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INFORMING ABOUT ADJECTIVAL AMBIGUITY THROUGH TRANSLATION

ABSTRACT

While linguistic research puts an emphasis on the centrality of lexical ambiguity, translation literature seems to focus on the restricted, exceptional and accidental side of the problem. This article sets out to investigate the empirical and systematic corpus-based method for trainee translators allowing them to discuss the often undermined and neglected problem of *adjectival ambiguity* in SL texts. This study used the highly polysemous adjective *good* and its Arabic equivalents in the English-Arabic Parallel Corpus of United Nations Texts EAPCOUNT, a parallel corpus of about seven million word tokens. Results showed that almost with every usage of the adjective, there is a different novel meaning and, therefore, a different equivalent term. Resolving the ambiguity of this adjective and establishing equivalence at both word and collocation levels depended heavily on the head noun that *good* modified. It could be suggested that a corpus-based approach is highly appropriate in the translation classroom when dealing with the problem posed by lexical ambiguity.

Keywords: adjectival ambiguity, Translation Studies, EAPCOUNT

Polysemy is ubiquitous in language and its investigation has a considerable potential for illuminating human cognition.
(Brown and Witkowski, 1983)

1. Introduction

It is fairly uncontroversial to say that ambiguity is a prevalent phenomenon in language and a property thereof. Lexical ambiguity is an inherent problem of language because humans are impelled to assign to a finite resource of meaningful items an unlimited set of applications (Pustejovsky 1995; Sinclair 1998). Generally speaking, a linguistic unit is said to be ambiguous when it can be associated with more than just one meaning (Wilson and Keil 2001). The term is *normally* reserved for cases where the same linguistic form has clearly differentiated meanings that can be associated with different linguistic representations (ibid).

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There are in fact two types of ambiguity: lexical ambiguity and structural ambiguity. While structural ambiguity arises when a sequence of words reflects two or more possible syntactic relationships, lexical ambiguity occurs when a word has multiple senses that are related to one another in some predictable way (Pustejovsky 1995). The resolution of syntactic ambiguity has largely been successful with the development of corpus linguistics as a method and the use of part-of-speech taggers which allow the prediction of the syntactic category of words in texts with high levels of accuracy (Pustejovsky 1991). The problem of lexical ambiguity is still, however, defying not only taggers but also novice translators. In this study, emphasis is therefore placed on one of the most problematic issues of lexical ambiguity, namely, adjectival ambiguity.

Semantic ambiguity can occur in cases like the item *mouse* which can refer to either a rodent or a computer controller. The item *lamb* is also another example of semantic ambiguity which can be used to refer to an animal or simply meat. Though rarely, if at all, a problem in everyday communication, ambiguity arising from polysemy can pose major challenges in meaning theory and meaning applications such as translation and interpreting. It is worth noting here that throughout this article interpreting is also implied in instances where the term translation is mentioned. Words, as already stated, can have multiple meanings, which implies that they are likely to require different equivalent items. The multiple semantic and pragmatic uses of a single lexical item are one of the very basic problems facing trainee translators, as they are less likely to establish appropriate equivalence at lexical level easily.

In the case of interpreting, the task of selecting the appropriate equivalent of a polysemous word is even more challenging. Unlike the translator who has full access to the broader context and can go back and forth across a text or even check dictionaries in search for the suitable equivalent, the interpreter, due to immediate production, is deprived of such an access. Instead, s/he has to endeavor to elicit, from a linear speech, the most appropriate meaning, and thus equivalent, of a polysemous word as the speech goes on. One gets even a better understanding of the scope of the problem faced by translators and interpreters when knowing that it is the most frequently used words that tend to be the most polysemous (Miller 1986). Gentner (1982) found that the 20 most frequent nouns in English have an average of 7.3 word senses each and the 20 most frequent verbs have an average of 12.4 senses each.

Translation studies have tended to ignore the regular nature of the problem and emphasize its contrastive and accidental side. The problem was then investigated on a case-by-case basis and the conclusions presented were often occasional and specific to the cases at hand. Despite the progress achieved in lexical semantics, lexical ambiguity has not received much attention in translation studies. Linguists have often neglected the possibility to use translated texts as rich mines for fresh insights into this phenomenon and the meaning behavior of items in general. There is a significant need to fill this gap.

