

Corpus Evidence, Lexical Priming and Teaching Lexical Items More Effectively: A Case Study of the Functional Word “AS”

دليل من الذخيرة اللغوية (الكوربوس)، التهيئة المعجمية وتعليم المفردات المعجمية بأكثر فاعلية: دراسة حالة للكلمة الوظيفية (ك)

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-Abstract: Lexical priming theory argues that an expression consisting of word sequence (WS) prefers to appear in context with particular lexical items, collocations, grammatical patterns (colligations), semantic associations, pragmatic associations, textual ways, genre and style. Drawing on this, this study assumes that a lexical item has a systematically changing associations profile according to the word sequence prior or subsequent to it. Enabling learners to learn a phrase with all its associations, stores it in mind and retrieves it during speech with all its associations make them more fluent. Exploring the associations of functional words in context can then be of great importance due to their high frequency of uses, and can shift their teaching from that based on their functions in context, as is the case in current curricula, to that based on their different associations in context. To this end, we chose the functional word as then extracted from the British National Corpus (BNC) a list of the most frequent two-word sequences containing as then quantitatively and qualitatively analyzed data from their concordance lines using lexical priming theory principles as a guide to describe their associations. Overall, our analysis revealed that when as functional words based on their various associations instead of their functions for more fluency in speech.

-Keywords: collocations, fluency in speech, lexical priming theory, the functional word as, word sequence (WS).

- الملخص: تدافع نظرية التهيئة المعجمية على فكرة أن العبارات المكونة من تسلسل معين لكلمات تفضل الظهور في السياق مع عناصر معجمية معينة مثل متلازمات لفظية محددة، أنماط نحوية (تجميعات نحوية)، تجميعات دلالية، تجميعات تداولية، طرق نصية وكذا نوع وأسلوب معين. بناءً على ذلك، تفترض هذه الدراسة أن العنصر المعجمي في السياق النصي، يتغير ملف تعريف ارتباطاته المختلفة بشكل منهجي وفقًا للكلمة أو تسلسل الكلمات السابق أو اللاحق له مما يجعل تمكين المتعلم من تعلم عبارة معينة مع جميع أشكال تجميعاتها يخزنها في ذهنه ثم يستدعيها أثناء الكلام مع جميع تجميعاتها المرفقة مما يجعله أكثر فصاحة. تفترض هذه الدراسة أن استكشاف تجميعات العبارات الوظيفية في سياقاتها له أهمية كبيرة نظراً لكثرة استخدامها أولاً وثانياً بغية التحول من

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تدريسها بالاعتماد على وظيفتها في السياق كما هو الحال في المناهج الحالية الى تدريسها مرفقة مع جميع ارتباطاتها المختلفة في السياق. تحقيقا لهذه الغاية، أختارنا العبارة الوظيفية (ك) ثم استخرجنا من المجموعة الوطنية البريطانية قائمة العبارات المكونة من تسلسل كلمتين الأكثر تداولاً والتي تحوي على كلمة (ك) وقمنا بتحليل البيانات من خطوط التوافق الخاصة بها تحليلاً نوعياً مستخدمين أسس نظرية التهيئة المعجمية كدليل لوصف ارتباطاتهم. بشكل عام، كشف تحليلنا أنه عندما تقع الكلمة (ك) مع عناصر مختلفة، فإن ارتباطاتها تبدي تغيراً منتظماً. وبالتالي يمكن اعتماد منهجية هذه الدراسة في دراسة وتدريس العبارات الوظيفية اعتماداً على تجميعاتها وارتباطاتها المختلفة بدل وظائفها من أجل أكثر طلاقة في الكلام.

- الكلمات المفتاحية: متلازمات لفظية- الطلاقة في الكلام- نظرية التهيئة المعجمية- الكلمة الوظيفية (ك)- تسلسل مفردات.

-Introduction:

A deeply rooted culture in the traditional approaches to teaching language is grammar primacy and independence of lexis. In that, lexis is believed to be there to fill the slots of the abstract rules of grammar. In general, this tradition tends to separate teaching grammar, lexis, meaning and pragmatics. Recent theories, however, are more and more advocating a more integrative approach that considers these aspects of language as inseparable. They form a web of associations and thus should be integrated in teaching. However, vocabulary teaching is still dominated by the application of the organisational principle of semantic fields (Lewis, 1993), which is similar to Wilkins' (1977) concept of topic and theme around which vocabulary teaching was organised in his Notional Syllabuses. While this is not wrong as a principle in vocabulary teaching, "Learning theory has quite properly suggested that words may be more effectively learned if they are presented systematically, in rich contexts rather than randomly" (Lewis, 1993, p.103). For Lewis, "contextualisation means noting the situation in which the word may occur, but most importantly noting the co-text with which it regularly occurs" (1993, p. 103). He considers that if context is the combination of the situation and co-text, it is the latter which is more important than the former. Hornby (1954) also considers that "a knowledge of how to put words together is as important as, perhaps more important than, a knowledge of their meanings" (v). That's because words and longer lexical items tend to co-occur with

