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**GENITIVE AS A STYLE MARKER**

**(GENITIV JAKO STYLISTICKÝ A PŘÍZNAKOVÝ  
PROSTŘEDEK)**

Diplomová práce

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## **Anotace**

Diplomová práce vychází z předpokladu, že užití syntetické a analytické formy genitivu se v angličtině mění. Práce se zaměří na žurnalistické texty (novinové články v seriózních britských online denících), kde k preferenci *s*-formy genitivu může přispívat také důraz na kondenzované vyjádření.

Pro potřeby práce bude shromážděn korpus novinových článků (z internetových zdrojů). V nich autorka vyhledá nejméně 200 genitivních konstrukcí. Tyto konstrukce popíše z hlediska parametrů, které mohou přispívat k volbě analytického (*of*) nebo syntetického (*'s*) genitivu. Zaměří se na faktory fonologické (koncová sykavka), sémantické a pragmatické (životnost posesora, sémantický vztah vyjádřený genitivem, případně kontextová začleněnost posesora), a faktory spojené s délkou obou substantiv (*'end-weight'*) a opakováním obdobné struktury v textu (*'persistence'*). Analýza zastoupení těchto faktorů u obou typů genitivu může ukázat na jejich relativní důležitost v daném typu textu.

Klíčová slova: Genitiv, *s*-genitive, *of*-genitiv, variace, žurnalistická próza

## **Abstract**

This thesis will focus on the supposed ongoing changes in the use of the *s*-genitive form. It will examine 200 genitive constructions found in on-line versions of quality newspapers, and describe them in terms of parameters that have been established as determining factors for the choice of genitive construction, for example possessor animacy, syntactic weight, final sibilant and semantic relationship holding between the constituents of the phrase, as well as those connected to the journalistic prose itself (e.g. language economy).

Key words: Genitive, *s*-genitive, *of*-genitive, genitive variation, journalistic prose

Prohlašuji, že jsem diplomovou práci vypracoval/a samostatně, že jsem řádně citoval/a všechny použité prameny a literaturu a že práce nebyla využita v rámci jiného vysokoškolského studia či k získání jiného nebo stejného titulu.

**Chtěla bych poděkovat vedoucí své DP, PhDr. Markétě Malé, Ph.D. za cenné rady při vypracování této teze.**

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# 1 Introduction

The most common basic notion regarding the choice between English *s-* and *of-* genitive forms is that the former is used with animate possessors, while the latter with the inanimate. However, in the recent years a shift has been noted in the use of the *s-*genitive form, which has begun spreading into contexts where the *of-*genitive was predominant in the past, for example collective and inanimate possessors, and gaining prominence also in different types of constructions, namely temporal and locative ones (as can be seen in phrases such as *today's rags*).

This shift is reported to be most notable in journalistic language, which is often described as one of the genres most liable to linguistic change. It is often ascribed to a number of factors, including loosening the constraint on the animacy of the possessor, as well constraints that stem from the use of the journalistic language itself, i.e. the need for language economy in the compressed space of newspaper articles, and overall colloquialization of the norms of journalistic writing. Other possible reasons for the change in genitive variation are further analyzed in the light of a number of variables that might impact the choice, such as syntactic weight of the constituents, possessor thematicity, definiteness, persistence of one genitive form throughout the text, or the rhythm of the genitive construction.

This paper will focus on *s-*genitive constructions found in journalistic texts and the factors that may contribute to this particular genitive choice. In accordance with previous research into the topic it is expected that the most notable changes will be possible to observe in the concept of possessor animacy, and the factors of thematicity and persistence in the case of possessors denoted by inanimate nouns.

## 2 Genitive variation

### 2.1 Genitive case in English

The genitive case is the only remaining inflected case form in English out of the original four case forms the only other one existing one being the unmarked common case. The genitive marks an end of a genitive phrase, which most typically appears as a dependent structure in a clause, but can also be found without a head noun, e.g. in the group, local or elliptical genitive. Inflectional genitive often competes with periphrastic forms, most notably the *of* genitive. (Biber et al. 1999: 292)

#### 2.1.1 The genitive forms

The genitive inflection of regular singular nouns is realized by apostrophe and a possessive suffix *-s* case with pronunciation allomorphs /s/, /z/ or /ɪz/ whose choice follows the rules of *-s* inflection (e.g. *spy* » *spy's*) (Quirk et al. 1985: 319).

The genitive form of plural nouns is frequently marked only by an apostrophe (*spies* » *spies'*).

This genitive form is referred to as zero genitive and is used as used to avoid repetitive combinations of sounds, often with names of Greek origin (*Socrates's wife*). It has also become a variant of the ending in words, especially names, ending in /z/ (e.g. Dickens). In these cases the exact form vacillates in both writing and pronunciation, but the most common variant is /ɪz/ pronunciation and only apostrophe in spelling. (Quirk et al. 1985: 320) Zero genitive form can be encountered in fixed phrases such as *for ... sake of smth* with words ending in a sibilant (e.g. *for conscience' sake*). Some nouns with irregular plurals, however, retain the *-s* suffix even in the plural form (*child* » *children* » *children's*) (Quirk et al. 1999: 319). Neither the zero genitive forms, not the ones found in fixed phrases are stylistically marked.

Aside from singular nouns the genitive suffix can also be affixed to groups of words (*everyone else's opinion*) or each of a pair of coordinated nouns (*William and Mary's reign*). (Dušková et al. 2001: 90).

Another "special cases" of genitive use are the local genitive (*we'll meet at Bill's*), elliptical genitive (*my car is faster than John's*), or post-genitive (*some friends of Jim's*) (Quirk et al. 1985: 329-330).

Rosenbach (Rosenbach 2014: 221-222) also lists a number of additional variants to express the genitive, such as prenominal form without a possessive suffix (*his father boots*) or genitive construction with a linking possessive pronoun (*John his book*). Those forms are, however, considered non-standard or regional.

In some cases, such as company names, the connection with the genitive becomes weaker, which gives rise to variants such as *Marks and Spencer's - Marks and Spencers - Marks and Spencer*. (Biber et. al. 1999: 297)

### **2.1.2 Meaning, function and use**

The function of the genitive form has been restricted mainly to a central determiner or modifier of a noun, and it most commonly functions an indicator of a possessive relationship. It is no longer associated with another roles performed by this case in other languages, such as those of object or partitive. (Dušková et al. 2001: 88).

In regards of function, Biber et al. (1999: 294-295) distinguish between classifying and specifying genitive forms. Specifying behaves as a central determiner in a phrase, most typically they express definite specific reference (*e.g. girl's face*). It can also be found with generic reference (*the artist's first axiom*, in this case referring to an interest of a particular group rather than a single entity) or indefinite phrases (*He had something of a horse's dreadful beauty*). Classifying genitives



perform the role of a modifier rather than determiner (*His hair felt like a bird's nest*), in which their behavior is more akin to adjectives than determiners. Classifying genitive forms cannot be replaced by possessive pronouns, and the determiners and modifiers that precede them usually apply to the whole phrase.

Another tendency classifying genitive shares with classifier adjectives or noun premodifiers is the impossibility of further modification to intervene between the genitive and the head noun. The genitive and the head noun also show a tendency to be single-stressed similarly to compounds, they may also come to acquire idiomatic meanings (*hornet's nest*).

Dušková et al. (2001) also note certain substantival qualities to the genitive forms, such as the distinction between singular and plural forms, the possibility of modification by an adjective (*young girl's ideals*) or attracting determiners to itself (if the genitive form performs a specifying function, any determiners that precede the genitive form usually belong to it and not to the head noun of the phrase). Some of the possible s-genitive forms are also possible to replace by a more or less synonymous adjectival expression (*a mother's care* » *maternal care*) (Dušková et al. 2001: 88-90).

Genitive case appears mainly with the following noun classes (Quirk et al. 1999: 324):

- a) personal names (*George Washington's statue*)
- b) personal nouns (*the boy's new bicycle*)
- c) animal nouns (*the dog's collar*)
- d) collective nouns (*the nation's resources*)

### **Uses of the genitive:**

The genitive can express a variety of semantic relationships between the noun in the genitive case

and the head noun of the phrase in question. (Quirk et al. 1985: 321-322) lists the following:

- a) possessive genitive (*my wife's father*)
- b) expression of subject (*the boy's application*),
- c) objective genitive (*the chairman's election*)
- d) expression of authorship (*the girl's story*)
- e) descriptive genitive (*summer's day, farmer's wives*)
- f) genitive of measure (*ten day's absence*)
- g) genitive of attribute (*the victim's courage*)
- h) partitive genitive (*the baby's eyes*)

In some cases it may become difficult to determine the particular meaning without further context, for example the phrase *Bill's accusation* may be interpreted as both *Bill was accused* or *somebody accused Bill*. (Dušková et al. 2001: 94).

### **2.1.3 The *of*-genitive**

The *of*-genitive is a competing analytical form to the inflectional *s*-genitive. Depending on the phrase it can either present an acceptable equivalent to the *s*-genitive construction (*the ship's name*, as well as *the name of the ship*) or even the only permissible means of expressing the possessive relationship (*the front of the house*, but not *\*the house's front*). (Quirk et al. 1999: 321). This genitive form cannot perform a determiner function but can usually be found as:

- a) expression of objective relationship (*the loss of his wife*)
- b) expression of subject (*noise of traffic*)
- c) partitive constructions (*a pint of beer*)

- d) Constructions with generic substantives (*a lion's share*)
- e) qualification (*man of ambition*)
- f) local genitive (*we met at Paul's*)
- g) an equivalent of Czech adverbial genitive, or another case with a verb that requires a direct as well as prepositional object (*consist of something, get rid of something*)
- h) causal constructions (*die of exhaustion*)
- i) apositional constructions (*city of Rome* or *a mountain of a man* )

(Dušková et al. 2001: 95)

The *of*-genitive form is most commonly associated with inanimate nouns. The choice of the particular genitive form is governed by a number of structural and semantic factors, which will be discussed in 1.3.

#### **2.1.4 Frequency of genitive forms**

In comparison with unmarked common case nouns the genitive case forms appear much less frequently, and there is no significant increase in frequency even with proper nouns, whose density in text is relatively low overall. Biber et al.'s (1999) corpus research shows that genitive density is in news, in accordance with overall density of nouns in the register. The density of both nouns and genitive forms is lowest in conversation. Dependent genitives are overall much more frequent than independent ones, but they are commonly used in conversation due to the simplistic nature of spoken language (Biber et al. 1999: 293, 300-301).

## 2.2 Alternation of genitive forms in the history of English

Pre- and postnominal genitive forms have always existed in English, although their respective position has varied during the development of the language. During the Old and Middle English period the originally inflected postnominal genitive started losing ground to the periphrastic *of*-form and was finally pushed out of use, while the prenominal form became restricted to the form *-(e)s*, later *'s*. The *of*-genitive further spread dramatically during the Middle English period, coming close to replacing the inflectional genitive. After a long period of decline, the *s*-genitive has, however, resurged during the Early Modern English period, first restricted to animate (human) possessors, then spreading to certain collective and inanimate nouns (Rosenbach, 2004).

As Jankowski and Tagliamonte (year) point out, the *s*-genitive was even in its period of decline retained with human possessors and in poetic texts, in a context that is both prone to personification and sensitive to phonological factors.

Further extension of *s*-genitive forms can be observed even in contemporary English, with American English leading the change. The inflectional form is encroaching on the territory formerly occupied by the periphrastic form, most notably with collective possessors. Among the reasons for this shift may be the change in the concept of animacy, namely its loosening, which allows the construction formerly associated with it to spread to new contexts. Weakening of the animacy constraint may also cause another of the factors that govern the genitive form choice (e.g. rhythm) to become more prominent in the selection process. (Rosenbach, 2004)

## 2.3 Factors driving the choice between the *s*-genitive and the *of*-genitive construction

*S*- and *of*-genitive forms are freely interchangeable in certain "choice contexts" (as referred to by Rosenbach 2004). However, a number of other, "categorical" contexts only permit one form,

either because of their inherent semantic or structural properties, or due to their realization by the other genitive form generally not being customary. Thus, genitives which appear in categorical context are usually left out of genitive variation analyses. Rosenbach (2004) lists the following categories attract specific type of genitive construction that do not enter proper alternation with the other type:

- a) possessive pronouns
- b) possessive constructions with a classifying function (*young children's book*)
- c) possessive *of*-genitive constructions where the possessum has an attributive function (*man of honour*)
- d) fixed expressions (*the Bank of England*)
- e) constructions with *of* genitive preceded by a different determiner than the definite article *the* (e.g. *any/this/some/a supply of fuel*)
- f) any construction in which the *s*-genitive form that cannot be translated to the *of*-genitive form by the *X of Y* construction (compare the possible alterations *s* of the phrase *some student's class assignment* → *class assignment of some students* x *\*some class assignment of students*. The latter rephrase cannot be interpreted with the same meaning as the former one. Its interpretation might, in fact, be nonsensical).

Rosenbach (year) further notes that not every genitive variation in a choice context is necessarily fully synonymous, and that alternative ways of expressing the genitive case can be used, especially with possessors that carry premodification. Among these we may encounter compounds (e.g. *the driver seat*) or various prepositional constructions (*a seat for drivers/a driver*).

A number of factors driving the choice of the genitive construction has been discussed by various researchers. Relative strength and statistical significance of the individual factors differs depending on context, significant differences can be found across different genres and individual data sets,

as well as in spoken and written discourse. These factors are either language internal (operating on inherent properties of the words in question) or language external (context dependent factors) Szmrecsanyi (2010).

### **2.3.1 Language internal factors**

Szmrecsanyi (2010) distinguishes the following groups of language internal factors:

- a) semantic and pragmatic factors (animacy of possessor or thematicity of the possessor)
- b) phonological factors (final sibilant in the possessor)
- c) processing and parsing-related factors (the principle of end-weight, persistence)
- d) economy-related factors (prominent where brevity of text and information density are essential)

#### **2.3.1.1 Individual factors of genitive variation**

##### **Animacy**

Animacy is often considered the most important factor driving the choice of the genitive construction (Rosenbach 2004, Grafmiller 2014, Szmrecsanyi 2008, Shih et al. 2015). The analyses of both Hinrichs and Szmrecsanyi (2008) and Jankowski and Tagliamonte (2014) concur in the finding that animate possessors' tendency to trigger the s-genitive categorically, as well as converse tendency of the inanimate possessors to trigger the of -genitive.

Besides the strength of the factor, it is reported to be the most stable one across all text types (Hinrichs and Szmrecsanyi 2008).

According to the amount of focus given to the factor, evaluating animacy of a possessor can focus

on the binary distinction of animate/inanimate (human/non-human) entity, or employ a more complex system, distinguishing between more fine-grained categories. An example of this may be X's scale (year), working with levels of 'human', 'organisation', 'animal', 'place', 'time', 'concrete inanimate' vs 'non-concrete inanimate', 'machines', 'vehicles'. Animacy framework that is commonly referred to in this regard is Rosenbach's (2006) four level structure human > animal > collective > inanimate. (e.g. Hinrichs and Szmrecsanyi, 2008).

Rosenbach's 2008 paper, the so called "fluid animacy" also includes the notions of temporal (*Monday's mail*) and locative (*Londons' suburb*) nouns into the frame, as she notes a high frequency of use of these local and temporal constructions. She refers to their function as that of "referential anchors" specifying the noun in question in regards of space and time. Geographical names and some temporal nouns (e.g. days of the week) are also the only noun classes bearing proper names, which she lists as a possible factor for the *s*-genitive choice.

Although the research of genitive construction usually recognizes only the animacy of the possessor as a factor in the genitive variation, relative animacy of possessor and possessum may also constitute a base for the choice of construction.

The phrase is commonly considered to be constructed for the animate element to precede the inanimate, in the case of *s*-genitive (e.g. *John's car*) and possessum in the case of the *of*-genitive. It is, however, highly unlikely to encounter a case of inanimate possessor at all, much less one occurring along with an animate possessum. Animate possessums can most typically be found in relation to kinship terms (*Jane's daughter*) (Rosenbach, 2004).

The most commonly encountered possessors animate and usually fall into the categories of human beings and collective entities, animal possessors appear in more notable numbers only in spoken data. (Szmrecsanyi, 2010). Collective nouns, however, can be conceptualized as either animate or inanimate entity, depending on whether the emphasis is on the noun expressing a body of people, or simply an institution, and thus they usually form the center of the animacy scale (Rosenbach,

2008).