Along with these above concerns, current research needs to address the gap by empirically investigating this lexical problem through a translation corpus. To this effect, Pustejovsky's approach (1991, 1993, 1995) is endorsed. Of particular worthiness is that Pustejovsky's arguments to develop his approach to the problem are taken as an illuminating starting point to tackle a phenomenon in focus as omnipresent and exhaustive in language as ambiguity. The main objective is to conduct a corpus-based empirical study on the nature of this phenomenon in language and translation, a study that can inform about the true complexities that this problem presents to both researchers and language practitioners, including novice translators.

2. Adjectival Polysemy

This section is concerned with the less thoroughly investigated topic of adjectival polysemy from a translational perspective. The problem is briefly introduced in this section. The phenomenon of logical polysemy, well-known from the verbal and nominal categories, occurs in the adjectival category. In the case of adjectival polysemy, the main difficulty is due to the fact that the semantic interpretation, and thus, major part of the act of translation of a lexically ambiguous adjective varies across combinations with different nouns (Yael and Leacock 2000). For instance, the interpretation of adjectives such as *fair* and *unbalanced* vary depending on the head noun they modify; compare *fair weather* with a *fair judge*, and *fair hair* or *unbalanced diet* with *unbalanced mind*.

The same holds true with *false* (dawn/move/hopes) or *careful* (driver/investor/enemy) and a great many number of other adjectives, some of which we often take as monosemous. Take the example of color adjectives which seem to be unambiguous at first glance. They are ambiguous enough to become the subject of translators' attention. Halff et al. (1976) show that an adjective like *red* can have different interpretations when combined with nouns as in *red apple*, *red face*, *red knife blade* and *Red Army*. Obviously, the main source of ambiguity, here, arises from the fact that such and similar adjectives often “display a high level of semantic under-specification and are highly dependent (for their meaning) on the noun (they modify)” (Murphy 1997; Pustejovsky 1995:63). As pointed out by Moon (1987: 179) “Adjectives are notoriously hard to divide lexicographically into senses as they are often heavily context-dependent and flexible, taking on as many meanings as you like or have space for.”

The example she gives is *light*, which, according to her, has only “two main strands of meaning” yet interrelated: (1) “not heavy in weight” and (2) “not intense or great in amount, degree, etc.” But then she proceeds to list ten context groupings, with each requiring a different wording to explain their meanings: “a light rain, a light blue shirt, the light breeze, a light sleep(er), her light voice, a light lunch, a light white wine, light injuries, light housework and her light graceful step” (Moon 1987: 179). This goes in line with what Sedivy et al. (1999) call *adjectival head noun dependence*, a term they used to refer to the fact that the semantic interpretation of an ambiguous adjective depends heavily on the noun it modifies. This same problem is even compounded and is much more problematic in translation. This is to say that the scene can become multifaceted when considering the question from a cross-linguistic perspective.

This is especially a relevant argument because the notions of meaning, sense, and aspect of sense or sub-sense will be mixed up with each other. What may be considered as a fully-fledged meaning of a word in one language can only be a sense or a sub-sense in another and vice versa. This is quite common in a translation process involving two languages which are neither historically nor culturally related, such as Arabic and English. For instance, a simple adjective like *good* shows a case of complementary polysemy as it has multiple senses depending on what it is modifying.

- (1) A *good* painting
- (2) A *good* meal
- (3) A *good* knife
- (4) A *good* person
- (5) A *good* book

The core meaning of the adjective *good* is a positive evaluation to the head noun it is modifying. But although the context is not complete, it is clear that with each new head/collocate, *good* expresses a novel meaning. The difference in meaning, and hence the CP case, of an adjective like this may be seen more concretely through a bilingual exercise as in translation.

- (6) A good painting لوحة جميلة (lawhatundzamīla)²
- (7) A good meal وجبة شهية (widʒbatun ʃahīja)
- (8) A good knife سكين حادة (sikīnun ḥādda)
- (9) A good man رجل طيب (radʒulun tajib)
- (10) A good book كتاب مفيد (kitābun muʿīd)

This task, however, is far from easy. It poses a real persisting challenge for translators and interpreters alike, as it requires good collocational knowledge. For instance, in the five examples above (6-10) there are 5 different equivalents pairing up with the adjective *good*. They are جميل (dʒamīl literally means beautiful, beautiful, bonny), شهية (ʃahīj, literally means delicious), حاد (ḥādd, literally means sharp-cut), طيب (tajīb, literally means kind), and مفيد (muʿīd, literally means useful and interesting). These examples are a good illustration of the complexity of the process of translating lexically ambiguous adjectives.

