When Count Nouns Are No Longer Count and Body Parts No Longer Designate Body Parts: A View from Cognitive Grammar

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Abstract

One of the dimensions of the process of semantic extension of the noun is the change of the grammatical properties from count to mass and mass to count that can be observed between the primary and extended sense. Although in English such changes are nothing unusual – numerous nouns are both count and mass nouns (e.g. Quirk et al. 1985, 247–248; Huddleston and Pullum 2002, 334–335), the phenomenon is still far from being explored and explained in detail. The paper focuses on two of its dimensions: the formation of such senses and the regularities found among the extended senses of nouns designating body parts. As it turns out, although these nouns are classified in dictionaries as either solely or predominantly count nouns, they possess a whole network of mass senses that designate untypical dimensions of the body. The analysis allows us to specify which dimensions these are, and which of these dimensions are shared by nouns referring to different parts of the body. The linguistic data, 180 utterances produced by native speakers of English, come from the Internet. The analysis is based on the assumptions of Cognitive Grammar (Langacker 2000a, 2000b, 2008, etc.) and such notions as conventionalization, extension, schematization, and encyclopaedic knowledge.

Abstrakt

Niniejszy artykuł poświęcony jest jednemu ze zjawisk towarzyszących ekstensji semantycznej – zmianie właściwości rzeczowników z policzalnej na niepoliczalną, który można zaobserwować pomiędzy znaczeniem podstawowym a rozszerzonym. Chociaż w języku angielskim zmiana taka nie jest niczym niezwykłym – istnieje wiele rzeczowników, które przejawiają obydwie te własności (np. Quirk et al. 1985, 247–248; Huddleston and Pullum 2002, 334–335), samo zjawisko to w dalszym ciągu nie jest opisane i wyjaśnione w sposób wystarczający. Artykuł skupia się na dwóch jego aspektach – powstawaniu takich znaczeń oraz regularnościach występujących wśród rozszerzeń rzeczowników odnoszących się do części ciała. Okazuje się bowiem, iż rzeczowniki te, klasyfikowane w słownikach jako posiadające tylko i wyłącznie, lub w sposób dominujący, znaczenia policzalne, posiadają nie tylko całą sieć znaczeń niepoliczalnych, ale znaczenia te odnoszą się do nietypowych wymiarów ciała. Analiza pozwala wskazać nie tylko które to są wymiary, ale także które wymiary są wspólne dla rozszerzeń rzeczowników odnoszących się do różnych części ciała. Dane językowe pochodzą z internetu – jest to 180 autentycznych wypowiedzi rodzimych użytkowników języka angielskiego. Przeanalizowane zostały one w oparciu o założenia Gramatyki kognitywnej (m. in. Langacker 2000a, 2000b, 2008, etc.) oraz takie z jej pojęć jak poziom konwencjonalizacji, ekstensja, schematyzacja i wiedza encyklopedyczna.

Słowa kluczowe: Gramatyka kognitywna, konwencjonalizacja, policzalność i niepoliczalność, rozszerzenie semantyczne, schematyzacja

Research on count and mass nouns in English has a long tradition (Jespersen 1924; Bloomfield 1933; Gleason 1965; Apresjan 1973; Nunberg 1979; Allan 1980; Ostler & Atkins 1991; Pustejovsky 1991; Copestake & Briscoe 1995; Gillon 1999, etc.). It is also associated with a wide range of issues: the ontological dimension of the classification, the

grammar of countability and uncountability, the semantic and pragmatic dimension of count and mass use, etc. Among them, two constitute the starting point of the present analysis: noun polysemy and the regularities of count-to-mass and mass-to-count extension.

The first of these issues concerns the fact that nouns reveal both count and mass senses. That this phenomenon is pervasive is well known (Huddleston and Pullum 2002, 335; cf. Radden and Dirven 2007, 72–73, etc.). However, we also need to observe the fact that is less commonly acknowledged: that the count and mass senses of such nouns reveal different degrees of conventionalisation. In other words, there are nouns whose double status is unquestionable, and which are often provided as an example of the phenomenon, e.g. *glass*, *iron*, *paper*, *stone*, *diamond*, *hair*, or *wood*.

At the same time, there are nouns whose double status is less commonly recognised. Although they reveal both properties, they are more naturally associated with just one of them, and realising the other property may require a moment of reflection, e.g. *cover*, *duty*, *sausage*, *hate*, *sleep*, *stomach*, or *detail*.[1] Still, despite a less established status of either of these senses, it should be stressed that reputable dictionaries of English, e.g. Longman Dictionary of Contemporary English Online (LD), Macmillan Dictionary Online (MD), and Cambridge Dictionary Online (CD), classify the majority of such nouns as possessing both count and mass senses.

Nevertheless, together with stressing the commonality of nouns with the dual status, Huddleston and Pullum (2002) also draw a borderline for the process of changing the count-to-mass and mass-to-count properties. According to them, there are certain 'limiting cases' – nouns whose senses only possess one grammatical property, e.g. *crockery* and *piece*. And even a cursory look at the adequate dictionary entries confirms the accuracy of this observation – *crockery* is classified as solely mass, and *piece* – solely count. This, in turn, can lead to a tentative conclusion that when the dictionary classifies the given noun as solely count or solely mass, it belongs to that category.