Rosenbach (2008) animacy of an entity may become dependent on context, as even inanimate referents may be reinterpreted as animate when consistently treated as such in the given context (for example, a peanut being in love becomes an acceptable concept after the peanut has been imbued with enough animate characteristics).

While the effect of animacy is qualitatively the same in most genres, it may become weaker in some (e.g. journalism or general fiction). The reasons for this weakening are not the same for every genre.

While general fiction and non-fiction make significantly lesser use of s-genitive construction with both animate and inanimate possessors, showing a clear bias towards the of genitive form, in the journalistic prose the main cause may be the loosening of animacy, motivated by the need to adjust the construction to the genre's specific needs (Graffmiller, 2014).

## **Thematicity**

Thematic possessors, i.e. those that are closely connected to the central topic of the text (for example, if wine is the topic of the text, constructions like *wine's temperature* are much more likely to occur than in non-specialized texts). The effect of thematicity is proven by Hinrichs and Szmrecsanyi (2008), but with the caveat that it is statistically significant only in the written language, especially in academic prose.

## **Possessor ending in a sibilant**

Possessors with final sibilants ([s], [z], [ʃ], [ʒ], [ʒ], or [dʒ]<sup>1</sup>) generally disprefer the use of the s-genitive. This effect can be very strong, in Hinrichs and Szmrecsanyi's analysis (2008) final sibilant increases the odds for the use of the of-genitive by as much as 79% . Final sibilancy can be

1 As listed by Jankowski and Tagliamonte (2014)



a strong enough factor to overrule the animacy of the possessor, as proven by the fact that the use of *s*-genitive along with a word ending in a sibilant will very likely be avoided with even human possessors. (Jankowski and Tagliamonte 2014)

Grafmiller (2014) states the journalistic prose to be an exception in this regard, with both *s*- and *of*-genitive constructions being equally likely with final sibilants.

## **Rhythm**

The factor of rhythm can govern a genitive type choice on the principle of rhythmic alteration, based the following premise: "given two alternative syntactic structures, usually the one exhibiting a more ideal weak – strong alternation is preferred" (Rosenbach, 2004, 228).

The general claim regarding rhythm is that the use of the *s*-genitive becomes more likely with diminishing eurythmy of the alternative *of*-construction, for example the phrase *children's voices* achieves a more desirable pattern of stress alternation with the *s*-genitive form than the *of*-genitive alternative, *voices of the children* (Shih et al. 2015, Grafmiller, 2014).

On the whole, however, researchers have found rhythm shown to play only a marginal role in the choice of a genitive construction, in spoken as well as written language (Rosenbach, 2004, Shih et al. 2015). Under certain circumstances this factor can become more prominent, usually in context which shows no strong bias towards either the *s*- or *of*-genitive. Some influence of that can occasionally be observed in context of inanimate possessor, as the factor of animacy easily overrules the effect of rhythmicity, but it rarely becomes a distinguishing factor. (Shih et al. 2015). It should be noted that it is only the correlation of rhythm and inanimate possessor that yields any remarkable results. Payne and Berlage (2014) also notice that the results produced by the factor of rhythm are not always completely predictable (speakers do not always opt for a consistent weak-strong syllable alternation), while according to Grafmiller (2014: 487) the prediction effect

of rhythm in combination with animate possessor is "no better than chance".

## **Persistence**

Both *s-* and *of-*genitives are more likely to be used when another construction of that type has already been used in the text (Rosenbach, 2004). Various analyses ( Szmrecsanyi 2010, Rosenbach 2004) report an increase in *s-*genitive frequency with recurring structures, especially in written language.

## **Syntactic weight**

The concept of syntactic weight postulates that language users tend to place heavier constituents after less complex ones. (Szmrecsanyi, 2010) Thus the general presumption concerning end-weight is that structures with heavy possessors favor the *of* genitive form, while heavy possessums favor the *s-*genitive. The less syntactically heavy the possessor is, the higher the chance it will appear with an *s-*genitive.

The effect of syntactic weight is partially dependent on genre, for example academic prose is much less liable to take it into account. (Grafmiller 2014)

A common question surrounding the factor is by what measures syntactic complexity of the constituents is to be determined. While in some studies syntactic weight is constituted by the number of syllables or characters the words contain, focus on the length and number of ortographical words constituting the phrase is the most common approach (Rosenbach, 2004).

## **Definiteness**

Definiteness (givenness/topicality) is a contextually defined factor of genitive choice. The basic expectation regarding this factor is that referents that have already been mentioned in the text have a higher chance of appearing with the s-genitive form. The concept of previous mention, however, brings about a number of theoretical problems, such as the difficulty to establish the exact form of the previous reference (identical reference as opposed to any mention of the possessor in the text), and the relevant range for such reference, as well as practical ones, such as the necessity for becoming acquainted with the context of every token which is unfeasible in cases of large data sets. (Rosenbach 2004). According to Grafmiller's analysis (2014) givenness plays a significant role especially in written language.

### **Semantic relation between the possessor and the possessum**

Relation between the possessor and the possessum forms an important factor for the genitive choice. Jankowski and Tangliamonte (2014) go as far as generalizing the choice of *s-* or *of-* form as the most crucial one along with the criterion of animacy, claiming that "nearly all the variation can be explained by the entwined factors of animacy and prototypicality." (Jankowski and Tangliamonte 2014: 322).

Despite the fact that the most frequently identified "central" semantic relationship is that of possession, a great amount of possible semantic relationships can hold between the two elements in a noun phrase. (e.g Taylor, 1989 and Nikoiforidou, 1991 qvtd. in Stefanowitch, 1998)<sup>2</sup>.

Stefanowitch (1998:2) claims that "given the right context, almost any relation between two entities can be encoded by the two genitives." Nikoiforidou's (1991) theory of metaphorical mapping, which bases the genitive semantics on conceptual metaphor which links almost any kind of genitive

<sup>2</sup> TAYLOR, J.R. (1989a) Possessive genitives in English. *Linguistics* 27: 663–686.

— (1989b) *Linguistic Categorization. Prototypes in Linguistic Theory*. Oxford: Clarendon

NIKIFORIDOU, K. (1991) The meanings of the genitive: A case study in semantic structure and semantic change. *Cognitive Linguistics* 2: 149–205.

phrase back to the possessive meaning, e.g. extension of body parts as possession may lead to the creation of sentences such as "*Lose one's arm/ I am losing my mind*", where the relationship holds in the narrow (*arm*) as well as broader sense (*mind*). In such cases verbs of possession such as *lose* (or *donate*) occur naturally with the topic of body parts. This can be observed also with kin terms, illustrated by examples such as "*Today he's lost everything, wife, fortune, freedom...*" which illustrate the extension of kinship terms to the broader meaning of possession, as in this sentence *wife* can be found in the same category as other immaterial possessions without causing a semantic clash (Collins Cobuild 1995, qvtd. in Stefanowitch 1998).<sup>3</sup>

Discussion of genitive variation often deals with the dichotomy of prototypical vs. non-prototypical semantic relationships holding between the possessor and possessum. Taylor (1989, qvtd. in Stefanowitch 1998:8) sets up the following specifics holding between the constituents of a prototypical possessive relationship:

There is a relation between (i) a possessor, which is a "specific human being," and (ii) a possessed, which is a "specific concrete thing." The relation is such that (iii) "for each thing possessed there is only one possessor." The possessor (iv) has "the right to make use of the possessed," which (v) is "invested in him in virtue of a transaction." The possessor (vi) is also "responsible for the possessed, he is expected ... to maintain it in good condition." In order for this to be possible, (vii) "possessor and possessed need to be in close spatial proximity," and (viii) "the relation ... is a long term one"

Any structures deviating from these conditions but still "close enough to warrant extension" (Stefanowitch 1998) are then deemed non-prototypical. This theory explains deverbal, as well as relational nominal relationships (e.g. action – agent, experience – experiencer) by stating that one of the central functions of the genitive is to invoke an exclusive relation.

Studies focusing on genitive variation usually rely on Rosenbach's (2004) classification of prototypical vs. non-prototypical possessive relations. This classification counts kin terms, body parts and legal ownership counts as prototypical semantic relationship for animate possessors, while

3 COLLINS COBUILD. 1995. The Cobuild Bank of English. Free Concordance Demo. Online. <http://titania.cobuild.collins.co.uk/cgi-bin/democonc>. Last access: June 1997.

part-whole relation constitutes prototypical relationship for the inanimates. The rest of semantic relationships fall into the non-prototypical category. Mental states, (*joy*) and abstract possessions (*career, future*) constitute common classes of non-prototypical relationships for animate entities, while the inanimates encompass any kind of semantics that cannot be described as part-whole, which is exemplified by relations holding in phrases such as *an employer's rights* or *the bag's contents*. This constitutes the non-prototypical type of possessor-possesum semantics. (Rosenbach 2004: 229). In some studies on genitive variation non-prototypical relations are, however, subsumed under a single category due to their large number. (Rosenbach 2004, Grafmiller 2014).

A more complex list of possessor-possesum semantic relationships is proposed by Stefanowitch (1998).

Relationships featuring a possible *of-* and *s-* form alteration:

1. possessor – possessed (*John's car*)
2. Kinship relation (*John's brother*)
3. Body part – person (*Mary's hands*)
4. Social/professional relation (*John's colleague*)
5. Product – producer (*John's latest book*)
6. Attribute – holder of the attribute (*Mary's beauty*)
7. Action – agent (*Mary's arrival*)
8. Action – patient (*John's appointment*)
9. Experience – experiencer (*Mary's beliefs*)
10. Location – thing at location (*John's village*)
11. Thing at location – location (*London's people*)
12. Effect – cause (*the drug's effects*)

13. Cause – effect (*the disease's trigger*)
14. Part – whole (*the door's bolt*)
15. Depiction – depicted (*John's picture*)

*Of*-genitive exclusive semantic relationships:

1. Originary – origin (*the !Kung san of Africa*)
2. Thing – material (*a dress of silk*)
3. Subclass – class (*a type of wood*)
4. Subpart – whole (*a piece of cake*)

The possessor – possessum relationship is sometimes considered in terms of bearing an alienable or inalienable relation (e.g. Heine 1997). The inalienable distinction, involving possessums that "cannot normally be separated from their owners" (Heine 1997: 10) corresponds to prototypical ownership, but lists several additional categories, such as spatial concepts (*top*, *bottom*), physical and mental states (*fear*), phrases where the possessum is a deverbal noun (*the planting of bananas*) and a variety of individual concepts such as "‘name’, ‘voice’, ‘smell’, ‘shadow’, ‘footprint’, ‘property’, ‘home’, etc".

In the question of genitive variation, relations classified as prototypical are more likely to occur with a *s*-genitive, while non-prototypical relations traditionally favor the *of*-form. Jankowski and Tagliamonte's data set (2014) proves categorical in both *s*-genitives (96%) used with prototypical relations and of genitives with the non-prototypical ones (95%). This is however hypothesized to be a result of a correlation of two factors, for in most cases prototypical possessors are also animate entities, while non-prototypical relations often overlap with non-human possessors.

Rosenbach (year) explains this phenomenon by the close connection between the possessor and the possessum in prototypical relationships, which favors the structurally tighter *s*-genitive

construction.

### **Lexical density and type/token ratios**

Hinrichs and Szmrecsanyi (year) note that *s*-genitive is preferred in contexts with high density of information and high type/token ratio. This factor relates to the phenomenon of language economization and as such becomes most significant in contexts that require it (e.g. the press language) (Graffmiller 2014).

### **Other interaction between the factors of genitive choice**

The individual factors that influence genitive choice are not independent. Rosenbach (2004) lists the correlation between animacy and syntactic weight as an example of this phenomenon, due to the fact that animate possessors tend to be short, which in turn gives rise to constructions that favor the *s*-genitive. However, an animate possessor will also favor the *of* genitive as its syntactic weight increases. The strength of each of the factors plays a crucial role in determining their importance, for example the relative strength of animacy often overrides minor factors such as rhythm.

Among other categories whose mutual interaction is observed in Graffmiller's analysis (2014) significant results are yielded by the combinations of animacy – rhythm, animacy – semantic relation, givenness – genre, or genre (especially learned) - lexical density.

Rosenbach (2002: 193) also notices a correlation between animacy and topicality ("distinction between referentially given and new possessors") due to the fact that animate entities are very frequently also topical. Cases of attempts to subsume these two factors under a single category of "topicworthiness" are also listed in her study.

Rosenbach further discusses the correlation of the animacy and semantic relationship between the constituents of the genitive phrase. While it holds true that the *s*-genitive form is most likely to appear with a human possessor that owns an inanimate possessum, Rosenbach claims that a purely animacy-based account would ascribe similar likelihood of a genitive form to semantically different constructions (i.e. this would suggest that both syntactic interpretations of a phrase such as *the man's car* - car that the man owns, but also possibly a car that the man dreams about, have the same likelihood of occurring with the *s*-genitive as with the *of*-genitive, which is clearly not an accurate assumption. The sole application of this approach would also suggest the same likelihood for both genitive constructions in phrases where the degree of animacy is the same for possessor and possessum, for example with kin terms, where only the *s*-form is known to be in use. This leads her to call this kind of approach "simplistic".

On the other hand, some of the factors have not been proven to interact in any significant manner, e.g. genre – rhythm.

Due to the lack of any overt impact on the genitive choice some of the factors are dismissed as being irrelevant. For example Grafmiller (2014), does not conclude that the effect of the factors of rhythm, persistence or possessor text frequency is statistically significant at all.

### **Functional perspective of the genitive phrase: A possible factor influencing the genitive variation**

Functional perspective of the noun phrase is not often mentioned in the studies focused on genitive variation, even though it might have an impact on the increase of the *s*-genitive use, when we consider that this construction seems suitable when trying to keep to phrase organization where thematic (given) information presented by the possessor precedes the new one (rhematic) presented by the possessum. Functional perspective is usually applied to whole clauses, but Svoboda (1987)



applies the concept to the noun phrase in a following manner:

- i. The theme proper is formed by articles and possessive determiners, as they "delimit the scene" in terms of contextual ties of the noun in question. This category is where the genitive premodifiers belong to, as Svoboda calls the *s*-genitive forms "open-class determiners" which basically function similarly as, for example, possessive pronouns. Along with demonstrative pronouns and cardinal numerals they can often serve as diatheme ("thematic elements standing higher on the information scale than themes proper, but lower than transitions proper", i.e. a theme that receives more contextual specification.

For example, a noun phrase with a possessive pronoun, e.g. *my girl* is considered to be more specific than one whose head is only modified by an article, *a girl*).

Svoboda (1983: 60) lists the following functions of the diatheme:

"(i) they link the (preceding) non-thematic spheres and the (following) thematic spheres by constituting ties between non-thematic and thematic elements;  
(ii) they link the successive thematic spheres together by keeping a certain element in the foreground or foregrounding some of the background elements;  
(iii) they introduce new information into the thematic sphere of the clause; in other words, they introduce new elements in such a way that they have to be regarded as thematic and are distinct from other new elements that are to function as non-thematic (transitional or rhematic)."

- ii. Morphological categories of the head noun (number, case and polarity<sup>4</sup>) constitute the transition
- iii. The head noun constitute the rheme proper, as it holds the propositional content of the phrase. However, rheme proper may be context-sensitive and the expected head noun does not have to be also the rheme, if another new information is more essential in given context. For example the rheme of the structure *This book is FOR my brother* (not from him) would be the preposition *for*, and not the noun. This would be intonationally marked in spoken language.

4 In the case of noun phrases, the distinction between existing – non-existing (negated vs. non-negated entity). For simplification, Svoboda subsumes the means of negation under the header of quantifiers such as *some, many, plenty of...*

Svoboda (1987) further mentions the notion of communicative dynamism<sup>5</sup>. His explanation of the behavior of noun phrases is based on Firbas's<sup>6</sup> appearance and quality scales:

Scene — Presentation — Phenomenon

Quality bearer— Quality (permanent or transient)— Specification — Further specification(s)<sup>7</sup>

This points to another role *s*-genitives get on terms of functional perspective is that of a modifier, that performs the function of rheme proper in phrases where it denotes quality (*his fisherman's cottage*). This is due to the genitive not performing a "premodifier representing specification" while the head noun serves as nominal transition. This interpretation arises when the possessor is related to the head, or the construction is possible to use with a *s*-less variant, in general terms, when the possessor is generic (*a summer's day – a summer day*) (Svoboda. 1987: 82).