2.1. Translation literature

The study of polysemy, or the ‘multiplicity of meaning’ of words, has a long history in the philosophy of language, linguistics, psychology, and literature (Ravin and Leacock 2000). About six decades ago, Ullmann (1957:117) wrote that polysemy is “*the pivot of semantic analysis.*” It has, indeed, become clear that the study of polysemy is of paramount importance for any semantic study of language and cognition (Nerlich and Clarke 2001). Much theoretical research in linguistics has concerned itself with ambiguity in language. Theories of syntactic and semantic structure have been developed based on the ambiguity problem. It also has been the primary empirical test bed for developing and evaluating models of real-time language processing. Within artificial intelligence, ambiguity is considered as one of the central problems to be solved when developing language understanding systems (Wilson and Keil 2001). For the last two decades, the more specific question of polysemy has also been attended to by computational linguistics, where problems of word senses and word sense disambiguation are vividly discussed (see Asher and Lascarides 1995; Pustejovsky 1991; Ravin and Leacock 2000). Yet, despite the importance accorded to this question, and the rich behavioral and theoretical linguistic literature on ambiguity and on the nature of the lexicon (Beretta et al, 2005), this was not matched by a similar interest in the literature on translation studies. At best, translation studies have focused on the less problematic side of the problem, i.e. the accidental side of it.

Polysemy is often regarded as a ‘graded’ phenomenon (Cruse 1995; Lipka 1990) ranging between contrastive (accidental) polysemy and complementary polysemy (Pustejovsky 1995; Weinreich 1966). Contrastive polysemy, traditionally known as homonymy, deals with ambiguities between *unrelated* meanings such as the often cited example of *bank* which can

²Case endings are not shown systematically in the transliterated versions of the Arabic text. For instance, they are not added when Arabic words appear individually and out of their context.

refer to either a financial institution or the side of a river. It is contrastive in the sense that when a polysemous sense is present the other should be excluded. Another example of homophony is the word *tin*:

- (11) This can is made of tin.
- (12) Put the leftovers in the cookie tin.

In contrast, complementary polysemy does not only have to do with ambiguity between *related* senses, but also with *complementary* senses. These are complementary in the sense that they do not suppress each other. Take the word *door* in:

- (13) The door fell off its hinges.
- (14) The dog ran through the door.

While in (13) *door* refers to a physical object, in (14) it refers to an opening in a wall. Even if we take the sense denoting a financial institution of the hyponymous word *bank*, we can track different polysemous senses as in:

- (15) The bank decided to reduce loans.
- (16) The bank was totally destroyed.

The above examples show that it is possible for one or two meanings of hyponymy to be polysemous. While *bank* in (15) refers to the staff working in a bank, in (16) it simply refers to a building. Trying to describe the behavior of lexical ambiguity in language, especially in the case of non-contrastive ambiguity, is in fact an attempt to describe the behavior of words in use, which has a direct implication for the discipline of translation. Nevertheless, the issue of lexical ambiguity has not been given due attention in the translation literature. Several scholars still think it is rather a false problem (e.g. Kenny 2001). Some have even gone as far as to argue that polysemy actually does not exist and is only an artifact of linguistic analysis (see Kleiber 1999). The disambiguation of contrastive ambiguity poses less challenges than that of non-contrastive ambiguity. Most studies of lexical semantics and more particularly translation studies, however, have focused on the accidental side of the problem and ignored the more problematic issue of non-accidental ambiguity. Pustejovsky (1995) calls for more attention to the complementary ambiguity. “*Most work to date on ambiguity has dealt with contrastive ambiguity, the essentially arbitrary association of multiple senses with a single word*”, Pustejovsky (1995: 29) notes. Though contrastive ambiguity can be resolved through context, it obviously requires more than just the identification of the context. Disambiguation, in this case, requires good knowledge of the polysemous behavior of ambiguous items as well as good collocational skills. Looking at the matter from the non-accidental side, lexical ambiguity becomes a real problem, not only with regard to the process of disambiguation of contextually appropriate meaning, but also regarding the selection of appropriate equivalents in a target language.