other particular words forming what is called collocations. These are “associations between lexical words, so that the words co-occur more frequently than expected by chance” (Biber & Conrad, 1999, p. 988). Collocation knowledge and use was addressed in a number of books (Barfield, 2007; Cowie, 1998; Granger & Meunier, 2008; Lewis, 2000; Nesselhauf, 2005; Schmitt, 2004). There has also been a number of frequencies corpus-based studies of collocations (Biber & Conrad, 1999; Biber & Barbieri, 2007; Firth, 1957; Halliday, 1966; Sinclair, 1991). With the exception of Schmitt (2004), Granger and Meunier (2008) who took a wider view of collocations by considering phraseological and formulaic patterns of language, the focus of the majority of other studies was on collocations between lexical words of two items.

However, associations do not only exist between a word and another to form collocation, but also exist between a word and a word sequence (WS) independently of its frequency in a large corpus. The WS, in its turn, can collocate with another word sequence. Overall, associations, using the terms of lexical priming theory (Hoey, 2005), do exist between any lexical item and another (collocation), a lexical item and a grammatical pattern (colligation), a lexical item and a meaning (semantic association), a lexical item and a pragmatic function (pragmatic association), a lexical item and position in sentence (textual colligation), and a lexical item and genre. These associations of Hoey’s lexical priming theory (2005) were described differently but with overlapping concepts by theories like Hunston and Francis’s Pattern Grammar (2000), Sinclair’s idiom principle (1991), and Stefanowitsch and Gries (2003) collocation analysis. According to Hunston and Francis “Patterns and lexis are mutually dependent, in that each pattern occurs with a restricted set of lexical items, and each lexical item occurs with a restricted set of patterns (2000, p.3). Lexical Priming (Hoey, 2005, p. 1) is a new theory of lexicon based on how words are used in the real world in interaction with other words forming common patterns of use. It radically reversed the notion of grammar primacy on lexis into that of grammar being

an outcome of the lexical structure. Romer and Schulze (2009) summarise Hoey’s (2005) lexical priming by stating:

when we come to use the word (or syllable or cluster) ourselves, we are likely (in speech, particularly) to use it in the same lexical context, with the same grammar, in the same semantic context, as part of the same genre/style, in the same kind of social and physical context, with a similar pragmatics and in similar textual ways. (p. 36)

1-Problem Statement:

Previous studies have not dealt with functional words in relation to all the contexts introduced by lexical priming theory. Instead, they have always been studied and introduced into teaching from a functional perspective. Similarly, content words have been studied and taught in relation to their synonyms, antonyms and meanings. These orientations may have led students to form in their mind unnatural and limited association of a lexical item which is introduced to them. As a result, a lexical item is likely to be stored in mind and retrieved in speech production without its associations. So, to enable learners to associate the lexical item they learn with the word combinations, grammar, semantics, and pragmatics which is naturally associated with it, we start by conducting investigations of the associations of a given lexical item in corpora which this study addresses.

2-Research Questions and Hypothesis:

Using lexical priming theory principles, this study attempts to fill in a research gap by investigating the associations of the word as to prove that focusing on functional words should consider more than their functions as they may have a rich profile of associations including lexical, semantic, pragmatic and textual associations, especially if they are studied in combination with their collocates. To this end, this study will use the grammatical word as and some of its collocates as a case study and sought to answer the following research questions:

Applying lexical priming theory principles, what is the profile of the differences in associations in the British National Corpus (BNC) of the word as when it collocates with different words or word sequences prior or subsequent to it?

Does the functional word as exhibit systematic associations which can be exploited in its teaching under the lexical approach?

This study not only tests the hypothesis that collocates, colligations, semantic and pragmatic associations or other types of associations of any lexical item differ according to the other lexical items which collocate with it but also suggests a methodology of searching lexical items in corpora using lexical priming theory principles. This way, data obtained can form a basis for teaching language in general and lexis in particular. It also aims to show that there is much knowledge which can be obtained from corpora on lexical items and their interactions. This sort of knowledge is unconsciously acquired by native speakers due to their frequent exposure and use of language. As Hoey (2005) put it, "it is part of our knowledge of a lexical item that it is used in certain combinations in certain kinds of text" (p.10). However, for non-native speakers, this knowledge is not acquired easily and could be made more explicit through studies like this which investigates associations of lexical items in corpora.