### 2.3.2 Language external factors

Language external factors for genitive choice encompass context dependent variables such as regional variety of English, modality, text type/genre etc.

Differences in genitive use have been proven between British and American English, although they are not proven to be statistically significant (Szmrecsanyi 2010). Hinrichs and Szmrecsanyi (2008) point out that while the overall frequency of *s*-genitive use is indeed higher in American English, especially in the written (journalistic) language, in British English it is more frequent in spoken data

5 Firbas (1966, 1975, 1979, qvtd in Svoboda 1987)

6 Firbas, J. (1966). Non-thematic subjects in contemporary English, *Travaux linguistiques de Prague* 2.239-56 (Prague).  
Firbas, J. (1975). On 'existence/appearance on the scene' in functional sentence perspective, *Prague studies in English* 16.47—70 (Prague).

Firbas, J. (1979). A functional view of 'ordo naturalis', *Brno studies in English* 13.29—59 (Brno).

7 E.g. *The girl* (QUALITY BEARER, diatheme) *is* (transition proper) *standing* (QUALITY, transition) *in the corner* (SPECIFICATION, rheme proper)

and is categorically triggered by human possessors. This is interpreted as an evidence of older system of genitive choice due to the age of the informants in their chosen corpus (*FRED*), who do not yet reflect the change in the system of genitive variation.

The leading role of American English in the change is further confirmed by Rosenbach (year), who notes an increased use of *s*-genitive forms with referents that stand lower on the animacy scale.

The genre constitutes another important language external factor, given that the prominence of the individual language internal factors may vary in dependence on the given genre's needs.

While academic fiction would favor complex syntactic structures, the press language may aim for less complex structures and a genre such as fiction may be dependent on the individual style of the author, aesthetic considerations etc. (Grafmiller, 2014).

Individual genres are significantly distinguished by their need of efficiency of information parsing, which is most prominent in more colloquial styles, as opposed to often very complex structures in academic prose. The most "colloquial" style in this regard include narrative non-fiction and journalistic texts. (Hinrichs and Szmrecsanyi 2007, qvtd in Grafmiller, 2014).

Hinrichs and Szmrecsanyi (2008) note the more informal the context, the higher the chance of the *s*-genitive being used, which leads to their hypothesis of the higher frequency of this form in spoken data set. Their corpus research proves that expectation to be valid with spoken corpora exhibiting the highest percentage of the *s*-genitive forms. Szmrecsanyi and Hinrichs' analysis (2008) further proves higher frequency of *s*-genitive forms in American English, and the increase of the use of *s*-genitive in press language between the 1960s and 1990s.

Written and spoken language norms also work significantly towards the conditionig of genitive choice and the relative strength of the individual language internal factors. Grafmiller (2014) points out the general trend of the preference for *of*-genitives in written language and *s*-genitives in spoken language, with the "lone exception" of press language.

The relevance of factors driving the genitive choice in written and spoken language has been shown

to vary significantly. Factors such as final sibilancy or thematicity are much more significant in the written language, as well as syntactic length and considerations of language economy. Contrary to this, the factor of persistence becomes more significant in spoken language (Hinrichs and Szmrecsanyi, 2008).

Other social correlates, such as gender, occupation and age, were examined by Jankowski and Tagliamonte (2014) as statistically insignificant, although the gradual increase in *s*-genitive use observable with diminishing age of the speakers seems to be corresponding with the overall spread of the *s*-genitive form. A certain sociolinguistic variable of genitive use was found in the blue-collar workers favoring the *s*-genitive, as opposed to white collar-workers favoring the *of* form, which can be seen as another proof of ongoing change, as it seems to point to the fact that there is a group leading the language change, resisted by the more conservative circles.

### **2.3.3 Genitive constructions and the press language**

Changes in the use of the *of*-genitive can be readily observed in journalistic texts. (Grafmiller 2014, Hinrichs and Szmrecsanyi, 2008), which may be due to the fact that the press language is one of the genres most liable to linguistic innovation caused by a number of both external and internal pressures upon the writers. Most commonly mentioned strategies for the press language employs to deal with these pressures are those of colloquialization and economization.

Colloquialization of the written norm is a phenomenon that works with the hypothesis that "press language has over time become more similar to spoken varieties of English" (as defined by Hinrichs and Szmrecsanyi 2008).

The colloquialization hypothesis is advocated for example by Hundt and Mair (1999), due to their findings of increased frequency of "involved" factors of spoken discourse that seem to be making their way into journalistic prose over time, such as increased use of first and second person

(probably linked to increased use of quotations in these texts), contractions and sentence-initial conjunctions. One of the possible explanations for the colloquialization of the press language is the journalists' need to "use 'oral' features to narrow the gap between bureaucratic and personal discourse". Journalistic writing faces more economic and competitive pressure than for example academic prose, which according to them can "afford to be more old-fashioned" (Hundt and Mair 1999:12).

The individual researchers' opinion on this phenomenon differ significantly. Grafmiller (2014) points out contexts in which spoken language and journalistic prose do not differ significantly (e.g. consideration of information parsing and major significance of the factor of animacy compared to other types of text). Hinrichs and Szmrecsanyi's analysis (2008) leads to the opposite conclusion, finding little evidence of the process of colloquialization. Their analysis is concluded by refuting the concept as a factor driving genitive choice in favor of language economization, due to differences in strength of individual factors encountered between the spoken and written norm:

"The increase of the s-genitive, as it emerges from our written data, is due to a dynamics that is rather register-internal, much more so than a phenomenon of the general language. Regarding the s-genitive use in press language, some researches (who) talk of "economization" of language, due to the fact tha the need to present information as compactly as possible is especially significant in this genre."

The second hypothesis proposed to be working towards the shift in journalistic style, the language economization, claims that the press language is changing in reaction to the need to fit as much information as possible into the text, due to space constraints that must be taken into account in production of this genre.

Grafmiller (2014) points out further "indirect evidence" of economization in press language, namely loosening of animacy constraints and the decrease in importance of final sibilancy. This stylistic shift in the use of the genitive may thus be a result of reinterpretation of probabilistic

weighs of those structures, caused by external writing constraints, e.g. the need to be as concise as possible.

Besides the concepts of economization and colloquialization of language the process of Americanization (change due to influence of American usage) is sometimes considered a factor in the change of journalistic style. (Leech and Smith 2006, Grafmiller 2014). Leech and Smith (2006) however also point out that Americanization is not a uniform trend and the case might not be straightforward, as British and American English could simply be undergoing the same structural change independent of the other variety.

A good example of this shift and loosening of constraints for the use of s-genitive, is the increase in s-genitive likelihood for inanimate possessors such as collective nouns (*the FBI's headquarters*), locative nouns (*London's mayor*) and temporal nouns (*last week's class*). These have been proven to attract s-genitives more than other inanimate classes and journalistic prose is where this change can be observed most clearly (Rosenbach 2004).

One of the possible reasons for this particular kind of change is the so called "personification effect by metaphorical extension" with the s-genitive form returning back top the inanimate territory held by the *of*-form, usurping concepts that are easily reinterpreted as human-like in the first place.

Collective nouns that imply human members, structure and organization (*public's perception, education's fault*), or "potential locations for humans" (*Canada's Silicion valley*) are naturally prone to such a reinterpretation (Jankowski and Tagliamonte 2014).

Jankowski and Tangliamonte (2014) present two hypotheses regarding the origin of this shift:

- a) the increase of the s-genitive encountered with one-word collective/organization nouns coincides with the overall increase in this type of possessors
- b) the increase is a result of a growing number of collective/organization possessors of any length

However, the subsequent analysis proves neither of these to be significant, because the distribution of neither one-word nor multi-word collective possessors has changed significantly along with the changing use of the genitive forms. The core of this issue is thus presented to be lying in the principle of end-weight. Another factor considered to possess some degree of significance is persistence.

### 3 Material and method

206 *s*-genitive constructions were manually excerpted for the needs of the analysis. The majority of this data comes from on-line version of the newspaper *The Guardian*, added a small number of examples coming from *The Times* and *Daily Telegraph* (25 in total). The data was excerpted from 47 articles in total and 1-5 genitives were extracted from the individual pieces of news. In the beginning of the data gathering individual types were preferred to tokens, yet matching possessors were subsequently added to the data set for the purpose of examination of semantic relationships holding between the constituents of the genitive phrase. The final data set contains 168 types represented by 206 tokens.

Two cases of elliptical genitive (such as *the choice is his, or his agent's*) were excluded from the analysis as they constitute fixed use of the *s*-genitive and do not offer any further insight into genitive variation.

The obtained data was analysed in terms of the animacy and final sibilancy of the possessor, syntactic weight of both constituents of the genitive phrase, semantic relationship between the possessor and the possessum. To further specify the possessor types, note was made of the noun type of the possessor (proper vs. common). Furthermore, factors of thematicity and givenness were considered for inanimate possessors denoted by common nouns (these factors do not usually play a significant role in the genitive choice for animate nouns, and the premise that all proper nouns are essentially given was adopted). The factor of rhythm was not included into the analysis at all due to difficulty of implementation, precarious results achieved the other studies and also their claim that the results of this factor for written texts are insignificant. The factor of lexical density was also omitted due to little discussion in secondary sources.

Comparison between the *s*-genitives and the *of*-genitive constructions was decided against due to the fact that analysis of *of*-forms is outside the scope of examining factors that influence



the *s*-genitive choice, as well as methodological issues (e.g. the highly decision from which of the animate possessors an alternate *of*-form can be constructed for the sake of comparison. The question whether phrases such as *Kyle Edmund of Britain* constitute likely constructions in terms genitive variation would be beyond the scope of the presented analysis).

## 4 Analysis

After a brief listing of encountered possessor types in terms of noun categories, this chapter will analyze the 206 excerpted s-genitives from the point of view of the factors most prominently outlined in the theoretical chapter, i.e. possessor animacy, syntactic weight of the constituents, possessor sibilancy and semantic relationship holding between the possessor and the possessum. In the last section of this chapter miscellaneous factors such as thematicity, persistence and givenness, as well as factors specific to genitive variation in journalistic language (e.g. language economy) will be mentioned, along with a short discussion of the effect of functional perspective on the structure of the noun phrase.

### 4.1 Animacy

#### 4.1.1 Formal types of nouns taking the s-genitive

In 125 of the examples provided by the data set the s-genitive forms are encountered with proper nouns, 46 of them belonging to people, 25 being state names and the rest being made up from organizations/teams and miscellaneous expressions such as names of the days (*Wednesday*). The extent of possessor types with proper nouns ranges from human possessors to countries (either in a locative sense, for example *Hawaii's Big Island*, or that of the country as a political entity, for example *the Netherland's central bureau of statistics*). Examples of establishments can also be found (*Downtown hotel's 'sourtoe cocktail'*, *Turnberry's general manager*).

Other examples list the use of s-genitives with locative nouns (*London's coffee belt*) and the names of the days of the week (*Wednesday*), geological entities (e.g. *Kilauea's eruption*) and even celestial bodies (*Mars's moon*).

Applying a modified "fluid animacy" scale (Rosenbach 2008: 153)<sup>8</sup>, the common noun possessor group can be divided into a variety of classes, including three cases of animal possessors (*her dog's attention*), single objects (*lander's arm*), people (*her husband's hand*, *the passenger's suitcases*) or temporal nouns (*last year's*). Other cases include nouns denoting a body of people (e.g. *the company's supply chain*, *the family's shrine*), or institutions (*the provincial coroner's office*).

While most of the possessors are animate or collective nouns, in some cases the *s*-genitive form is used with purely inanimate entities (*the rocket system's readiness to fly*).

The *s*-genitive use seems to be widespread in sport journalism, either with collective nouns denoting the names of individual teams (*Tottenham's defeat*), or common nouns denoting sport teams in some manner (*home side's rhythm*). Further examples with common nouns (*the player's agent*) can be encountered. This strategy is applied even in a much broader sense, for example with the names of individual disciplines (*racing's hidden crisis*).

The *s*-genitive is frequently used with abbreviations, those denoting names of organizations (*Nasa's Earth science division*, *The UCU's<sup>9</sup> London headquarters*) and sport teams (*PSG's<sup>10</sup> interest*).

There is a single example of a common noun abbreviation carrying the *s*-genitive (*RE's<sup>11</sup> main purpose*). Phrases denoting the world's superlatives are commonly encountered with the *s*-genitive (*the world's largest telecom equipment makers*, *the world's most remote communities*). Two examples of pronominal possessors (*someone's ankle*, *everybody's favourite European competition*).

There is also a single case of the *s*-genitive being assigned to a compound, which undergoes a conversion into a noun by this process (*The 30-year-old's man-of-the-match performance*).

8 ANIMATE: human > animal > collective noun > temporal noun > locative noun > common inanimate noun  
INANIMATE

9 University and College Union

10 Paris Saint-Germain FC

11 Religious education

Possessor type	Example count	Percentage
Human – proper	46	22.3%
Human – common	20	9.7%
Pronoun	3	1.5%
Animal	3	1.5%
Collective – proper	35	17%
Collective – common	22	10.6%
Establishment	3	1.5%
Temporal expression	5	2.4%
Locative expression	34	16.5%
Common inanimate	35	17%
State <sup>12</sup>	*25	*12.1%
Abbreviation <sup>13</sup>	*6	*3%
Total	206	100%

**Table 1 Possessor types<sup>14</sup>**

## 4.2 Possessor animacy

The distinction between animates and inanimates has been done on the basis of Rosenbach's fluid animacy scale (2008), with human and animal possessors treated as animate, and temporal, locative and common inanimate nouns as inanimate. The animacy of collective possessors then depends largely on their semantic interpretation either as acting bodies of people (*an elite club's ambition*), or inanimate entities, and political entities to which the potential collective meaning is not central in given context (*Malaysia's new leader*).

The assumption that animate possessors tend to be short proves true in the data set, with all of the animate possessors being realized no more than 1-2 words in majority of cases. However, this does not rule out cases of the possessor being syntactically heavier than the possessum. Their

<sup>12</sup> This is not counted towards the table's total, as the constituents are counted as their more general category

<sup>13</sup> Ibid 9

<sup>14</sup> The counts of common inanimates in this may differ, as all collectives were counted as animate for the sake of simplicity. The main aim of this table is to present a rough overview of possessor types, not of possessor animacy

appearance is relatively common with possessors that stand higher on the animacy scale, especially humans. These cases mostly appear due to use of full names (*Elon Musk's SpaceX*) or titles (*Colonel Hall's immunity*), but also pronominal determination in case of common nouns (*that player's account*). In one instance the possessor becomes syntactically heavier by means of determination by a numeral (*four sheep's teeth*). In the case of collective nouns we can sometimes encounter heavy possessors with the form of multi-word expression (*Last Mile Health's CHWs*).

Animacy	Example count	Percentage
Animate	120	58.2%
Inanimate	86	41.8%
Total	206	100%

**Table 2 General animacy of the possessors**

Animacy	Example count	Percentage
Human	66	32%
Animal	3	1.5%
Collective (animate) <sup>15</sup>	51	24.8
Locative	34	16.5
Temporal	5	2.4%
Common inanimate	47	22.8%
Total	206	100%

**Table 3 Dynamic animacy**

Although the difference in number of animate and inanimate possessors is not as striking as the notion of the *s*-genitive being predominantly used with animate possessors would predict, possessors that rank higher in the animacy scale (almost equally human and collective ones) still constitute the more numerous group of cases. Unsurprisingly, the most commonly represented

<sup>15</sup> This category includes only possessors that have been evaluated as animate, the other have been added to the category of common inanimates

group among those is that of human possessors denoted by proper names (*Elon Musk's SpaceX*).

Human possessors denoted by common nouns (*the president's latest remarks*) are significantly less frequent (20 instances out of the total 66).

Animal possessors are not a frequent focus in journalistic texts, and correspondingly form only a small group within the extracted data. Two of these three cases refer to the whole species, only one example refers to a specific animal possessor (*object tangled in sea kelp captured his dog's attention*). In one of these instances the could also be considered thematic in the given context (*the totoaba's swim bladder*)<sup>16</sup>.

Collective nouns form the second most numerous group, which encompasses both proper (*Wales Cricket Board's new wide-ranging action plan*) and common noun possessors (*the agency's funds*).

