

Signalling Nouns in English Journalism: A Syntactic Analysis

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ABSTRACT

Signalling nouns are certain kinds of nouns which signal that their specific meaning is found in the context despite the perseverance of their inherent dictionary meaning. Syntactically, signalling nouns work in contexts that make them have the properties they do and identify them as such. The paper aims at scrutinizing thirteen English newspapers of 2018, three magazines, a scientific journal and a news agency for the prevalency of the signalling functions of signalling nouns in them and further analyzing the signalling nouns by providing frequency ranges of the lexico-syntactic patterns of signalling nouns. Although, based on Chomsky's work on anaphora, it has been hypothesized that an eminent position is occupied by the anaphoric uses of signalling nouns in all kinds of texts, the researcher refutes the hypothesis by presenting the results of the analysis where the cataphoric uses of signalling nouns have the highest level of frequency in English journalism. The researcher proclaims some new lexico-syntactic patterns and some new variants for the previously observed patterns in the corpus taken in the paper.

Keywords: Abstract noun, Encapsulation, Lexico-syntactic Pattern, Prospection, Signalling noun

1. INTRODUCTION

The concept of 'Signalling Noun' (SN hereafter), despite being one phenomenon, has been given different names by various scholars over the previous four decades (Hunston and Francis, 2000). Although it is remarkable that Flowerdew (2002) was the first researcher to present the term signalling noun, different terms have been used for the same phenomenon by other researchers to refer to different aspects of the area of SN phenomenon. Such as:

General nouns (Halliday and Hasan, 1976), Type 3 vocabulary (Winter, 1977), Enumerable and Advance labels (Tadros 1985), anaphoric nouns (Francis, 1986), Carrier nouns (Ivanic 1991), Advance and retrospective labels (Francis 1994), shell nouns (Schmid 2000), and Signalling nouns (Flowerdew 2002, 2003, 2006, 2015). Additionally, two recently used labels which are Discourse-Organizing nouns (Taqvist, 2016), and Metadiscursive nouns Jiang and Hyland, 2017).

Defining the concept of SN is tricky since the term signalling is attributable to the function of these nouns in which they establish links across and within clauses and the clarification of meanings of SNs is done only by reference to its context. Yet they are defined as abstract nouns which signal that their specific meaning may be found in the context of their use (Flowerdew, 2003). That is to say, although these nouns hold an invariable meaning of their own, they derive their accurate meaning in a specific context. As observed, in example (1), the SN risk refers back to 'developing respiratory diseases such as asthma, according to a study' if risk is used out of context, it can hold a very general meaning and mean exposure to any kind of danger. While in this particular example, what it refers to specifies its meaning as being the risk of developing respiratory diseases.

1. [Independent-Health-Babies born during pollen season at greater risk of developing asthma, study finds-September 16th, 2018]
Babies born during the grass pollen season are more at risk of developing respiratory diseases such as asthma, according to a study. Although the lexiconnoisseur of the term 'signalling' is known to be Flowerdew (2002), but he had originally borrowed the term from (Hoey, 1993) who contended that lexical signals tend to be the author's/speaker's unequivocal signalling of the intended organization which inaugurates a primary means whereby a reader/listener 'decodes' a discourse accurately.

There has always been the question of where can SNs be put in the borderline between open- and closed-class items. Following (Halliday and Hasan 1976; Winter 1977; Francis 1986 and Ivani 1991), the often observed indeterminacy between open-class and closed-class items in SNs is due to their most prevalent distinctive feature in carrying some characteristics of closed-class and some of the open-class items. Thus, they reach an agreement that SNs are positioned on the boundary between open-class (lexical) and closed-class (grammatical) items.

2. RESEARCH QUESTIONS

This paper aims at attesting English Journalism of 2018 for the prevalency of signalling nouns in them along with scrutinizing their syntactic features.

SNs are predominantly prevalent in academic discourse. They come about in almost every range of registers and genres (Flowerdew and Forest, 2015). In our case, to analyze SNs syntactically, 283 examples are taken from thirteen British newspapers of 2018 (viz. British Weekly, Bexley Times, Independent, The Morning Star, Mirror, Mature Times, The Guardian, Metro, Express, The Sun, The Telegraph, Evening Standard, The Economist), three magazines (viz. New Scientist, The Ecologist, and The Spectator), one Scientific Journal (viz. Nature) and one news agency (viz. Reuters).

The paper attempts to answer the following questions:

- Which signalling function of signalling nouns has the highest level of frequency in English journalism?
- Which classification of lexico-syntactic patterns of signalling nouns is regarded as the most comprehensive one?
- What are the new lexico-syntactic patterns observed in English journalism?
- Which lexico-syntactic pattern is found to be the most prevalent one in the corpus used in the study?

3. THE SYNTAX OF SIGNALLING NOUNS

In the identification of an abstract noun as a signalling noun, syntax plays a vital role. The lexico-syntactic patterns SNs follow are way too important for linking SNs with their content (i.e. what they refer to in a context) and declaring an abstract noun as an SN.

To pave the way for analyzing SNs in terms of their syntactic feature, one should give a label to the stretch of discourse that SNs refer to in a context.

The term 'Content Phrase' is used preferably to describe the stretch of context that SNs refer to (Simonjetz and Roussel, 2016).

Content phrases tend to be complete constituents as seen in example (2). The SN is printed in boldface type, while what the SN refers to (i.e. its content phrase) is underlined.

2. [The Economist-Technology- **E-cigarettes** are almost certainly better than smoking-September 20th, 2018] FOR decades, doctors and governments have been trying to wean smokers from their habit. It is a tricky task.

4. THE SIGNALLING FUNCTION OF SIGNALLING NOUNS

An abstract noun is only counted as an SN when its specifics are to be found elsewhere in the text (i.e. its signalling function).

