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KURT ERBACH – REMUS GERGEL

## Testing dialects with simulations: The status of pseudo-partitives in US English

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### ABSTRACT

This paper presents experimental evidence of direct pseudo-partitives being preferred with measure readings rather than container readings. While direct pseudo-partitives (e.g. *two cups water*) have been called register specific (i.e. cooking contexts), recent evidence has shown that they not only occur more broadly albeit relatively infrequently when compared to indirect pseudo-partitives (e.g. *two cups of water*), but also that they do not seem to occur with container readings (i.e. two distinct cups, each containing water), as opposed to measure readings (i.e. water to the amount of two cups), or being ambiguous. The results of the present experiment are such that participants rate direct pseudo-partitives with nonce quantity words (e.g. *two dakes water*) as more natural in sentences with measure readings than when in sentences with container readings. This evidence is taken to support theories of pseudo-partitive syntax in which measure and container readings are derived, not only with different semantics, but different syntax as well, rather than theories which argue for different semantics but relatively uniform syntax across measure and container readings. Moreover, this data suggests that, while direct pseudo-partitives are most commonly found in cooking contexts in US English they are not-necessarily a register-specific form, given the measure reading is demonstrably preferable to the container reading even in non-cooking contexts.

### KEYWORDS

pseudo-partitives; language simulation; syntax-semantics interface

## 1. Introduction

The goal of this paper is twofold. The first goal is to contribute to a rather long-standing puzzle of comparative syntax and its interface with semantics with regards to pseudo-partitives across Germanic (see Erbach 2024 for an overview). The question related to this goal is: Does English have a categorical and indeed unusual ban (within Germanic) on direct pseudo-partitives (*glass* <sup>??</sup>(*of*) *water*)? As we will show, building on a recent corpus study summarized below, the answer is considerably more complex than the affirmative answer often given in previous research, and in fact, negative. The second aimed contribution of our paper is methodological: We will show that experimental work can (and sometimes must) be conducted also below the threshold of mainstream grammaticality judgments when one is interested in certain ‘disadvantaged’ phenomena, English pseudo-partitives being a case in point, as we will elaborate. In this respect, we follow a recent strand of experimental work to simulate diachrony, which includes testing artificial languages (cf. Altenhof – Roberts 2023; among others), by specifically using what has been termed the Human Diachronic Simulation Paradigm (HUD-SPA, e.g. Gergel 2020: 13) for cases of natural language change. The method follows, in spirit, other situations of difficult data extraction (cf. Gleitman et al.’s 2005, Human Simulation Paradigm with different tools but similar general ideas for language acquisition). The idea applied to language change is that speakers of a related but not identical variety as the one obscured and under investigation can still produce discriminating judgments, when their grammars have certain key ingredients that would lead to the change in the targeted variety. While such speakers may seem to be clueless proxies at first sight (having no ‘hard’ grammatical intuitions), their grammars are on closer inspection often informative about data points that corpora could not fully reveal. This kind of reasoning has been applied so far to the replication of actuated changes that took place a long time ago (e.g. Gergel et al. 2021) and hypothetical changes to illuminate more general semantic trajectories (e.g. Gergel et al. 2023). In the study to be discussed ahead, we will look at a possible situation of language change in progress.

Recent research by Erbach – Gergel (2025) has aimed to settle a disagreement that exists across research on pseudo-partitives in English, namely that there are differing claims regarding the status of direct pseudo-partitives like *glass water* in (1a)<sup>1</sup>. Some have said that there are no direct

1 All examples are from COCA unless otherwise specified.

partitives in English, rather than only indirect pseudo-partitives like *glass of water* (1b) are used (e.g. Van Riemsdijk 1998: 18), others have said English has direct pseudo-partitives (e.g. Jackendoff 1977: 138), and others still note that the use of direct pseudo-partitives is relegated to fixed expressions (Selkirk 1977: 24) or generally quite limited compared to indirect pseudo-partitives (e.g. Koptjevskaja-Tamm 2001: 550).