3-Literature Review:

Previous corpus studies on collocations have not studied words in relation to all the contexts identified by lexical priming. More precisely, as far as I know, there has been no such a study, which sets to investigate the potential systematic changes produced when a functional lexical item has different words or WSs prior or subsequent to it. In other words, the changes that occur in colligations, semantic associations, pragmatic associations and other associations of a word. Exceptions, however, apply to few studies which targeted the phenomenon from a different and restricted perspective. For example, the change of collocates in accordance with the change of the word lemma (e.g. says, said; gene, genes) has been dealt with or referred

to in a number of studies (Renouf, 1986; Sinclair, 1991; Stubbs, 1996; Tognini- Bonelli, 2001, & Williams, 1998) concluding that while there may be few shared collocates between related forms of lemmas, changing the lemma generally produces new collocates to the new word form and may even result in quite distinct collocates both prior and subsequent to the node word. Williams (1998), for example, found quite distinct collocates to the word's *gene* and *genes* in a corpus of research papers of biology. As far as lexical priming theory is concerned, Hoey (2005) argues that “synonyms differ in respect of the way they are primed for collocations, colligations, semantic associations and pragmatic associations” (p. 79). Hoey (2005) also found that the sequence *in winter* tends to be used with present tense, while past tense goes with the sequence *the winter*. It is also common in the literature that lexical items are dealt with from a functional perspective through investigating their discourse functions. As an example, Kolbe (2009) study found *as*, our case study word, to function as relativizer and complementizer in only 0.05% of the cases, to have many functions, and to be part of many word sequences. This tradition of dealing with the word *as* in such a way is also persistent in dictionaries that organise lexical items functionally and only restrict themselves to collocates of words without any other associations. This is usually the status with words like *as* or *what*.

Quirk and Greenbaum (1973) referred to these words by grammatical words (or closed-class items). Although these words are found to be a category which is highly frequent and useful for the study of language structures (Biber, 1993), they remain less focused on or ignored in collocation studies and dealt with as single words from a functional perspective because in contrast to “lexical words (or open-class items)”, they do not carry their own meaning and thus are expected not to provide meaningful information (Quirk & Greenbaum, 1973). That is largely due to the influence of Chomsky's generative grammar (1965), which organizes grammar around syntax and thus distinguishes grammatical or functional words (closed class) from lexical words (open class). The latter class expresses the meaning of the sentence

whereas the former contributes to the meaning only indirectly by signalling semantic relations. This influence extends to teaching as lexical words are taught from a semantic perspective, which focuses on their meanings, synonyms, collocations and antonyms while functional words teaching focuses on their functions in sentences and discourse. After conducting a quick search in a sample of dictionaries and grammar books, we found that our case study, the particle *as*, is dealt with and introduced from an entirely functional perspective. For instance, in the Cambridge online dictionary, *as* is introduced as an adverb for comparison to refer to the degree, as a preposition to describe the purpose or quality or refer to the role or purpose of a person or thing, as a conjunction to mean **during that time** for simultaneous changes or to mean **the same as** for identical things. It is also introduced as a conjunction to replace *because*, *when*, *while*, *like*, *although*. That's the reason why EFL/ESL teachers tend to teach *as* or any similar functional word from a functional perspective just like it is dealt with in grammar books and dictionaries. This tradition seems persistent though calls to look for other aspects of the words in addition to function. Morrow (1986) argued that there is a failure in integrating the semantic and pragmatic functions of grammatical words into a processing model. Talmy (1978b, 1983) argued that the semantic notions expressed by grammatical words are more schematic or topological than those expressed by lexical words.

4-Method:

Drawing on Hoey (2005) theory, evidence of the priming of the word *as* and some of its collocates will be derived from the British National Corpus (BNC), which contains 100 million words of text from a wide range of genres. Lexical priming theory is then applied to test the hypothesis that associations of a word or a WS change systematically in relation to the different word collocates or WSs which occur with that word or WS. Only a random sample which includes the items *as she*, *as you*, *as part*, *soon as* and their collocates will be selected and treated because the scope of this study does not allow us to investigate all combinations of *as*. Quantitative account of

the frequency of collocates of *as* ordered on their number of occurrences in the BNC and the percentage of association will constitute the quantitative part of analysis whereas applying lexical priming on concordance lines from the BNC to cross-examine all the appearances of a sample of the collocates of *as* forms the qualitative part. Each collocate is then used as a keyword to generate its most frequent collocates. Concordance lines for each item are then qualitatively examined and a profile for each item is presented to describe the different potential associations and highlight their changes. To this end, the following types of associations will be targeted:

1. Collocation of a single word with another single word positioned directly after or before it to constitute a longer WS like when *as* collocation with *possible to form the WS as possible*.
2. Collocation of a WS with a single word positioned directly after or before it to constitute a longer WS which can be considered an extension to it. For example, The WS **as soon** can collocate with the word **as** to form the WS **as soon as**.
3. Collocation of a WS with another WS which is positioned directly after or before it to constitute a longer WS like when **as soon** collocates with **as possible** to form **as soon as possible**, or when the WS **what do you think** collocates with the WSs **you're doing, I am, of that** to its right to form the extended WSs **What do you think you're doing? What do you think I am? what do you think of that?**
4. Co-textual collocation refers to a WS collocation with another WS that is not directly related to it but constitutes part of its immediate
5. co-text, which means sharing the same sentence with it. For example, in the sentence “**Do you** want some more? **Don't you?**”, **Don't you** is the **co-textual collocate** of **do you** to its right and **do you** is the co-textual collocate of **don't you** to its left because they tend to co-occur frequently in this same co-text and order.