This problem is well reflected in the work of students, whose translations often fail to achieve the desired naturalness, resulting in non-fluent TL output. This ‘unnaturalness’ is often noticed in the way students try to compensate for their failure to provide lexicalized collocations by resorting to longer translational units. Sometimes they miss shorter and more lexicalized units to express exactly the same meaning with words habitually appear together

and constructions familiar to TL readers. For instance, when translating from Arabic into English, students often commit collocational errors like those in Examples 17 and 18. The STs are basically the TTs of the EAPCOUNT, used to check how idiomatic the provided translation can be:

(17) ولا يعرف البالغون ماذا يفعلون أو يقولون إذا اشتبهوا في شخص يعرفونه يقوم بالإساءة الجنسية لأحد الأطفال

(walāyaḡrifualbaliyūnamāḡājafḡaloonaaawjaquloonaʔiḡāiḡtabahoofiḡfaxsin jaḡrifoonahujaqoomubilʔisātiaḡdzinsijatiliʔaḡhadialʔatfāl)(the Arabic text)

Adults do not know what to make or to say if they doubt that a person they know is *making sexual offense* to a child.(student's translation)

Adults do not know what to do or say if they suspect someone they know is *sexually abusing* a child.(the established English collocation in EAPCOUNT)

(18) حملات الوقاية من حوادث الطرقات

(ḡamalātualwiqājati mina hawādiḡitturuqāt)(the Arabic text)

Campaigns of *Prevention of Road* accident.(student's translation)

Road Safety campaigns. (the established English collocation in EAPCOUNT)

3. Methodology

This paper adopts a statistical corpus-based approach to address adjectival ambiguity in translation. The approach benefits from the advantages that parallel corpora made available. The study is conducted by analyzing data extracted from an English-Arabic parallel corpus collected from United Nations texts and their translations (hereafter EAPCOUNT). EAPCOUNT (Salhi 2012) can be taken as a rich resource for it provides researchers with the target words in context along with their equivalents in Arabic.³ It also allows them to examine and compare all instances of a given item in the corpus. Once extracted and compiled, data are then analyzed to observe the ambiguous behavior of the target adjective *good*. Sentence pairs containing *good* (only instances where *good* is used as an adjective) are first extracted and split into groups, each corresponding to a different sense. Then the ambiguous behavior of *good* is analyzed.

3.1 EAPCOUNT

Table 1 shows that the EAPCOUNT corpus comprised 341 files in English along with their translational counterparts in Arabic. It consisted of two subcorpora: the English subcorpus of originals and the Arabic subcorpus of translations. As for the English subcorpus, it contained 3,794,677 word tokens, with 43,612 word types. The Arabic subcorpus had a slightly fewer word tokens (3,755,741), yet differed greatly in terms of the number of word types, which is 122,154. The whole corpus contained 7,550,418 tokens.

³See also <http://en.wikipedia.org/wiki/English-Arabic_Parallel_Corpus_of_United_Nations_Texts>

Table 1. Distribution of texts, word tokens and word types in the EAPCOUNT

SUBCorpora	Texts	Tokens	types
1. English subcorpus	341	3,794,677	43,612
2. Arabic subcorpus	341	3,755,741	122,154
Total	682	7,550,418	165,766

The EAPCOUNT consists mainly of resolutions and annual reports issued by different UN organizations and institutions. Some texts were taken from the authoritative publications of another UN-like institution, namely the Inter-Parliamentary Union (IPU). It represented nearly 2% of the total number of tokens in the English subcorpus. The great majority of texts, however, were issued by the General Assembly and Security Council (about 58% of SL tokens). The assumption here was that the translations produced by these selected international bodies could be appropriate and reliable. Table 2 details the sources of texts as well as the number of texts and tokens in the English subcorpus.

Table 2. Distribution of texts and words of the English Subcorpus per organization

Source		Number of texts	%	Number of tokens	%
UN Agencies	General Assembly and Security Council	225	65.98%	2,183,275	57.53%
	UNICEF	8	2.34%	47,419	1.24%
	UNIDO	4	1.17%	150,570	3.96%
	UN Office for Outer Space Affairs	3	0.87%	38,381	1.01%
	UNESCO	1	0.29%	19,564	0.51%
	Economic and Social Council	51	14.95%	544,478	14.34%
	WHO	1	0.29%	83,349	2.19%
	IMF	6	1.75%	483,638	12.74%
	Others	12	3.51%	183,797	4.84%
Non-UN Agencies	IPU	30	8.08%	60,206	1.58%
TOTAL		341	100%	3,794,677	100%

Meyer (2002: 45) claims that “in creating a synchronic corpus, the corpus compiler wants to be sure that the time-frame is narrow to provide an accurate view of contemporary English undisturbed by language change”. He maintains (ibid: 46) that “a time-frame of 5 to 10 years seems reasonable” for the compilation a synchronic corpus. Even with a time frame of about 14 years, the EAPCOUNT (see table 3 below) can still be taken as a synchronic corpus. This is because almost all original texts and translations are issued by the same UN agencies and governed by strict norms and standards of writing and translation, which may arguably mean that language change happens at a slower pace. Indeed, 22.6% of the texts were produced in 2009, 16% in 2007, and 13.4% in 2005, 93.87% of the texts over a period of 9 years, namely from 2001 to 2009, that is, within the reasonable time-frame for a synchronic corpus.

