

On sharing number: The English kind-construction

Heidi Klockmann (h.e.klockmann@uu.nl)
Utrecht University

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1 Introduction

English kind-words (*kind, type, sort*) appear to adhere to an identity condition, where the number on the kind-word and its accompanying noun (N2) must be identical (see Carlson 1977: 211, Lehrer 1986: 122, Zamparelli 1998).

- | | | |
|-----|--|---------------|
| (1) | This kind of rabbit, this type of car, this sort of rug | <i>sg-sg</i> |
| (2) | These kinds of rabbits, these types of cars, these sorts of rugs | <i>pl-pl</i> |
| (3) | *This kind of rabbits, *this type of cars, *this sort of rugs | <i>*sg-pl</i> |
| (4) | *These kinds of rabbit, *these types of car, *these sorts of rug | <i>*pl-sg</i> |

The basic pattern can be captured under the kind-generalization:

- (5) **Kind-generalization:** The number marking present on the kind-word (*kind, type, sort*) and the N2 must be identical.

The kind-generalization is subject to systematic exceptions (e.g. mass noun N2s (6)), which suggest that it applies only if the kind-word and N2 are both syntactically count nouns.

- (6) Two kinds of sand, these types of coffee, what sorts of food

In this talk, I discuss the morphosyntax of the kind-construction, focusing on the different manifestations of the kind-word and N2. I propose that number is “shared,” in a phenomenon resembling restructuring (Wurmbrand 2001).

Roadmap:

- The interpretation and structure of kind-words
- Turning to count nouns as N2, and the idea of number sharing
- Dealing with the “exceptions”: mass and numberless N2s, indefinite singular N2s, *pluralia tantum* N2s, and numberless kind-words
- Comparison to restructuring

Many examples in this handout were drawn from the Corpus of Contemporary American English (COCA) (Davies 2008-) and are marked in the following way: (COCA: Source Year).

2 The interpretation and structure of a kind-word

2.1 Interpretation

Kind-words create reference to a subkind of what is denoted by the N2 (Zamparelli 1998):

- (7) That kind / type / sort of lion is a ferocious beast.
- Does not generate reference to the KIND *lion*, but rather to a SUBKIND of the KIND *lion*, e.g. “Asiatic lions”, “Transvaal lions”, “Barbary lions”, etc.

Kind-words do this in a syntactic, compositional way, where the kind-word necessitates an expression that refers to a kind.

The **compositionality** can be seen very clearly with mass nouns in Dutch. De Belder (2008) reports the following mass noun paradigm:

- (8) Ik proefde chocolade.
I tasted chocolate
'I tasted chocolate'
- (9) Ik proefde een chocolade / chocolade-s.
I tasted a chocolate / chocolate-PL
'I tasted a certain kind of chocolate / different kinds of chocolate.'
'I tasted a piece of chocolate / pieces of chocolate.'
- (10) Ik proefde een chocola-tje / chocola-tje-s.
I tasted a chocolate-DIM / chocolate-DIM-PL
'I tasted a piece of chocolate / pieces of chocolate.'
'I tasted a certain kind of chocolate / different kinds of chocolate.'
- (de Belder 2008: 117-8, ex. 15-19)

- Mass nouns accompanied by just an indefinite article or plural marker (9) are interpreted as referring to a **kind**, the “kind-reading.”
- Mass nouns accompanied also by a diminutive suffix (10) are interpreted as referring to a **unit**, the “unit-reading” (which might also be considered an object-reading).

If we embed such mass nouns under Dutch *soort* ‘kind’, the result is reference to a kind in a compositional way, e.g. the construction refers to a kind of a kind (12), or a kind of a unit (13):

- (11) Twee soort-en bier
Two kind-PL beer
'Two kinds of beer'
- (12) %Twee soort-en bier-en / wijn-en
Two kind-PL beer-PL / wine-PL
'Two kinds of beer kinds / wine kinds' (accepted by 4/6)
- (13) Twee soort-en bier-tje-s
Two kind-PL beer-DIM-PL
'Two kinds of beers (e.g. bottled Heineken and Grolsch, or small (vaasje) and smaller (fluitje) beers)' (accepted by 6/6)

- Bare mass nouns with *soort* (11) refer to kinds of beer or wine (e.g. beer: lager, amber, stout; wine: white, red)
- Pluralized mass nouns with *soort* (12) refer to a kind of a kind, subtypes of wine types (e.g. there is red wine and white wine, and within those, other types of wines, Moscato, Riesling (white), Merlot, Syrah (red)).
- Pluralized diminutive mass nouns with *soort* (13) refer to a kind of a unit.

Compositionality: We see the compositionality most clearly in the fact that the addition of a kind-word can produce reference to a kind of a kind. The kind-word takes N2 as its input and spits out reference to a subkind, regardless of the reference of the N2 itself (kind or unit).

The ‘kind of a kind’ interpretation also seems to be possible with English kind-words (although it is very subtle), arguing for a similar compositionality in English:

- (14) They sell **two wines** at the store.
= red wine and white wine
- (15) They sell **two kinds of wine** at the store.
= red wine and white wine
- (16) They sell **two kinds of wines** at the store.
= various types of red wine and various types of white wine

Claim: Kind-words contribute to the interpretation in a compositional way. The use of a kind-word syntactically produces reference to the kind-domain.