- (1) a. He always came in and asked for a glass water.  
b. Eric stepped into the kitchen for a glass of water.

Erbach – Gergel (2025) show that 33% of the pseudo-partitives they analyzed from the Corpus of Contemporary American English (Davies 2008) are direct pseudo-partitives, though 74.6% of these occur in cooking contexts (recipes, ingredient lists, etc.), suggesting that at least US English has direct pseudo-partitives, and that the vast majority are limited to cooking contexts. Moreover, the direct pseudo-partitives they analyzed were either measure readings or ambiguous between such a reading and a container reading, but none analyzed were found to clearly be container readings. These two readings have been distinguished in various ways including subject-verb agreement and predicates that are compatible with one but not the other. In (2a) *cup* is assumed to denote a measure rather than an actual cup given it is an argument of *mix*, which is unlikely to denote the mixing of a cup (the object, which also contains water) with the split gram and whole spices. In (2b), *glass* is assumed to denote an actual glass rather than a measure given it is an argument of *grip*, which is unlikely to denote the gripping of milk to the measure of one glassful. Another test includes swapping *of* with a more ‘contentful’ preposition like *with*, which is marked in measure readings but acceptable in container readings (van Riemsdijk 1998: 16; Vos 1999: xii)<sup>2</sup>.

- (2) a. Mix the split gram, whole spices, a cup of water and salt to taste.  
b. she gripped her glass of milk and forced herself to turn back towards her son.

Measure and container readings have been analyzed in various ways too, with recent analyses often assuming that the difference is rooted in the denotation of the first noun as either a measure function or an object

2 We thank an anonymous reviewer for reminding us of this test.

(i.e. a container) and where *of* is assumed to be a functional particle rather than a preposition that specifies a relation (Borer 2005; Rothstein 2009; Grestenberger 2015; among others). This stands in contrast to earlier analyses like Selkirk (1977) who assumed that *of* was prepositional rather than functional in container constructions, but vice versa in measure constructions.

With all of this background considered, Erbach – Gergel (forthcoming) argue that a Selkirk (1977) style analysis of pseudo-partitives accounts for the distribution of data: direct pseudo-partitives occur when the functional particle *of* is dropped from measure structures, and that direct pseudo-partitives are unlikely to result from container structures wherein *of* carries semantic content.

The present paper reports an experiment designed to test the idea that direct pseudo-partitives are unlikely to be acceptable when they have container readings because *of* carries semantic content in container structures. Ultimately, the results of the experiment suggest that there is a marked difference between container and measure readings across direct and indirect pseudo-partitives. The rest of the paper is structured as follows: Section 2 provides further background on the distinction between direct and indirect pseudo-partitives and measure and container readings thereof. Section 3 details the design, results, and statistical analysis of the experiment testing whether measure readings are more acceptable as direct pseudo-partitives than container readings are. Section 4 provides a discussion of the results and Section 5 concludes.

## 2. Background

Selkirk (1977) first distinguished pseudo-partitives from partitives on the basis that, not only do pseudo-partitives not contain definite second nouns while partitives typically do (3), but partitives cannot be extraposed while pseudo-partitives can (4).

- (3) a. five pounds of { the / those / her } apples (partitive)  
 b. \*five pounds of { some / all / no /  $\emptyset$  } apples  
 c. five pounds apples > five pounds of apples (pseudo-partitive)  
 (Selkirk 1977: 303)
- (4) a. A lot of { the /  $\emptyset$  } leftover turkey has been eaten.  
 b. A lot has been eaten of { the / \* $\emptyset$  } leftover turkey. (Selkirk 1977: 304)

Another argument from Selkirk (1977) is that *of* cannot be absent from partitives but it can be from pseudo-partitives. Her supporting examples include that *of* cannot occur with the measure phrase *dozen* (5a), is optional with *couple* (5b), and likewise are seen omitted in recipes (5c).