The occurrence of an SN in a sentence signals the availability of its more specific information in the text. The signalling function of SNs operates in three ways which are, across clause, within the clause, exophoric and homophoric (Flowerdew and Forest, 2015).

4.1 ACROSS CLAUSE SIGNALLING NOUNS

Across clause signalling nouns have their content phrase in the neighboring clause other than the one in which they occur. Accordingly, due to the occurrence of their content phrase across the clause of the SN, they get their across clause signalling function.

Endophora is a phenomenon of expressions which descends its reference from something within the neighboring text. In this type of occurrence, SN derives its meaning either in the preceding or the succeeding clauses, (that is anaphoric or cataphoric) (Forutan and Nasiri, 2011).

4.1.1 ACROSS CLAUSE ANAPHORIC REFERENCE (ENCAPSULATION)

Anaphora is a word or phrase that refers to a previously used word or phrase which is mentioned earlier in the text. The word anaphor is taken from Greek (ana-) which means "back, up, or against". Thus, anaphor looks back for the word that it refers to (McCulloch, 2014). As seen in (3), the SN treatments has an anaphorical signalling due to looking back for its content phrase. It is noteworthy that the signalling function is happening across clauses.

3. [Nature-Health-Why Hasn't Science Solved Acne Yet?-September 1st, 2018] Charles often prescribes isotretinoin, an oral medication commonly known as Accutane (though that brand is no longer distributed) that falls under a class of treatments called retinoids. It's one of the best available treatments for acne.

The wide-ranging literature in pronominal anaphora resolution (e.g., Chomsky 1981 and Asher 1993) are acknowledged for inspiring the anaphoric reference in the study of SN. Thus, it is unsurprising to have most of the researches of SNs (Halliday and Hasan 1976; Francis 1986; and Conte 1996) on anaphoric SN uses.

4.1.2 ACROSS CLAUSE CATAPHORIC REFERENCE (PROSPECTION)

Cataphora is the opposite of anaphora. Cataphor is taken from the Greek (cata-) meaning “down”. It is a word or phrase which refers to a subsequently mentioned word or phrase (McCulloch, 2014).

If an anaphor refers to what is preceding it, a cataphor refers to what follows it. In the case of cataphora, the succeeding expression provides the information which is compulsory to interpret the SN (Quirk et al, 1985), as in (4).

The act of anticipating the content phrase in SNs is called prospection (Sinclair 2004). Hence, in (4) the SN say prospects its specific meaning. The cataphoric reference happens across clauses. That is to say in between the sentences in the text.

4. [Independent-Politics-London mayor Sadiq Khan calls for second EU referendum: ‘the people must get a final say’-September 16th, 2018] “After careful consideration, I’ve decided the people must get a final say. This means a public vote on any deal or a vote on a no deal, alongside the option of staying in the EU,” Mr Khan wrote in an article for The Observer.

4.2 WITHIN THE CLAUSE (IN-CLAUSE) SIGNALLING NOUNS

The signalling function of SNs can happen within the clause that it occurs. Interestingly, anaphoric and cataphoric references of SNs can occur within sentence boundaries as equally as how they occur across clauses. Consequently, their endophoric references are not restricted only to across clauses.

4.2.1 WITHIN THE CLAUSE ANAPHORIC REFERENCE

Anaphoric signalling function of SNs is rarely used within clauses (Oh , 2014). As seen in (5), the SN problems refers anaphorically to its content phrase. Noticeably, both the SN and its content phrase occur within the same clause, therefore they have within the clause signalling function.

5. [Reuters-Sport- Man City suffer surprise home loss to Lyon-September 20th, 2018] Ilkay Gundogan had an effort disallowed after Italian referee Daniele Orsato ruled that Raheem Sterling was offside but City’s frustrations in attack were not their only problems.

4.2.2 WITHIN THE CLAUSE CATAPHORIC REFERENCE

Like across clause SNs, the within clause SNs have cataphoric signalling function within the clause in which they occur. In example (6), the SN standpoint signals its content phrase cataphorically within the clause in which it had occurred.

6. [The Telegraph-Politics-‘Fort Trump’: US President expresses interest in creating military base in Poland named after him-September 18th, 2018] “Poland would be paying the United States billions of dollars for a base. We are looking at that more and more from a standpoint of defending really wealthy countries and not being reimbursed,” he said.

4.3 EXOPHORIC REFERENCE

Until now, those types of SNs have been discussed which are specified in the text. When SNs are not specified in the text, the readers/ listeners to comprehend the SNs’ full meaning have to look for its specification outside the text (that is the context of situation, the reader’s background or world knowledge, or their imagination) (Flowerdew and Forest, 2015).

SNs that are not recovered from the discourse would rather appeal to background knowledge to fulfill their signalling function. In such cases, they tend to have exophoric reference. One needs to apply the background knowledge for the comprehension process of the SN. Its application tends to be compulsory, not optional at all (Ivanic (1991). Henceforth, the higher the level of reader or listener’s background knowledge gets, the better he/she comprehends it. As noticed in example (7), plans has no content phrase in the text. It is left to the readers to work out what plans the writer is referring to.

7. [The Sun-Politics-Theresa May opens door to dumping Chequers plan for a soft Brexit – as Tories defend her from Boris Johnson onslaught-September 13th, 2018] Theresa May's initial plans brought her on side with those Conservatives who favour a "soft" Brexit. In this fashion, SNs function more as pronouns in the way that their existence signifies to the listeners/readers the need of looking for what the signal refers to, whether in the clause, elsewhere in the text or outside the text (Flowerdew, 2003).