The group of inanimate possessors is mostly composed of political entities (*West's colonial guilt*, *The country's ministry of education*, *California's liberal image*) and establishments (*Yukon bar's 40-year-old signature drink*). The seemingly most prototypical examples of this type of possessor, inanimate objects, are rare (*the planet's core*). Another types of inanimate possessors that can be encountered are abstract nouns (*evolution's last and greatest laboratory*) or possessors denoting events (*the tournament's organisers*).

Despite the marked increase in both temporal and locative phrases occurring with the *s*-genitive proven by other studies, 34 of the overall 39 cases of these relationships belong to the locative category. Temporal relations (such as *this year's Skoll World Forum*) include only 5 instances of the extracted *s*-genitives. The cases of locative possessors (e.g. *Dublin's Aviva Stadium*, *the province's coastline*) are much more numerous, even though the category of locative relationships is further restricted, as not every geological possessor (especially one denoted by a proper name) inherently forms a locative relationship with its possessum (distinguished on the grounds of geological correspondence between the possessor and the possessum). A distinction should be made between them and other seemingly locative examples where the possessor and possessum

16 The article deals with animal smuggling, and at a specific point the use of this animal is discussed

relationship holds the semantics of possession (*the UK's food supply*), or origin (*China's ZTE*), and other arguable cases which allow multiple interpretations (cases such as *Japan's Naomi Osaka* or for example *China's anti-spy campaign*, which can be interpreted as an anti-spy campaign running in China, as well as anti-spy campaign originated by Chinese officials). These examples, as well as any other examples with more than one possible semantic interpretation, were not considered cases of prototypical semantics and subsumed under the heading of non-prototypical, more precisely the "Indistinguishable/overlapping" category (see Table 8).

These were subsumed under the category of inanimate possessors in tables 2 and 3. The most common locative possessor in the data set is *the world's* (e.g. *the world's most active volcanoes*) which appears in 4 of the 34 instances in total.

In accordance with the general presumptions for the *s*-genitive, the predominant structure of the extracted phrases is that with an animate possessor preceding an inanimate possessum. Phrases with the possessor standing lower on the animacy scale than the possessum appear only in rare cases of collective possessors behaving like inanimate nouns in given context (*SpaceX's CEO Musk*).<sup>17</sup>

Locative and temporal possessors usually take on inanimate possessums (*last summer's Champions Trophy*, *Europe's most popular holiday destinations*). However, exceptions to this rule can be found in some phrases with locative meaning (*Port Heiden's tribal council president*).

The data also contains cases of both constituents being inanimate (*the show's writing room*).

The use of *s*-genitive in such cases is possibly influenced by the factors of thematicity, persistence or syntactic weight.

Both animate and inanimate possessors can appear with complex possessums (*Donald Trump's luxury golf resort in Turnberry*, *the lander's precise position on the Martian surface*), even though the constituents of phrases with animate possessors are frequently shorter.

A notable case concerning possessor animacy is presented by the group of examples found in sport

<sup>17</sup> In this case the noun has been interpreted as inanimate as part-whole semantics holds between the constituents *SpaceX* and *CEO*

journalism, as in these texts the collectives seem to have achieved full animate status, as the use of the *s*-genitive is as categorical as with other animate noun classes. The possible reasons for this development might be the close connection between the discourse on the team as a whole and the body of people forming it, or the generally greater emotional charge of these news (evidenced by the use of evaluative constructions in this type of articles). This, however, does not explain the *s*-genitive in phrases such as *racing's hidden crisis*, which are either influenced by thematicity, or the general spread of the construction in this type of news.

### 4.3 Syntactic weight of the constituents

Syntactically heavier constituent	Example count	Percentage
Possessor	31	15%
Possessum	116	56.3%
Same length	59	28.7%
Total	206	100%

**Table 4 Syntactic weight of the constituents**

Syntactic weight of the possessor and the possessum was counted per orthographic unit<sup>18</sup> belonging to either part of the genitive construction, including articles. This approach was mainly taken because the omission of the articles would lead to question of other determiners such as possessive or demonstrative pronouns, which undoubtedly shift the syntactic weight of the possessor (i.e. they contribute to its meaning and not only anchor it in context like articles). It leads to several cases of the possessor being syntactically heavier than its one word possessum (*the province's coastline*), but this does not significantly distort the findings about the factor of syntactic weight due to low number of possessors that demand the use of an article at all.

It is also the use of articles that might discourage the use of the *of*-form and give preference to the *s*-genitive, as an *of*-genitive phrase might result in an overall heavier phrase (compare

<sup>18</sup> Usually an orthographic word, but in one case a numeral referring to year was counted as a separate unit



for example the phrases *the lander's robotic arm* and *the robotic arm of the lander*).

The factor of syntactic weight behaves in a predictable manner within the extracted data set, i.e. showing a notable preference for structures with heavier possessums in accordance with the general tendencies concerning the *s*-genitive use. With 116 examples, cases with syntactically heavier possessum constitute the most widespread use of the *s*-genitive form in regards of syntactic weight. The types of these constructions encountered in the data range from cases of a relatively balanced possessor-possessum pairs (*SpaceX's CEO Musk*) to examples of heavily modified possessums, such as *the party's broad anti-corruption campaign*, or *the government's already wide remit to investigate and monitor individuals it deems a threat to stability*. It can be noted that possessors that belong to the collective/inanimate category tend to carry more extensive possessum constructions, with an exception of collectives found in sport news, where collective possessors often seem to mimic the tendencies, and to some extent semantics, of the human ones (e.g. *Tottenham's stress*, *Britain's hopes*). The possessor categories that appear with more complex possessum show no remarkable tendencies different from those revealed by examining the frequency of individual types of possessor animacy, i.e. human possessors form the most common group, followed by collective, locative, inanimate and temporal ones.

This category is followed by cases of phrases whose constituents are equal in regards of syntactic weight, which includes both one-word possessor-possessum pairs (*Kane's goal*, *Earth's neighbour*), and phrases with multi-word possessors and possessums whose syntactic weight coincides (*Pu OO's 1983 eruption*, *Donald Trump's handshake style*). This type of structure makes 59 cases of the extracted genitives. The majority of phrases with the possessor and the possessum bearing the same syntactic weight involves phrases with a possessor realized by a proper noun, which can hold a variety of meanings, ranging from personal (*Danny Rose's employment status*) and collective names (*Spurs's form*) to establishments (*Downtown hotel's 'sourtoe cocktail'*). The extracted data set contains only 30 examples of the possessor bearing more syntactic weight.

However, even syntactically heavy possessors are rarely truly complex, the largest of them (*the Premier League club's valuation of £53m*) counting 4 orthographic words. The most represented group of possessors in this category is formed by nouns denoting humans, which make for 15 of the total 30 instances of this group. The cases of human possessors denoted by proper nouns found in this category tend to be syntactically heavier due to the use of full names with one-word possessives (e.g. *Megan Markle's father*, *Marcos Alonso's forehead*), but considering these are cases of human possessors encountered in prototypical relationships with their possessives (in these examples kin terms and body parts) the use of the *s*-genitive is categorical regardless of syntactic weight.

As for the common noun human possessors, apart from premodification (*the French leader's shoulder*) they can be made syntactically heavier by the use of article or other means of determination. e.g. possessive pronouns (*her husband's hand*). However, even in the cases of this group we are dealing with possessors that fulfill the requirements of categorical *s*-genitive use i.e. animacy and often also prototypical relationship between the constituents. However, prototypical semantics does not seem to be strictly required, as even phrases with an animate possessor and non-prototypical semantics can be encountered (*US president's suggestion*). The common animacy of syntactically heavy possessors may serve as an indication that the effect of animacy can still overrule the constraints of syntactic weight in cases of the most prototypical possessor type, which further confirms the importance of possessor animacy.

The possibility of the *s*-genitive choice is not ruled out even if the phrases do not categorically require its use. In terms of scalar animacy, the other than human examples of syntactically heavier possessors belong to the categories of common inanimates, collectives and locatives (*the planet's core*, *the governing body's chief executive*, *the province's coastline*). Out of these categories, the collective possessors (e.g. *the Premier League club's valuation of £53m* or *Lords committee's inquiry*) form the most numerous one. This genitive form is possibly chosen for these possessors

on the grounds of the loosened animacy constraint on collectives. Another possible factor, which can be observed on the former of the presented examples, is avoidance of double use of *of* within a single phrase, that would appear in case the other genitive form were used.

#### 4.4 Final sibilancy of the possessor

Possessor ending	Example count	Percentage
Sibilant	12	5.8%
Non-sibilant	194	94.2%
Total	206	100%

**Table 5 Final sibilancy of the possessor**

The excerpted data set includes only 12 of cases of the possessor ending in a sibilant. These genitive forms are frequently based on plural possessors (e.g. *the others' stories*, *the visitors' penalty area*) and final sibilancy does not seem to present an obstacle even for the use of the *s*-genitive with human possessors (*Serena Williams's French open*, *Richard Osborn-Brooks's house*). Regarding the choice of the written form of the *s*-genitive in these cases (between the full form, or merely the use of the apostrophe), the phrases seem to behave as expected, i.e. regular plural possessors prefer the variant with the apostrophe attached to the plural case ending, while all cases of proper (singular) nouns appear with the full genitive form. The single example of both proper and plural noun ending in a sibilant, *the Simpsons'*, further points at the rule of plural forms to appear with a reduced genitive, as opposed to an assumption that the decisions in made on the grounds of the distinction between common and proper names.

Further *s*-genitives can be observed in with singular (*Norwich's James Maddison*) and plural forms of collective possessors (*The UCU lecturers' strike*) or possessors indicating a more or less loose, unorganized group of people (*the red tops' obsession*).

Even though the appearance of the *s*-genitive in possessors with final sibilant does not seem to be limited exclusively to the cases of animate possessors, its appearance with inanimate entities is restricted to a single occurrence (*Mars's moon*). It is, however, impossible to discern whether this is due to low frequency of sibilant-final possessors within the data or a continuing general tendency of the *s*-genitive to avoid this kind of possessors unless overruled by animacy.

Possessors with a final sibilant are not frequently represented, possibly due to the relative rarity of encountering such nouns along with their use with the genitive case. However, as far as genitive choice is concerned, the factor of final sibilancy does not seem to be able to overrule that of animacy, or any factor that might contribute towards the *s*-genitive choice in the cases of non-animate possessors across various semantic groups, such as thematicity.

#### 4.5 Semantic relationship between the possessor and the possessum

Prototypical relationships was categorized on the grounds of Rosenbach's (2004) distinction between the prototypical semantics (kinship terms, body parts and legal/permanent ownership for animate nouns, and part – whole relations for the inanimates).

Prototypicality	Example count	Percentage
Prototypical	48	23.3%
Non-prototypical	158	76.7%
Total	206	100%

**Table 6 Type of semantic relationship**

Relationship type	Example count	Percentage
Kinship term	3	6.2%
Body part	7	14.6%
Ownership/legal possession	20	41.7%

Part – whole	18	37.5%
Total	48	100%

**Table 7 Prototypical relationships**

First of all, it is interesting to note the relatively low number of examples of the *s*-genitive that actually constitute a prototypically possessive relationship. The semantics of the construction seems to be much broader, as prototypical relationships holding between animate as well as inanimate possessors and their possessums are outnumbered by those of non-prototypical ones, forming only slightly less than 25% from the total number of excerpted genitives. The most predominant among the group of animates are those of legal/permanent ownership, in phrases such as *Richard Orson-Brooks's house* or *Mahathir's right to be sworn in*. Ownership relations are followed by body parts, but there is a significant drop in frequency between the two categories (7 examples as opposed to 19 held by ownership relations). There are only three examples of kinship terms (*Mr Baig's family*), all of the phrase having proper names of human possessors as their head.

In addition, the non-prototypical relationship of abstract ownership can be discerned (*Stephen Colbert's The Late Show*). Other non-prototypical examples that can be discerned (as taken from the list proposed by Stefanowitch, 1998) include attribute – holder of the attribute (*Kane's sureness of touch*), action – agent (*Joel Embiid's turnover*), professional relation (*the player's agent*), or action – patient (*the project's launch*). Semantics of mental state can also be discerned, interestingly enough with similar tendencies in the behavior of human possessors and sport teams (*Trump's best hope*, as well as *an elite club's ambition*).

Even prototypical relationships can be subject to vacillation between categories of semantic relationship (more precisely, between the prototypical and non-prototypical semantics, as the prototypical categories are too clear-cut to permit an overlap) for example the phrase *family's shrine to the dead burglar* can easily be interpreted as a shrine owned, as well as created by the family.

The relationships of origin/authorship/agency are overall the most common among the non-prototypical relationships holding between the animate possessors and the possessums. The possessum brought into existence by the action of the possessor can denote results of both mental (*Trump's hardline vision of the US immigration system*) and physical activity (*Jonjo Shelvey's thumping free-kick*), but the latter is rare within the extracted data.

As for the inanimate nouns, the prototypical part-whole relationship can be distinguished in 14 cases (e.g. *the lander's robotic arm*). Besides these, some of the locative relationships might also be considered to be carrying the part-whole semantics, especially when the possessum forms a part of the possessor in a locative sense (e.g. *Mexico's western coast* or *London's Cafe Murano St James* both also form parts of their locations).

In accordance with their interpretation oscillating between animate and inanimate entities, semantic relationships typical for both animate and inanimate nouns can hold between a collective possessor and its possessum. Even though prototypical animate relationships such as kin terms or body parts would be difficult to apply to collectives, examples of relationship of ownership can be encountered (*the agency's funds*, *The company's official channel on Tmal*), as well as non-prototypical ones such as origin (*Nasa's latest mission to another planet*). Other possessor-possessum pairs are encountered forming inanimate-specific part-whole relationships (*Nasa's Earth science division*).

The rest of inanimate possessor-possesum relationships is comprised of a variety of non-prototypical relationships. These include temporal semantics (*Wednesday's failure*), locative or pseudo-locative constructions, and an attributive relationship (*the espresso's bitterness*).

Political entities form a distinct category within the group of inanimates, due to their tendency to have relations of ownership/abstract possession (*Britain's colonial past*) or origin (*China's anti-spy campaign*) with their possessums, which are more customary for animate entities, although they are more readily interpretable as inanimate rather than collective nouns. In one case even an

inanimate possessor seem to be in a relationship of ownership to its possessum (*Mars's moon*). This may point at possible loosening of the animacy constraint for not only for the use of the *s*-genitive form, but also semantic relationships corresponding to either animate or inanimate possessors. Semantics is often claimed to be the most variable factor of genitive variation and accordingly, some phrases vacillate between more possible semantic interpretations. The most notable case of such vacillation encountered within the data set is that between locative semantics and that of ascribing an origin or attribute to the possessum, and ascribing origin to the possessum. This is usually the case phrases of the type "*Britain's Kyle Edmund*", which are commonly encountered in articles focused on sport, and serve to denote a person as well as their country of origin. Regardless of the number of possible interpretations, this seems to mark a significant shift when compared against Stefanowitch's (1998) list of semantic relationships, which states the relation between originary and origin as one of the types of construction which invariably appear with the *of*-genitive.

Although this type of relationship is most often represented by constructions that are semantically close to the originary – origin relation, we can observe similar semantics in a small number of other cases with different than locative construction. In phrases such as *Labour's Hilary Benn*, *Porto's Diogo Leite* or *Oxford University's Prof François Nosten*, where the possible meaning of origin is replaced by that of political party, sport team membership and university affiliation respectively. Considering these cases are connected with the locative constructions by the broad meaning of some sort of a group or local membership of the possessum to the possessor, it might be suitable to subsume the entire category under the general label of affiliation.

There are also cases of vacillation between locative and part-whole relationships in some of the inanimate possessors (*Madagascar's best protected forests*), and origin and agentive ones (e.g. *Jonas Lössl's fingertip save*. In this case the player can be said to be the source, as well as the agent of the event).

Yet different cases of non-prototypical semantic relationships appear in sport news. Those involve a relationship of metonymy between the possessor and the possessum, with a name of the country standing for that of the team, with the resulting possessors best treated as a collective expression (e.g. *Ireland's defence coach*).

The data set also holds a number of further cases with more possible semantic interpretation, which oscillate between the locative semantics and that of origin. This oscillation is not merely restricted to semantic categories, but may impact the overall interpretation of the sentence.