Table 3. Time-frame of EAPCOUNT texts

Years	96	97	98	99	00	01	02	03	04	05	06	07	08	09
Number of texts	1	1	2	5	7	13	5	14	24	35	31	42	22	59

As outlined earlier, the EAPCOUNT was aligned on a paragraph basis. Because there is no alignment software working with Arabic scripts at our disposal, the process was done manually. We took a pair of (.txt) files (an original and its translation); we proceeded first by segmenting the source text and then we matched paragraphs in the target text with their corresponding parts in the English text. We copied each single Arabic paragraph from the Arabic txt file and pasted it immediately under its original counterpart. Figure 1 below sums up the main procedures for EAPCOUNT building and its alignment.

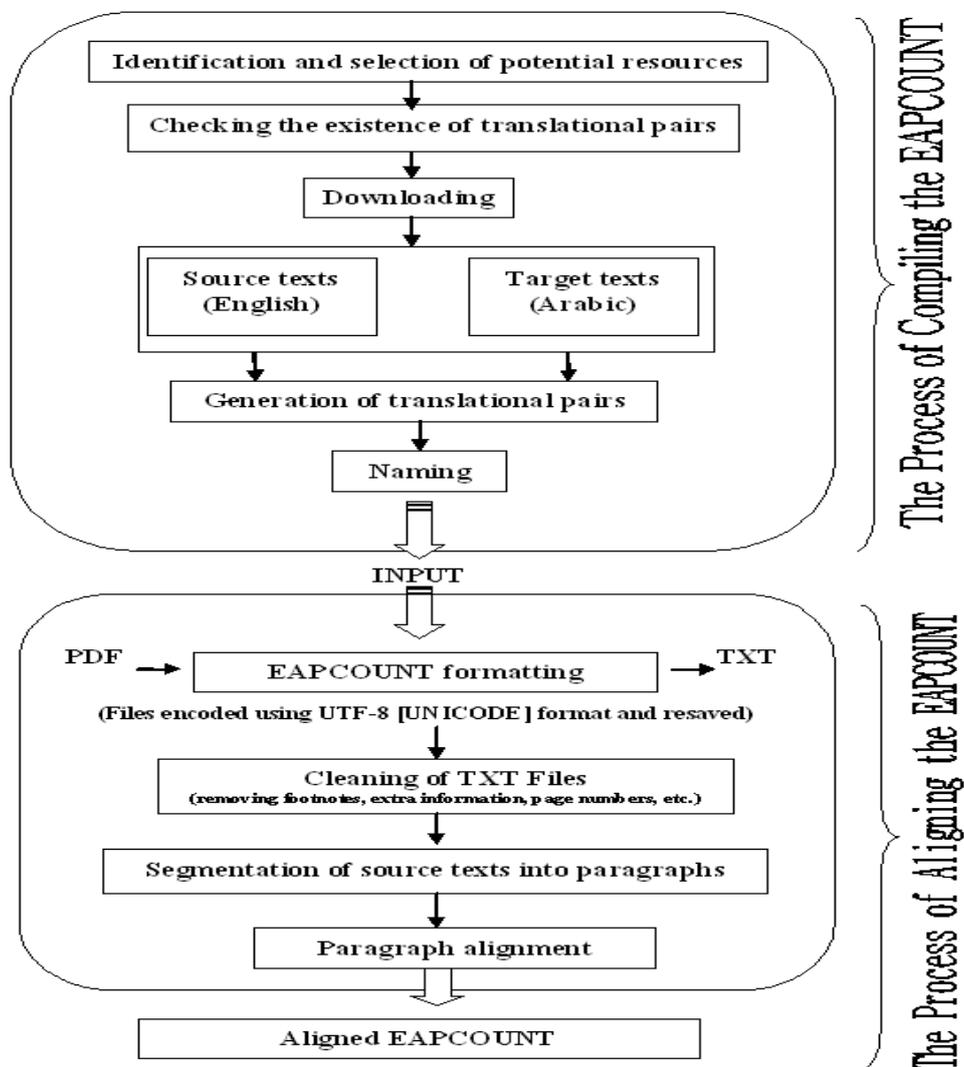


Figure 1. The Process of Constructing the Aligned EAPCOUNT: taken from Salhi (2012)

3.2. Concordancing and retrieval

The concordance software used was AntConc3.2.1w. It provides a general purpose tool for conducting a wide range of investigations of copious amount of linguistic data. It was used in the retrieval process of the occurrences of *good* and its Arabic equivalents in the EAPCOUNT. The language encoding of the concordancer needed to be modified into *Unicode utf8* instead of *Western Europe‘Latin1’* (ISO-8859-1), in order to adapt it to Arabic language scripts (see Figure 2).