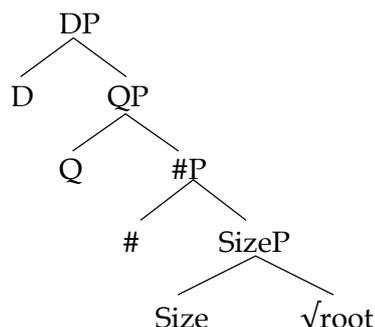
2.2 Structure

2.2.1 The structure of a lexical noun

Approach: I adopt an exoskeletal approach to DP structure (cf. Borer 2005, de Belder 2008, 2011). I assume an English DP allows for minimally the following projections:

- **DP:** definiteness phrase, or determiner phrase (Lyons 1999), the locus of D-material
- **QP:** quantifier phrase, the locus of numerals and quantifiers
- **#P:** number phrase (Ritter 1991, 1992, a.o.), the locus of singularity / plurality
- **SizeP:** size phrase (de Belder 2008, 2011), provides boundedness to the interpretation of the root, necessary for a count interpretation (requires a #P)
- **Root:** the lexical root

- (17) Basic structure of an English DP:



- Note I: Not all projections are always present. For instance, in the absence of quantificational material, QP is predicted to be absent.
- Note II: This is a rough characterization of the nominal domain, and some of these projections may be more complex. See also Gebhardt (2009) and Hachem (2015) on the decomposition of the noun below #P; they develop projections similar to SizeP.

2.2.2 The structure of a kind-word in the kind-construction

The functional structure of a kind-word resembles the functional structure of a lexical noun (ignoring a certain use of kind-words, which we return to later on).

Kind-words allow both singular and plural morphology, motivating SizeP and #P:

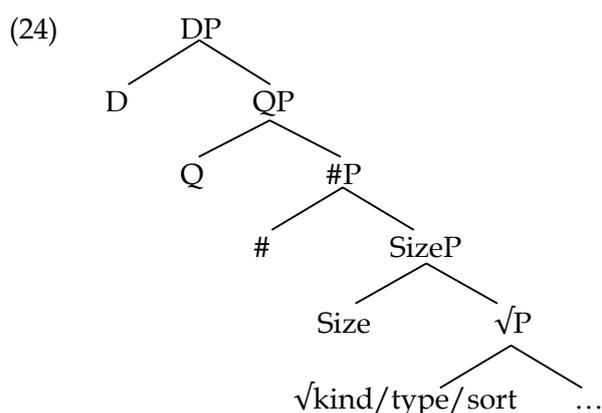
- (18) One **kind / type / sort** of friend
- (19) Two **kinds / types / sorts** of friends

In addition, kind words also combine with numerals (see above), quantifiers, demonstratives, and determiners, motivating QP and DP:

- (20) Those kinds / types / sorts of friends
- (21) Many kinds / types / sorts of apples
- (22) The kinds / types / sorts of mistakes that I often make¹

These can also be combined, motivating a DP > QP > #P > SizeP structure:

- (23) And there's a difference between **those two kinds of doubt**. (COCA: CBS_48Hours 2007)



Claim I: Kind-words project functional structure as lexical nouns do.

¹ The use of a definite determiner in the kind-construction requires the presence of a modifier (i) or relative clause (ii), unless the construction refers to a “totality of subkinds” (iii) (all the subkinds of the kind denoted by the N2, Zamparelli 1998), a phenomenon very similar to what is found with proper names (Larson 1991, e.g. *the Paris that I love*). Zamparelli (1998) treats this as a semantic issue (Kind Anti-anaphora).

- i. I had never paddled in the type of conditions *(I would soon be facing).
- ii. I had never paddled in the *(same) type of conditions (as he experienced).
- iii. There are rough correlations between the kinds of brain injury and the kinds of deficits observed. (Zamparelli 1998: 279, ex. 72)

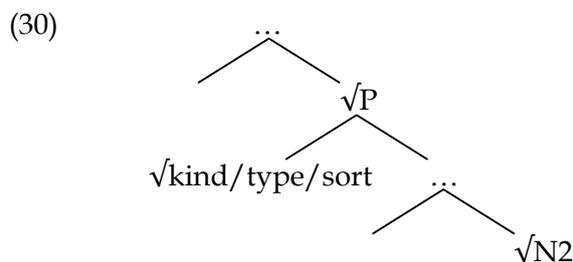
The functional structure of the N2 under the kind-word is relatively minimal. While N2 can express singular / plural morphology, it cannot host quantificational material, nor definite material:

- (25) Quantifiers
 - a. *This { kind/type/sort } of { each / every / some } dog
 - b. *These { kinds/types/sorts } of { some / many / a few } dogs
- (26) Numerals
 - a. *This { kind/type/sort } of one dog
 - b. *These { kinds/types/sorts } of { two / three / a hundred } dogs
- (27) Determiners / demonstratives
 - a. *This { kind/type/sort } of { the/this/that } dog
 - b. *These { kinds/types/sorts } of { the/these/those } dogs
- (28) Pronouns / proper names
 - a. *This { kind/type/sort } of { me/them/her/you/Paris/Maartje }
 - b. *These { kinds/types/sorts } of { me/him/them/us/Paris/Maartje }

The only exception is the indefinite article, which I return to later.

- (29) This { kind/type/sort } of a dog

Claim II: A kind-word takes the N2 as its complement, e.g.:



3 When number-sharing occurs: Count nouns

The kind-generalization (repeated below) assumes there to be consistent number matching effects between kind-words and an N2.