However, research into countability and uncountability reveals one more group of nouns. These are nouns that possess both count and mass senses despite the fact that dictionaries unequivocally classify these nouns as belonging to only one of these categories, e.g. *table* (C), *car* (C), or *flour* (U): "The scrapyard is full of smashed car awaiting recycling", "There's not enough table for everyone to sit at" (Allan 1980, 547), and "This is a good flour for those who are weight conscious" (Drożdż 2017, 163).

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[1] For more examples of this type, see the list of 25 nouns by Huddleston and Pullum (2002, 335).

Although Huddleston and Pullum (2002, 337) would probably dub such senses as somewhat 'contrived', three of their characteristics should be stressed. First, they are basically *not* found in dictionaries. It might be argued that the reason for this is that they are not conventionalized, and thus they have not entered common use. Still, a Google search for the phrase *much car* produces 347,000 hits (1.12.2019), which raises a doubt either about the methodology of arriving at dictionary definitions or the usage-based character of dictionary entries. Second, such uses are in fact far from being rare – every insightful analysis of count and mass nouns mentions such cases. Finally, several scholars have claimed that actually *all* English nouns can appear with count and mass senses (Gleason 1965, 136; Pelletier 1975, 457; Bauer 1983, 227; Wickens 1992, 22; and Langacker 2008: 142). However, no systematic, large-scale method of arriving at such senses has been devised, and no large-scale research has been done. We still do not know how many nouns of this type there are, which dimensions of objects they refer to and, most importantly, whether the claim that "in one way or another, probably every noun can be used in either manner" (Langacker 2008, 142) is plausible.

A method of dealing with these problems and several partial answers to these questions were formulated in Drożdż (2016; 2017). The studies concerned over 65 nouns classified primarily as either count or mass, covered over 1,800 contexts in which they appeared, and determined over 200 new senses of nouns that are contrary to the nouns' basic properties. The present paper is a continuation of that research, although it deals with just one side of the issue: count-to-mass polysemy, and just one domain: body parts. The object of analysis is six nouns that are generally classified by dictionaries as basically count: *shoulder*, *chest*, *leg*, *chin*, *elbow*, and *finger*.

The second key dimension of countability and uncountability discussed in the present paper concerns a correlated issue: the regularities of count-to-mass and mass-to-count extensions. They have been discussed under different names, e.g. regular polysemy (Apresjan 1973), semantic transfer rules (Leech 1981), deferred reference (Nunberg 1979), sense extensions and logical metonymies (Pustejovsky 1991; Copestake and Briscoe 1995), lexical implication rules (Ostler and Atkins 1991), and conceptual metonymy (Radden and Kövecses 1999). Still, so far only over a dozen of them have been formulated (Drożdż 2017, 48–9), six of which can be found in Quirk et al. (1985, 1563–4) and Huddleston and Pullum (2002, 336–7).

As a result, four goals of the paper can be indicated. First, it presents the methodology that enables exploring such untypical senses in a consistent and systematic way.

Second, it indicates which mass dimensions of body parts are important enough to be noticed and named, and thus serve as the basis for mass senses of adequate nouns. Third, it determines which regularities of count-to-mass extension can be found in an analysis of nouns referring to body parts. Finally, because the present analysis continues the research started by Drożdż (2016, 2017), an important aspect of the paper is to provide further support for or reject Langacker's (2008, 142) assumption concerning countability and uncountability of all English nouns.

Thus, the paper is organized as follows: after a brief overview of the major tenets of Cognitive Grammar applied in the analysis, the methodology of the research is presented. What follows is the presentation of the results of the study and a discussion showing the findings both from a micro and macro perspective.

Cognitive Grammar

Cognitive Grammar proposes a very different approach to words and their meanings. First of all, Langacker (2008, 38) notes that there are two crucial parameters of meaning: *entrenchment* and *conventionalisation*. In other words, to be recognized as part of a language a meaning must be entrenched in the minds of individual speakers and must be conventional for members of a speech community. And both of these parameters are inherently matters of degree, which entails that "there is no discrete boundary between senses which have and which lack the status of established units" (Langacker 2008, 38). Actually, Langacker (ibid.) posits a gradation of such units: from novel interpretations, through incipient senses, to established linguistic meanings.

Another notion that needs to be introduced is semantic extension. Here, too, Cognitive Grammar offers a specific approach to it, as

> much of the complexity of the human language is handled in Cognitive Grammar in terms of relations that can exist between units (...): (i) the 'vertical' relation of schema and instance, (ii) the 'horizontal' relation between parts and a whole, and (iii) the relation of similarity. (Taylor 2002, 22)

More specifically, for Langacker (2000b, 4; cf. Langacker 2008, 17–18) semantic extension is a relation between three entities: a sense of a word that served as the basis of extension, which is called a prototype, the extended sense, called an extension, and

the emergent structure that represents the commonalities inherent in the prototype and extension – a schema.