- (5) a. She bought him a dozen ( \*of ) daffodils.  
 b. Can I borrow a couple ( of ) sheets of paper.  
 c. A pound cake is one pound butter, one pound sugar, one pound eggs and one pound flour. (Selkirk 1977: 308)

Selkirk (1977) further argues that a similar structural difference underlies the difference between container readings and measure readings of pseudo-partitives as seen with the predicate selection in (2). She analyzes the difference between these two types of constructions as in (6) where the first noun is the head of a container NP which takes a PP complement (6a), while the second noun is the head of a pseudo-partitive, and the first noun, measure phrase, is its adjunct (6b).

- (6) a. [NP [DET] [N' [N] [PP [P] [NP]]]] (container)  
 b. [NP [N' [NP [DET][N' ]][N' [N]]]] (measure)  
 (cf. Selkirk 1977: 313)

While Selkirk (1977) does not go into detail on the semantic status of *of* in measure/portion pseudo-partitives, Jackendoff (1977) argues that *of* is a specified grammatical formative like *Poss* in measure phrases citing its optionality in data parallel to that in (5). Borer (2005: 10, 100) characterizes *of* in measure phrases as a quasi-functional phrasal boundary marker rather than a relational preposition, Stickney (2009) assumes *of* heads a functional node, FP, in pseudo-partitives in general and Grestenberger's (2015: 134) analysis of English pseudo-partitives assumes *of* is an optional functional

projection, FP. Rothstein (2009: 126) assumes *of* is a “dummy” preposition with no semantic value, following Chomsky (1981). In summary, a variety of analyses converge on *of* not being a preposition in measure phrases if not pseudo-partitives in general.

It seems the first corpus study on the syntagmatic structure of English pseudo-partitives is Wood (2020), which looks specifically at direct pseudo-partitives in Middle English. Grestenberger (2015) states that Middle English is when English developed direct pseudo-partitives, given this is when genitive case ceased to occur on measure structures, and the use of *of* had not yet become so ubiquitous. Wood (2020) looks specifically at the use of *pound*, *gallon*, *ton*, *pipe*, *barrel*, *sack*, and *pair* as observed in direct pseudo-partitives in the Oxford English Dictionary, the Middle English Dictionary, and the Helsinki Corpus. Three examples of *pound* N are reported in the statues of the Carpenters Guild, and the others are found in lists and recipes, as is still done in Present Day English. Direct pseudo-partitives with *ton*, *gallon*, *barrel*, and *sack* are likewise found, though in small number compared to indirect ones, and direct pseudo-partitives with *sack* seems to occur primarily in inventory lists. *Pair* stands apart from the other nouns investigated, frequently occurring in direct pseudo-partitives in the sources investigated, including present day uses found in the spoken section of the British National Corpus. Wood (2020) concludes that her investigation did not find evidence to support the claim that direct pseudo-partitives were established in Middle English to any significant extent, and that English direct pseudo-partitives are register specific in all periods of English.

To better understand the nature of pseudo-partitive use in present day English, Erbach – Gergel (2025) conducted a corpus study with the Corpus of Contemporary American English, COCA, (Davies 2008) searching for “NOUN of NOUN” and “NOUN NOUN” co-occurrences in general, and then narrowing down the results for the most frequently occurring pseudo-partitives among them. They found 14 indirect pseudo-partitives in the 1000 most frequently occurring “NOUN of NOUN” co-occurrences, from *cup of coffee* occurring 5348 times to *cup of sugar* occurring 146 times, and they found 4 direct pseudo-partitives in the 1000 most frequently occurring “NOUN NOUN” co-occurrences, from *teaspoon salt* occurring 3276 times to *cup water* occurring 1269 times. Direct forms corresponding to the indirect forms occurring in the respective top 1000 were searched for manually, and vice versa, and the direct forms were inspected for frequency of pseudo-partitives as opposed to other instances where the two nouns occurred together such as in proper

nouns. Altogether, approximately 33% of the pseudo-partitives found were indirect, and upon closer inspection, 25.4% of the direct pseudo-partitives (~8.5% of all the pseudo-partitives) did not occur in cooking contexts like instructions or recipe lists. Erbach – Gergel (2025) propose this data could suggest that direct pseudo-partitives are neither as restricted as assumed by some, nor as freely occurring as might be understood from others.