- (31) **Kind-generalization:** The number marking present on the kind-word (*kind*, *type*, *sort*) and the N2 must be identical.

We explore this in relation to count nouns. Systematic exceptions (mass nouns, *pluralia tantum* nouns, indefinite N2s, numberless kind-words) will be dealt with in the following section.

3.1 Data

The basic observation is the following:

- If a kind-word is plural, N2 must be plural; if a kind-word is singular, N2 must be singular.

Numerous examples adhering to this surface in the corpus:

Singular-singular combinations:

- (32) **What kind of idiot** just sits here with that stuff going on? (COCA: FantasySciFi 2012)
- (33) This is sound just like **the kind of story** that will have implications for politics next year (COCA: CNN_Politics 2003)
- (34) The panchas dominated women. Now, **this type of rule** cannot be continued. (COCA: AnthropolQ 2008)
- (35) **Another type of plan** CPI Services could set up would involve assuming a customer's past liabilities to free up funds. (COCA: Inc 1997)
- (36) For years he had purchased **one sort of shirt** and **one sort of necktie** from the store, and it was obvious that he had plenty of both (COCA: Bk:TooSoontoTell 1995)
- (37) But I would have thought we'd get **some sort of letter** from him by now. (COCA: Denver 2003)

Plural-plural combinations:

- (38) Now, I've learned to trust my wife more on **those kinds of calls**. (COCA: ABC_GMA 1997)
- (39) But there are lots of good reasons to eat **both kinds of vegetables**. (COCA: ChildDigest 1998)
- (40) **What types of authors** do you assign in your courses? (COCA: WestHumRev 2015)
- (41) Experts explain that sunburns commonly cause **two types of burns**. (COCA: ChildLife 2004)
- (42) No, we made only **the most erudite and sophisticated sorts of mistakes**. (COCA: Atlantic 2012)
- (43) But remember, real estate investors got **those sorts of returns** a few years ago too. (COCA: WashPost 1993)

The combination of a **singular kind-word with a plural N2** is generally ungrammatical:

- (44) *This kind / type / sort of rabbits

This seems to represent a gap in the paradigm, given that in Dutch or Polish, this combination is acceptable:

- (45) Dit soort konijnen *Dutch*
This.N.SG kind rabbits.C.PL
'(lit.) this kind of rabbits'
- (46) Ten rodzaj królików *Polish*
This.M.SG.NOM kind.M.SG.NOM rabbits.M.PL.GEN
'(lit.) this kind of rabbits'

Singular-requiring pre-modifiers occur extremely infrequently in the COCA, supporting the

intuition that the kind-word cannot be singular in American English if the N2 is plural.

(47) Table 1: Corpus counts for *premodifier kind/type/sort of N_{PL}*

Pre-modifier	Counts (COCA)		
	<i>kind</i>	<i>type</i>	<i>sort</i>
<i>one</i>	6	2	1
<i>every</i>	3	1	0
<i>single</i>	0	0	0
<i>another</i>	2	0	2
<i>each</i>	1	3	0
Total	12	6	3

The combination itself is generally judged to be ungrammatical.

- (48) Singular-requiring pre-modifiers
- *{A (single) / one / every / each / another} kind of things is going to blow up.
 - *{A (single) / one / every / each / another} type of operations is counted for air traffic purposes.
 - *{A (single) / one / every / each / another} sort of monsters lurks down there.

However, a few rare (science-related?) exceptions seem to exist, which I set aside.

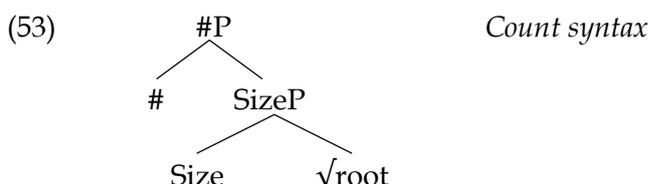
- (49) **One kind of parents** sent their kids to Dr. Lassiter. (COCA: BkSF:DownRabbit Hole 2006)
- (50) Participants' scores of modeling advantage in **each kind of teachers** ranged from 8 to 56. (COCA: Adolescence 2008)
- (51) Don't stop at baking just **one kind of cookies**.
 (www.holidayinsights.com/other/bakecookiesday.htm)
- (52) Birds are a **kind of dinosaurs**. (COCA: CNN_SunMorn 2005)

Let us suppose that if the N2 is a count noun, there is a general requirement that it and the kind-word must have an identical number specification. What does an analysis look like?

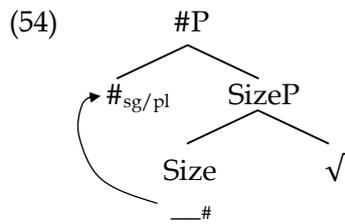
3.2 Analysis

Proposal: When both the N2 and kind-word are count, #P is necessarily shared.