According to Langacker (2008, 18), extension takes place when the specifications of the extension conflict with those of the prototype. In this case, a specific notation is used: [[PROTOTYPE] → [EXTENSION]]. Because we are concerned with count-to-mass extensions, the relationship between the count and mass sense can be described as: $[[N]_C \rightarrow [N]_U]$.

The next notion introduced within Cognitive Grammar is encyclopaedic knowledge. Its main assumption is that "a lexical meaning resides in a particular way of accessing an open-ended body of knowledge pertaining to a certain type of entity" (Langacker 2008, 39). This means that people have extensive knowledge referring to different dimensions of any object. For instance, the concept banana may include a specification for shape, a colour configuration, a location in the domain of taste/smell sensations, as well as the knowledge that bananas are eaten though their peel is not, that they grow in bunches on trees, or that they come from tropical areas (Langacker 1987, 154). And any of these elements can constitute the basis for a different sense of the lexeme *banana*, e.g. "The moon is like a banana tonight" highlights the shape of it (and backgrounds the other elements), while "There isn't much banana left" – the uncountable banana pulp (disregarding, at the same time, e.g. the shape).

To conclude the reference to Cognitive Grammar, we also need to return to the controversial claim formulated by Langacker about count and mass nouns: "in one way or another probably every noun can be used in either count and mass manner" (2008, 142). This claim means that the initial assumption that we should have about any analysed noun is that it can have both count and mass uses, independently of its grammatical classification in dictionaries.

The methodology

Because the goal of the analysis is to find senses that the nouns are not normally expected to possess, mass senses of basically count nouns, the analysis needs to be conducted in a specific manner. First, we formulate a phrase that we are going to use in the Internet browser, and which is unequivocally associated with mass nouns, e.g. *much water*. Then we replace the mass noun with a count noun that we want to analyse, e.g. *shoulder*, which results in a phrase that would normally be judged as incorrect: *much shoulder*.

Because in English compound nouns are common, it is quite likely that such a search will result in numerous expressions where *much* does not refer to *shoulder* but to the second noun in the compound, which is mass, e.g. "much shoulder tension". That is why, in order to improve the search qualitatively, it is advisable to add a preposition, pronoun or a verb after the noun, which results in such phrases as, e.g. *much shoulder for*, *much shoulder he*, or *much shoulder is*.

These expressions are sought in the largest linguistic corpus available today, whose quality is comparable to that of standard corpora – the World Wide Web (e.g. Blair et al. 2002; Hundt et al. 2007; Lindquist 2009). Additionally, in order to avoid possible calques from local languages, every effort must be made to ensure that the utterances are produced by speakers of the 'inner circle' of the World Englishes: British, American, Canadian, and Australian (Kachru 1988; Mesthrie and Bhatt 2008; Wolf and Polzenhagen 2009). If a user is anonymous or their country of origin is not possible to trace, their utterance must not taken into account.

To prove that each of these count nouns possesses also mass senses, a certain number of adequate contexts needs to be found. On the one hand, this number cannot be too small because the mass senses might be considered to be just accidental. On the other hand, it is not necessary to search for too many such cases to make the point, as over a certain number it is clear that such extended senses exist, and it is possible to indicate certain regularities of their extension. Basing on previous analyses of this kind (Drożdż 2016, 2017), it has been established that it is enough to collect 30 contexts for each noun, which in the present case makes 180 contexts in total.

To conclude the methodology of analysis, the criteria behind the choice of the nouns need to be mentioned. The goal was to select body parts that are relatively different, i.e. three of these nouns, *shoulder*, *chest*, and *leg*, can be defined directly against the body domain – they are of considerable size and by themselves constitute unquestionable body parts. The other three, *chin*, *elbow*, and *finger*, are different in this respect. Although they are also body parts, they are so small that the domain against which they are normally defined is *not* the body. Rather, in the case of *chin*, it is the face, in the case of *elbow* it is the arm, and for *finger* – hand. As a result, it might be expected that such differences might also be reflected in the types of extended senses that the nouns develop.

An analysis

At the start, we need to note that the six nouns can be generally characterized as count – among their 19 senses that are ascribed grammatical properties (LD), only three are classified as both count and mass. One of them is a sense of *shoulder*: "a joint of meat from the upper foreleg and shoulder blade of an animal", and two of *leg*: "a leg of an animal or bird as food" and "a part of a garment covering a leg or part of a leg".

The analysis begins with the noun *shoulder*, because it possesses the highest number of extended mass senses. Three of them refer to different dimensions of the shoulder, and thus can be called active zone extensions: 'engagement of the shoulder' (1), 'some extent of the shoulder's surface' (2), and 'size of the shoulder' (3), one is metonymic: 'part of clothing close to the shoulder' (4), and two are metaphorical: 'area beside the road' (5) and 'part of the guitar' (6). These senses can be illustrated by the following contexts:

(1) "I believe this is especially true in shoulder injuries. We really shouldn't be using too **much shoulder** in our shots"[2] (Larcombe 2012).