In the particular case of the phrase *Turin's highly prized morning drink*, double interpretation is possible and the context neither confirms nor refutes either of the possibilities (*It is also, arguably, from the same wheelhouse as bicerin, Turin's highly prized morning drink [...]*). One instance is derived from a fixed phrase, so even in this case precise semantics is uncertain (*Wilfried Zaha is another player reported to be on Liverpool's radar*).

Several cases offer no simple semantic justification for the use of the *s*-genitive, for example in the phrase *the Simpsons' Apu controversy* the *s*-genitive seemingly serves only as a means of condensation of the phrase, which could be loosely rephrased as “a controversy concerning The Simpsons”. Other case would be the phrase *Serena Williams's French Open*, which does not seem to belong to any of the non-prototypical categories, but rather condensing the structure denoting an event in which Serena Williams will participate.

Only the prototypical semantic relationships holding between the constituents of the *s*-genitive phrases (including both animate and inanimate possessors) are liable to clear categorization.

The number of non-prototypical cases with unclear semantics, as well as those open to more than one interpretation, leads to the need to examine each of the phrases individually in the context of the sentence it is embedded in. Yet even so, non-prototypical relationships, especially those involving inanimate referents, seem to form a group of possessors with no clear patterns of use save for the increased amount of affiliating constructions. Thus, the non-prototypical semantics



seems to hold little relevance in inferring the semantics-based patterns that apply in genitive variation.

This kind of relationships might not play as prominent role in the genitive choice as the other factors, the prototypical relationships or even the application of language economy on the extracted texts.

On the other hand, extending the use of the *s*-genitive into new contexts by the application of the other principles may lead either to expansion of the prototypical category of possession (as seen for example in *Mars 's moon*) or the creation of more, and less clearly defined, non-prototypical relationship categories. Thus, there is a possibility, that the shift in the use of the *s*-genitive form loosens the semantics of the construction into a general meaning of attributing the possessum to the possessor, regardless of what exact semantic relationship holds between them.

Relationship type	Example count	Percentage
Origin/authorship	25	15.8%
Abstract possession	8	6.3%
Attribute	8	6.3%
Experience – experiencer	10	3.2%
Action – agent	5	3.2%
Action – patient	3	1.9%
Professional relationship	4	2.5%
Ordinary – origin	2	1.3%
Affiliation	9	5.7%
Metonymy	2	1.3%
Time	5	3.2%
Location	15	9.5%
Effect – cause	1	0.6%
Indistinguishable/overlapping	61	28.6%
Total	158	100%

**Table 8 Non-prototypical relationships**

## 4.6 Other factors

The factor of thematicity may be observable in cases of the *s*-genitive attached to inanimate nouns. Phrases such as *the espresso's bitternes*, or *the lander's robotic arm* include possessors that form parts of, or are connected to, the main focus of the text in question (the first example comes from an article about a new type of espresso-based coffee, the second one deals with Nasa's activities on Mars).

In both of these cases it would be possible to consider the factor of persistence being at play within the texts, as both include strings of other *s*-genitives, such as *Nasa's latest mission* or *planet's interior* surrounding the word *lander*, and *London's coffee belt* in proximity of the possessor *espresso's*.

However, it still remains unclear whether persistence indeed contributes to the genitive choice, or whether the *s*-genitive form was chosen on the basis of thematicity of the inanimate nouns.

The relative strength of this factor could even differ between the two given articles, as the "espresso" example occurs within a single sentence with another phrase which includes a genitive (*as rich and thick as Theresa May's cabinet*), while the *lander's* distance from other *s*-genitives is greater (185 words), which points strongly towards being a result of the noun's thematicity rather than the factor of persistence.

As for the factor of givenness, it can be suitably discussed only in terms of inanimate common noun possessors, following the claims (qvtd. In Rosenbach, 2002) that all proper nouns are essentially topical. Although the effect of this particular factor would be more effectively observed in direct comparison of the *of*- and *s*-genitive forms, it is interesting to note that all but one of the inanimate nouns that appear with the *s*-genitive within the data set (*a campaign's objective*) are topical (i.e. determined), either by means of the definite article (*the project's launch*), possessive pronoun (*his state's deep involvement*) or premodification (*the InSight lander's solar array*).

Some of the cases, such as the *the InSight lander's solar array*, also suggest that thematic inanimate

*s*-genitives are not barred from appearing with syntactically heavier possessor, even if thematicity may also coincide with syntactic weight in other cases such as *RE's main purpose*, where the possessor is both thematic and syntactically less complex.

As for the factors connected to the of the journalistic language, the factor of economization could be especially relevant for choosing the *s*-genitive form. Possible economization can be observed in phrases where the *s*-genitive often takes the place of a more complex construction, especially in with non-prototypical semantics holding between the constituents (a phrase such as *UK government's sugar tax* might not necessarily find a suitable counterpart in the rephrase with the *of*-form, *the sugar tax of the UK government*, which would also give rise to the dispreferred type of construction with the element lower on the animacy scale preceding the one that ranks higher. It might be more suitably replaced by a phrase akin to *the sugar tax introduced by the UK government*). Language economization could also be a factor for the increased use of temporal and locative phrases (for example *Wednesday's failure* is an economical, convenient way of avoiding inserting the phrase *the failure that took place on Wednesday* into an already complex sentence, while *Hawaii's Kilauea volcano* works as the most concise possible way of expressing the location of the possessum). Furthermore, language economy is likely at play with that have no plausible semantic justification, e.g. *Serena Williams's French open* (see 4.5) As hinted at in 4.3, the *s*-genitive may also sometimes be used as a means of condensing the construction to avoid repeating *of*-structures within a single phrase.

The effect of colloquialization, i.e. bringing the language closer to the spoken form, is more opaque to track within the data. It could possibly be a factor in sport news, which generally seem to feature simple, at times more emotionally charged constructions (on phrase level, e.g. *Jonjo Shelvey's thumping free-kick*, as well as sentence level *Christopher Schindler was vocal and inspirational organising his back-line, Lössl excellent in goal and the Mooy and Jonathan Hogg combination in midfield snapped into challenges to disrupt the home side's rhythm.*). The obvious appeal

to the reader and the direct insertion of evaluation make this kind of news less formal than the articles from other fields, even though this alone presents no evidence that colloquialization is indeed a factor for the genitive choice, as it could just as likely be a result of language economization or loosening of the animacy constraint on collective nouns set in less formal writing. The last of the examined phenomena is the information structure of the noun phrase. The more prototypical cases of genitive structures (not only from the point of semantics, but also possessor animacy) largely adhere to the determinative structure. Phrases that include animate possessors, such as *passenger's suitcases* are easily interpretable in the terms of prototypical theme – rheme structure, as well as those whose possessors have been extended to animate by the recent development, e.g. collectives (*Spurs's form*).

Even in non-prototypical genitives it is most for the possessor to perform the functions of diatheme. From the diatheme functions outlined by Svoboda (1983), namely the point iii<sup>19</sup> seem to be relevant. "Bringing new information into the thematic sphere of the clause by introducing new temporal, spatial and other circumstantial elements" (Svoboda, 1983: 75) could provide a reasonable account for the increasing popularity of structures such as *Earth's neighbor*, which cannot be satisfactorily explained from the point of view of the loosening of the animacy constraint (unless we consider the possessor *Earth* being influenced by the use of usually animate possessum *neighbor*), syntactic weight nor thematicity. This trend is further noticeable in temporal and locative structures (e.g. *Wednesday's failure*). In these case *Earth* and *Wednesday* serve as determiners, but they possess a relatively high degree of dynamism. Introducing new information to the thematic sphere of the phrase is also notable in the "affiliation" cases such as *Poland's Agnieszka Radwanska*, in which the genitive form provides a convenient means of introducing additional information while keeping to the customary structure which has the theme preceding the rheme. Rhematic possessors are relatively rare, usually when the possessor has general meaning (can be exemplified for example by the phrases such as *four sheeps's teeth*, in which the cardinal numeral

19 (iii) they introduce new information into the thematic sphere of the clause

serves as the theme, the genitive as a rheme and the head of the phrase as nominal transition, or *Parents 'abusing' rights over children's religious education*).

The adjustments in functional perspective may coincide with some of the genitive variation factors (such as the overall loosening of the animacy constraint), or those that constrain the genitive choice in the journalistic language, especially economization of language. The effects of the two factors might coincide as they will yield identical results regardless of which one of them has stronger effect, which constitutes a major issue in examining the effect of functional perspective on the noun phrase.

However, it is still somewhat noteworthy that the *s*-genitive constructions within the data set manifest a clear premodification structure with the possessor functioning as diatheme of the noun phrase. Even when the main linguistic factors genitive variation categories do not shed any decisive light on the construction choice, thematization of the possessor seems to be an overall tendency across the boundaries of semantic classes and other genitive choice factors, as can for example be seen on the of less prototypical possessors such as *Earth's neighbor*. Human possessors already adhere to the pattern regardless of semantic relationship, see for example *Joel Embiid's turnover*, *Megan Markle's father*, etc.. It also serves to note the overwhelming amount of genitives that perform the determining function within the extracted data set in comparison with only a small number of generic possessors (only two clear cases were discerned)

## 5 Conclusion

From all the possible factors for genitive choice, the most notable changes can be observed in the factor of animacy. Loosening of the constraint of animacy is very likely to be at play, as the *s*-genitive can be encountered along with clearly inanimate possessors such as *Earth*. Certain types of possessors, such as collective nouns, definitely seem to shift higher on the animacy scale.

This reflects

in the semantics of the genitive constructions, as collective nouns often bear animate semantics (both prototypical and non-prototypical). Journalistic texts that focus on sport can be told to go farthest in this regard, as collective nouns that appear in them are invariably treated as animate.

Considering Rosenbach's fluid animacy scale, there is also a notable number of locative constructions.

This shift on the animacy scale has made an impact on the category of semantic relationships.

This does not hold as much for the group of prototypical relationships, as the only major change on prototypical semantics can be observed in its appearance with collective possessors, e.g. *the agency's funds* (in this phrase, the possessor and possessum are in the relationship of ownership).

However non-prototypical semantic relationship between the phrase constituents proved to be a somewhat problematic variable. The amount of non-prototypical relationships the possessor and possessum can enter, as well as the difficulty in categorizing them properly, seems to point at the fact that non-prototypical semantics is a result of the spread of the *s*-genitives into new contexts, rather than the need to express different semantic relationships being a direct cause for the shift in the use of the construction.

Examining the extracted data in terms of syntactic weight of the constituents has not lead

to any unexpected results, as the majority of the extracted phrases follows the preferred organization of the genitive phrase, i.e. the possessum in the syntactically heavier element. Apart from examples where the possessor is only made heavier by formal means such as the use of articles, only the most prototypical multi-word possessors (i.e. humans, or collectives treated as fully animate) seem to be able to afford to break off from this tendency in the data set. Judging from this, syntactic weight is not a negligible factor, yet the extent of its effect would require a further comparison with the *of*-forms.

In contrast with Jankowski and Tagliamonte's analysis of the factor of final sibilancy (2014), *s*-genitive is not avoided with animate possessors. On the other hand, examples of the *s*-genitive construction which feature sibilant-final possessor mostly constitute animate examples, which implies that similarly as syntactically heavy possessor, this constraint on the *s*-genitive use becomes secondary when confronted with the factor of possessor animacy. The dependency of both syntactic weight and final sibilancy on animacy presents a clear argument for the strength of the factor in the placement of the *s*-genitive.

As for factors that may impact the genitive choice in case of inanimate possessors, traces of both thematicity and persistence can be encountered, yet those factors can be hard to distinguish due to relatively low occurrence of these possessor types with which these factors can be taken into consideration (i.e. inanimate possessors denoted by common nouns). However, as the possessors in question are at times far removed from other genitive constructions, yet always connected to the main topic of the article, thematicity seems to play a more important role than persistence.

In accordance with the expectations connected with the factor of definiteness, the majority of inanimate possessors are indeed definite. There is only one exception to this rule within the data set. The points out that definiteness of inanimate possessors might be a relevant factor in favor

of the *s*-genitive choice.

For the factors connected to the use of the journalistic language, it could be possible to speak of the effect of language economization as the *s*-genitive often offers a condensed alternative to a more complex underlying phrase (*Uk government's sugar tax*).

It has been theorized that the functional perspective of the noun phrase can offer a further insight into workings of the *s*-genitive constructions, yet any observable effect of this factor is obscured by the principle of language economy. The only conclusion to be drawn from this line of analysis is that the *s*-genitive construction tends towards the clear theme – rheme structure, with the possessor serving as determiner rather than a modifier, which is in line with the tendency of the possessor to be a singular, rather than generic entity.

While some of the factors have been shown to bear more weight than others, the individual factors of genitive choice overlap (e.g. syntactic weight and language economy) and possibly reinforce each other (thematicity and persistence). The membership of the possessor in the expanding group of animate possessors is a crucial factor for the genitive choice, yet the fact that the *s*-genitive represents a convenient structure in terms of language economy and information structure of the noun phrase as such, might be a non-negligible reason for the increase in the use of this construction.



## 6 Resumé

Práce se zabývá faktory pro volbu *s*-genitivu. Změna v užívání formy *s*-genitivu, dochází k jeho častějšímu užití s kolektivními posesory a v lokálních a temporálních konstrukcích. Tato změna se pak nejčastěji projevuje v žurnalistických textech, které se obecně považují za jeden z nejvíce inovativních žánrů. Cílem práce je prozkoumat, jaké posesory se v současnosti mohou vyskytovat společně s *s*-genitivem, a jaké jazykové i mimojazykové faktory se na volbě této formy podílejí. Teoretická část shrnuje základní informace o obou genitivních formách, a jednotlivé jazykové i mimojazykové faktory, na kterých může volba genitivu záviset. Jazykové faktory pro volbu genitivu zahrnují životnost posesora, syntaktickou váhu obou členů genitivní fráze. Životnost je často uváděna jako nejdůležitější faktor pro volbu genitivu. Platí, že nejvíce „prototypní“ genitivní konstrukce se skládá z životného posesora a neživotného posesu. Neživotné posesory jsou méně časté, zatímco životná posesa se vyskytují pouze ve skupině sémantických vztahů označujících rodinnou příslušnost (např. *Jane's daughter*). Od nutnosti životného posesora se však údajně ustupuje (jak dokládá např. Rosenbach 2004) a do popředí se dostávají i formy s neživotnými posesory (*Mars's moon*), ale převážně pak kolektiva (*the supreme court's current term*). Na škále životnosti, kterou popisuje Rosenbach (2008), se nacházejí též lokální (*London's coffee belt*) a temporální posesory (*this year's Skoll World Forum*), a to mezi kolektivy a neživotnými substantivy, tedy o něco výše než obecné neživotné posesory. Jako další potenciální faktor, který tradičně volbu genitivní konstrukce spíše nakloní užití *of*-genitivu, se uvádí koncová sykavka (podle tohoto principu by *of*-genitiv dostal přednost např. Při výběru mezi frázemi *Richard Orson-Brooks's house* a *the house of Richard Orson-Brooks*). Volbu genitivní konstrukce může ovlivňovat též sémantický vztah mezi posesorem a posesem. Rosenbach (year) v tomto ohledu vymezuje dvě hlavní kategorie sémantických vztahů, tj. prototypní a neprototypní. Prototypní vztahy zahrnují stálé/právní vlastnictví, části těla a termíny

označující rodinnou příslušnost v případě, že posesorem je životné substantivum, a vztah části a celku u posesorů neživotných. Rosenbach (2004) uvádí pouze příklady neprototypních vztahů, konkrétně mentální stavy (*radost*) a abstraktní vlastnictví (*kariéra*). Vzhledem k velké množství možných neprototypních kategorií některé studie rovnou poukazují na praktickou nemožnost jejich úplného výčtu (např. Jankowski and Tagliamonte 2014).

Nejširší seznam neprototypních sémantických kategorií nalezený v sekundární literatuře poskytuje Stefanowitch (1998), ale minimálně jedna z jeho kategorií již byla zasažena změnami v užívání *s*-genitivu. Jedná se přitom přímo o jednu z kategorií, která vyžaduje užití *of*-formy, vztah "originary – origin", tj. dané entity a její země původu. I když je interpretace tohoto sématického vztahu v excerpovaných příkladech mnohoznačnější, lze nalézt hned několik příkladů typu *Japan's Naomi Osaka*, nejen ve spojení se státy, ale také politickými stranami (*Labour's Hilary Benn*) či jinými institucemi (*Oxford University's Prof François Nosten*).