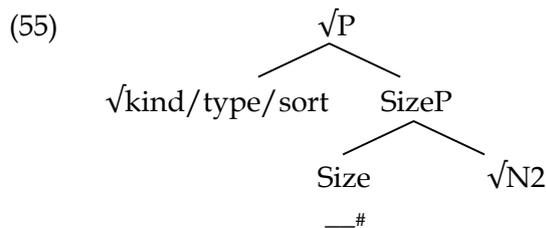
Count noun syntax: I assume a lexical count noun involves minimally #P and SizeP:



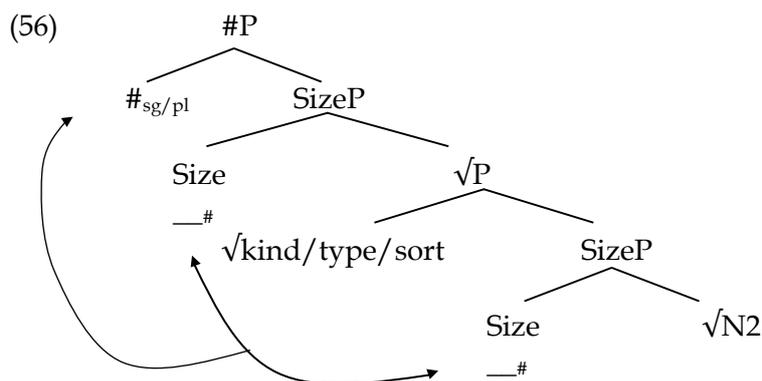
Suppose that in the typical situation, the Size and #-heads Agree (requires Cyclic Agree, see Řezáč 2003 and Bejar and Řezáč 2009). This is related to the dependence of Size on #.



I **propose** that kind-words are Merged into the structure before the N2 projects its own #P, thus, creating a structure like the following:



The kind-word, also being count, projects its own SizeP and #P. The probing mechanism then determines that the two SizePs agree with each and then with the #P of the kind-word:



The Agreement relation ensures that the expression of number on the kind-word and N2 must be identical when both have a count syntax. Number is shared.

4 When number-sharing does not occur: The exceptions

There are four classes of exceptions I deal with here:

- Mass nouns
- Indefinite singular nouns
- *Pluralia tantum* nouns
- Numberless kind-words

4.1 Mass noun N2s

4.1.1 Data

Mass (and abstract) nouns freely occur with singular and plural kind-words.

- (57) Mass nouns with a singular kind-word:
- The next morning we motor out on a very different lake, the water surface devoid even of ripples. It's **the kind of water** that causes havoc for low-flying pilots. (COCA: NaturalHist 2013)
 - And what I like about **this particular type of coffee**, it's - it's an arabica blend. (COCA: CBS_Morning 1999)
 - You know, they had **the same sort of blood and DNA** running through their vocal chords, you know, even though their voices were totally different. (COCA: NPR 2013)
- (58) Abstract nouns with a singular kind-word:
- That's **the kind of love and support** that helps you get over something like this. (COCA: Fox_Election 2008)
 - It's great to see **the type of support** the Comets have generated and to see where women's sports have come from and where they are going. (COCA: Houston 1999)
 - Sergeant Todd, I would think, deserves **the same sort of respect and recognition** that Sergeant Munley has already enjoyed. (COCA: PBS_Newshour 2009)
- (59) Mass nouns with a plural kind-word:
- At Suez, **some silty kinds of sand** adhered to the buckets and were extracted with difficulty. (COCA: October 2003)
 - "They must be trying to make this hospital something else," Mrs. Rodgers thought, "like the modern world with all those **different types of coffee**." (COCA: AntiochRev 2002)
 - What sorts of food** do you eat at home? (COCA:FantasySciFi 2006)
- (60) Abstract nouns with a plural kind-word:
- That year there was **all kinds of talk** about Judy Garland. (COCA: Ebony 2000)
 - Its aim is to make explicit **the types of thinking and reasoning** behind particular skills. (COCA: StudiesInEducation 2014)
 - One generation instructs the next in **the sorts of contempt and violence** that are acceptable and expected (COCA:WashPost 1992)

➤ No number matching effect occurs with mass nouns.

Corpus searches also identified examples which seem to occur with count nouns. These examples are more acceptable to native speakers when a context is included.

- (61) The use of window and whole-house fans can minimize very effectively the heat gain from the sun, lights used in the home, appliances, etc. **Both types of fan** are very inexpensive. (COCA: MotherEarth 1993)
- (62) The facts are that when you look at the 6,000-odd black elected officials in this country - and there are too few of them - there's a disproportionate number of them under **all kinds of investigation**. (COCA: ABC_20/20 1990)
- (63) She weaves two- and three-rod baskets. They are made of willow, both the coil and the wrap. Two-rod baskets use two rods of willow in the coil that are then wrapped in strips of willow. Three-rod baskets use three rods in the coil. If the rods are warped in weaving, the wrapping is the weft that holds it together and provides the pattern. The difference between **the two types of basket** is the tightness of the stitch.

Two-rod baskets use a gap stitch, wrapping completely over the previous coil. A three-rod basket doesn't skip over the previous row, instead weaving between the third rod of the previous row, so it has a tighter weave. (COCA: NewsNativeCA 2010)

I propose that the examples above involve "massifications" of the N2, or rather, a lack of boundedness (e.g. no SizeP). Intuitively, these are similar to the massifications below.

- (64) That's **a lot of house** for a barber. (quote in Homeland, season 5, episode 7, "Oriole")
 (65) That's **too much house** for a barber.

➤ No number matching effect occurs with massified nouns.