(2) "Does your favorite spring dress show a little too **much shoulder** for a church service? Look for a short shrug in a coordinating color to add coverage without taking away from the dress" (the website of Best Bib and Tucker).

(3) "Note that the hind legs are straighter than ideal and he seems to have too **much shoulder** for his neck to handle (a typical eventer trait, it seems!)" (Crappy Ammy, comment in *The Chronicle of the Horse*).

(4) "Now, both due to trends and what you like to wear, you likely don't need as **much shoulder** in a jacket and you don't need a very trim or very wide pant" (the website of Mr Sid).

(5) "The road shoulder varied from as wide as in the photo, to not **much shoulder.** In many places we had a separate path again" (Welch 2014).

(6) "The template demonstrates that there is too **much shoulder** and wood must be removed from the areas where the neck touches the template" (Price 2018).

It is interesting to observe certain common features among the people using *shoulder* in these mass senses, because for them these senses seem to be not only natural, but also the most suitable means of expressing a specific thought. And while it is certainly true that some of these senses have a lot to do with specific professions, hobbies, or interests, it is also unquestionable that a significant part of them is a result of focusing one's attention on

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[2] In all the quotations, the original spelling is preserved.

these aspects of reality because, for one reason or another, they have become salient for the speakers.

For instance, people doing certain kinds of sport (e.g. table tennis, volleyball, darts, bodybuilding, or heavy weight lifting) say that either through the wrong technique or through overuse it is possible to inflict an injury to your shoulder. As a result, it is not advisable to use too much shoulder. In a similar fashion, the surface of the shoulder is highlighted by women attending parties and girls going to school or to church, as they either revealed or could reveal too much of their shoulders. As for the size of the shoulder, it is mentioned both in reference to people practising body building, whose shoulders might seem too big, and to horses. The piece of clothing that is close to the shoulder is commented on by all people concerned with the look – fashion advisors, buyers, and people wearing all kinds of clothes. The extent of the shoulder as the side of the road is of importance for drivers and cyclists, and the size of the guitar's shoulder is guitar producers' concern.

Another dimension of the discussed extensions is that from the CG perspective the relationship between the standard of extension and its target can be described at a more abstract level. This means that we can postulate six schemas of semantic extension:

$[[\text{SHOULDER}]_C \rightarrow [\text{ENGAGEMENT OF THE SHOULDER}]_U]$,
$[[\text{SHOULDER}]_C \rightarrow [\text{SOME EXTENT OF THE SHOULDER'S SURFACE}]_U]$,
$[[\text{SHOULDER}]_C \rightarrow [\text{SIZE OF THE SHOULDER}]_U]$,
$[[\text{SHOULDER}]_C \rightarrow [\text{PART OF CLOTHING CLOSE TO THE SHOULDER}]_U]$,
$[[\text{SHOULDER}]_C \rightarrow [\text{AREA BESIDE THE ROAD}]_U]$,
$[[\text{SHOULDER}]_C \rightarrow [\text{PART OF THE GUITAR}]_U]$.

It is worth noting that the majority of the extended senses come from the basic sense of the noun – 'a part of the body'. However, there is one exception – the sense 'area beside the road' comes from a countable sense "an area of ground beside a road" (LG), which is itself an extension of the basic sense.

Finally, we need to mention one more issue related to the extended senses – their frequency of occurrence (Table 1). Out of 30 collected hits, the senses 'area of the road', 'engagement of the shoulder', and 'some extent of the shoulder's surface' are most frequent. Actually, they seem to be frequent enough to be called incipient senses – they not only constitute over two thirds of the collected hits, but also seem to be relatively common among the utterances found on the Internet. At the same time, the remaining three senses seem to appear in single cases only, though if fashion and guitar literature were analysed more closely, a larger number of such uses would undoubtedly be found.

Table 1. The extended senses / uses of *shoulder* and their numbers

Noun	Extended sense / use	Contexts
shoulder	'area of the road'	9
	'engagement of the shoulder'	7
	'some extent of the shoulder's surface'	7
	'size of the shoulder'	3
	'part of clothing close to the shoulder'	3
	'part of the guitar'	1

The next noun to be discussed is *chest*. It has four mass senses, all stemming from the 'part of the body' sense: 'some extent of the chest's surface' (7), 'engagement of the chest' (8–9), 'exercise for chest muscles' (10), and 'size of the chest' (11):

(7) "Supposedly the problem with this suit lies in the cape design. The way it hangs stiffly on his shoulders meant it was literally incapable of lifting the neckline any higher than it did, resulting in way too **much chest** for any respectable Superman" (Truex 2015).

(8) "To ensure that you do not involve too **much chest** in this exercise, do not go down past parallel on the dips bar..." (the website *Sytech.lk*).

(9) "Though she has, of late, been occasionally criticized for singing without heart or with too **much chest** for dramatic effect, she is still known for her supreme confidence onstage" (Wood 1989).