Dalšími uváděnými faktory je určenost posesora (určité posesory, tj. posesory, kterým předchází určitý člen), a jeho tématicita (u posesora, který je propojený s hlavním tématem textu je větší šance, že se objeví s *s*-genitivem, např. fráze jako *wine's temperature* se s větší pravděpodobností objeví v publikaci, která se vínem přímo zabývá).

Některé studie jako faktor uvádějí i rytmus výsledné genitivní fráze (vychází z předpokladu, že při možnosti výběru mezi dvěma genitivními strukturami bude preferována ta s lepší kombinací přízvučných a nepřízvučných slabik, např. *s*-genitiv *children's voices* dostane přednost před *of*-formou *voices of children*). Jedná se však pouze o jeden z méně významných faktorů (např. Shih et al. 2015 ho uvádí jako možný statisticky významný faktor, zatímco ostatní studie, např. Payne and Berlage 2014 nebo Grafmiller 2014, nikoli. Ve své analýze též shledávají tento faktor nepředvídatelným, vzhledem k tomu, že mluvčí si pokaždé nemusí vybrat vzorec s ideální kombinací přízvučných a nepřízvučných slabik).

Dalším možným uváděným faktorem je poměr *type/token*, přičemž v textech s větší hustotou

substantiv se má častěji vykytovat syntakticky kompaktnější *s*-genitiv. Tento fakt je úzce spjatý s jazykovou ekonomikou, a dá se pozorovat právě na kondenzovaných žurnalistických textech (Grafmiller 2014). V excerpovaném vzorku však nebude tento faktor analyzován.

Mimojazykové faktory souvisí převážně s výzvami, kterým musí čelit autoři žurnalistických textů, např. tlak konkurence podporující jazykovou inovaci, a omezený prostor k vyjádření myšlenek obsažených v textu. Některé ze studií (např. Hinrichs and Szmrecsanyi 2008) princip jazykové ekonomie řadí mezi podstatné faktory pro volbu *s*-genitivu, vzhledem k jeho užitečnosti při vytváření kompaktních konstrukcí.

Jako možný faktor se uvádí též probíhající "kolokvializace" norem žurnalistické prózy, během níž se psaný jazyk přibližuje jazyku mluvenému. Na tento princip ovšem mezi jednotlivými studii panuje méně jednoznačný názor, zatímco např. Hundt and Mair (1999) nebo Grafmiller nacházejí případy, kdy dochází ke sbližování mluveného jazyka s žurnalistickou prózou, Hinrichs and Szmrecsanyi' (2008) nenachází žádný důkaz takových změn a jako důvod procesů probíhajících v žurnalistické próze uvádí převážně jazykovou ekonomii.

Praktická část práce je založena na 206 příkladech *s*-genitivu excerpovaných ze 47 článků, nalezených v on-line verzích novin *The Times*, *The Guardian* a *Daily Telegraph*. Z jednoho článku bylo vyexcerpováno průměrně 1-5 genitivních konstrukcí. Nalezené *s*-genitivy byly analyzovány z hlediska životnosti posesora, syntaktické váhy konstituentů, zakončení posesora na sykavku a sémantický vztah mezi posesorem a posesem. U neživotných posesorů byly též připojeny faktory určenosti, tématicity a persistence, které nejsou obvykle u životných posesorů relevantní. Faktor lexikální hustoty byl z analýzy vypuštěn kvůli nedostatečnému popisu v sekundární literatuře excerpované genitivy též nebyly analyzovány z hlediska rytmu, vzhledem k malé účinnosti a nepředvídatelnosti tohoto faktoru (jak k němu referují např. Payne and Berlage 2014).

Většina nalezených posesorů je označena vlastními jmény, jména obecná tvoří menší část. Mezi posesory označenými vlastními jmény se nejčastěji vyskytují jména osob (*Megan Markles's father*),

ale také zemí (*China's ZTE*) a organizací (*Nasa's latest mission to another planet*). Dva případy též označují podnik (např. *Turnberry's general manager*). S s-genitivem se vyskytují se též názvy geologických entit a nebeských těles (*Pu Oo's 1983 eruption, Earth's neighbour*). Posesory označené obecnými substantivy zahrnují lidské jedince (*that player's account*), organizace/orgány u nich je důležitým rysem to, že jsou složené z lidí (*the supreme court's current term*) a obecná neživotná substantiva (*the espresso's bitterness*). Malý počet posesorů je vyjádřen zájmeny (*someone's ankle*) a substantivy označujícími zvířata (*the totoaba's swim bladder*). Jako posesor v s-genitivní konstrukci může fungovat i zkratkové slovo (*the ECB's T20 City Cup*), popřípadě výraz, který změnil slovnědruhovou kategorii v důsledku procesu konverze (*the 30-year-old's man-of-the-match performance*).

Jako nejdůležitější z jazykových faktorů ovlivňujících volbu genitivu se analýzou potvrzuje životnost posesora. Převážná část posesorů nalezených ve spojení s s-genitivem spadá do kategorie životných substantiv, převážně pak lidských posesorů (byly nalezeny pouze tři případy zvířat v pozici posesora, což je převážně způsobeno faktem, že zvířata nejsou častým námětem žurnalistické prózy, ani na ně často není jako na posesora odkazováno). Druhou nejpočetnější skupinu životných posesorů tvoří kolektiva, se kterými jednotlivé texty často zachází jako se životnými entitami (*the agency's funds*). Nejdále v reinterpretaci faktoru životnosti zachází články věnované sportu, ve kterých získávají všechna kolektiva životnou interpretaci, což se mj. projevuje i na sémantických vztazích, do kterých v rámci genitivní fráze vstupují (mohou např. označovat mentální stavy, jak můžeme pozorovat na frázi *elite club's ambitions*). S-genitiv se v tomto typu článků ovšem netýká jen kolektiv označených vlastními jmény, objevuje se i obecnými substantivy označujícími kolektiva (*the visitors' penalty area*), ale i celá sportovní odvětví (*racing's hidden crisis*).

Navzdory údajné rostoucí četnosti jejich užití tvoří temporální posesory jen malou skupinu. Podstatně více je pak lokálních posesorů, přestože je třeba odlišit členy této kategorie (tj. posesory, jejichž posesa jsou jejich skutečnou geologickou částí, jako např. *Mexico's western coast*) od těch,

jejichž sémantika není plně lokální (*Britain's colonial past*).

Mezi neživotnými posesory lze nalézt politické entity s neživotnou interpretací (např. *the Netherlands' central bureau of statistics*), neživotné posesory představované neživotnými substantivy jsou poměrně vzácné (*the rocket system's readiness to fly*).

Zvláštní případ z hlediska životnosti tvoří názvy států, které se často vyskytují v sémantických vztazích typických pro životné posesory, přestože je jejich interpretace spíše neživotná (*Britain's colonial past*). V několika případech je jméno státu také použito jako metonymické označení pro národní tým (*Ireland's hopes*).

Analýza genitivních frází z hlediska syntaktické váhy jejich členů potvrzuje základní hypotézu o funkci tohoto faktoru v rámci *s*-genitivní formy, tj. její preference pro konstrukce se syntakticky těžším posesem. Nejpočetněji je tedy zastoupena právě tato kategorie (*Trump's knife crime comments*). Druhou nejpočetnější kategorií tvoří skupina posesorů, které mají stejnou syntaktickou váhu jako posesa v dané frázi. Tato skupina zahrnuje jak případy jednoslovného posesora i posesa (*Trump's comments*), tak případy, kdy se posesor a posesum shodují v délce (*Steven Gerrard's first target*). Skupina se syntakticky těžším posesorem je převážně omezena na životné posesory, což poukazuje na fakt, že váha tohoto faktoru zaostává za faktorem životnosti (*Elon Musk's SpaceX*). Podobně jako v případě syntaktické váhy, ani koncová sykavka nehraje v případě životného posesora zásadní roli. Mezi excerpovanými frázemi lze najít několik posesorů s tímto zakončením, vesměs jde ovšem o životné entity a kolektiva. *S*-genitiv s koncovou sykavkou se přitom objevuje u forem singuláru (*Serena Williams's French open*) i plurálu (*the visitors' penalty area*). Výjimkou z tohoto pravidla je příklad neživotné entity *Mars's moon*, kde jde pravděpodobně o případ tématického posesoru označeného vlastním jménem.

Analýza sémantických vztahů mezi posesorem a posesem prokázala jen poměrně malé množství prototypních vztahů, a to převážně vlastnických, části těla a rodinná příslušnost se objevují v řádu jednotlivých příkladů. Druhou nejčastější kategorií prototypních vztahů tvoří vztahy části a celku,

kteře lze nalézt v kombinaci s neživotnými posesory (*the InSight lander's solar array*) nebo některými kolektivy (*the charity's assistant director of children's services*). Do určité míry lze pravděpodobně o sémantice části a celku mluvit i v případě lokálních konstrukcí (*London's Cafe Murano St James* je možné chápat jako část Londýna).

Naproti tomu se objevuje značné množství neprototypních vztahů, např. činnost – patiens (*the project's launch*) nebo vlastnost – nositel vlastnosti (*Kane's sureness of touch*). Běžně se však též případy překrývajících se kategorií (*Britain's Kyle Edmund, China's anti-spy campaign*) nebo případy, kdy nelze sémantickou kategorii jednoznačně určit, v některých frázích právě kvůli užití *s*-genitivu místo přesněji specifikující konstrukce (*Turin's highly prized morning drink*). Velký počet neprototypních sémantických vztahů a celková neprůhlednost této kategorie vedou k závěru, že narůstající počet sémantických interpretací *s*-genitivu je spíše než faktorem pro volbu genitivní konstrukce důsledkem rozšiřování funkce této genitivní formy, založeném na ostatních možných faktorech, např. životnosti a jazykové ekonomii.

Z faktorů, které se vztahují převážně na neživotné posesory, je možné pozorovat efekty tématicity (ve frázích jako *the espresso's bitterness* nebo *the lander's robotic arm*) a persistence, je ovšem obtížné určit, který z těchto faktorů hraje při volbě genitivu podstatnější roli. Obzvláště v prvním případě může jít stejně o důsledek persistence jako tématicity, protože substantivum *espresso* je spojené s hlavním tématem článku, a stejně tak se nachází ve větě spolu s dalším příkladem *s*-genitivu. Při bližší analýze fráze se substantivem *lander* se ovšem další *s*-genitiv nachází v relativně velké vzdálenosti (185 slov), z čehož vyplývá, že alespoň v tomto případě se s větší pravděpodobností jedná o důsledek tématicity posora.

Ve volbě genitivní konstrukce pravděpodobně hraje podstatnou roli i jazyková ekonomie, jak lze dokázat na příkladech, jejichž sémantika jinak neodpovídá žádné z kategorií užití *s*-genitivu, ale spíše kondenzované frázi (např. ve frázi *the Simpsons' Apu controversy* je obtížné sémantický vztah vůbec přesně pojmenovat neboť jde pouze o kondenzované vyjádření přibližující téma daného

sporu). Možná kolokvializace hraje roli převážně v člancích zaměřených na sport, vzhledem k jejich méně formálnímu stylu, charakterizovanému např. citově zabarveným obsahem (*Spurs's form had been fluffy*), ale i v tomto případě se patrně jedná o projev jazykové ekonomie praktikované v méně formálním jazykovém prostředí.

Analýza funkční perspektivy nominální fráze prokázala, že jakýkoli efekt tohoto faktoru je pravděpodobně zastíněn principem jazykové ekonomie, takže jediným závěrem zůstává tendence *s*-genitivních posesorů k funkci determinátoru spíše než modifikátoru.

Z provedené analýzyse jako podstatné faktory pro volbu *s*-genitivu jeví jazyková ekonomie a životnost posesora (ta v případě životného posesora jednoznačně neguje ostatní faktory, např. syntaktickou váhu konstituentů genitivní fráze a finalní sykavku u posesora), a do určité míry také tématicita. *S*-genitiv zároveň představuje syntakticky i informačně kompaktní konstrukci, která je v souladu s požadavky kladenými na žurnalistickou prózu.

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<https://www.theguardian.com/football/2018/may/09/chelsea-huddersfield-premier-league-match-report>

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### **Daily Telegraph (3)**

<https://www.telegraph.co.uk/racing/2018/04/25/racings-hidden-crisis-nobody-wants-shovel-s-days/>

## 9 Appendix

number	source	sentence	NP	possessor
1	G-28-6-1	Congressman Jeff Denham, a Republican from California, said Wednesday's failure showed that immigration reform must be a bipartisan effort.	Wednesday's failure	Wednesday's
2	G-28-6-2	The measure was designed to meet Trump's hardline vision of the US immigration system, including funding for a border wall and increased interior enforcement against undocumented immigrants.	Trump's hardline vision of the US immigration system	Trump's
3	G-28-6-3	The measure evolved to address two urgent crises triggered by Trump's hardline immigration agenda: his cancellation of a program that shielded from deportation hundreds of thousands of young, undocumented immigrants brought to the US as children, known as Dreamers, and the "zero-tolerance" policy which led to the family separations	Trump's hardline immigration agenda	Trump's
4	G-28-6-4	As proposed, the measure would have included \$25bn for Trump's long-sought wall along the southern border – though Trump had promised during the campaign that Mexico would pay for its construction.	Trump's long-sought wall along the southern border	Trump's
1-1		There were extraordinary scenes outside the UCU's London headquarters when dozens of academics turned up to voice their disapproval, armed with placards, loudhailers and even a smoke bomb.	<b>the UCU's London headquarters</b>	UCU's
1-2		The success of the UCU lecturers' strike is in part thanks to their support.	<b>the UCU lecturers' strike</b>	<b>the UCU lecturers'</b>
		Parents 'abusing' rights over children's religious education	children's religious education	children's
		Proposing the motion, Richard Griffiths, of the union's inner London branch, said that RE had developed into a subject "that allows for critical thinking, big questions, allows children to explore their own and other religious beliefs and non-	he union's inner London branch	<b>the union's</b>

	beliefs”.		
	When the right to withdrawal was introduced in 1998 RE’s main purpose was nurturing children into Christianity, he added.	RE’s main purpose	<b>RE’s</b>
1-3	<b>Police defend family’s shrine to dead burglar Henry Vincent</b> Iain Gordon pulls the flowers down from a fence opposite Richard Osborn-Brooks’s house in Hither Green	family’s shrine to dead burglar bRichard Osborn-Brooks’s house in Hither Green	family’s Richard Osborn-Brooks’s house
	Since then, tributes have been repeatedly ripped down before being replaced by Vincent’s family	Vincent’s family	Vincent’s
1-4	Russia promises Syria S-300 missile system to boost Assad’s defences	Assad’s defences	Assad’s
1-5	Although Colonel Hall has diplomatic immunity and cannot be arrested or tried, Mr Baig’s family has launched a civil case against him, seeking up to \$1 million (£700,000) in compensation.	Mr Baig’s family	<b>Mr Baig’s</b>
	Pakistani officials have also demanded that the US waive Colonel Hall’s immunity, but there is no indication Washington would consider such a move.	Colonel Hall’s immunity	Colonel Hall’s
	Then in 2015 Labour’s Hilary Benn made a speech about Syrian horrors and the House broke into applause.	Labour’s Hilary Benn	Labour’s
	He said that he felt shame at atrocities committed by the British but also pride at the empire’s role in ending the slave trade.	the empire’s role in ending the slave trade	the empire’s
1-6	Professor Nigel Biggar has called for a more balanced view of Britain’s colonial past	Britain’s colonial past	Britain’s
	Regimes like Russia and China ‘profit from the West’s colonial guilt	West’s colonial guilt	West’s
1-7	But sources have told The Times that Jones has been convinced by Cipriani’s form in guiding Wasps to the Aviva Premiership semi-finals to pick him for the three-Test series next month.	Cipriani’s form	Cipriani’s
	The 30-year-old’s man-of-the-match performance against Newcastle	The 30-year-old’s man-of-the-match	The 30-year-old’s man-of-the-match