4.4 HOMOPHORIC REFERENCE

In homophoric cases, the SN's referent is detected based on current or particular circumstances which are familiar to the readers or listeners (Flowerdew, 2002). In (8), the SN discovery, which ends an article about a scientific research on the origins of turtles, hints that it is already mentioned in the article and the reader is familiar to it.

8. [Mirror-Science-What the shell? Scientists discover the 228-million-year-old remains of a six-foot turtle WITHOUT a shell-August 22nd, 2018] The researchers hope the discovery will help shed light on the origin of turtles.

5. FREQUENCY RANGES OF SIGNALLING FUNCTIONS IN ENGLISH JOURNALISM

In the corpus study, 283 examples of SN usage have been taken and analyzed for the frequency of the signalling functions they have in their context (i.e. the anaphoric, cataphoric, exophoric and homophoric functions). As observed in Table 1, the total number of SNs in cataphoric function is 175. While 36 examples have been used anaphorically. The number of the SNs used in Exophoric function is 71, when only 1 example has the homophoric function.

Table 1: The total use of signalling functions in English journalism

Signalling Functions	The total use of the signalling functions in English journalism
anaphoric	36
Cataphoric	175
exophoric	71
homophoric	1

Considering the frequency ranges of signalling functions in English journalism, it could be concluded that the cataphoric signalling function of SNs is the most frequent one among the others, since 62% of the examples are used cataphorically. While 13% of the examples are anaphoric, and 25% are exophoric. The least frequent signalling function is the homophoric one since it is used rarely with 0%, as shown in figure 1

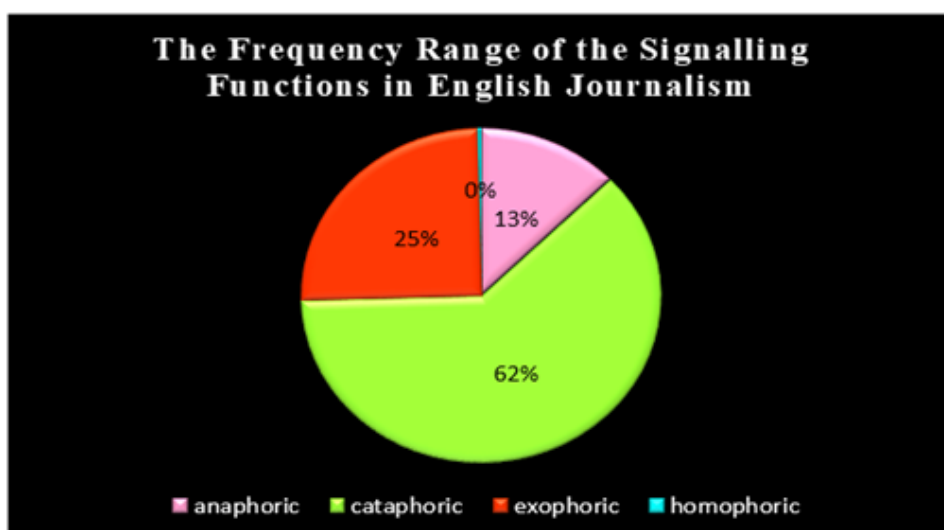


Figure 1: The frequency range of the signalling functions in English journalism

6. LEXICO-SYNTACTIC PATTERNS OF SIGNALLING NOUNS

Readers cannot deduce from the text what SNs refer to. Thus, the necessity of certain lexico-syntactic patterns come into sight (Gao and Zhang, 2017).

Nouns can be identified as SNs only when they are used in certain lexico-syntactic patterns. In other words, an abstract noun can be considered as an SN when it is inserted in such a pattern but stays as a normal abstract noun if no pattern is employed together with it. Therefore, the identification of SNs is highly reliant on their patterns.

As it can be observed in example (9), truth is used to appoint to a kind of truth which is not known what it might be. While truth in example (10) is used as an SN which refers cataphorically to the underlined part. Because it follows the lexico-syntactic pattern of (SN-PP), hence it is regarded as an SN. Contrariwise, in (9), it is not regarded as an SN since it doesn't follow any of the lexico-syntactic patterns of SNs.

9. [Metro-Politics-Barack Obama brands Donald Trump a 'demagogue bully' in scathing speech-September 14th, 2018] Obama did not refer to Trump by name, but instead said: 'Some things are complicated, when I was president I was confident the American people wanted the truth.'

10. [The Guardian-Politics-Four in 10 think British culture is undermined by multiculturalism-September 17th, 2018] More than a quarter of people believe MPs never tell the truth about immigration and half the population wants to see a reduction in the numbers of low-skilled workers coming into Britain from the EU.

These two examples prove the fact that one single abstract noun can stay as an ordinary abstract noun or function as an SN in altered situations. The identification of whether it is an SN or an ordinary abstract noun requires the

context and the lexico-syntactic pattern that it follows (Gao and Zhang, 2017).

The first researcher to present the most commonly used lexico-syntactic patterns is Schmid (2000). He examined two patterns which are:

1. Determiner + (Premodifier) + Noun + postnominal that-clause, wh-clause or to-infinitive .
2. Determiner + (Premodifier) + Noun + be + complementing that-clause, wh-clause or to-infinitive.

Any abstract noun, which can be inserted in one of these lexico-syntactic patterns, will be regarded as a signalling noun. Schmid, in 2018, improvises his list of patterns and further adds up some other patterns.

Other than Schmid, seven lexico-syntactic patterns of SNs have been examined by Liu and Wang (2016).