6. Contextual collocation refers to a WS collocation with another WS that is part of its contextual setting. We mean the frequent co-occurrence of two or more WSs in sentences sharing the same immediate discourse but not the same sentence.
7. Colligation refers to a FE association with a grammatical pattern. Hoey (2005) defined it as “the grammatical associations a word or word sequence is primed to favour or avoid” (p. 43). More precisely, colligation, for him, may refer to either the “grammatical company”, “grammatical functions” or the place in a sequence preferred or avoided by a word or word sequence or the group in which they occur.
8. Semantic association of a WS occurs with a meaning or a function.
9. Pragmatic association refers to the association between a particular WS and the interactive functions it serves.
10. Textual colligation refers to the positioning of a WS within the sentence. As Hoey explained, “every lexical item (or combination of lexical items) is capable of being primed (positively or negatively) to occur at the beginning or end of an independently recognised “chunk” of text” (2005, p. 129).

5 - Data Analysis and Discussion

Figure 1 represents a sample from the BNC of the collocates of the word *as* to its right ordered according to the number of instances found as appears to be primed to occur with the indefinite articles *an* and *a*, personal pronouns, demonstratives *this* and *that* and other words. Our hypothesis is that associations undergo a systematic change with possible overlapping in accordance with each WS containing *as* from those in Figure 1. *As she*, *as you*, and *as part* were randomly selected for further focus. *Soon as* from Figure 2 was deliberately selected for focus to compare it with its extension *as soon as possible*.

as an	14660	as far	5850	as this	1807
as it	13931	as a	5170	as that	1776
as they	13885	as part	4835	as to	1754
as i	12779	as being	3390	as good	1520
as she	11536	as many	2958	as well	1505
as we	9713	as follows	2626	as having	1432
as you	7930	as his	2345	as was	1353

Figure 1: collocates of the word as to the right in the BNC

Figure 2 reveals collocates of as to its left. Among them are just as and same as which express comparison of exact equality. It is also found to be positively primed to occur with past participle before as (colligation).

just as	7129	be as	2098
known as	6803	not as	1943
far as	6660	is as	1920
and as	6136	was as	1852
seen as	5208	described as	3017
much as	3795	way as	1545
it as	3111	act as	1539
but as	2958	soon as	1332
same as	2802	him as	1324
regarded as	4275	time as	1313

Figure 2: collocates of the word as to the left in the BNC

Seen, regarded, known, and described form a semantic set (semantic association) item found to be primed with as to express the view or opinion about something (pragmatic association). As is also found to be primed to occur to the right of be, is or was to refer to a present or past state of somebody or something.

5. 1- Associations of as soon as and as soon as possible:

Our corpus investigation revealed that soon as collocates to the right with possible in 1154 (92.09 %) instances among 1253 total and in all the instances (1225), soon as collocates with as to the left. For the pragmatic associations, our data revealed that the function of **as soon as** is found to be reporting an event usually an action or series of actions which happened after a cue action (pragmatic association). However, the extended four

1. **As soon as** + pronoun 1 (subject 1) + V1 + object 1, + pronoun 2 (subject 2) + V2 + object 2.
2. Pronoun 2 (subject 2) + V2 + object 2 + **as soon as** + pronoun 1 (subject 1) + V1 + object 1.

As soon as is then found to be associated with a sentence composed of two sequential clauses which usually reports the occurrence of an action 2 or series of

actions 2 directly after an action 1 or reports the intention of this occurrence either in the past or the future. Actions were found to be frequently done by the same subject or doer, but different doers are also possible. V1 and V2 refer to two actions. The action V2 either happened, was intended or supposed to happen, or will happen shortly after V1. The subject in both clauses can be a personal pronoun or what stands for it. This result serves answering our research question as it showed that as soon as and as soon as possible have different kinds of associations.