(10) "My dad always advised not to do too **much chest.** In BB there's quite a few chest exercises" (Chelsea at *Jessie's Girls*).

(11) "But I'm not a busty lady. Why was I so interested in darts? Darts aren't just for those blessed by **much chest**" (*Knittingharpy*).

On the basis of such uses, the following schemas of semantic extension can be posited:

$[[\text{CHEST}]_{C} \rightarrow [\text{SOME EXTENT OF THE CHEST'S SURFACE}]_{U}]$,
$[[\text{CHEST}]_{C} \rightarrow [\text{ENGAGEMENT OF THE CHEST}]_{U}]$,
$[[\text{CHEST}]_{C} \rightarrow [\text{EXERCISE FOR CHEST MUSCLES}]_{U}]$,
$[[\text{CHEST}]_{C} \rightarrow [\text{SIZE OF THE CHEST}]_{U}]$.

At the same time, an interesting case needs to be mentioned. Among the collected contexts two, quite different types of chest engagement are detected: in physical exercises (7) and in voice production (8). While the former of them evokes simple gym workout, the latter one refers to a complex process of producing a special type of voice. Namely, when we sing, our vocal folds vibrate, and this vibration is transmitted to different parts of the body, e.g. the chest. The result is called chest voice (Follin at *Vocal Skills*). As a consequence, we can postulate the presence of an additional, lower level of schematicity, from which the schema $[[CHEST]_C \rightarrow [ENGAGEMENT OF THE CHEST]_U]$ arises. It is a level at which two of its elaborations can be found: $[[CHEST]_C \rightarrow [ENGAGEMENT OF THE CHEST IN PHYSICAL EXERCISE]_U]$ and $[[CHEST]_C \rightarrow [ENGAGEMENT OF THE CHEST IN VOICE PRODUCTION]_U]$.

Another important characteristic of the detected senses is that they are used by a consistent group of users. The first of the senses, 'some extent of the chest's surface', is used by people caring about their look, taste in dressing, dress code, or morality, as revealing too much of the chest, both by women and men, may result in losing composure by representatives of the same or opposite sex. As for the senses concerning the engagement of the chest, they are discussed by body builders and people involved in singing – singers and singing teachers or critics. Finally, the size of the chest is a dimension noticed by anyone who makes judgements about people on the basis of their body: hikers, tailors, or computer gamers who are to choose which character they want to play with.

To conclude, it is worth noting that the extended senses of *chest* are highly convergent with those of *shoulder* (Table 2).

Table 2. The extended senses / uses of *chest* and their numbers

Noun	Extended sense / use	Contexts
Chest	'some extent of the chest's surface'	14
	'engagement of the chest'	8
	'exercise for chest muscles'	4
	'size of the chest'	4

While the noun *leg* is much less polysemous than *chest* or *shoulder* – only two of its mass senses have been detected – the observations that can be made about them are similar to those about *chest* or *shoulder*. As for the prototype, these two senses also stem from the 'part of the body' sense. At the same time, the extended senses of *leg* activate the same

domains of encyclopaedic knowledge as those of *chest* and *shoulder*: 'some extent of the leg's surface' (12) and 'engagement of the leg' (13):

(12) "Holly, 37, flashed too **much leg** in a ruffled mini skirt and had to change before presenting This Morning" (Gibb 2018).

(13) "Only you can determine how much or how little leg you need. I often see riders using too **much leg** on a sensitive horse" (Murdoch 2007).

As a result, the schemas that can be formulated on the basis of these extensions are similar to those of *shoulder* and *chest*:

$[[LEG]_C \rightarrow [SOME\ EXTENT\ OF\ THE\ LEG'S\ SURFACE]_U]$,

$[[LEG]_C \rightarrow [ENGAGEMENT\ OF\ THE\ LEG]_U]$.

Finally, there are certain similarities between the users of the mass senses of *leg* and those of the previous nouns. Because the leg is also a body part strongly associated with seduction, most contexts concerning the leg's surface come from people caring about the proper moral conduct. Interestingly, unlike *shoulder* and *chest*, which evoke both flirtatiousness and negative classification, the *leg* contexts are almost unequivocally negative.

At the same time, like in the previous nouns, leg engagement has to do with sport or, more specifically, two types of it. In horse riding, it is used to encourage the horse to move faster. In football, if someone puts too much leg on the ball, it is kicked too strongly.

What is special about the senses of *leg* is their frequency of occurrence. Nouns typically possess both common senses and single uses – *leg* only has a frequent and a relatively frequent one (Table 3).

Table 3. The extended senses / uses of *leg* and their numbers

Noun	Extended sense / use	Contexts
leg	'some extent of the leg's surface'	24
	'engagement of the leg'	6

The next of the nouns, *chin*, is highly polysemous. It has five mass senses: 'part of the chin' (14), 'some extent of the chin's surface' (15), 'pugnacity' (16), 'part of the object close to the chin' (17), and 'exercise involving the chin (18), and as many as three of them appear for the first time among mass senses of body parts:

(14) "Stan, the second-hand boat salesman, is another such example. He has far **too much chin** for my liking" (Paddon 2009).