Table 2: Lexico-syntactic patterns of signalling nouns identified by Liu and Wang (2016)

Lexico-grammatical patterns	Abbreviation
1. shell noun + postnominal clause	N-cl
Variants:	
+that-clause	N-that
+to infinitive-clause	N-to
+prepositional phrase	N-PP (N-of, N-for, the /a /an-N-of, etc.)
+wh-clause	N-wh (which, why, when, etc.)
+preposition+ which-clause	N-P-which (N-in-which, N-for-which, etc.)
+fixed collocations	in fact, as a result, etc.
2. shell noun +be/Verb + complement clause	N-be /V-cl
Variants:	
+that-clause	N-be /V-that
+to/doing	N-be /V-to /doing
+nominal phrase	N-be /V-NP
+wh-clause	N-be /V-wh (what, when, whether, etc.)
3. shell noun + enumerative phrases	N-EP (like, such as, including, to mention a few, etc.)
4. multiple nouns or phrases	NG-be-N
+ be + shell noun	
5. anaphoric clause + demonstrative	th-N
+ shell noun	
6. anaphoric clause + demonstrative	th-be-N
+ be + shell noun	
7. shell noun + cataphoric clause	N-C-cl

One might question how do these lexico-syntactic patterns differ and why a linguist found one while the other didn't? There might be two reasons for that. The first is each study used different corpora. Thus a lexico-syntactic pattern might occur in one corpus and not identified in the other. While the second is that each researcher holds a different sight on what types of lexico-syntactic patterns can be considered as SN patterns. Each has a different understanding of what is a "true" SN pattern. Hence each develops his own standards to identify SN patterns (Gao and Zhang, 2017).

6.1 THE ANALYSIS OF LEXICO-SYNTACTIC PATTERNS OF SIGNALLING NOUNS

The following part analyses the lexico-syntactic patterns of SNs in English journalism. For the analysis, Liu and Wang's (2016) classification is adopted. Although their classification is based on Schmid's (2000) work, but they succeeded in extending their classification over Schmid's by adding up three more patterns. Since their classification is the most comprehensive and thorough in terms of the patterns analyzed, it is selected as the focus of this study.

The seven lexico-syntactic patterns are separated and analyzed with accordance to their signalling function in the text (either endophoric or exophoric). It further scrutinizes them for whether there is a pattern used by the journal writers of English journalism which is not included in Liu and Wang's (2016) classification.

6.1.1 LEXICO-SYNTACTIC PATTERNS WITH CATAPHORIC FUNCTION

SNs in cataphoric function follow four constructions according to Liu and Wang's (2016) classification. A new construction has been found in the corpus study and added up to Liu and Wang's four constructions respectively. The constructions are:

1. Signalling noun+ post nominal clause (SN-cl)

In this construction, the link between the SN and its content phrase is less straightforward. No matter whether the post nominal clause conveys the content phrase or not, the content phrase is reliant on the SN and the syntactic structure they occur in (Kolhatkar and Hirst, 2014). The variants of this construction are:

A. Signalling Noun +that-clause (SN-that)

Reflect on the SN allegations in (11), it is followed by a that-clause which is regarded as its content phrase.

11. [The Morning Star-Politics- British cuffs used to shackle political prisoners in Bahrain-September 16th, 2018] a HANDCUFF manufacturer in Birmingham is being accused of "fuelling oppression" over allegations that its products are being used to restrain political prisoners at a notorious Bahraini jail.

The researcher observes that, in certain cases in the corpus, the coordinator that is deleted in the (that-clause) following the SN and it would still be regarded as a well-formed sentence, as it can be observed in (12).

12. [Metro-Weather-Storm Helene poses 'risk to life' as it heads for the UK-September 14th, 2018] Helene is one of a number of tropical storms brewing in the region, with experts warning it poses a 'risk to life'.

However, the (that-clause) which follows the SN, is not always regarded as the content phrase of the SN in the corpus. Sometimes it modifies the SN while its content phrase is something else in the text. Consider (13) where the that-clause after the SN advice modifies it and the content phrase is the underlined be- complement clause.

13. [Evening Standard-Politics-John McDonnell says Labour could renationalise railways within five years-September 22nd, 2018] "We will abide by the legal advice that is provided to us. If the legal advice that is provided to us is we are not obliged to provide compensation to some, then we will follow that advice," he said.

B. Signalling Noun +to infinitive-clause (SN-to)

The SN right in (14) had the underlined to infinitive-clause as its content phrase.

14. [The Morning Star-Politics-Father shot dead by Taliban in Afghanistan after being deported from Britain-September 15th, 2018] A recent change in the law meant he was unable to exercise his right to appeal and was removed to Afghanistan in 2016.

The researcher notices that it is not always the case that the to-clause following the SN acts as its content phrase. There are cases where the to-clause post-modifies the SN and its content phrase would be another clause in the sentence like in (15).

15. [The Morning Star-Politics-Labour unveils plan for a financial transactions tax on 10th anniversary of Lehman Brothers collapse-September 15th, 2018] "In addition to the need for greater regulation, one of the key lessons to be learnt from the crash is that never again must we allow finance to become the master of the economy, rather than its servant."

A new variant for the pattern SN-post nominal clause is found in the corpus by the researcher, which is SN+ gerund phrase. Speculate about the SN ultimatum in (16) which has the post-modification to-clause while having its content phrase beginning with the gerund saying.

16. [Evening Standard-Politics-Theresa May speech: PM says she 'will not overturn the result of the Brexit referendum'-September 21st, 2018] Theresa May delivered a defiant ultimatum to European Union leaders in a statement from No 10 this afternoon, saying she would offer no more concessions until they give ground.

C. Signalling Noun+ prepositional phrase (SN-PP: N-of, N-for, the/a/an-SN-of, etc.)

In this construction, prepositional phrases follow the SN to become its content phrase. Different prepositions can be the head of the PP. In (17), the PP headed by the preposition of is the content phrase of risk. Whereas in (18), about is the head of the PP and content phrase of the SNs questions and doubts respectively.