Erbach – Gergel (2025) also tested the assumption that *of* is an optional or functional particle in pseudo-partitives and that container readings have their basis in noun-complement structures which contrast with measure readings that have their basis in pseudo-partitive structures. This test consisted of annotating ten examples of every collocate (ten of *cup tea*, ten of *cup of tea*, ten of *pot coffee*, etc.) as being measure readings, container readings, ambiguous between measure and container readings, occurrences in lists, and other kinds of occurrences (e.g. proper nouns). The key finding from this annotation was that none of the direct pseudo-partitives were found to have container readings compared to 10.59% of the indirect pseudo-partitives. Erbach – Gergel (2025) propose that this result can be accounted for with a Selkirk-like analysis in which measure readings are pseudo-partitives and container readings have a structure in which *of* is syntactically a preposition as opposed to an optional functional particle. In container readings, *of* is assumed to be a relation that takes two nouns and specifies that their referents are a mereological sum containing nothing else, each denoted container has its own contents, and all of the contents are contained (cf. Sutton – Filip 2021).

Building on Grestenberger (2015), they propose the structures in (7) to capture the syntactic differences between the two readings, where  $\varphi$ P is the location of  $\varphi$ -features like singular (SG) and plural (PL) number marking, and #P is the location of quantity specifications like cardinalities and measures. In measure reading syntax (7a), *of* is an optional functional particle and the first noun heads #P. In container reading syntax (7b) *of* heads a PP, which is sister to the #P that contains an NP headed by the first noun, In other words, direct pseudo-partitives have measure reading syntax, while indirect pseudo-partitives can have either measure reading or container reading syntax.

(7) a. *measure reading*

$[_{\varphi P} \varphi:PL [_{\#P} two] [_{\#} [_{\#} glasses] [_{(FP)} (of) [_{\varphi P} \varphi:SG [_{NP} water ]]]]]]$

b. *container reading*

$[_{\varphi P} \varphi:PL [_{\#P} [_{\#P} two] [_{NP} glasses ]]] [_{PP} [_P of] [_{\varphi P} \varphi:SG [_{NP} water ]]]]]]$

### 3. Testing the interpretation of pseudo-partitives

#### 3.1 Methods

To test the findings of Erbach – Gergel (2025), we have designed a study to test the acceptability of sentences containing either a direct- or indirect pseudo-partitive with either a measure or container reading. 24 test sentences with indirect pseudo-partitives were taken from COCA, 12 with a measure reading and 12 with a container reading as judged by the authors (8). Direct pseudo-partitive versions of each sentence were also created by simply removing *of* (8), yielding a 2x2 Latin square design the two factors being READING and CATEGORY and the respective levels being CONTAINER VS. MEASURE and DIRECT VS. INDIRECT respectively.

(8) a. *original indirect measure reading*

He washed his breakfast down with two cups of coffee.

b. *original indirect container reading*

My mother put a cup of coffee down on the table for him.

Given research has shown that acceptability judgements of forms correlate with frequency of the forms' occurrence (e.g. Lau et al. 2017), we sought to mitigate these effects by using nonce words in the place of the first noun in the pseudo-partitive constructions (9)–(10). In other words, the idea is that the presence of nonce words would prevent at least some of the bias in acceptability. Participants were told that the sentences they will be analyzing contain certain non-mainstream characteristics of English so they might see words or word-orders they're not used to seeing. In other words, this study simulates dialectal differences by using nonce words in place of dialect-specific items that speakers might not be familiar with, but might nevertheless be able to make sense out of given the co-text of use (cf. Gergel et al. 2021; 2023).