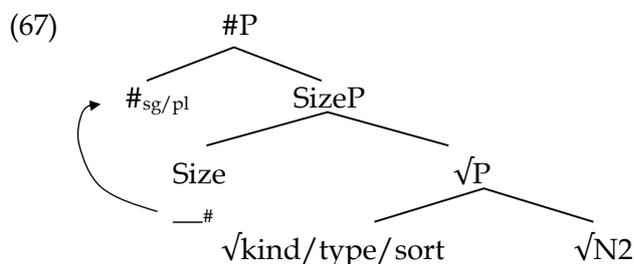
4.1.2 Analysis

Proposal: Mass nouns, abstract nouns, and massified nouns lack both a SizeP and #P. Because no SizeP is present, number cannot be shared.

Mass noun syntax: Following Borer (2005), de Belder (2008, 2011), and many others, I assume that the difference between mass and count nouns lies in the presence/absence of the relevant count-related projections. In the system here, mass nouns lack SizeP and #P:

- (66) $\sqrt{\text{root}}$ *Mass syntax*

Kind-words are Merged directly with the root of the mass noun. Being count, they project their own SizeP and #P.



No number matching effect is predicted for these N2s. Number is not shared.

4.2 Indefinite singular N2s

4.2.1 Data

The use of an indefinite singular on the N2s is less common than a bare N2 (see table 2), but it does occur. The construction with a plural kind-word is almost non-existent.

(68) Table 2: Frequency of bare N2/indefinite N2

	<i>kind(s)</i>	<i>type(s)</i>	<i>sort(s)</i>
<i>this/that</i> __ of N2	20301	6364	5959
<i>this/that</i> __ of a(n) N2	1060	109	102
<i>these/those</i> __ of a(n) N2	1	0	2

Note: Use of preceding demonstrative reduces false positives.

Examples with singular kind-words are given below.

- (69) It's not research, like Dr. Lantos was talking about, but it's a moral experiment for the parents in **this kind of a situation**. (COCA: CNN_King 1990)
 (70) But come in quickly if you hear **any kind of a ruckus**. (COCA: Analog 2001)
 (71) We wish there was no need for **this type of a camp** but the reality is there is a need. (COCA: OrangeCR 2013)
 (72) You're talking about **what type of a tax system** we have (COCA: CNN_Crossfire(1) 1997)
 (73) I don't think there's any evidence that there's **any sort of a bandwagon effect** based on who's ahead (COCA: NPR_Science 2004)
 (74) I would not be eligible for something - for **that sort of a program**. (COCA: NPR_Morning 1998)

Examples with plural kind-words are nearly non-existent, and seem to be ungrammatical:

- (75) a. *These kinds of a rabbit
 b. *These types of a car
 c. *These sorts of a rug

➤ This construction appears to have a number matching effect.

4.2.2 Analysis

Proposal: Indefinite singulars require a #P and SizeP under the kind-word. This predicts no number matching effect to occur. The apparent number matching effect is due to a semantic constraint: mutual exclusivity.

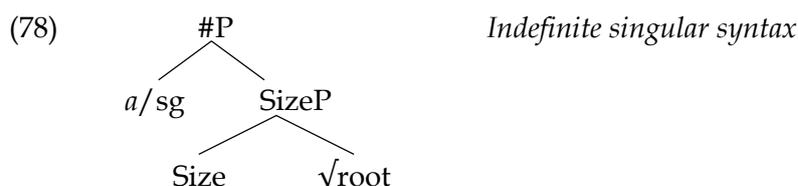
Indefinite singular syntax:

The construction does not allow a definite article on N2, but it does allow for an indefinite.

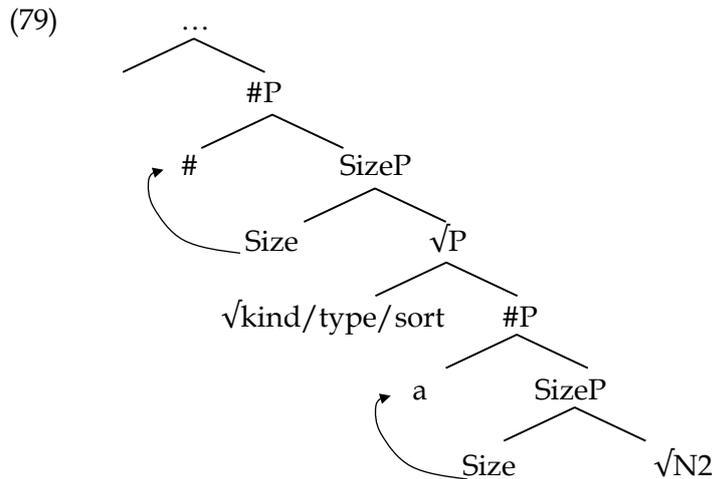
- (76) This kind of a dog
 (77) *This kind of the dog

➤ Indefinite and definite article do not occupy the same syntactic position.

Alternative: The indefinite article originates lower in the structure, possibly in #P (see Lyons 1999, Borer 2005, and Le Bruyn 2010 for similar analyses), and may move up to DP.



Kind-words are Merged with the #P of the N2. Being count, kind-words also project their own SizeP and #P. Two separate agreement relations occur within the independent #Ps.



No number matching effect is predicted to occur, and kind-words should be freely singular or plural with singular indefinites. Number is not shared.

Question: Why does there seem to be a matching effect?

Answer: This follows from **mutual exclusivity**. Carlson (1977: 212-214) observes that a single entity cannot instantiate multiple entities or subkinds:

(80) Two kinds of dogs are in the next room.

