (2004). *East African English (Kenya, Uganda, Tanzania): morphology and syntax*, volume 2, pages 929–947. Mouton de Gruyter.
- Sudo, Y. (2016). The semantic role of classifiers in Japanese. *Baltic International Yearbook of Cognition, Logic and Communication*, 11(1):1–15.
- Sutton, P. R. and Filip, H. (2016). Counting in context: Count/mass variation and restrictions on coercion in collective artifact nouns. *Semantics and Linguistic Theory*, 26(0):350–370.
- Sutton, P. R. and Filip, H. (2018). Restrictions on subkind coercion in object mass nouns. In Truswell, R., Cummins, C., Heycock, C., Rabern, B., and Rohde, H., editors, *Proceedings of Sinn und Bedeutung 21*, pages 1195–1213. University of Edinburgh.
- Trudgill, P. (1986). *Dialects in Contact*. Blackwell.