- (9) a. *nonce indirect measure reading*  
He washed his breakfast down with two dakes of coffee.
- b. *original indirect container reading*  
My mother put a dake of coffee down on the table for him.
- (10) a. *nonce direct measure reading*  
He washed his breakfast down with two dakes coffee.
- b. *original direct container reading*  
My mother put a dake coffee down on the table for him.

The items were tested within subjects, so every participant judged sentences in every condition, though only one version (direct or indirect) of a given sentence—i.e. participants were split into two groups. Both groups of participants also judged the same set of 32 filler sentences designed to have varying degrees of acceptability and each with a nonce word under negation (11), the idea being that these nouns, like the pseudo-partitives having different readings available, can be read as either a negated NP or negative concord. The fillers clearly contribute to the non-mainstream flavor of the simulated linguistic environment and at the same time they naturally have no direct connection to the phenomena we studied. We have chosen them deliberately though and will return to the independent insight that they can offer after presenting the results of our actual study.

- (11) a. *subject concord*  
No lindo didn't get watched, so the theater made no money.
- b. *adjunct concord*  
Bob didn't watch on no faish; he saw it in a theater.
- c. *direct object concord*  
Max didn't watch no lindo; she was reading all night.
- d. *conditional concord*  
If Carrie watched no lindo, she'd summarize it for us.

Participants judged each sentence with a sliding scale with “completely incomprehensible” on the left and “completely comprehensible” on the right. The underlying scale ranged from 0 to 1000, though participants did not see the numerical values, and the slider first appeared in the middle. 40 native monolingual speakers of English born and living in the United States were recruited as participants via Prolific.com and paid at a rate of

approximately 10.50€ per hour for their work. No training examples were given, and participation could have been stopped at any time with no penalty or compensation for the time spent working.

The planned analysis for the results makes use of a linear mixed effects model via the `lme4` package (Bates et al. 2015) in R (R Core Team 2015). Assuming participant responses are dependent on both `READING` and `CATEGORY`, the model in (12a) was planned to be used and compared to the null model in (12b), where it is assumed that there is an effect on response by both `READING` and `CATEGORY`, but not the two don't interact. The random effects are kept maximal (Barr et al. 2013). If there is indeed an interaction between `READING` and `CATEGORY`—i.e. that `CATEGORY` has an effect on response that is modulated through `READING`—then we would expect that  $p < 0.05$  for an analysis of variance between the two models.

(12) a. *linear model*

response ~ reading\*directness + (1+ reading\*directness | participant) + (1+ reading\*directness | length) + (1 | item)

b. *null model*

response ~ reading+directness + (1+reading+directness | participant) + (1+reading+directness | length) + (1 | item)

This experiment was preregistered on OSF and is available at <https://osf.io/euw84/>.