- Can only describe a situation in which there are two separate dogs, each of a different kind/breed.
- Cannot describe a situation in which there is a single dog which itself instantiates 2+ subkinds, e.g. Fido as a watchdog and a Collie.

Mutual exclusivity, for instance, implies that Fords are cars that do not run right.

(81) There are two kinds of cars in the world: cars that run right, and Fords (Carlson 1977: 213)

Why is (82) ungrammatical?

(82) *These kinds of a dog

- The use of a singular N2 implies we are dealing with a **single entity**. By **mutual exclusivity**, that singular entity cannot be divvied up into subkinds, as required by the plurality on *kinds*. This creates a contradiction.

Notice, however, that with sufficient context to prevent a violation of mutual exclusivity, plurality is in fact allowed on a kind-word. The syntax predicts this to be possible.

(83) I was interested in portraying that a sexual life for a woman isn't necessarily compartmentalized; it flows in and out of **the other kinds of a woman** that she is -- a worker, a lover, a mother, a daughter, a friend -- all those dimensions are woven into one another. (COCA: America 1994)

4.3 Pluralia tantum N2s

4.3.1 Data

Preliminary: Examples with *pluralia tantum* nouns suggest that both a singular and a plural kind-word is possible:

- (84) So, I spent an hour trying on **all the different kinds of jeans** - button fly, zipper fly - that were available - stone-washed, distressed. (COCA: NPR_ATC 2011)
- (85) Ten years ago we were focused on **what types of jeans** people wanted. (COCA: USAToday 2004)
- (86) When thinking quiets down and sensory input is at a minimum, **very different sorts of feelings** can arise, some of which are extraordinarily unlike normal waking consciousness. (COCA: Humanist 2002)
- (87) It's something to be said for that kind of -- that kind of courage, that kind of strength and **that kind of guts**. (COCA: Fox_Susteren 2010)
- (88) Is part of this you kind of blame that kind of activity, **that kind of feelings...** (COCA: ABC_Nightline 2008)
- (89) People are always surprised to find out that -- that that kind of quality and **that type of goods** are made in southern Louisiana. (COCA: CBS_SunMorn 1995)

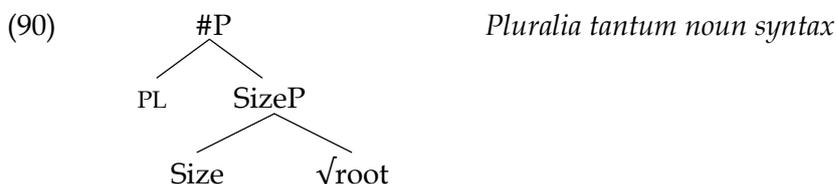
- No number matching effect occurs with *pluralia tantum* nouns.

4.3.2 Analysis

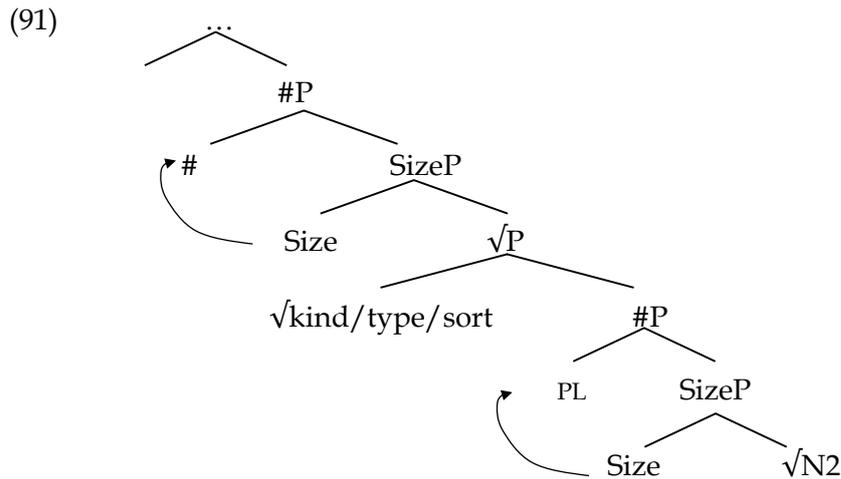
Proposal: *Pluralia tantum* nouns are “semi-lexical”: they require the projection of a plural #P. Both SizeP and #P are projected under the kind-word, hence the lack of a matching effect.

***Pluralia tantum* noun syntax**:

- *Pluralia tantum* nouns are inherently plural (see Borer 2005: 206, Acquaviva 2008: 5, Kramer 2009: 173, fn. 5, Alexiadou 2011, and Smith 2015).
- I propose that this implies they are lexically specified to project a plural #P (= their semi-lexicality), and they do so as soon as possible in the syntax.



When a kind-word Merges with a *pluralia tantum* noun, it can only Merge above the #P. As with indefinite singular nouns, the presence of two #Ps ensures that there is no interaction between them, and hence no number matching effect. Number is not shared.



No number matching effect is predicted for these kind-words.