5-2- Associations of as she and as you:

As appears in figure 3, as she occurred in 11536 instances in the BNC almost two times more frequent than as you. When collocated with she to the right to form

as she was	763	as she saw	131	as she moved	97
as she had	611	as she sat	128	as she passed	97
as she could	379	as she is	125	as she started	95
as she walked	271	as she spoke	125	as she took	93
as she did	248	as she came	123	as she reached/lay	87
as she said	215	as she stood	114	as she left	82
as she went	198	as she made	109	as she put	81
as she looked	172	as she tried	109	as she remembered	81
as she watched	156	as she felt	107	as she realised	74
as she turned	149	as she'd	100	as she thought	73

the FE as she, as was found usually to mean when and creates or colligates with the pattern **as she + V1, V2 or V2, as she + V1**. As can be read from Figure 4, where V1 is found to occur in the past simple in 95.74% of the cases and only 4.25% in the present. The only exceptions found in our search were the forms is, does, can, lay. Thus, we say that as she is positively primed with a past simple after it (colligation). The form in

Figure 3: collocates of the WS as she to the right in the BNC

which as she forms part is used for the function of reporting that an action V2 happened after an action V1 usually by the same doer she. In many instances, V2 was found to be a direct consequence to V1, but in the majority of instances V2 is only reported as an action which happened after V1 with as meaning after. Thus, this is the pragmatic association associated with the use of as she. Examples 1, 2, 3 and 4

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illustrate this finding: 1) A dark look crossed his features **as she told** him she didn't want to see him, 2) **As she pondered** this strange fact Silas returned to the office. 3) **Hypatia**, was stoned to death **as she returned** from a lecture, 4) **As she relaxed**, she looked around her.

Examples 1, 2, 3 and 4 illustrate one of our findings which concern the textual colligation of as she. We find as she to be positively primed with initial position in its clause. As the two clauses of the sentence are interchangeable, as she was found to take either initial position in the sentence. if it is used in the first clause or middle position, it appears in the second. It is found then to be used similarly to as soon as.

as you can	972	as you might	151	as you could	96
as you know	559	as you have	144	as you did	88
as you say	389	as you've	127	as you think	73
as you are	302	as you said	121	as you'd	72
as you would	252	as you wish	110	as you walk	61
as you will	249	as you'll	99	as you come	51
as you go	240	as you get	99	as you probably	43
as you like	222	as you were	99	as you read	42
as you do	215	as you want	98	as you put	40
as you're	204	as you see	97	as you call	38

Figure 4: collocates of the WS as you to the right in the BNC

As you were found to be associated with quite different grammatical patterns (colligations), meanings (semantic associations) and functions (pragmatic associations) than that of as she. This partially confirms our hypothesis that each WS creates or is part of different associations independently of the ones created by the single words collocated with a different word. Although as she and as you are both composed of **as + personal pronoun**, they were found to be associated with very different syntactic patterns, meanings and pragmatic functions. As it can be seen from figure 4, as you collocate to the right with modals can, would, will, might, have, may or their contracted forms. Some of the WSs created by as your extensions when it collocates with one more word to its right appear full in form and explicit in the pragmatic functions, they fulfil like FEs as you know, as you say, as you said, as you see. As for the

pragmatic association, these were found to be casual FEs used to remind the listener of something or a fact he/she already knows, says or sees and used as a proof to support an argument, explain a fact, or describe a situation like in this example a) but, **as you know**, I have no job and therefore no income and no car. Findings of as you collocate also included the FEs as you like, as you wish and as you want which were usually found to be used to respond positively and agree with someone's expressed desire or choice. It is clear that the semantic association created here is between us and you together i.e. the WS as you and the words like, wish and want in the second instances and the words see, said, say and know in the first examples. These associations created here are different, with slight possible overlapping, from the associations which are created by as alone, you alone, or as and you combined with any other word. As we have seen with as she before, these associations did not appear as frequent as they are with as you. Although, it is grammatically possible to say as she knows, as she likes, as she says, etc., these examples rarely appear in the corpus in comparison with the high frequency of as you know, as you like, and as you say.

Our data revealed that it is the sequence as you, not as she which was found to create semantic associations with three types of meanings. It is associated with a semantic set 1 represented by items like, want, wish and expresses willingness or desire; semantic set 2 represented by says and said and semantic set 3 represented by items know, see, imagine and get. The only exception is as she found to be collocated with said.

The expression	instances in the BNC
as you know	288 instances (6.35) per million words
as she knows	8 instances (0.1) per million words
as you like	228 instances (2.63) per million words
as she likes	6 instances (0.08) per million words
as you want	98 instances (1.03) per million words
as she wants	4 instances (0.07) per million words
as you say	395 instances (4.16) per million words
as she says	42 instances (0.45) per million words
as you said	118 instances (1.25) per million words
as she said	215 instances (2.26) per million words

Figure 5: Frequency of as you and as she collocates in the BNC

This high frequency in use with fixedness in form and stability in the associations which created the pragmatic function is what makes as you form to be recognised as routines typical for native talk. By contrast, these same criteria are what make as she knows, as she likes to be classified under ordinary creative language. Figure 5 shows that as you are so frequent that it created formulaic expressions whereas as she did not.