	Falcons last weekend is believed to have sealed his place in the squad and a long-awaited chance to rekindle his international career.	performance	
	Farrell is expected to be named captain in Hartley's place.	Hartley's place	Hartley's
2-1	Ali al-Marri's allegations of torture are supported by detention logs which are set to reignite the controversy over the US handling of al-Qaida suspects.	Ali al-Marri's allegations of torture	Ali al-Marri's
2-2	Official figures from the Netherlands' central bureau of statistics show a near doubling of deaths on electric bikes in the last 12 months, three-quarters of which involved men of 65 years or over.	the Netherlands' central bureau of statistics	the Netherlands'
2-3	The proposals were made under the parliament's own-initiative powers, meaning they had no implications for EU law.	the parliament's own-initiative powers	the parliament's
	Against the backdrop of Brexit, tensions have flared over Britain's role in EU scientific projects.	Britain's role in EU scientific projects	<b>Britain's</b>
	Greg Clark, the business secretary, has taken legal advice on whether the UK can reclaim €1.4bn it has invested since the project's launch	the project's launch	the project's
2-4	Hank Azaria on The Simpsons' Apu controversy: 'I'm willing to step aside'	The Simpsons' Apu controversy	The Simpsons'
	The actor, who voices the role, says he could be replaced by an Indian or south Asian actor and called for more diverse voices in the show's writing room	the show's writing room	the show's
	He made the comments on Stephen Colbert's The Late Show, where he called for the creators of The Simpsons to listen to the criticism over Apu	Stephen Colbert's The Late Show	Stephen Colbert's
2-5	Stuffed into the skull of one man they found four sheep's teeth	four sheep's teeth	four sheep's
2-6	Wherever he goes, or whoever visits him, Donald Trump's handshake style makes headlines.	Donald Trump's handshake style	Donald Trump's
	The Canadian prime minister clutched the top of Trump's right arm with his left hand to brace himself against the inevitable tug.	<b>Trump's right arm</b>	<b>Trump's</b>

	With Macron – who has form in besting the Trump-shake – Trump brushed what he said was dandruff off the French leader’s shoulder,	<b>the French leader’s shoulder</b>	French leader’s
	<b>On Macron’s US trip this week, he once again repeated the hand-holding trick.</b>	<b>On Macron’s US trip</b>	Macron’s
2-7	Video has repeatedly appeared to show Melania declining or being slow to grasp her husband’s hand in public.	her husband’s hand	husband’s
	Asked by the Guardian if Melania Trump was supportive when news broke of her husband’s alleged affair with a pornographic actor,	her husband’s alleged affair with a pornographic actor	husband’s
2-8	Give Melania a voice” was not intended as a comment on Melania’s taciturn image or her role in the White House.	<b>Melania’s taciturn image</b>	<b>Melania’s</b>
2-9	However this study provides hard evidence that it is possible to eliminate artemisinin-resistant falciparum malaria rapidly if the will and the financial support are forthcoming,” said Oxford University’s Prof François Nosten	<b>Oxford University’s Prof François Nosten</b>	<b>Oxford University’s</b>
	Mexico City police found 416 totoaba swim bladders, prized for their purported rejuvenating qualities, in passenger’s suitcases	<b>passenger’s suitcases</b>	<b>passenger’s</b>
	the prosecutor general’s office said in a statement on Wednesday.	the prosecutor general’s office	prosecutor general’s
	The totoaba’s swim bladder – an organ certain fish species use to control their buoyancy – is prized in Chinese traditional medicine for its purported rejuvenating qualities, and can fetch up to \$20,000 on the black market.	The totoaba’s swim bladder	The totoaba’s
2-10	The critically endangered totoaba is native to the Gulf of California, off Mexico’s western coast.	Mexico’s western coast.	Mexico’s
2-11	It is the capital of one of Europe’s most popular holiday destinations but Palma de Mallorca will be the first city in Spain to ban private homeowners from renting their apartments to visitors.	Europe’s most popular holiday destinations	<b>Europe’s</b>
	Madagascar's vanilla wars: prized	Madagascar's vanilla	Madagascar's



	spice drives death and deforestation	war	
	Madagascar is the world's primary supplier of pods used to flavour ice cream, cakes and chocolate.	world's primary supplier of pods used to flavour ice cream, cakes and chocolate	world's
	Time is running out for Madagascar – evolution's last, and greatest, laboratory	evolution's last, and greatest, laboratory	evolution's
2-12	Vanilla is adding to deforestation pressures. At Masoala national park – which is one of Madagascar's best protected forests and home to many endangered species of lemur – visitors can hear the sound of chainsaws and see recently felled trees.	Madagascar's best protected forests	Madagascar's
	Supreme court appears to lean in favor of Trump's right to impose travel ban	Trump's right to impose travel ban	Trump's
	Key judges signal support for president's authority, as court weighs whether his motivation was national security or religious animus	<b>president's authority</b>	president's
	Chief justice John Roberts and Justice Anthony Kennedy, the two most likely swing votes on the nine-judge court, both expressed skepticism over attempts to undermine Trump's authority on what the president's side insists is a matter of national security.	Trump's authority	Trump's
	Chief justice John Roberts and Justice Anthony Kennedy, the two most likely swing votes on the nine-judge court, both expressed skepticism over attempts to undermine Trump's authority on what the president's side insists is a matter of national security.	the president's side	president's
	The exchange was emblematic of both the unprecedented nature of Trump's travel ban, which indefinitely bars more than 150 million people from gaining entry to the United States, and what many see as the core issue before the court: was the president's action motivated by an actual national security threat or by animus toward a particular religion?	Trump's travel ban,	Trump's
	The travel ban was elevated to the conservative-leaning supreme court,	Trump's best hope	Trump's

	which now stands as Trump's best hope to uphold what remains one of the most divisive actions of his presidency.		
2-13	<p>Despite California's liberal image, half favor travel ban and more deportations</p> <p>The travel ban case marked the final arguments of the supreme court's current term.</p>	California's liberal image	California's supreme court's
	<p>Malaysia election: confusion as rival questions Mahathir's right to be sworn in</p> <p>The election of Mahathir Mohamad as Malaysia's new leader has been thrown into doubt after his rival Najib Razak refused to concede defeat and was allegedly offering opposition candidates \$6m to switch sides.</p>	Mahathir's right	Mahathir's
2-14	<p>However, Mahathir's confirmation faced setbacks on Thursday morning, with reports that the king was refusing to swear him in and that Najib was attempting to swing the election his way by buying up candidates in the state of Sabah.</p>	Mahathir's confirmation	Mahathir's
	<p>The price meat, dairy and vegetables would all be increased by more than 4%, according to evidence from the British Retail Consortium to the Lords committee's inquiry.</p>	<b>Lords committee's inquiry.</b>	Lords committee's
2-15	<p>Half the UK's food is imported, with 30% from from the EU, 11% from countries with EU trade deals and the rest from other foreign sources.</p>	UK's food	UK's
2-16	<p>Port Heiden's tribal council president, John Christensen Jr, was on a beach ride with four-wheelers and smelled something foul.</p>	Port Heiden's tribal council president, John Christensen Jr	<b>Port Heiden's</b>
	<p>China's ZTE may be first major casualty of trade war with US</p> <p>ZTE, one of the world's largest telecom equipment makers, may be the first major casualty of a trade war brewing between China and the US.</p>	China's ZTE	<b>China's</b>
	<p>The announcement comes less than a month after the US banned American firms from selling hardware and software to ZTE for seven years,</p>	the world's largest telecom equipment makers	the world's
		the company's supply chain	company's

	effectively cutting off the company's supply chain.		
	The company's official channel on Tmall, owned by Alibaba, carried a photo of shirtless men rowing a dragon boat and the phrase "Spring is used for struggle", a slogan Chinese president Xi Jinping once used in a speech in 2013.	The company's official channel on Tmal	The company's
	The ban on ZTE, one of China's first telecom companies to succeed internationally, is also a sign of how deeply entrenched frictions between the US and China are amid an ongoing trade dispute.	China's first telecom companies to succeed internationally	China's
2-17	China's ministry of commerce said officials made "solemn representations" on behalf of ZTE during trade talks in Beijing last week with a visiting US delegation but they yielded few results.	China's ministry of commerce	China's
	Hawaii's evacuees on life by the volcano: 'People think we're crazy to live here'	Hawaii's evacuees	Hawaii's
	Hawaii's Kilauea volcano erupts	Hawaii's Kilauea volcano	Hawaii's
	A whole town has been ordered to evacuate after the eruption of the Kilauea volcano on Hawaii's Big Island caused lava to flow in residential areas, followed by two large earthquakes.	Hawaii's Big Island	Hawaii's
	Kilauea is one of the world's most active volcanoes.	the world's most active volcanoes	the world's
	Most of Kilauea's activity has been non-explosive, but an eruption in 1924 spewed ash and nine tonnes of rocks into the sky, leaving one man dead.	Kilauea's activity	Kilauea's
2-18	Puu Oo's 1983 eruption resulted in lava fountains soaring over 460 metres (1,500ft) high. In the decades since, the lava flow has buried large areas of land and destroyed many homes.	<b>Puu Oo's 1983 eruption</b>	<b>Puu Oo's</b>
	The red tops' obsession with Meghan Markle's father is a warning of the abuse to come	The red tops' obsession with Meghan Markle's father	The red tops'
	The red tops' obsession with Meghan	Meghan Markle's	Meghan Markle's

	Markle's father is a warning of the abuse to come	father	
2-19	Thomas Markle has been an unexpected gift for the UK's feral press.	UK's feral press	UK's
	Scotland's favourite non-alcoholic drink banned from Turnberry resort over its carpet-staining properties	Scotland's favourite non-alcoholic drink	Scotland's
	White House diplomacy has dipped to a new low after it emerged that Donald Trump's luxury golf resort in Turnberry, Scotland, has banned the sale of Irn-Bru on the premises.	Donald Trump's luxury golf resort in Turnberry	Donald Trump's
	<b>Turnberry's general manager, Ralph Porciani, told the Ayrshire Post: "We can't have it staining when to replace the ballroom carpet would be £500,000 alone.</b>	<b>Turnberry's general manager</b>	Turnberry's
	The latest affront comes after a change in recipe cut the sugar content of the drink by almost half following the introduction of the UK government's sugar tax, prompting fans to stockpile cans of the original version.	UK government's sugar tax	UK government's
	The piecemeal ban on Scotland's other national drink, long avowed as the ultimate hangover cure, has caused inevitable outrage on social media, and will likely swell the protests already planned should Trump visit Scotland as part of his trip to the UK in July.	<b>Scotland's other national drink</b>	Scotland's
2-20	Scotland's first minister, Nicola Sturgeon, has previously spoken out against a state visit by Trump.	Scotland's first minister, Nicola Sturgeon	Scotland's
	Trump's knife crime comments are ridiculous, says London surgeon	Trump's knife crime comments	Trump's
	Trauma system director rejects US president's suggestion that guns are a solution to stabbings	US president's suggestion	president's
	Trump's NRA speech		
	Prof Karim Brohi, another surgeon at the hospital and the director of London's major trauma system, said knife violence was a serious issue for London.	London's major trauma system	London's
	The London mayor, Sadiq Khan, who	the president's latest	the president's

	has previously clashed with Trump over terrorist attacks in the capital, declined to respond to the president's latest remarks.	remarks	
2-21	The shadow home secretary, Diane Abbott, set Trump's comments in the context of Conservative cuts to policing resources and the influence that has had on the rise in violent crime.	Trump's comments	Trump's
	<b>How mobile tech is improving healthcare for some of the world's most remote communities</b>	<b>the world's most remote communities</b>	world's
	From app-based diagnosis to mentorship programmes, social entrepreneurs at this year's Skoll World Forum shared their thoughts on how tech and collaboration could solve global healthcare challenges	this year's Skoll World Forum	year's
	If the targets in the UN's sustainable development goal three – which aims to ensure healthy lives and promote wellbeing for all ages – are to be met, these gaps in care need to be closed urgently.	the UN's sustainable development goal three	UN's
	With reference to recent research from the World Bank, suggesting that the world's poorest people are often more likely to have access to mobile phones than electricity or safe drinking water, Conteh remarked how the "ubiquitous nature of mobile technology provides a powerful tool for extending health care to underserved populations at the last mile."	the world's poorest people	world's
	<b>Last Mile Health's CHWs and their supervisors use the mHealth platform, hosted on Android smartphones, to log information on patient interactions and supervision visits in real time.</b>	<b>Last Mile Health's CHWs</b>	Last Mile Health's
2-22	The academy's goal is to reinvent the education of community health workers to help ensure everyone has access to medical care.	The academy's goal	academy's
	Custardo was supposedly created by a cafe in London's coffee belt, Peckham	London's coffee belt	London's
	It is also, arguably, from the same	Turin's highly	Turin's

	wheelhouse as bicerin, Turin’s highly prized morning drink, which mixes espresso with chocolate and whole milk, a potent combination that stimulates bodily fear and calorific anguish among churchgoers who drink it after mass.	prized morning drink	
	Michele Vollaro, general manager at London’s Cafe Murano St James, has heard of it but not tried it.	London’s Cafe Murano St James, has heard of it b	London’s
	What should have been egregious as a pairing was, in fact, as rich and thick as Theresa May’s cabinet, the custard cutting through the espresso’s bitterness.	Theresa May’s cabinet	Theresa May’s
2-23	What should have been egregious as a pairing was, in fact, as rich and thick as Theresa May’s cabinet, the custard cutting through the espresso’s bitterness.	the espresso’s bitterness.	espresso’s
	The environment of fear created over Jammeh’s 22 years in power meant that everybody – including his health minister, who was a doctor – ensured the president got what he wanted.	Jammeh’s 22 years in power	<b>Jammeh’s</b>
	Her two-year-old son was also forced to drink Jammeh’s potion.	Jammeh’s potion	Jammeh’s
	Amadou Sanneh was made finance minister two days after he was released from the country’s most notorious jail after a three-year stretch	the country’s most notorious jail	country’s
	Details of how Jammeh’s officers operated are emerging in the high-profile trial of the alleged killers of Solo Sandeng, an activist whose death set off a chain of events that led to Jammeh’s downfall.	Jammeh’s officers	Jammeh’s
	Details of how Jammeh’s officers operated are emerging in the high-profile trial of the alleged killers of Solo Sandeng, an activist whose death set off a chain of events that led to Jammeh’s downfall.	Jammeh’s downfall	Jammeh’s
	“We are under a lot of pressure, particularly from the victims, to ensure that there is accountability for the abuses of the past 22 years,” said Ba Tambadou, the country’s justice	the country’s justice minister.	country’s

	minister.		
	Worldwide, truth and reconciliation commissions have met with varying success. The head of the Gambia's commission, historian Baba Galleh, is studying them, trying to avoid the pitfalls.	Gambia's commission	Gambia's
	Galleh's ambition is not just to expose what happened under Jammeh, but to dictator-proof the Gambia by building a national identity that goes beyond politics or tribal affiliation.	Galleh's ambition	Galleh's
2-24	For Jatta, the HIV-positive woman who now works at the victims' centre, hearing others' stories is a form of therapy.	others' stories	others' stories
	<b>Huddersfield seal Premier League survival and dent Chelsea's ambitions</b>	Chelsea's ambitions	Chelsea's
	Huddersfield Town's sojourn back in the top flight was supposed to be fleeting, a one-season dalliance with the elite, but David Wagner and his side are not done with life at this level just yet.	Huddersfield Town's sojourn back in the top flight	Huddersfield Town's
	A point squeezed despite incessant Chelsea pressure will prolong their stay into a second year, effectively at Swansea's expense.	Swansea's expense	Swansea's
	The joyous visiting players swiftly persuaded the management to cancel the team's flight home in favour of a coach journey back to west Yorkshire.	the team's flight home	team's
	It was fitting Town should achieve a campaign's objective with such a scrap of a performance, a frenzy of blocks and challenges to blunt Chelsea's Champions League aspirations, with their resolve utterly unbreakable as the home side poured at them through the chaotic latter stages.	a campaign's objective	campaign's
	It was fitting Town should achieve a campaign's objective with such a scrap of a performance, a frenzy of blocks and challenges to blunt Chelsea's Champions League aspirations, with their resolve utterly	Chelsea's Champions League aspirations	Chelsea's