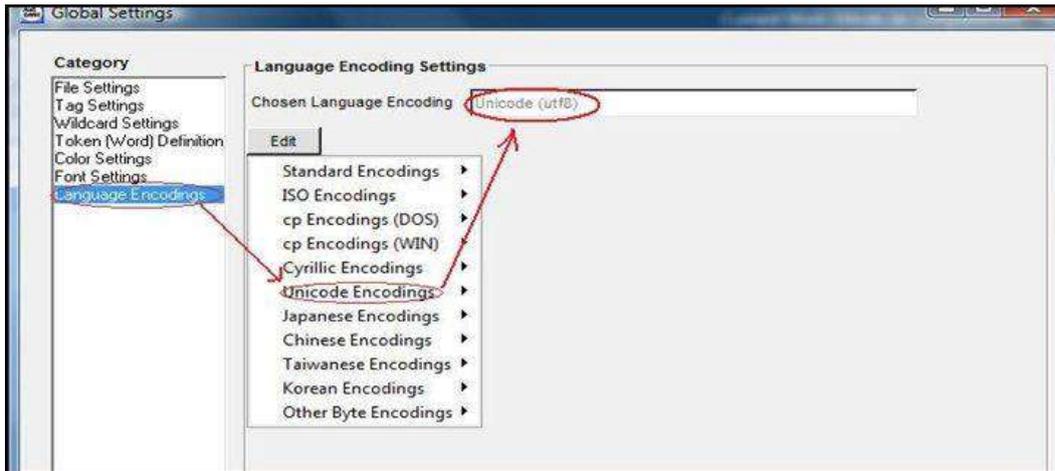


Figure 2. Changing language encoding

The retrieval process involved a number of steps, many of which required intensive manual work. In the first step, EAPCOUNT files (texts) were uploaded into AntConc 3.2.1w. Three folders were created finally: a folder which contained the aligned EAPCOUNT; a folder about the English subcorpus and a third folder devoted to the Arabic subcorpus. At this stage, only the English subcorpus was uploaded, counting 341 files.

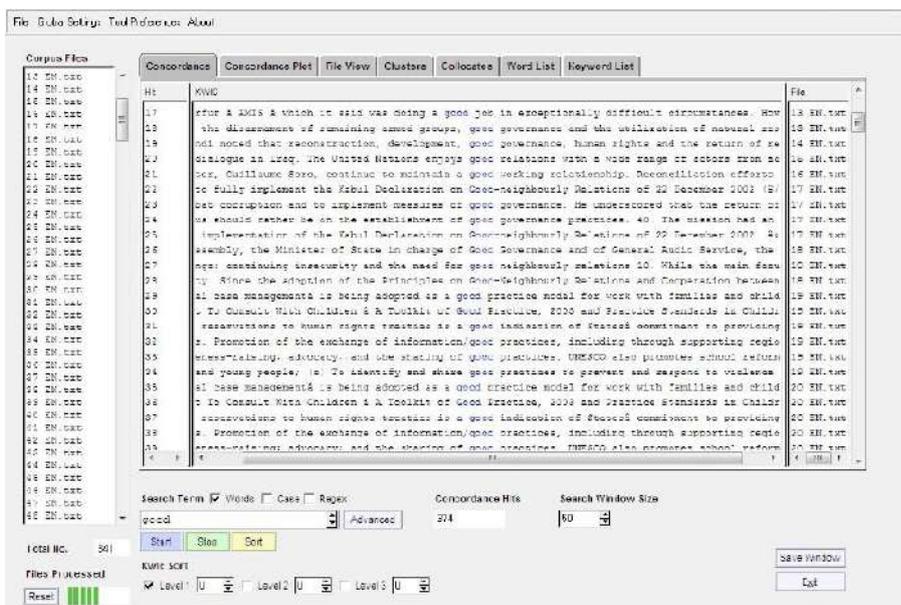


Figure 3. Sample of concordance lines of good

When data from the Arabic translations were needed, only the Arabic subcorpus was uploaded. But when looking for equivalents, the aligned EAPCOUNT was uploaded in this case. The next step was to use the word list tool to generate the occurrences of *good*, as found in the English sub-corpus. The researcher opted for the search option that allowed treating all data as lower case in order to avoid the duplication of the same word in the word list. Thus, *good* and *Good* appeared as just one word type (see Figure 3).