As for textual colligation, our data revealed that there is strong evidence that the FEs formed with the extensions of as you are positively primed for initial position in the sentence, yet negatively primed for final positions as they were found to be rarely, if not at all, occurring in final position. This textual colligation of as you extensions is found to be different from the textual colligation of as alone, you alone or as combined with she. The WS as she was found to be positively primed for either initial or middle position in the sentence. These results contribute into answering the study question by revealing the associations of the different collocates of as and proving systematic changes in associations which can be found for the different collocates of a word. However, other forms of as you were incomplete lexical bundles which required that we further extend our research to reveal their extensions and functions. Figure 6 illustrates the collocates of the WS as you can.

as you can see	283
as you can imagine	84
as you can get	40
as you can and	39
as you can about	20

Figure 6: collocates of the FE as you can to the right in the BN

5-3- Semantic and pragmatic associations of WS as you can

As you can see in Figure 6, there appears to be a semantic association between as you can and the semantic set represented by the words see, imagine and get referring to the idea of grasping the meaning of something from what can be seen or is common and expected which is used to remind the listener of a fact he/she

witnesses or is clear for him/her and easily grasped so that the speaker can build on it to introduce a proof or an argument or simply describe facts (pragmatic association) to refers to grasping or understanding something because it is clear. The most frequent expression created is as you can see found to be used just like the slightly different in form previously discussed as you see.

5.4- Textual, pragmatic and register association of as you can:

As for textual association, it has been found to be primed to sentence initial position in 95 % of instances. Besides, it is found to be positively primed with spoken register (8.03%) and negatively primed with academic (0.33%). **As you can imagine** was found to be used (pragmatic association) to remind someone about something particularly an expected, usual or ordinary result which is no surprise as in these examples:

1. This, **as you can imagine**, was a terrifying experience.
2. Well, I was a bit hurt, **as you can imagine**.
3. As **you can imagine**, nobody wants to go up in the region.

For its textual priming, this expression was found to be primed to initial position in 62 instances (72.94 %) or final in the rest 23 instances.

5.5- Pragmatic and register association of the WS as you can get

The qualitative analysis to the 50 instances which emerged in our research for the contexts of the FE **as you can get** revealed that it is similar to the FE **as you can imagine**. Both were found to be used to refer to something which is expected and possible and typical of its kind as in these examples:

1. It was about as spontaneous **as you can get**."
2. "Not really. It's a registered company, as capitalist **as you can get**.

As you can get was found to be positively primed to be used with spoken register (1. 20 %) and negatively primed for academic register (0.07%).

5-6- Lexical, semantic and pragmatic association of as you can and

Our analysis revealed that this WS was found to be used to advice or give instruction by the speaker to the listener to perform or do something to the limits possible, which he or she can reach. In particular, it refers to the **frequency**, the **quantity**, the **speed**, the **width**, **height**, **distance**, or **mastery**. They give instruction to a human being to perform an action to the limits of his/her ability in performing these notions. This can be seen from results represented in Figure 7. This semantic association is represented by the WSs, as much, as far, as many or as often, as fast, as long, as quickly, as well appearing to the left with as you can.

As you can and was found be lexically primed with another FE; **make a face as in these instances found: a) make it as happy as you can and make a face, b) make it as scary as you can and make a face, c) make it as silly as you can and make a face** refers to making facial expression for one's own or someone else's amusement, or to show of disgust (pragmatic association). The presence of WS as you can and was found to simultaneously associate with adjectives describing facial expressions; silly, scary and happy and the use of the FE make a face.

as much as you can	68
far as you can	26
many as you can	26
fast as you can	20
long as you can	19
and as you can	18
quickly as you can	14

Figure 7: collocates of the FE as you can to the left in the BNC

5-7- Grammatical association “colligation” of the as you can and

The WS as you can and was found to occur in sentences of instructions which were found to be associated with using a pattern with two verbs in the positive imperative. That explains why **and** appeared fourth in order collocated with the lexical bundle as you can as in these extracts from the BNC: a) **scream** as loud as you can and **run**, b) **get** them as cheap **as you can and** never give them, c) **Do** as many as

you can and **record** the numb, d) **Arch** your back as high as you can and **drop** your head. In 94.24 % of the instances, as you can and appeared in sentences like the previous ones which can be generalised in the following pattern: **VP1 (V1 imperative) + AS + ADJ + as you can and PV2 (V2 imperative) in which** V1 and V2 were found to be primed with the positive imperative in 100% of the cases. This pattern was not found only in 5.76% of cases represented by the following three instances: 1) It will help **to get** as much information as you can and **to talk** to a.....,2) Your job is **to take** the decisions as carefully as you can and **not to shirk** them, 3) **Make** as much of a splash as you can and the fish will run in front of you. Examples 1 and 2 also show how V1 and V2 take the infinitive in a regular way which, though less frequent, can represent another pattern associated with as you can and. Other results included the appearance of the ADV instead of the ADJ in 9.61% of the instances.