17. [Independent-Health-Daily aspirin unnecessary for healthy older people, new study finds-September 16th, 2018] The study's authors found that aspirin taken daily by healthy adults over 70 did not significantly reduce the risk of non-fatal heart attacks, coronary heart disease and strokes.

18. [The Guardian-Politics-No 10 mocks Boris Johnson for condemning EU backstop plan he originally endorsed - Politics live-September 18th, 2018] Miller also expressed doubts about the phrase "people's vote" as a slogan for those campaigning, as she is, for the public to be given a say on the final Brexit deal.

The researcher witnesses cases where, sometimes, the PP that comes after the SN doesn't act as its content phrase, it would rather modify it as seen in (19) where challenge has its content phrase anaphorically (i.e. preceding it).

19. [Bexley Times-Sport-Billings reveals being Kent captain is a learning curve-September 13th, 2018] Yet the Kent wicketkeeper-batsman concedes he is still a rookie when it comes to commanding the Championship side. "It's been a challenge of late and a real learning curve for me," the 27-year-old said.

D. Signalling Noun +wh-clause (SN-wh) (which, why, when, etc.)

The SN events in (20), is followed by its content phrase that is a which-clause.

20. [The Spectator-Health-Getting less than five hours sleep a night 'doubles heart attack risk'-August 26th, 2018] Participants were followed-up for 21 years for the occurrence of major cardiovascular events, which included heart attack, stroke, hospitalisation due to heart failure, coronary revascularisation, or death from cardiovascular disease.

E. Signalling Noun+ preposition+ which-clause (N-P-which) (N-in-which, N-for-which, etc.)

F. Signalling Noun+ fixed collocations (in fact, as a result, etc.)

In (21), although fact is in a fixed collocation, it still acts as an SN since it looks ahead for its content phrase.

21. [British Weekly-Sport-Meet A Member: Miranda Wilson-August 31st, 2018] In fact, I am a bit of a 'Hidden Gem' in the area of Dialect Coaching!

2. Signalling noun +be/ Verb +complement clause (SN-be/ V-cl)

In such a construction, the SN phrase come about as the subject in the subject verb-construction, along with the linking verb be, and its content phrase is entrenched either as wh-clause, that-clause, or to-in infinitive clause (Kolhatkar & Hirst, 2014).

The Variants of this construction are:

A. Signalling Noun+ be/V+ that-clause (SN-be/ V-that)

In example (22), the SN mantra has a be-that clause as its content phrase.

22. [The Economist-Politics-EU leaders are united on Brexit but divided on migration-September 21st, 2018] A favourite early mantra of Brexiteer MPs was that German carmakers would pressure Angela Merkel to overrule other states (France, say) and let Britain cherry-pick the details of its new relationship.

B. Signalling Noun +be/V +to/doing (SN-be/ V-to/doing)

Dwell on aim in (23). It has a be-to clause as its content phrase.

23. [Evening Standard-Sport-Lionel Messi shows his priority is another Champions League trophy for Barcelona-September 18th, 2018] Lionel Messi is staying true to his word. The brilliant Barcelona forward knows he has extra responsibilities this season, in his role as club captain, and his biggest aim is to lead his team to European glory once again. Going by his performance on Tuesday, he clearly means business.

C. Signalling Noun+ be/V+ nominal phrase (SN-be/ V-NP)

Ruminate about the SN cause in (24) respectively, where both have be-NP as their content phrase.

24. [New Scientist-Health-The surprising foods that are messing with your gut-September 12th, 2018] The most common cause of gut problems is irritable bowel syndrome (IBS), a catch-all term ...

D. Signalling Noun+ be/V+ wh-clause (N-be/ V-wh) (what, when , whether, etc.)

To cogitate about question in (25), it is observed that it has its content phrase in be-wh clause where the head of the wh-clause is whether.

25. [Independent-Politics-Torture of terror suspect at CIA black site operated by current director Gina Haspel detailed in newly declassified cables-August 10th, 2018] The archive said one outstanding question was whether Ms Haspel wrote Cable 11359, from December 1 2002, which used remarkably vivid language to describe the torture sessions.

Alongside the variants mentioned for the pattern (SN- be/V -cl), the researcher comes across two other variants for that pattern where first the SN is followed by be-conditional clause as seen in (26) and second where the SN has been followed by V- Prepositional phrase as in (27).

26. [New Scientist-Health-Only one in five UK adults would choose to live forever if they could-September 18th, 2018] The question posed in the survey was “if you were offered the chance to live forever, how likely are you to take it?”.

27. [New Scientist-Health-The surprising foods that are messing with your gut-September 12th, 2018] What’s more, the secret to dealing with these problems could fly in the face of established healthy eating advice.

3. Signalling Noun+ Enumerative phrases (N-EP)

Enumerative phrases being headed by (such as, including, to mention a few, etc.) can follow an SN and act as its content phrase enumerating what the SN refers to. As seen in (28), the SN conditions is followed by the such as-phrase. When in (29), the SN theories is followed by Enumerative phrase headed by including.

28. [Evening Standard-Health-Type 2 diabetes: Symptoms, treatment and difference from type 1 for World Diabetes Day 2018-September 14th, 2018] This is because people with type 2 diabetes may develop a number of conditions, such as high blood pressure and cholesterol, which contribute to their risk of developing cardiovascular disease.

29. [Mirror-Science-AI system detects 72 mysterious signals from deep space – and they may have been sent by ALIENS-September 11th, 2018] Several theories have been put forward – including neutron stars, supermassive black holes, or even aliens.

4. Signalling Noun+ Cataphoric clause (SN-C-cl)

The SN has its content phrase as a cataphoric clause. Puzzle over (30), where the SN pledge has its content phrase following it as a cataphoric clause. The content phrase is regarded as a cataphoric clause for having the pronoun he in it which functions cataphorically referring to Jeremy Corbyn.