4. Analysis

Using AntConc, 602 instances of the adjective *good* were found in the EAPCOUNT. A sample of these instances is provided in Figure 3 above. As Table 4 shows, *good* displayed high degree of ambiguity as it presented a large number of senses which were translated differently into Arabic. In fact, it was translated by 22 different Arabic equivalents. Because the study assumes that equivalents of a lexical item can inform about the ambiguous behavior of this item, the following paragraphs discuss the occurrences of these Arabic equivalents.

Table 4. Occurrences of *good* in EAPCOUNT

Rank	Arabic Equivalents of <i>good</i>	Occurrences	%	Example
1	رشيد (rajīd) (rightly-guided)	91	28.08	Promoting a good governance agenda تشجيع خطة الحكم الرشيد (taʃʒīʃu xutati alhukmi arraʃīd)
2	جيد (dʒajid) (good, well, fine)	81	25	Access to good quality education الحصول على التعليم الأساسي الجيد (alhusoolʃalāattaʃlīmialʔasasijalʒajid)
3	حميد (hamīd) (benign)	72	22.22	Mediation and good offices efforts جهود الوساطة و المساعي الحميدة (dʒuhoodu alwasātati wa almasāʃjalhamīda)
4	حسن (husn) (beauty, being good)	29	8.95	Normalization of good neighborly relations; التطبيع الشامل لعلاقات حسن الجوار (attatbiʃuaʃʃāmilulilʃalaqati husnialdʒiwār)
5	طيب (tajib) (goodhearted)	17	5.24	Made good progress أحدث تقدماً طيباً (ʔahdaʔataquaduman tajiban)
6	سليم (salīm) (sound, intact)	15	4.62	Good practice by military personnel استناداً إلى الخبرات و الممارسات السليمة للأفراد العسكريين (istinadanʔilāalxibrātiwa almunārasāti assalīmatililʔafrādialʃaskarijīn)
7	صالح (sālīh) (good, antonym of evil)	2	0.61	Good citizenship المواطنة الصالحة (almuwātanatuassālīha)
8	عظيم (ʃāzim) (great)	2	0.61	The Good Friday Agreement الجمعة العظيمة اتفاق (itifāqualdʒumʃāti alʃāzīma)
9	(no explicit equivalent)	2	0.61	Building on the good experiences

Rank	Arabic Equivalents of <i>good</i>	Occurrences	%	Example
10	وفير (wafīr) (abundant)	1	0.30	Owing to good rains بسبب الأمطار الوفيرة (bisābābīalʔāmtāriāl wafīra)
11	كفاءة (kafāa) (competence)	1	0.30	To make good and efficient laws وضع قوانين تتسم بالكفاءة (wadʕu quawanīnina tatasimu bilkafāʔa)
12	سوي (sawij) (straight, upright)	1	0.30	Restore it to a good biological status إعادته إلى وضع إيكولوجي سوي (ʔiʕādatahuʔilāwadʕīnīkolodzjīnsawij)
13	سانح (sānih) (available)	1	0.30	A good opportunity to overcome suspicion فرصة سانحة للتغلب على الريبة (fursatun sānihatunliltayalubiʕalāarraajba)
14	خير (xayr) (good, welfare)	1	0.30	Democracy is a universal value and good الديمقراطية قيمة عالمية و خير (addīmuqratiʔjatuqīmatunʕālamijātunwax ajr)
15	سديد (sadīd)(apposite)	1	0.30	To promote good governance تعزيز الحكم السديد (taʕzīz alhukmi assadīd)
16	مرجو (marjou) (hoped for, desirable)	1	0.30	To good effect لتحقيق الفائدة المرجوة (litaḥqīqialfāʔidatīal mardzuwa)
17	ممتاز (mumtāz) (excellent)	1	0.30	There were a number of good soldiers كان هناك عدد من الضباط الممتازين (kana hunāka ʕadadun mina adʕubāti al muntāzīn)
18	إخلاص (ixlās) (loyalty, devotion)	1	0.30	Efforts to realize them in good faith الجهود الرامية بإخلاص لتحقيقها (aldzuhooduarrāmijātubiʔixlāsīnlitaḥqīqī hā)
19	إستحسن (istaḥsana) (v. take a favorable view of)	1	0.30	...did not consider a good starting point لم تستحسنه الكويت كنقطة انطلاق (lamtastahsinhu alkuwajtukanuqtatiintilā q)
20	فضلى (fudʕlā) (better, FEM.)	1	0.30	Assessment of good practices تقييم الممارسات الفضلى (taqjīmualmumārasāti alfudʕlā)
21	أفضل (ʔafdʕal) (better, MASC.)	1	0.30	Databases on good practices البيانات المتعلقة بأفضل الممارسات (albayānātualmutaʕaliqatubiʔafdʕalialmumārasāt)
22	لا بأس به (lā baʔsa bihi) (phrase: not that bad)	1	0.30	good employment ... عملا يدر له دخلا لا بأس به (ʕamalanjadurulahudaxlānlābaʔsa bihi)
Total		324		100%