5-8- Lexical and pragmatic association of as you would

Lexical items with which as you would is associated are represented in Figure 9. **As you would expect** (from a/the), as you would say, as you would have were found to be the most frequent extensions of as you would. As you would imagine was also found to be just another version to the previously encountered as you imagine as in the sentence you may not be as objective in your judgement **as you would normally** be.

5-9- Grammatical, textual and register associations of as you would

For colligation, **as you would** was found to be followed by a verb at the present simple in all its extensions to the right as seen in Figure 8 except the form **as you would have + past participle**. For the pragmatic association it revealed, it is found to be primed with a pragmatic function like the previous expressions, which means that something happened exactly as is normally expected, intended, or as is the norm or the expectation in that particular situation like in a) buy as many clothes **as you would have** in your wardrobe normally, b) the effect may not be as successful **as you would have wished**.

In text, as you would forms were found to take either middle position in speech as a parenthetical expression or initial position as in these extracts from BNC: a) I am but **as you would say** a cobbler, b) Fittings, **as you would expect**, are phenomenally diverse throughout Europe, c) As **you would imagine**, he was rather huffy!. The middle position was found to be more frequent the initial whereas the final position is rarely encountered.

As for the register association, as you would form was found to be positively primed with the spoken register (6.72% spoken vs. 0.20% academic). This is because it contains the second person you which is most frequent in speech to address the listener.

as you would expect	57	as you would imagine	5
as you would say	31	as you would normally	5
as you would a	14	as you would on	5
as you would have	13	as you would use	5
as you would for	11	as you would be	4
as you would like	11	as you would if	4
as you would with	8	as you would know	4
as you would any	6	as you would to	4
as you would do	6	as you would be	3
as you would wish	6	as you would in	3

Figure 8: collocates of the FE as you would to the right in the BNC

5-10- Different associations of as part of:

As was found to be collocated with part in 4835 instances. When we extended the search for as part collocates in the whole BNC, results revealed as part of in 4786 instances, as part and in 19 instances and as part payment in 5 instances. This clearly shows that as part of can be considered a frequent fixed FE. Searching its colligations and pragmatic function, this FE was found to be usually preceded by a passive verb to refer to the fact that something has been dealt with as a component part of something else. Examples found in the BNC included: **treated** as part of, **shared** as part of, **dried** as part of, **run** as part of, **classified** as part of, etc. Quantitatively speaking, it was found to be colligated with a

passive verb which precedes it in 25 %, a verb in the present simple in only 3% and a noun in 65% of the cases. This confirms our hypothesis that neither *as* alone nor *part of* alone but their combination together was responsible for calling upon the pattern: **passive verb + *as* part of (the, a, an, possessive and sometimes demonstrative pronoun)**).

The passive verb slot was found to prefer semantic sets. The prominent one is represented by lexical items like *seen, used, regarded, counted, considered, taken, viewed, adopted, identified, accepted, included, treated, discussed, explained, planned, created, conducted, understood, announced, and presented*, which report either people opinions or attitudes towards classifying or dealing with something else as being part of a bigger whole. To its right, *as part of* was found to be followed by *the* in 1926 instances, *a* in 1100, *there* in 286, *its* in 224, *an* in 200, *his* in 137, *this* in 91, *our* in 86, *her* in 45, *your* in 45, *that* in 41, *my* in 27. These form the three groups of articles (definite then indefinite), demonstratives, and possessive pronouns. Also, *as part of* was found to be followed with adjective + noun three times than it is followed by a noun alone. *As part of the/a/a* pattern was found to be followed by either a noun in 50% of the instances or an adjective + noun also in 50%. For register, *is* typically primed with academic register (60.79 % academic vs. 22.08% spoken).

Finally, evidence from phonetics can strongly support our perspective that lexical items particularly functional words have to be taken into account, investigated or taught, in relation with the word or WS prior or subsequent to them and not in isolation. We noticed that **as**, like most function words, is generally unstressed in a sentence, sometimes lower in pitch and pronounced quieter and faster and may be reduced, this always makes it pronounced as an integral part of a WS in which it forms part.

6- Implications for Teaching:

Contrary to approaches which consider grammar as an abstract system and lexical items as fillers of its slots and tend to separate them in teaching, this study

supports the trend of teaching language from a lexico-grammatical approach through making use of corpus evidence and usage based approach to introduce lexical items as integral component parts of their lexical, grammatical, semantic, and pragmatic associations as well as any of other associations which emerge from corpus investigations. Lexical priming integrative approach which we used here is clearly relevant for classroom language learning pedagogy. According to Romer and Schulze, Lexical priming theory stitches together the linguistic, the psycholinguistic and the sociolinguistic. The linguistic description starts from the psycholinguistic process of priming whereby patterns of usage are recognised by a user of the language such that they become part of the knowledge of that user and are replicated in part or whole in his or her subsequent talk” (2009, p. 45).