(15) "There is just **so much chin** in this shot. All I see is jaw and chin... But at least she looks nice... Her cheekbones look good from the side and her hair blowing behind her is very feminine" (review in the blog *My ANTM Addiction Starts Here*).

(16) "Salido, 31, stopped Juan Manuel Lopez in the 10th round earlier this month making it the second time that Salido has taken out the hard hitting Lopez. It was an exciting fight but Salido had too much offensive weapons and too **much chin** for Lopez to handle" (Williams 2012).

(17) "Wow, love the look of it. Unfotunately as someone with a short neck that is way too **much chin** for me. But still a beautiful mask" (a comment in *GoalieStore.com*).

(18) "I will try to do as **much chin** as I would at the Kung Fu Class. And guys, check out Steve Maxwell's Jungle Gym workout on youtube!" (Toby 2009).

As a result, new types of speakers can be indicated as users of the mass senses of the nouns designating body parts. First of all, these are people taking part in discussions about different aspects of plastic surgery, where they point to the fact that because someone has too much chin, it would be advisable to remove some of it. Also, there are people commenting on other people's look either from the perspective of someone's face features or the surface of the chin visible in photographs. *Chin* is also used by boxing enthusiasts, who talk about boxers' important characteristic: eagerness to fight (pugnacity). There are also two contexts where the speakers are a hockey player and a fitness enthusiast. The former focuses on the size of the chin of a part of a hockey mask, while the latter refers to a number of repetitions of exercise in which the chin plays the role of the endpoint of motion – chin-up / pull-up.

Like before, schematically formulated extensions can be posited:

$[[CHIN]_C \rightarrow [PART OF THE CHIN]_U]$,

$[[CHIN]_C \rightarrow [SOME EXTENT OF THE CHIN'S SURFACE]_U]$,

$[[CHIN]_C \rightarrow [PUGNACITY]_U]$,

$[[CHIN]_C \rightarrow [PART OF THE OBJECT CLOSE TO THE CHIN]_U]$,

$[[CHIN]_C \rightarrow [EXERCISE INVOLVING THE CHIN]_U]$.

Also the frequency of use begins to form a repeated pattern: two of the senses are clearly more frequent than the others (Table 4).

Table 4. The extended senses / uses of *chin* and their numbers

Noun	Extended sense / use	Contexts
chin	'part of the chin'	15
	'some extent of the chin's surface'	8
	'pugnacity'	4
	'part of the object close to the chin'	1
	'exercise involving the chin'	1

Although *elbow* is as polysemous as *chin*, its mass senses allow us to note both a new dimension of the body that plays a role in semantic extension – 'weight of the elbow' (19), and the sense 'collection of elbows' (for plumbing) (20). Apart from them, the remaining three senses resemble what we have already observed in the previous nouns: 'engagement of the elbow' (21), 'some extent of the elbow's surface' (22), and 'part of the elbow' (23).

(19) "4:10am: Alarm sounds again. I guess I thought too long about it. Wife drops an elbow, well **as much elbow as** a 102 pound woman can drop" (Smith in *Fansided*).

(20) "Do I use the outlet pipes with unsuitable diameters? Is there too **much elbow** in the plumbing? I should use a smaller diameter pipe for the pump?" (comment in *Queensland Aquarium Forum*).

(21) "Here is a clip of a video that sort of shows it, but it does seem to have too **much elbow** in the hit. It's hard to see if she used her shoulder and back (legal) or her elbow and arm (illegal) to execute the hit" (PowerSnatch 2007).

(22) "Mirrors are okay, and while they are not too blurry at speed, they show too **much elbow** for my liking. Not uncommon, and as far as motorcycle development has come, no one has been able to remove the arms from the rear-view picture" (review "Triumph Tiger 1050").

(23) "Literally I was on an airplane last week, you know, the ones where children have trouble fitting themselves into the seats, and there was a guy next to me. I have never had **so much elbow** in my side before and there was a good 5 inches of his knee over my sidr" [*sic*] (comment to "Balls Need Space: a Manspreading Anthem").

Because the elbow is the source of different types of forceful motion, a repetitive use of it leads to pain and decreased performance (*NationwideChildren's*). That is probably

why the issue of (too) much elbow is common among people interested in different sports: volleyball, football, tennis, and baseball. Another significant dimension of the elbow is its surface, which is an irritating problem for motorcyclists, because rear-view mirrors show too much of it. The sense 'collection of elbows' (in plumbing) seems to be used by plumbers and those who engage in household and garden chores, while the last two senses, 'weight of the elbow' and 'part of the elbow', can be virtually used by anyone. What is needed is the awareness that people's elbows can be heavy by themselves, and that using them can be felt as using a three-dimensional object.