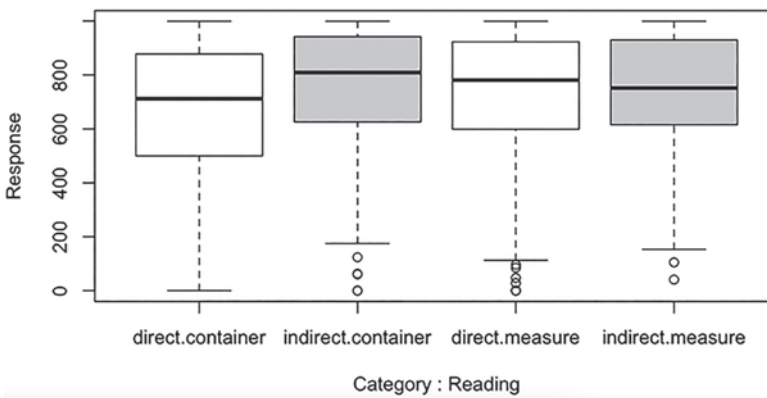
### 3.2 Results

The results of the experiment suggest that there is indeed a difference between how direct and indirect pseudo-partitives are judged for comprehensibility with respect to container and measure readings. The results were manually inspected and three participants' responses were removed for rating all sentences as bad ( $\bar{x} < 400$ )—i.e. they clearly did not participate as instructed. The average responses, from the remaining participants, are listed by category and reading in Table 1 and all responses are potted in Figure 1. Indirect pseudo-partitives with container readings were judged the least comprehensible ( $\bar{x}_{\text{direct-container}} = 658$ ) in comparison to all other categories, and direct pseudo-partitives were judged as less comprehensible in general ( $\bar{x}_{\text{direct-measure}} = 717$ ) compared to indirect pseudo-partitives ( $\bar{x}_{\text{indirect-container}} = 754$ ;  $\bar{x}_{\text{indirect-measure}} = 742$ ). Notably, the

difference in average between direct and indirect measure readings is ~25 on the 1000 point ratings scale, while the difference between container and measure direct pseudo-partitives is ~60 on the 1000 point rating scale, and the difference between direct and indirect container readings is ~96. Looking at the box-plots, direct container and direct measure items not only have lower averages but have the lowest first quartile and the largest range. These numbers alone align with assuming a syntactic difference between the readings, where *of* is optional for measure readings. In accounts where *of* is optional/a functional particle for both container and measure readings, it is unclear why there should be a marked difference between the readings.

**Tab. 1.** Average comprehensibility response by category and reading

Category	Reading	Response <sub>x</sub>	sd
direct	container	658.2387	268.3718
indirect	container	754.3604	230.0624
direct	measure	716.9865	257.2238
indirect	measure	741.5180	215.8708



**Fig. 1.** Boxplot of comprehensibility responses by category and reading, where a response of 0 is “totally incomprehensible” and 1000 is “totally comprehensible”

As planned, a linear mixed effects model was constructed to analyze the results and test for interaction between `READING` and `CATEGORY`. Because of

singularity and convergence issues with the planned model, the maximal models possible and used are those in (13).

(13) a. *Linear model*

response ~ reading\*category + (1 | participant) + (1 | item)

b. *null model*

response ~ reading+category + (1 | participant) + (1 | item)

The summary of the linear model is in Table 2. This table shows that there is a significant difference between responses to container-reading sentences with direct pseudo-partitives versus those with indirect pseudo-partitives, namely that the latter are approximately 96.02 points higher on the rating scale (SE = 28.86,  $p < 0.01$ ). There is also a significant difference between responses to direct pseudo-partitive sentences with container readings versus those with measure readings, namely that the latter are approximately 58.64 points higher on the rating scale (SE = 28.86,  $p < 0.05$ ). Finally and unsurprisingly, the additional difference from responses to direct pseudo-partitive sentences with container readings to indirect pseudo-partitive sentences with measure readings beyond the aforementioned differences was not significant (Est. = -71.07, SE = 40.82,  $p = 0.09$ ). These results are in line with the previous findings: direct pseudo-partitives with container readings are marked relative to those with measure readings and indirect pseudo-partitives with container readings.

Surprisingly, the comparison between models was not as expected. Using R's `anova()` function between the models in (13), the interaction between reading and category does not appear to be significant in this experiment ( $\chi^2(1)=2.935$ ,  $p=0.08668$ ), which may be due to the number of observations. Following methods discussed in Brysbaert – Stevens (2018: 6) we calculated the effect size via our mixed effects model, finding a small effect size ( $d = 0.2$ ) and the power (39%), while lower than the preferred 80%, is within the common 30–40% in experimental psychology (Brysbaert – Stevens 2018: 1). In future work, we would therefore increase the number of observations to have a higher-powered experiment. The full analysis and the raw results are available at <https://osf.io/euw84/>.