Regarding the pedagogical implications of lexical priming theory, Hoey (2005) emphasises using authentic data from corpus to state the existence of lexical priming and expose learners to it as often as possible so that mental concordance can be promoted. Hoey’s theory advocated the idea that learning a lexical item happens through encountering its associations which includes collocates, semantic, grammatical and pragmatic associations, a knowledge which can be applied to learning a second language effectively. Drawing on this theory, these study findings advocates a methodology of lexis primacy and usage-based approaches through drawing upon lexical priming theory principles and the use of corpus evidence to investigate the patterns of usage associated with particular lexical items like the functional word **as** the subject of this study. The ultimate objective is to make these associations and the way to search for them explicit to ESL/EFL learners, teachers as well as materials’ writers so that they can build on them in their learning, teaching and lesson planning. These study findings are therefore of particular interest to language teachers and learners, materials developers especially the advocators of the lexical approach. In addition, they are congruent with current trends regarding the teaching and acquisition of lexical items in general and FEs in particular. Our goal is to use this

knowledge to present lexical items to non-native speaking learners within their authentic most frequent associations to reinforce their priming. Hoey asserted that:

Every time we use a word, and every time we encounter it anew, the experience either reinforces the priming by confirming an existing association the word and its co-texts and contexts, or it weakens the priming, if the encounter introduces the word in an unfamiliar context or co-text. (2005, p. 9).

Drawing on this, we believe that a lexical item in general and a functional lexical item in particular should be taught within its frequent associations (collocations, colligations, semantic and pragmatic associations). These associations do exist in language and while they are unconsciously acquired by the native speakers, they may well be unknown to non-natives due to a lack of exposure to them. For this reason, we call for studies like this one by researchers, corpus linguists and lexicographers to make the associations of words and word sequences explicit to learners, teachers and material writers so that they can either be implicitly introduced through flooding the input or explicitly by revealing them to learners through direct instruction. This approach also goes in harmony with Hoey in advocating the primacy of lexis over grammar and claiming that the latter is produced by the associations which are created by lexical items when naturally used in language. Hoey went as far as saying that:

What we count as grammar is the accumulation and interweaving of the primings of the most common sounds, syllables and words of the language. So grammar is, in such terms, the sum of the collocations, colligations and semantic associations of words like *is*, *was*, *the*, *a* and *of*, syllables like *ing*, *er* and *ly*, and sounds like [t] (the end of syllables) and [s] and [z] (likewise at the end of syllables). (2005, p. 159).

Drawing on this, further corpus studies are needed to describe profiles of lexical items, particularly functional words, and their different associations. For reasons of space, a full description of the target item as is not realised in this study and thus full

profile description studies are called for. In addition, studies which provide examples of teaching activities using the findings of this and similar studies are most needed in the future.

7-Conclusion:

This study showed how authentic corpus data and lexical priming theory principles could be used to argue for the idea that investigating lexical items should go further than merely focusing on content words and considering their meanings and collocates to the idea of investigating the systematic associations of both lexical and functional words. Applying lexical priming theory in harmony with corpus frequency studies could then uncover a profile of associations for each lexical item including its lexical, semantics, grammatical, pragmatic, textual and genre associations. Answering our study research questions also argues for the idea that associations of a certain lexical item systematically change in accordance with the change in words or word sequences prior or subsequent to it. Our qualitative analysis revealed different lexical, grammatical, semantic, pragmatic, textual and even register associations each time a lexical item is collocated with different items. This implies that when lexical items, particularly function words, are investigated or taught, it would be more convenient to consider them in relation to and interaction with items prior or subsequent to them. That is, to consider the whole profile of their associations rather than looking to them only from a functional perspective as is the tradition with functional words or from a semantic perspective as with lexical words. This study usefulness is then in its insightful results on the way through which corpus linguistics could inform the lexical approach particularly as regards investigating and teaching functional lexical items and lexis in general. It also gives a new vision to the way lexis is intertwined not only with grammar but also with semantics, pragmatics, discourse and contextual aspects of language. The study revealed that the functional word *as* has systematic associations that should be introduced to learners when teaching it instead of merely focusing on its functions. By analogy, lexical items, especially functional ones need to

be investigated and taught in accordance with their linguistic associations in corpus. Instead of teaching **as** and other functional words in isolation by focusing on their functions as the tradition goes, we strongly support using this study results to introduce it to learners of English from a lexical approach perspective. For the sake of illustration, we take as an example three of the FEs containing **as** revealed by this study **as you would say**, **as you would expect**, and **as you would imagine**. If these, and many others, are taught to be memorized by learners and their appropriate uses are revealed to them, they might well acquire them and retrieve them as whole expressions in their subsequent production. This feature makes their productions faster and more appropriate and thus more fluent. Instead of teaching functional words like **as** from a functional perspective, we need to conduct corpus studies to uncover how these words are used in the real world in interaction with other words forming common patterns of use and then introduce those patterns of use to learners for more fluency.

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