4.4 Numberless kind-words

4.4.1 Data

In certain cases, we seem to find a singular kind-word with a plural N2. Such examples are found with plural demonstratives, definite determiners, and wh-words:

- (92) ...they're accessible to people in a way that **these kind of images** never were. (COCA: PBS_NewsHour 2012)
- (93) Studies have shown that **these type of stressors** are directly associated with illicit drug use. (COCA: DrugIssues 2007)
- (94) And I think there's a real mean-spiritedness in him, in which **these sort of remarks** come out. (COCA: NPR_Weekend 1995)
- (95) Well, **the kind of fires** that I'm photographing are quite different than what you're seeing in California. (COCA: NPR_Sunday 2003)
- (96) They were **the sort of women** who remained little girls around their mothers. (COCA: VirginiaQRev 2013)
- (97) And I had never paddled in **the type of conditions** I would soon be facing. (COCA: PopMech 2015)
- (98) And who knows **what kind of things** are going to blow up. (COCA: CBS 2015)
- (99) So, **what sort of monsters** lurk down here? (COCA: FantasySciFi 2014)
- (100) There also seems to be a misunderstanding of **what type of operations** are counted for air traffic purposes. (COCA: Chicago 1997)

Zamparelli (1998) identifies similar patterns in the British National Corpus (BNC) for the kind-word *kind*. Zamparelli's (1998: 292) BNC counts are repeated below, as compared to COCA. Notice that the use of a singular-requiring pre-modifier is much less frequent.

(101) Table 3: Counts of phrases pre-modifier kind/type/sort of N_{PL}

Pre-modifier	Counts <i>kind</i> (BNC, Zamparelli 1998)	Counts (COCA)		
		<i>kind</i>	<i>type</i>	<i>sort</i>
<i>what</i>	116	2137	156	305
<i>the</i>	526	2737	651	566
<i>these / those</i>	45	1248	270	195
<i>this / that</i>	6	266	55	62
Others	106	–	–	–
Total	799	6388	1132	1128

- This suggests that a mismatch is permitted if (a) the demonstrative is plural or (b) the pre-modifier is number-ambiguous.

In this construction, verbal agreement targets the N2 rather than the kind-word:

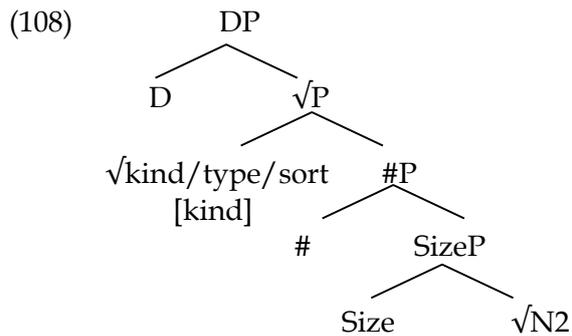
- (102) ...they're accessible to people in a way that **these kind of images** never **were/*was**. (COCA: PBS_NewsHour 2012)
- (103) Well, **the kind of fires** that I'm photographing **are/*is** quite different than what you're seeing in California. (COCA: NPR_Sunday 2003)
- (104) But the truth is **those type of novelties are/*is** far overrated. (COCA: LiteraryRev 2006)
- (105) There also seems to be a misunderstanding of **what type of operations are/*is** counted for air traffic purposes. (COCA: Chicago 1997)
- (106) So, **what sort of monsters lurk(*s)** down here? (COCA: FantasySciFi 2014)
- (107) And **some sort of congratulations are/*is** in order. (COCA: Analog 2002)

- The kind-word is inert for number agreement and number processes.

4.4.2 Analysis

Proposal: The kind-word is numberless. Being numberless, it cannot control demonstrative or verbal agreement, and cannot license singular-requiring pre-modifiers.

The syntax of numberless kind-words: Numberless kind-words lack functional structure of their own. Instead, they surface within the functional structure of the N2. The kind-words are **deficient**.



Because the kind-word lacks its own #P, it cannot generate reference to multiple subkinds:

- (109) These kind/type/sort of people = 1 subkind of people
 ≠ 2+ subkinds of people

Neither can it host numerals or quantifiers:

- (110) *These many/three kind/type/sort of people

- Numberless kind-words are **deficient** in their functional structure, and hence differ from the kind-words with count syntax we have considered above.
- Lacking functional structure, they are incapable of inducing any number matching effects. No number sharing occurs.

5 Restructuring in the nominal domain

Proposal: The phenomenon shown here may be a case of restructuring in the nominal domain, comparable to restructuring in the verbal domain.

- Wurmbrand (2001, 2014, 2015) takes restructuring to involve a configuration in which the functional structure of the lower verb in a bi-verbal construction does not project to a full CP, but up to a VP, *v*P, or TP.
- Differences in the amount of structure are what account for the fact that in a language like Polish, for example, a clitic or scrambled object can surface preceding the main verb when no complementizer is present.

- (111) Jan **ja** postanowił_{V1} (*żeby) przeczytać_{V2}.
 Jan it decided so.that read.INF
 'Jan decided to read it.'

- (112) Jan **książkę** postanowił_{V1} (*żeby) przeczytać_{V2}.
 Jan book decided so.that read.INF
 'Jan decided to read a/the book.' (Wurmbrand 2015: ex. 6d)

- The inclusion of a complementizer (which requires CP) removes this possibility:

- (113) *Jan **je** nalegał_{V1} żeby zostawić_{V2}.
 Jan them insisted so.that leave.INF
 'Jan insisted on leaving them.'

- (114) *Jan **pieniądze** nalegał_{v1} żeby zostawić_{v2}.
Jan money insisted so.that leave.INF
'Jan insisted on leaving the money.' (Wurmbrand 2015: ex. 6a)

- This is related to the amount of structure under the main verb. Under Wurmbrand's account, the verb under the main verb is not a full CP.