On this basis, the following schemas can be postulated:

$[[ELBOW]_C \rightarrow [ENGAGEMENT\ OF\ THE\ ELBOW]_U]$,

$[[ELBOW]_C \rightarrow [SOME\ EXTENT\ OF\ THE\ ELBOW'S\ SURFACE]_U]$,

$[[ELBOW]_C \rightarrow [COLLECTION\ OF\ ELBOWS]_U]$,

$[[ELBOW]_C \rightarrow [WEIGHT\ OF\ THE\ ELBOW]_U]$,

$[[ELBOW]_C \rightarrow [PART\ OF\ THE\ ELBOW]_U]$.

Also, as in the previous cases, there are certain regularities concerning the noun's senses. Two of the senses are rather frequent, and the other three are rather single uses:

Table 5. The extended senses / uses of *elbow* and their numbers

Noun	Extended sense / use	Contexts
Elbow	'engagement of the elbow'	18
	'some extent of the elbow's surface'	8
	'a collection of elbows'	2
	'weight of the elbow'	1
	'part of the elbow'	1

The last noun to be discussed is *finger*. It has an average number of extended senses – four: 'part of the finger' (24), 'engagement of the finger' (25), 'size of the finger' (26), and 'length of the finger' (27). Although the majority of them are reminiscent of the dimensions of the parts of the body that have already been indicated in the previous nouns, one sense designates a novel dimension: length of the finger.

(24) "Excess trigger reach results in too **much finger** entering the trigger guard. This makes you look like a Hollywood actor and can cause shots to be thrown to the support side" (Werner in *Personal Defense Network*).

(25) "Playing matched, I don't use **much finger** at all with my LH- you can do these with just a normal trad grip rotation stroke-- plus a little rebound, and maybe some finger, at the faster speeds" (Toddbishop 2015).

(26) "His fingers seemed to be too big, too chubby, too covered by lumpy mittens, too much like sausages, not the little breakfast sausage links but the big sausages like bratwurst or some shit, too **much finger** for entering a code on a keypad" (Anthony 2017).

(27) "It sounds like you have too **much finger** for the mini 1911's. I think regular grips with the long trigger will work best for you. Maybe even better would be a Les Baer due to the slightly oversized frame and thicker front strap" (AJP, comment in a forum).

It is also noteworthy that it is the only of the collected nouns whose senses are dominated by one sense, probably already conventionalized within the target social group – 'part of the finger'. It appears in 25 out of 30 analysed hits for this noun (Table 6), and the remaining uses are just contextual interpretations of the noun.

However, it is not just one sense that dominates – it is also one topic that evokes such strong associations with *finger* on the Internet – shooting. The materials found there come from handbooks, manuals, gun owners or shooting instructors, and they focus on just one aspect of shooting: how much finger to put on, in, or over the trigger. Such an avalanche of contexts is an exception among the analysed data, which signals both the American dominance in the sphere of the resources on the Internet and the influence of a specific culture on grammar.

The other group who uses this unusual dimension of the finger on the Internet is musicians: guitar, violin, and harp players, and drummers. They either talk about the consequences of putting too much finger under strings, the effect of using too much finger in playing, or complain about having too much finger to play an instrument. At the same time, the collected utterances also come from ordinary people: bowlers who put too much finger in the ball, people who complain that fingerless gloves expose too much of their finger, or people whose fingers are too big, too chubby, and resemble bratwursts.

Table 6. The extended senses / uses of *finger* and their numbers

Noun	Extended sense / use	Contexts
Finger	'part of the finger'	25
	'engagement of the finger'	2
	'size of the finger'	2
	'length of the finger'	1

The discussed extensions can be schematically formulated as follows:

$[[FINGER]_C \rightarrow [PART\ OF\ THE\ FINGER]_U]$,

$[[FINGER]_C \rightarrow [ENGAGEMENT\ OF\ THE\ FINGER]_U]$,

$[[FINGER]_C \rightarrow [SIZE\ OF\ THE\ FINGER]_U]$,

$[[FINGER]_C \rightarrow [LENGTH\ OF\ THE\ FINGER]_U]$.

Conclusions

A direct result of the analysis is a detection of twenty six mass senses revealed by six nouns that are generally classified as count. It should be emphasized that these are senses that are not mentioned by any dictionary or grammar book and, despite the potential feeling that such senses may be incorrect, speakers use them with surprising regularity. This suggests that the analysis touches upon two important dimensions of language. First, the process of noticing, singling out, and naming untypical mass dimensions of countable objects, e.g. the substance that cars are made of or the part of table surface that people need to eat comfortably, which shows the extent to which our encyclopaedic knowledge is involved in language production. And second, the process of conceiving and developing new senses that are based on these dimensions, their gradual spreading across different social groups and registers, which shows the manner in which new senses of words are coined – through usage.

The next observation concerns the extended senses of the analysed nouns. Although in their basic senses they refer to six parts of the body, their extended senses no longer do. Rather, as suggested in the title, they refer to mass dimensions of body parts: their spatial dimensions (some extent of their surface, size, and length), their properties (weight), parts of them, and actions associated with them (both engaging them and exercises for

them). It seems that they have achieved a sufficient level of salience in our interactions with the environment that they serve as the basis for senses of words.