**Tab. 2.** Summary of linear model of results

Fixed effects	Estimate	SE	df	t	Pr(>  t )
Intercept	658.25	28.58	72.35	23.030	<2e-16
Reading-measure	58.64	28.86	46.38	2.032	0.04793
Category-indirect	96.02	28.86	46.38	3.327	0.00173
Reading-measure: Category-indirect	-71.07	40.82	46.38	-1.741	0.08827
Random effects	Variance			SD	
Participant	2740			52.34	
Item	14817			121.72	
Residual	41769			204.37	

In summary, the results of the experiment are such that there is an interaction between READING and CATEGORY in how they affect the participant response, and that READING affected response, changing it by 58.63 points on the 1000 point scale ( $\pm 22.04$ ). This is in line with the predictions of analyses assuming different syntactic structures given the difference between direct-measure and direct-container readings. Conversely, it is unclear why such results would occur in accounts where *of* is an optional functional particle in both measure and container readings.

### 3.3 The byproduct value of negative-concord fillers to situate the type of change

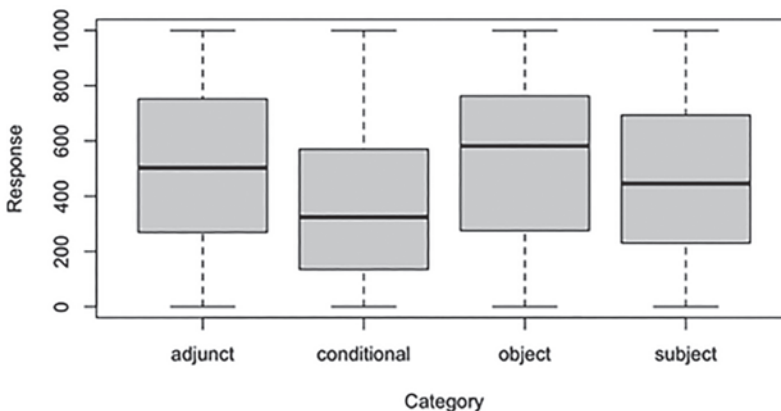
Testing negative concord in subjects, objects, adjuncts, and conditionals was chosen as our experimental filler because, like direct pseudo-partitives, it is characterized as non-mainstream English grammar: Not only is it well-known that negative concord is subject to strong cross-linguistic variation (e.g. Giannakidou – Zeijlstra 2017), English varieties within both the British Isles and in North-America are known to have negative concord, as did earlier stages of the language (cf. Fischer et al. 2000). For instance, it is very uncommon to find negation being licensed as concord in conditionals in

general; and in English varieties, it is also unusual to find negative concord with a negative quantifier in subject position.

Our filler results in fact nicely demonstrate and detail such differences:

**Tab. 3.** Average comprehensibility response of negative concord, by category.

Category	Response <sub><math>\bar{x}</math></sub>
adjunct	535.0439
conditional	376.2568
object	555.5676
subject	478.1588



**Fig. 2.** Boxplot of comprehensibility responses by category; 0 is “totally incomprehensible” and 1000 is “totally comprehensible”

Figure 2 shows that, negative concord in conditionals is largely rejected by participants as “incomprehensible” ( $\bar{x}_{\text{conditional}} = 376$ ), which is in line with the fact that negative concord in conditionals rarely occurs across languages. Negative concord is also seen to be marked in subjects ( $\bar{x}_{\text{subject}} = 478$ ) relative to adjuncts ( $\bar{x}_{\text{subject}} = 535$ ) and objects ( $\bar{x}_{\text{subject}} = 555$ ), which is in line with research on negative concord in English varieties. Admittedly, given the non-standard English focus of this experiment (as seen in the use of nonse words, direct pseudo-partitives, and negative concord), we anticipated higher averages for adjunct and object negative concord, thereby balancing out the design—i.e. conditional and subject negative concord presumably

having low scores and adjunct and object negative concord presumably having high scores. While the results do suggest a difference between certain instances of concord, further work is needed to understand the relative (un)acceptability of these instances of negative concord among US English speakers.