	unbreakable as the home side poured at them through the chaotic latter stages.		
	One madcap pinball in the visitors' penalty area seven minutes from time summed up their refusal to wilt, players flinging themselves into a succession of blocks as the ball ricocheted off the mass of bodies	the visitors' penalty area	the visitors' penalty area
	When it eventually broke free to loop up invitingly to Andreas Christensen, the Dane's header back towards the far corner was tipped thrillingly on to a post and behind for a corner by the diving Jonas Lössl.	the Dane's header	Dane's
	The Huddersfield players hold their breath as Jonas Lössl's fingertip save comes back off the post to deny Chelsea a winner.	Jonas Lössl's fingertip save	Jonas Lössl's
	Antonio Conte had rested six players here with one eye on the FA Cup final and while his team's endeavour could not be doubted, it took the introduction of the cavalry – Olivier Giroud and Eden Hazard – to force parity.	his team's endeavour	team's
	César Azpilicueta's low centre fizzed across the six-yard box and Mathias Jørgensen, in attempting to hack it clear, succeeded only in belting the ball on to Marcos Alonso's forehead.	César Azpilicueta's low centre	César Azpilicueta's
	César Azpilicueta's low centre fizzed across the six-yard box and Mathias Jørgensen, in attempting to hack it clear, succeeded only in belting the ball on to Marcos Alonso's forehead.	Marcos Alonso's forehead	Marcos Alonso's
2-25	Christopher Schindler was vocal and inspirational organising his back-line, Lössl excellent in goal and the Mooy and Jonathan Hogg combination in midfield snapped into challenges to disrupt the home side's rhythm.	home side's rhythm	home side's
	Harry Kane, Dele Alli and Christian Eriksen celebrate Kane's goal and more Champions League football next season.	Kane's goal	Kane's
	League qualification is always a boon, but it was especially appreciated when	everybody's favourite European	everybody's



	the news was confirmed at Wembley thanks to Chelsea hitting the brakes at Stamford Bridge because it feels like it's about something bigger than one campaign in everybody's favourite European competition.	competition.	
	The idea that an elite club's ambitions live or die by the Champions League is a bit hysterical at a time when the old top four have turned into a high-ambition six who rightly enter each season thinking they ought to be a contender for a Champions League position.	an elite club's ambition	club's
	But Tottenham's prospects seem tangled up in the chase more intensely than the others because of their stadium rebuild.	Tottenham's prospects	Tottenham's
	<b>Spurs's form had been fluffy going into this final week of the season, with points frittered away, allowing doubts to gnaw away.</b>	Spurs's form	Spurs's
	The noise of crackling urgency shuddered through the home crowd early on as Jonjo Shelvey's thumping free-kick clipped the outside of a post.	Jonjo Shelvey's thumping free-kick	Jonjo Shelvey's
	Tottenham's stress began to show.	Tottenham's stress	Tottenham's
	Kane's sureness of touch eluded him when he was in for a one-v-one. It was nervy.	Kane's sureness of touch	Kane's
2-26	The team's body language changed in that instant.	The team's body language	team's
	If today's rags are to be believed, he will move one step closer by acting in a sufficiently brattish manner to make Paris Saint-Germain wearily decide that life's too short and sell him to Real Madrid.	today's rags	today's
	PSG's interest in Sessegnon could impact on the great property tree that is the transfer market.	PSG's interest	PSG's
	United, Arsenal and Chelsea are desirous of PSG's current left-back Layvin Kurzawa.	PSG's current left-back Layvin Kurzawa	PSG's
	And who knows what that might also mean for Danny Rose's employment status?	Danny Rose's employment status	Danny Rose's
	For his part, Griezmann is wanted by,	Madrid's favourite	Madrid's

	among others, Barcelona – who will sell weathered genius Luis Suárez if they get Madrid’s favourite Head and Shoulders shill.	Head and Shoulders shill	
	Another teenage defender, Porto’s Diogo Leite, is wanted by Liverpool, Man City, Arsenal and – breaking news! – millions of Football Manager junkies.	Porto’s Diogo Leite	Porto’s
2-26	If that happens, there will be no Pep/Big Sam dilemma for Norwich’s James Maddison.	Norwich’s James Maddison	Norwich’s
2-27	Chelsea, Arsenal and Tottenham are also believed to be monitoring Martial’s situation with varying degrees of interest.	Martial’s situation	Martial’s
	Mateja Kezman, the player’s agent, told the Serie A website that “Lazio have three big games to go and nobody has talked about any negotiations at this moment.”	the player’s agent	player’s
	German TV station Sport 1 have reported that Borussia Dortmund are cooling their interest in Chelsea flop Tiémoué Bakayoko as they feel the Premier League club’s valuation of £53m for the player is way too high.	the Premier League club’s valuation of £53m	club’s
	Following Liverpool’s defeat at the hands of Chelsea yesterday, Jürgen Klopp sarcastically dismissed speculation that the club have agreed to take Nabil Fekir	Liverpool’s defeat	Liverpool’s
	Wilfried Zaha is another player reported to be on Liverpool’s radar, while Chelsea are also understood to be interested in securing the services of the £50m-rated winger.	Liverpool’s radar	Liverpool’s
	Liverpool striker Dominic Solanke has been identified as one of Steven Gerrard’s first targets as he prepares to begin life in the Rangers hot-seat.	Steven Gerrard’s first target	Steven Gerrard’s
	The Huddersfield manager has not yet secured his side’s Premier League status, but yesterday’s hard-fought point against Manchester City could make all the difference.	his side’s Premier League status	side’s
2-28	The Huddersfield manager has not yet secured his side’s Premier League	yesterday’s hard-fought point against	yesterday’s

	status, but yesterday's hard-fought point against Manchester City could make all the difference.	Manchester City	
	Barnardo's, Britain's largest children's charity, has been brought in by Chelsea to oversee an independent investigation into the allegations of racism that have left the club facing the possibility of widespread legal action.	Britain's largest children's charity	Britain's
	Three more players from the 1980s have subsequently taken on solicitors to begin their own litigation and as the Guardian revealed on Tuesday, the complainants have received public backing from two of the white players who were in the club's youth set-up.	the club's youth set-up.	club's
	Rix, who became Chelsea's youth-team coach in the 1990s, has also repeatedly denied all the allegations.	Chelsea's youth-team coach	Chelsea's
	The investigation is being led by Julie Dugdale, the head of business at Barnardo's Training and Consultancy, and Rod Weston-Bartholomew, the charity's assistant director of children's services.	the charity's assistant director of children's services	charity's
	According to that player's account, in an interview with the FA's safeguarding department, the racist abuse started after joining the club on schoolboy terms.	that player's account	that player's account
2-29	According to that player's account, in an interview with the FA's safeguarding department, the racist abuse started after joining the club on schoolboy terms.	FA's safeguarding department	FA's
	Fears for Serena Williams's French Open as she withdraws in Madrid	Serena Williams's French Open	Serena Williams's French Open
	Serena Williams has withdrawn from the Madrid Open as she continues to regain full fitness ahead of the French Open later this month, the tournament's organisers said on Thursday.	the tournament's organisers	tournament's
	<b>Williams, a 23-times grand slam singles champion, was beaten by her sister Venus in her comeback tournament at Indian Wells and last</b>	<b>Japan's Naomi Osaka</b>	Japan's

**played in her first-round defeat to Japan's Naomi Osaka at the Miami Open.**

2-30	Poland's Agnieszka Radwanska has also withdrawn from the tournament, which runs from 7-13 May, due to a back injury.	Poland's Agnieszka Radwanska	Poland's
2-31	Britain's Kyle Edmund secured one of the biggest victories of his career by defeating the former world No 1 Novak Djokovic in the second round of the Madrid Open.	Britain's Kyle Edmund	Britain's
	The policy, which begins immediately and will be rolled out to county cricket in due course, is part of the England and Wales Cricket Board's new wide-ranging action plan for engaging south Asian communities that is published on Thursday.	Wales Cricket Board's new wide-ranging action plan	Wales Cricket Board's
	With this paper comes an admission from the governing body's chief executive, Tom Harrison, that the sport has previously fallen short.	the governing body's chief executive	body's
	Within the 11-point strategy – one that aims to build at least 20 urban cricket centres, install 1,000 artificial pitches in urban areas, beef up scouting networks in the Asian park leagues and the ECB's T20 City Cup, and offer bursaries and mentoring to promising young British Asian players – comes the so-called Rooney Rule.	the ECB's T20 City Cup	ECB's
	The board's action plan has been driven by Lord Patel of Bradford, an ECB director, and involves partnerships with the British Asian Trust, the National Asian Cricket Council, Chance to Shine and sponsors NatWest.	The board's action plan has been	board's
	The chief finding was that facilities play a major part and to that end the first two years of the plan will target 10 "core cities" – Birmingham, Bradford, Kirklees, Leeds, Leicester, London, Luton, Manchester, Sandwell and Slough – that house 61% of the 3.2m of the UK's Asian population, before going nationwide.	the UK's Asian population,	UK's

	Another target in the “core cities” will be to establish female-only cricket sessions for the south Asian community, with 200 female coaches deployed, after the ECB’s research showed a lack of such opportunities to be another concern.	ECB’s research	ECB’s
2-32	Only 3% of ticket sales for domestic matches come from the south Asian community, compared to a figure of 40% during last summer’s Champions Trophy when India, Pakistan, Sri Lanka and Bangladesh took part.	last summer’s Champions Trophy	last summer’s
	Tatum scored 25 points, Jaylen Brown had 24 and Terry Rozier 17, sinking a pair of free throws after forcing Joel Embiid’s turnover in the final seconds.	Joel Embiid’s turnover	Joel Embiid’s
	Dario Saric had 27 points and 10 rebounds on Wednesday night, while Ben Simmons, many people’s choice for rookie of the year, added 18 points, eight rebounds and six assists.	many people’s choice for rookie of the year,	people’s
2-33	<b>Australia’s Aron Baynes was the subject of an odd statistic.</b>	Australia’s Aron Baynes	<b>Australia’s</b>
	<b>Andy Farrell signs extended Ireland deal to dampen England’s hopes</b>	<b>England’s hopes</b>	<b>England’s</b>
	Andy Farrell has enhanced his reputation during his stint as Ireland’s defence coach.	Ireland’s defence coach	Ireland’s
	Andy Farrell’s chances of replacing Eddie Jones as England’s next head coach look slim after he signed a contract extension with Ireland until the summer of 2020.	Andy Farrell’s chances of replacing Eddie Jones as England’s next h	Andy Farrell’s
	Andy Farrell’s chances of replacing Eddie Jones as England’s next head coach look slim after he signed a contract extension with Ireland until the summer of 2020.	England’s next head coach	England’s
	Gregor Townsend’s side will play France away on 17 August before facing Georgia a week later and then will host both nations in Edinburgh.	Gregor Townsend’s side	Gregor Townsend’s
2-34	The Pro14 final will now kick-off at 6pm – half an hour earlier than originally planned – at Dublin’s Aviva Stadium as a result of a clash with the Uefa Champions League final on	Dublin’s Aviva Stadium	<b>Dublin’s</b>

	Saturday 26 May.		
	China's anti-spy campaign: cash rewards and warnings of 'dangerous times'	China's anti-spy campaign	China's
	The posters, from Beijing's national security bureau, include a hotline to call "in dangerous times".	Beijing's national security bureau	Beijing's
	The country's ministry of education called for national security to be introduced in the school curriculum	The country's ministry of education	country's
	The campaigns are centred around the idea that 'everyone is responsible' for participating in China's state security.	China's state security	China's
	Under Xi, China has passed a series of national security laws that broaden the government's already wide remit to investigate and monitor individuals it deems a threat to stability.	the government's already wide remit to investigate and monitor individuals it deems a threat to stability.	government's
	Foreign individuals or groups can be punished for fabricating, distorting facts, or issuing information that harm China's national security.	China's national security.	China's
2-35	Others say that the campaign against foreign spies is more about distracting from the party's broad anti-corruption campaign and what many see as the government's tightening hold over media, academia, and society overall.	the party's broad anti-corruption campaign	party's
	So far, the provincial coroner's office has identified eight of the 12.	So far, the provincial coroner's office has identified eight of the 12.	coroner's
	Then on 7 February a new one washed ashore, discovered by a hiker along Vancouver Island's Botanical Beach.	Vancouver Island's Botanical Beach	Vancouver Island's
	Think about it, if they tied a chain around someone's ankle and threw them overboard, the foot would just pop off.	someone's ankle	someone's
	<b>Canadian police are investigating after a human foot washed up on the shores of British Columbia – marking the 14th time since 2007 that tides have carried a shoe-clad foot on to the province's coastline.</b>	the province's coastline	<b>the province's</b>
2-36	After an object tangled in sea kelp captured his dog's attention, he leaned	his dog's attention	dog's

	in for a closer look and found a fibula and tibia attached to a left foot, all of it encased in a white sock and black Velcro shoe.		
	Yukon bar's 40-year-old signature drink, the sourtoe cocktail, featured the blackened toe inside – until a customer allegedly ran off with it	Yukon bar's 40-year-old signature drink	bar's
2-37	A severed human toe used in the Downtown hotel's 'sourtoe cocktail' – a Dawson City tradition.	<b>Downtown hotel's 'sourtoe cocktail'</b>	<b>Downtown hotel's</b>
	The three-day summit, where the year 2033 features prominently as a target date for a manned mission to Earth's neighbour, boasts virtual reality demonstrations and 111 speakers including Vera Mulyani, who has been dubbed a "Marschitect".	Earth's neighbour	Earth's
	<b>Cruz also reflected on his state's deep involvement in space programmes.</b>	his state's deep involvement	state's
2-38	<b>Nasa's latest mission to another planet is set to blast off on Saturday on a seven month voyage across the frigid depths of space to Mars, with the aim of mapping the planet's interior for the first time.</b>	<b>Nasa's latest mission to another planet</b>	Nasa's
	Nasa's latest mission to another planet is set to blast off on Saturday on a seven month voyage across the frigid depths of space to Mars, with the aim of mapping the planet's interior for the first time.	planet's interior	planet's
	Another is a seismometer that will be placed on the surface by the lander's robotic arm.	the lander's robotic arm	lander's
	Bruce Banerdt, the principal investigator on the mission at Nasa's Jet Propulsion Laboratory in California, said he expects InSight to record at least a dozen, but perhaps 100, marsquakes of magnitude 3.5 or stronger over the two year mission.	Nasa's Jet Propulsion Laboratory	Nasa's
	Even the minuscule uplift of the ground caused by the gravitational pull of Mars's moon, Phobos, should register on its instruments.	Mars's moon	Mars's
	Two antennas on the probe enable	the lander's precise	lander's

	ground controllers to track the lander's precise position on the Martian surface.	position on the Martian surface	
	With that information, scientists can monitor how much Mars wobbles on its axis, movement that sheds light on the size of the planet's core and whether it is liquid or solid.	the planet's core	planet's
	Technicians inspect the InSight lander's solar arrays before launch.	the InSight lander's solar array	lander's
	On Monday, during a call with astronaut Peggy Whitson, who was aboard the International Space Station, Trump pressed her for a timeline on a crewed mission to Mars, one of Nasa's longest standing and most daunting goals.	Nasa's longest standing and most daunting goals.	Nasa's
	Even with private partnerships that Trump has encouraged, for instance with Elon Musk's SpaceX, getting to Mars will take years.	Elon Musk's SpaceX	Elon Musk's
	In the bill last month, Trump and Congress kept most of the agency's funds intact, at about \$19bn, but cut \$200m for climate science, education programs and an asteroid mission that Nasa had hoped would be a stepping stone to Mars.	the agency's funds	agency's
	Larson wrote in an op-ed last month that at the rate set by Trump's budget request, sending "humans to Mars in less than a decade is not just impossible, it's laughable".	<b>Trump's budget request,</b>	Trump's
	On Thursday, the agency pushed back its planned 2018 test flight to 2019, after a report by the Government Accountability Office cast doubt on the rocket system's readiness to fly.	the rocket system's readiness to fly.	system's
2-39	SpaceX's CEO Musk wants to reach Mars by 2024, but has acknowledged that his private company would probably need help and luck for that "optimistic" timeline.	SpaceX's CEO Musk	SpaceX's
	Nasa's Earth science division is set to be stripped of funding as the president-elect seeks to shift focus away from home in favor of deep space exploration	Nasa's Earth science division	Nasa's



3-1	<p>It's understood that federal government scientists have been unnerved by Trump's dismissal of climate science and are concerned that their work will be sidelined as part of a new pro-fossil fuels and deregulation agenda.</p>	<p>Trump's dismissal of climate science</p>	<p><b>Trump's</b></p>
	<p>Racing's hidden crisis: 'Nobody wants to shovel s--- these days'</p>	<p>Racing's hidden crisis</p>	<p>Racing's</p>