30. [Evening Standard-Politics-John McDonnell says Labour could renationalise railways within five years-September 22nd, 2018] Labour’s second in command, and Jeremy Corbyn’s ally unveiled his pledge ahead of the start of the Labour party conference this weekend. He said the country’s entire railway system would be in public hands within five years.

5. Signalling Noun + apposition phrase (SN-AP)

The researcher, moreover, detects an extra pattern in the corpus where the SN refers to its content phrase cataphorically in an apposition phrase. The content phrase of SNs in apposition is juxtaposed to it through using a punctuation in written texts that would overlap with prosodic features in spoken texts. Consider example (31) where the SN has its content phrase in an apposition phrase which is juxtaposed to it through a hyphen.

31. [Nature-Science-The Genes That Never Go Out of Style-September 18th, 2018] Some of these telltale traits—how often the gene is mutated, or the negative consequences of losing it entirely—certainly reflect the gene’s importance and its relevance to human disease. They’re the kind of characteristics scientists should be paying attention to.

While in example (32), the SN is juxtaposed to its content phrase via a colon.

32. [The Telegraph-Science-What personality type are you? Scientists finally find the four kinds of human-September 17th, 2018] Researchers at Northwestern University in Illinois sifted through data from more than 1.5 million questionnaire respondents and found at least four distinct clusters of personality types: average, reserved, self-centred and role model.

Lastly, in (33), the SN message has its content phrase in an apposition phrase being juxtaposed to it through a single quotation mark.

33. [Mature Times-Health-Words save lives-September 4th, 2018] NHS Blood and Transplant are urging families to talk during Organ Donation Week (September 3rd to 9th) with the message ‘Words Save Lives’.

6.1.2 LEXICO-SYNTACTIC PATTERNS WITH ANAPHORIC FUNCTION

In anaphoric function of SNs, due to using linguistic elements like (the, this, that, other, same, and such) the link between an SN and its content phrase is created (Kolhatkar and Hirst, 2014). Three of the lexico syntactic patterns with anaphoric function are:

1. Multiple nouns or phrases +be + Signalling noun (NG- be- SN)

The NG-be-SN construction is shown in example (34).

34. [Metro-Health-Ways to improve your sleep quality that actually work-September 14th, 2018] In fact, lack of sleep is one of the most common complaints of our time: Four out of five people in Britain suffer disturbed or inadequate – so-called ‘toxic’ – sleep.

The NG is not necessarily followed by a verb to-be. Another variant is found by the researcher for this pattern where the NG is followed by a linking verb and then SN (NG+ linking verb+ SN). Ponder over (35), the SN idea is being preceded by a noun phrase and the linking verb seem.

35. [The Economist-Science-Only a tenth of the human genome is studied-September 20th, 2018] Only a tenth of the human genome is studied Paying more attention to the rest seems like a good idea.

2. Anaphoric clause+ demonstrative+ Signalling noun (th-SN)

The SN, in (36), is preceded by the demonstrative this and the anaphoric clause which is headed by the anaphoric pronoun we.

36. [Independent-Health-Babies born during pollen season at greater risk of developing asthma, study finds-September 16th, 2018] Professor Erbas said: “We found these babies had lower IgE levels. “This significant finding indicates the possible development of a sensitisation barrier.

The researcher finds out that it is not always demonstratives which link SNs with their content phrases anaphorically. There are cases found in the corpus study where the determiners (viz. the and a) make SN to signal its content phrase anaphorically. The variant would be (Anaphoric Clause-The/a- SN). Give a thought to (37) where the SN is preceded by an anaphoric clause and the determiner a. On the other hand, the SN in (38) is preceded by anaphoric clause and the determiner the. The definite articles and the demonstratives come under the title specific determiners. Thus the researcher suggests a change in this pattern of Liu and Wang (2016), and rewrites it as (Anaphoric clause+ Specific determiners+ Signalling Noun).

37. [The Spectator-Health-Getting less than five hours sleep a night ‘doubles heart attack risk’-August 26th, 2018] However, the findings do suggest that sleep is important – and that should be a wake-up call to all of us.’

38. [The Ecologist-Science-Dolphins teach one another to walk on water-September 5th, 2018] Tail walking involves a dolphin rising vertically out of the water and then moving forward or backwards across it. The behaviour rarely occurs in the wild from this species but is a standard part of the routine in almost all dolphinarium.

3. Anaphoric clause+ demonstrative+ be+ signalling noun (th-be-SN)

In this construction, the SN is preceded by an anaphoric clause and a demonstrative as seen in (39).

39. [Reuters-Sport-Liverpool ready to compete for every trophy, says Van Dijk-September 20th, 2018] Van Dijk, who arrived at Anfield from Southampton in January, insists their faultless start to the campaign is just a small step on a journey the club hopes will end with a first trophy since the 2012 League Cup.

In conclusion, the lexico- syntactic patterns and their variants which are found in the corpus are presented in Table 3 and 4.