What is also worth noting, the nouns that, in their basic senses, refer to different parts of the body, evoke very similar domains associated with these body parts: at least two out of the six nouns extend to five domains of the body and one domain associated with it:

− engagement of the part of the body (*shoulder*, *chest*, *leg*, *elbow*, and *finger*),
− some extent of the surface of a part of the body (*shoulder*, *chest*, *leg*, *chin*, and *elbow*),
− size of the part of the body (*shoulder*, *chest*, and *finger*),
− piece of the part of the body (*chin*, *elbow*, and *finger*),
− exercise associated with the part of the body (*chest* and *chin*),
− piece of the object close to the part of the body (*chin*, *shoulder*).

Formally, from the CG perspective, on the basis of the detected extensions we can posit the emergence of the following structures – patterns of semantic extension:

[[PART OF THE BODY]$_C$

       → [ENGAGEMENT OF THE PART OF THE BODY]$_U$],

[[PART OF THE BODY]$_C$

       → [SOME EXTENT OF THE SURFACE OF A PART OF THE BODY]$_U$],

[[PART OF THE BODY]$_C$

       → [SIZE OF THE PART OF THE BODY]$_U$],

[[PART OF THE BODY]$_C$

       → [PIECE OF THE PART OF THE BODY]$_U$],

[[PART OF THE BODY]$_C$

       → [EXERCISE ASSOCIATED WITH THE PART OF THE BODY]$_U$],

[[PART OF THE BODY]$_C$

       → [PIECE OF AN OBJECT CLOSE TO THE PART OF THE BODY]$_U$].

Apart from the common patterns, we have also determined six extensions characteristic for each of the parts of the body. Two of them refer to different dimensions of the body parts: their spatial dimension (finger – length), and property (elbow – weight). One extension refers to a quality associated with the chin (pugnacity), one to a collection of objects (elbow), and two are metaphorical extensions of *elbow* to different conceptual domains (musical instruments and road building).

What all these extensions and patterns mean is that body parts seem to have both certain individual associations and common properties. For instance, each part of the

body has specific functions that require its engagement: legs are used to kick or direct the horse, shoulders or elbows are used to throw or hit balls, the chest to sing, fingers to pull strings of instruments or hold drumsticks, etc. At the same time, because we live in a socio-cultural world, our body not only performs actions, but it also takes part in activities that are heavily laden with protocols, regulations, dress codes, and values. As a result, it should be expected that different body parts may share certain characteristics, e.g. receive similar degrees of criticism in a society, as in the case of the nouns *leg*, *chest*, *shoulder*, and *elbow*. Although exposing too much leg, chest, or shoulder in public is commonly considered to be provocative, there are also cases when even showing too much elbow might be a problem, as pointed by Amanda Forsyth, a cellist, who was once sent backstage to change her dress for one that covered her elbows (Walker 2002).

We would like to conclude the discussion with three general observations. First of all, this kind of analysis provides an insight into a rarely explored dimension of the lexicon – the time of development of senses prior to their acknowledgement by lexicographers. Before a sense is conventionalized enough to be found in dictionaries, whatever the criteria for selecting it might be, it has single occurrences as a novel interpretation of a lexeme. Examples of such uses are 'engagement', 'size', or 'length of the finger', which only have one or two hits in our database. Once the need for the given usage situation becomes more commonly felt, more uses follow, e.g. 'part of the finger' or 'some extent of the leg's surface' appear, respectively, in 25 and 24 hits out of 30. From Langacker's (2008, 38) perspective, we should probably call them incipient senses. Ultimately, senses achieve the status of established units, as has most probably been the case with one of the count senses of *shoulder* found in the dictionary: "a part of a garment covering the shoulder" (OD), which is similar to one of the senses determined in the present analysis – 'part of clothing close to the shoulder'.

The second observation concerns the proposed methodology of analysis. As the paper shows, it can be fruitfully applied to a consistent and systematic examination of a dimension of the English language that has never been scrutinized in detail – mass senses of typically count nouns. What is more, comparing the efficiency of this methodology with those of the previous studies in the area of countability and uncountability, two advantages of it are worth stressing. First of all, it provides a wealth of new data – well over 180 hits[3] with mass senses that have not been discussed in the literature before.

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[3] 180 was the number of contexts assumed for the purposes of the analysis, but this does not exhaust the total number of relevant hits encountered on the Internet.

Second, it provides a wealth of information about these senses: proves that *all* of the analysed count nouns possess also mass senses, that these senses are quite numerous – 26, and that they form a logical network in which particular senses are correlated both with one another as well as with the count senses of the respective nouns.

Concluding, we would like to return to one of the 'big questions' of countability and uncountability – whether there are limiting cases of this phenomenon (Huddleston and Pullum 2002, 335) or, rather, as e.g. Langacker (2008, 142) claims, probably all nouns can be used in either manner. Although the analysis covered only six nouns, two observations can be made. First, nouns from another category – those referring to body parts – are susceptible of the change of their grammatical properties. And second, together with the 65 nouns already scrutinized by Drożdż (2016, 2017) the investigation corroborates Langacker's rather than Huddleston and Pullum's stance.

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