Similarity I: In the kind-construction, we similarly see a kind-word combining with N2s which do not project to a full DP. The N2 can be a root, SizeP, or #P.

- In certain cases of restructuring, we see a tense sharing effect:

- (115) Leo tried to tame an elephant (*tomorrow). (Wurmbrand 2015: ex. 4b)

Similarity II: In the kind-construction, we similarly see that a kind-word can share number with the N2.

- Wurmbrand (p.c.) notes that the particle *to* (the infinitival marker in English) appears to combine with verbs of various sizes, suggesting that it is in some way a marker of "verbality."

Similarity III: In the kind-construction, we find the particle *of* between the kind-word and the N2, regardless of the "size" of the N2; roots, SizePs, and #Ps all require a mediating particle *of*. This particle may be a marker of nominality.

Possibly, the kind-construction is an example of restructuring in the nominal domain, and more research can determine to what extent this comparison is valid.

6 Conclusion

There is a number matching effect between kind-words and N2s, though it is highly restricted.

- If the N2 is a singular indefinite or *pluralia tantum* noun, no number matching effect emerges. This follows from the fact that it projects a #P under the kind-word.
- If the N2 is mass or massified, no number matching effect emerges. This follows from the fact that it does not project a SizeP or a #P under the kind-word.
- If the N2 is count (i.e. none of the above), then a number matching effect emerges. The kind-word is Merged in before the N2 projects a #P, and given the configuration, #P is necessarily shared between the kind-word and the N2. This forces number matching.
- If the kind-word is deficient, e.g. numberless, no number matching effect emerges.

This phenomenon resembles restructuring:

- The kind-word combines with N2s of various sizes.
- The kind-word can share number with the N2.
- The particle *of* may function as a marker of nominality, rather than a preposition.

7 References

- Acquaviva, P. (2008). *Lexical Plurals: A Morphosemantic Approach*. Oxford: Oxford University Press.
- Alexiadou, A. (2011). Plural mass nouns and the morphosyntax of number. In M. B. Washburn, K. McKinney-Bock, E. Varis, A. Sawyer, & B. Tomaszewicz (Ed.), *Proceedings of the 28th West Coast Conference on Formal Linguistics* (pp. 33-41). Somerville, MA: Cascadilla Proceedings Project.
- Bejar, S., & Řezáč, M. (2009). Cyclic Agree. *Linguistic Inquiry*, 40, 35-73.
- Borer, H. (2005). *Structuring Sense, Vol I: In Name Only*. Oxford: Oxford University Press.
- Carlson, G. N. (1977). *Reference to Kinds in English*. New York: Garland Publishing Inc.
- Davies, M. (2008-). *The Corpus of Contemporary American English: 450 million words, 1990-present*. Available online at <http://corpus.byu.edu/coca/>.
- de Belder, M. (2008). Size matters: Towards a syntactic decomposition of countability. In N. Abner, & J. Bishop (Ed.), *Proceedings of the 27th West Coast Conference on Formal Linguistics* (pp. 116-122). Somerville, MA: Cascadilla Proceedings Project.
- de Belder, M. (2011). *Roots and Affixes: Eliminating lexical categories from syntax*. PhD Dissertation, Utrecht University.
- Kramer, R. (2009). *Definite Markers, Phi-Features, and Agreement: A Morphosyntactic Investigation of the Amharic DP*. PhD dissertation, University of California, Santa Cruz.
- Larson, R. (1991). The projection of DP (and DegP). In R. Larson (Ed.). Manuscript. Stony Brook.
- le Bruyn, B. (2010). *Indefinite Articles and Beyond*. PhD dissertation, Utrecht University.
- Lehrer, A. (1986). English classifier constructions. *Lingua*, 68, 109-148.
- Lyons, C. (1999). *Definiteness*. Cambridge: Cambridge University Press.
- Řezáč, M. (2003). The fine structure of cyclic agree. *Syntax*, 6, 156-182.
- Ritter, E. (1991). Two functional categories in modern Hebrew noun phrases. In S. Rothstein (Ed.), *Syntax and Semantics vol. 25: Perspectives on phrase structure: Heads and Licensing* (pp. 37 - 60). San Diego: Academic Press.
- Ritter, E. (1992). Cross-linguistic evidence for Number Phrase. *Canadian Journal of Linguistics*, 37, 197 - 218.
- Smith, P. (2015). *Feature Mismatches: Consequences for Syntax, Morphology, and Semantics*. PhD Dissertation, University of Connecticut.
- Wurmbrand, S. (2001). *Infinitives: Restructuring and Clause Structure*. Berlin: Mouton De Gruyter.
- Wurmbrand, S. (2014). Restructuring across the world. In L. Veselovská, & M. Janebová (Ed.), *Complex Visibles Out There: Proceedings of the Olomouc Linguistics Colloquium 2014: Language Use and Linguistic Structure* (pp. 275-294). Olomouc: Palacký University.
- Wurmbrand, S. (2015). Restructuring cross-linguistically. In T. Bui, & D. Özyıldız (Ed.), *Proceedings of the North Eastern Linguistics Society Annual Meeting 45* (pp. 227-240). Amherst, MA: GLSA.
- Zamparelli, R. (1998). A theory of kinds, partitives and of/z possessives. In A. Alexiadou, & C. Wilder (Eds.), *Possessors, Predicates and Movement in the Determiner Phrase* (pp. 259-302). Amsterdam: John Benjamins.