While we will have to leave the study of negative concord judgments per se (recall: obtained from native monolingual speakers of English born and living in the United States without any screening of dialectal background) to another occasion, we wish to draw attention to two important facts that our finding reveals. (i) The fact that negative concord in conditionals is rated so low, as expected, relative to the other conditions corresponds to the fact that negative concord in concord is rare across languages and not present in English varieties. In other words, we have revealed experimental evidence of an independently observed linguistic phenomenon with this experimental design—i.e. dialect simulation. (ii) By experimentally demonstrating an independently observed linguistic phenomenon with dialect simulation, we have revealed the usefulness of this experimental method.

The relatively low judgments of all instances of negative concord, despite the known existence of negative concord in objects and adjuncts in varieties of US English, also offers a point of contrast for our examination of direct pseudo-partitives. In particular, because direct pseudo-partitives receive a much higher rating in measure readings ( $\bar{x}_{\text{direct-measure}} = 716$ ) than the instances of negative concord in objects and adjuncts (Table 3), we have evidence to support the claim from Erbach – Gergel (2025) that direct pseudo-partitives are a relatively mainstream grammatical form in US English. While this judgment may be influenced by stigmatization of negative concord, notice that it was not a blind rejection of concord, but rather a nuanced one, allowing e.g. objects much more readily than subjects (ANOVA of Response ~ Category,  $p = 3.1e-15$ ). What's more, it shows that direct pseudo-partitives can be understood (in participants' intuitions) and actuated as a possible phenomenon of language change in progress.

## 4. Discussion

The results of the experiment might be taken to show that direct container pseudo-partitives are indeed marked relative to direct measure reading pseudo-partitives given the participants judged them to be less compre-

hensible and there is significant difference between the two. In this section we will first discuss the theoretical implications of these results, then some limitations of the study.

These experimental results align with the findings of the corpus study in Erbach – Gergel (2025), wherein direct pseudo-partitives were not found to have container readings, and that direct pseudo-partitives in general were found to occur half as often as indirect pseudo-partitives. As Erbach – Gergel (2025) suggest that their results could be taken as support for assuming different syntactic structures for measure and container readings respectively (7), so too could the results of the study on the assumption that the markedness of direct container pseudo-partitives is due to the fact that they are ungrammatical and infelicitous; they do not have the preposition required to specify the relation between the container and the contained.

While the results fit the previous work, the distribution of responses do not appear as different in Figure 1 as might be otherwise expected. In particular, if direct container pseudo-partitives are fundamentally ungrammatical, we might expect an even lower average for this condition, say, as low as negative concord with conditionals. The results might be due to the nonce words in the dialect-simulation aspect of the experiment—that is, the use of nonce words primed participants to be accommodating in the first place, and therefore give relatively high judgments. Furthermore, the fact that indirect measure and container differed by 10 points while direct measure differed from the average of these by almost 30 points might be taken to suggest that direct measures are somewhat marked as well. This would not be surprising given their frequency in COCA being half that of indirect pseudo-partitives, and acceptability judgements correlate with the frequency of a forms' occurrence (e.g. Lau et al. 2017). An even higher average might have been obtained if nonce words were used in naturally occurring direct measure pseudo-partitives, though this would also bias this category since no naturally occurring direct container pseudo-partitives are known to exist. In short, further studies with improved experiment design might be able to show a larger difference between categories. Alternatively, we could be dealing with a change that is in the process of actuation in non-mainstream varieties of English and the ultimate result requires further advancement of the grammars in the direction of such changes.

## 5. Conclusion

Between Erbach – Gergel (2025) and the present experiment, there seems to be growing evidence for both stable use of direct pseudo-partitives at least in English in the USA as well as distinct syntactic structures that, along with their distinct semantics, give rise to these readings as first suggested by Selkirk (1977). Additionally, this experiment has shown that dialect simulation seems to be a promising direction for testing infrequent forms that might otherwise be dismissed as ungrammatical due to said infrequency. At the same time, as this method continues to be used, refinements might help to be able to produce the sort of results that theoretical assumptions suggest exist.

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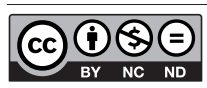
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