Table 3: The lexico-syntactic patterns with cataphoric function in English journalism

The Lexico-Syntactic Patterns with Cataphoric Function in English Journalism	Variants
1. Signalling noun+ post nominal clause (SN-cl)	a. Signalling Noun +that-clause (SN-that)
	b. Signalling Noun +to infinitive-clause (SN-to)
	c. Signalling Noun+ prepositional phrase

	d. Signalling Noun + <u>wh</u> -clause (SN- <u>wh</u>)
	e. Signalling Noun+ fixed collocations
2. Signalling noun +be/ Verb +complement clause	a. Signalling Noun+ be/V+ that-clause (SN-be/ V-that)
	b. Signalling Noun +be/V +to/doing (SN-be/ V-to/doing)
	c. Signalling Noun+ be/V+ nominal phrase (SN-be/ V-NP)
	d. Signalling Noun+ be/V+ <u>wh</u> -clause (N-be/ V- <u>wh</u>)
	e. Signalling Noun+ be/V+ prepositional phrase (SN-be/V-PP)
3. Signalling Noun+ Enumerative phrases (N-EP)	
4. Signalling Noun+ Cataphoric clause (SN-C-cl)	
5. Signalling Noun + apposition phrase (SN-AP)	a. apposition phrase juxtaposed by a hyphen
	b. apposition phrase juxtaposed by a colon
	c. apposition phrase juxtaposed by a single quotation mark

Table 4: The lexico-syntactic patterns with anaphoric function in English journalism

The Lexico-Syntactic Patterns with Anaphoric Function in English Journalism	Variants
1. Multiple nouns or phrases +be + Signalling noun (NG- be- SN)	a. Multiple nouns or phrases + verb to-be + Signalling noun (NG- V to-be- SN)
	b. Multiple nouns or phrases + Linking verb + Signalling noun (NG- LV- SN)

2. Anaphoric clause+ specific determiners + Signalling noun (th-SN)	a. Anaphoric clause+ demonstratives + Signalling noun (th-SN)
	b. Anaphoric clause+ definite articles + Signalling noun (the/a -SN)
3. Anaphoric clause+ demonstrative+ be+ signalling noun (th-be-SN)	

6.2 PREVALENCY OF SN LEXICO-SYNTACTIC PATTERNS IN ENGLISH JOURNALISM

In the corpus study, 283 examples of SN usage have been taken and analyzed for the frequency range of the lexico-syntactic patterns of SNs.

Figure (2) displays the lexico-syntactic patterns and their total use in the corpus study. The exophoric function of SNs is the most prevalent one along with the two cataphoric patterns of SN-PP and SN-that. Contrariwise, SN-P-wh is not used by the journal writers of English journalism, while homophoric, fixed collocation-SN, and SN-C-cl has been rarely used.

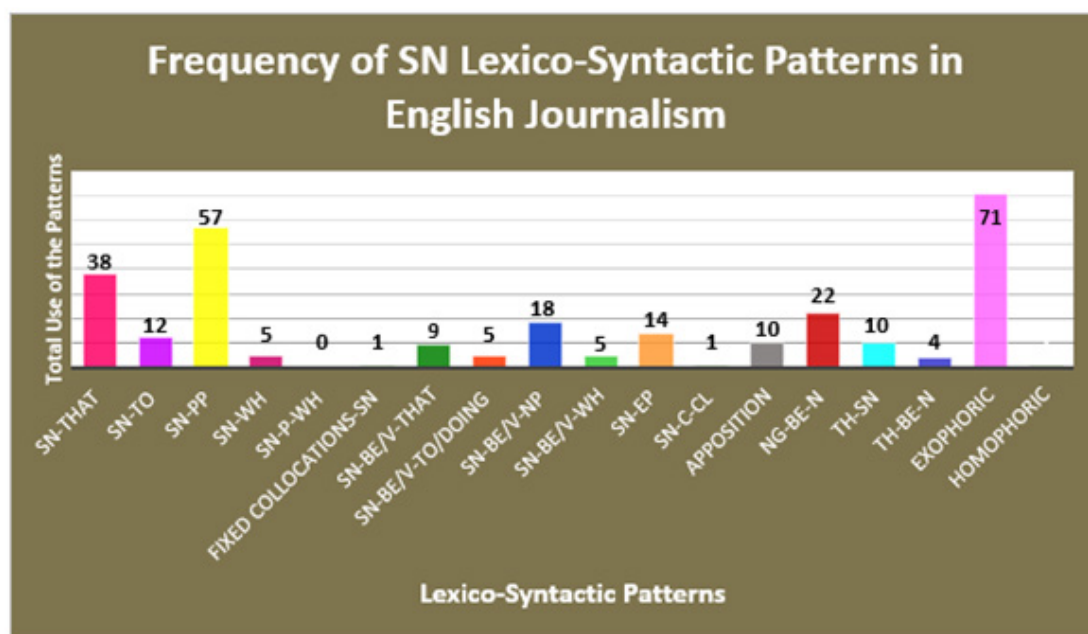


Figure 2: Frequency of SN lexico-syntactic patterns in English journalism

7. CONCLUSION

The following conclusions can be drawn from the analysis of the present study:

1. Syntactically, the frequency range of the signalling functions has been analyzed in English journalism. %62 of the examples had the cataphoric signalling function, while %25 of them had exophoric signalling function. The least frequent signalling function was anaphoric since %13 of the examples had anaphoric function, when %0 was homophoric. Thus, the result of the study refutes the hypothesis set forth by Chomsky that anaphoric uses of signalling nouns occupy an eminent position in discourse, since cataphoric uses of SNs have the highest frequency range in English journalism.
2. In spite of selecting the most comprehensive classification of lexico-syntactic patterns for the analysis of SNs in the corpus study, the researcher was able to observe new lexico-syntactic patterns in English journalism along with certain new variants for the old patterns. These include:
 - a) For the (SN-cl) cataphoric lexico-syntactic pattern, a new variant is found in the corpus study by the researcher which is (SN-gerund phrase).
 - b) For the (SN-be/V-cl) cataphoric lexico-syntactic pattern, two new variants are found in the corpus which are (SN-be- conditional clause) and (SN-V-PP).
 - c) A new cataphoric lexico-syntactic pattern is found in the corpus which is (SN-apposition phrase) where the SN has its content phrase in the apposition phrase. Three variants have been noticed for this new pattern which are (AP juxtaposed by a hyphen, AP juxtaposed by a colon, and AP juxtaposed by a single quotation mark).
 - d) For the anaphoric lexico-syntactic pattern (NG-be-SN), a new variant is observed in the corpus which is (NG-linking verb-SN).
3. The researcher rewrites the rule of Liu and Wang's (2016) lexico-syntactic pattern (anaphoric clause-demonstratives-SN) as (anaphoric clause-specific determiners-SN), since not only demonstratives premodify SNs for having their content phrase anaphorically. Cases are found in the corpus where articles (the and a) premodify SNs to make them have their content phrase anaphorically. Because specific determiners include both demonstratives and articles, therefore it is better to write 'specific determiners' than 'demonstratives'.
4. Each variant of the eight lexico-syntactic patterns found in English journalism, has been analyzed for their frequency range. 57 Out of 283 examples have the lexico-syntactic pattern (SN-PP). Thus, it has the highest frequency range among the others. The second most frequent lexico-syntactic pattern was (SN-that) for constructing 38 of the examples while 22 of them occurred in the pattern (NG-be-SN), whereas the other patterns were used less frequently.

References

- Asher, N., 1993. Reference to Abstract Objects in Discourse. Dordrecht: Kluwer.
- Chomsky, N., 1981. Lectures on Government and Binding. Dordrecht: Foris.
- Conte, M.-E., 1996. Anaphoric Encapsulation. In: W. De Mulder and L. Tasmowski, eds. Coherence and Anaphora. Amsterdam: John Benjamins, pp. 1-10.
- Flowerdew, J. and Forest, R. W., 2015. Signalling Nouns in English: A corpus-based discourse approach. Cambridge: Cambridge University Press.
- Flowerdew, J., 2002. A pedagogic grammar of signalling nouns in discourse. *Revista Canaria de Estudios Ingleses*, Volume 4, pp. 141-155.
- Flowerdew, J., 2003. Signalling Nouns in Discourse. *English for Specific Purposes*, 22(4), pp. 329-346.
- Flowerdew, J., 2006. Use of signalling nouns in a learner corpus. *International Journal of Corpus Linguistics*, 11(3), pp. 345-362.

- Forutan, A. and Nasiri, S. R., 2011. Signaling Nouns in English and Persian: A Contrastive Study. *Theory and Practice in Language Studies*, 1(10), pp. 1273-1283.
- Francis, G., 1986. *Anaphoric Nouns*. Birmingham: English Language Research, University of Birmingham.
- Francis, G., 1994. Labelling discourse: an aspect of nominal-group lexical cohesion. In: M. Coulthard, ed. *Advances in Written Text Analysis*. London: Routledge, pp. 83-102.
- Gao, Y. and Zhang, Y., 2017. Researches on Shell Nouns: from Definitions to Applications. *International Journal of Innovative Research and Knowledge*, 2(11), pp. 45-60.
- Halliday, M. A. K. and Hassan, R., 1976. *Cohesion in English*. London: Longman.
- Hoey, M., 1993. A common signal in discourse: How the word reason is used in texts. In: G. Fox, M. Hoey and J. M. Sinclair, eds. *Techniques of Description: Spoken and Written Discourse*. London: Routledge, pp. 67-83.
- Hunston, S. and Francis, G., 2000. *Pattern Grammar: A corpus-driven approach to the lexical grammar of English*. Amsterdam: John Benjamins.
- Ivani, R., 1991. Nouns in search of a context: a study of nouns with both open- and closed-system characteristics. *International Review of Applied Linguistics in Language Teaching*, 29(2), p. 93-114.
- Jiang, F. K. and Hyland, K., 2017. Metadiscursive Nouns: Interaction and cohesion in abstract moves. *English for Specific Purposes*, Volume 46, pp. 1-14.
- Kolhatkar, V. and Hirst, G., 2014. *Resolving Shell Nouns*. Doha, Association for Computational Linguistics.
- Liu, Q. and Wang, X. Y., 2016. Research on shell nouns in abstracts of master theses by science and engineering majors. *Foreign Language World*, Volume 2, pp. 52-60.
- McCulloch, G., 2014. *allthingslinguistic.com*. [Online] Available at: <https://allthingslinguistic.com/post/80401980855/anaphora-and-cataphora> [Accessed 16 September 2018].
- Oh, S.-Y., 2014. Use of Signaling Nouns in Published and Korean Student Academic Writing in Applied Linguistics. *English Teaching*, 69(1), pp. 147-172.
- Quirk, R., Greenbaum, S., Leech, G. and Svartvik, J., 1985. *A Comprehensive Grammar of the English Language*. London: Longman.
- Schmid, H.-J., 2000. *English Abstract Nouns as Conceptual Shells: from corpus to cognition*. New York: Mouton de Gruyter.
- Schmid, H.-J., 2018. Shell Nouns in English: A personal roundup. *Caplletra* 64 (Primavera, 2018), pp. 109-128.
- Simonjetz, F. and Roussel, A., 2016. Crosslinguistic Annotation of German and English Shell Noun Complexes. In: S. Dipper, F. Neubarth and H. Zinsmeister, eds. *Bochumer Linguistische Arbeitsberichte*. Bochum: Konferenz zur Verarbeitung natürlicher Sprache, pp. 265-278.
- Sinclair, J. M., 2004. *Trust the Text: Language, Corpus and Discourse*. London: Routledge.
- Tadros, A., 1985. *Prediction in Text*. University of Birmingham ed. Birmingham: English Language Research.
- Tåqvist, M. K., 2016. Facts and things: Advanced ESL learners' use of discourse-organising nouns. *Nordic Journal of English Studies*, 15(4), pp. 107-134.
- Winter, E. O., 1977. A clause-relational approach to English texts: A study of some predictive lexical items in written discourse. *Instructional Science*, 6(1), p. 1-92.