The prototypicality test can be useful when attempting to get fresh insights about adjectival ambiguity. Though رشيد (raʕīd), literally means ‘right-guided’, following the right path, ranks first on the list as the top frequent equivalent with 91 occurrences, جيد (dzajid), literally means ‘good’, occurred 81 times which can be regarded as the most

prototypical equivalent for *good* in the legal context. Table 5 below shows that the number of heads modified by رشيد (rafīd) is very limited (just 4) compared to جيد (džajid) which was found to collocate with as many as 20 different nouns. Items with much less occurrences than رشيد (rafīd) such as حسن (hasan) tends to associate with more heads. They could be considered as more prototypical than رشيد (rafīd).

Table 5. Percentage of heads associated with the most frequent equivalents

Most occurring equivalents	Occurrences	Prototypicality	Heads modified	%
رشيد (rafīd) (rightly-guided)	91	1	governance الإدارة / الحكومة / الحكم / الحوكمة (alʔidāra/ alhukm/ alhawkama)	2.77
جيد (džajida) (good, well, fine)	81	20	practices الممارسات (almumārasāt) relationships علاقات (ʔalāqāt) cooperation تعاون (taʔāwun) roads طرق (turuq) political instincts حس سياسي (hissun sijāsij) effect تأثير (taʔθīr) progress تقدم (taqadum) examples أمثلة (ʔamθila) alternatives بدائل (badāʔil) education تعليم (taʔlīm) coordination تنسيق (tansīq) data بيانات (bayanāt) institutional capabilities قدرات (qdurāt muʔassasija) level of awareness مستوى الوعي (mustawāalwaʔj) job عمل (ʔamal) living standard مستوى معيشي (mustawā maʔīʔij) position مركز (markaz) start بداية (bidāja) situation وضع (wadʔʔ)	55.55
حميد (hamīd) (benign)	72	3	offices مساعي (masāʔj) conduct سلوك (sulook) practice ممارسة (mumārasa)	8.33
حسن (ḥusn) (agreeable, good)	29	6	intention نية (nija) neighborly relation جوار (džiwār) collaboration تعاون (taʔāwin) listening skills مهارات الاستماع (mahārāt alistimāʔ) conduct سلوك (sulook) governance إدارة (ʔidāra)	16.66
طيب (tajib) (good-hearted)	17	4	relationships علاقات (ʔalāqāt) progress تقدم (taqadum) basis أساس (ʔasās) indicator مؤشر (muʔaʔjir)	11.11
سليم (salīm) (sound, intact)	15	2	governance الإدارة / الحكم / الحكومة (alʔidara/ alhukm/ alhawkama); practice الممارسات (almumārasāt)	5.55
Total number of heads: 36				100%

The results of the equivalence test implied that equivalents of *good* tended to differ in the level of their noun dependence, which may have a clear impact on its flexibility of usage and, hence, its interpretability. High noun dependence may introduce flexibility in the usage of this adjective as well as ambiguity in its meaning interpretation. The results also implied that correlation between adjectival ambiguity, meaning flexibility, and equivalence may be

observed when investigating the underlying meaning behavior of adjectives. These findings confirmed the Pustejovskyan (1995) thesis that the interpretation of adjectival meaning could be highly affected by the fact that such a meaning is dependent on the noun it collocates with. For instance, the adjective *good* was translated as رشيد (rafīd) only when it collocated with the head noun *governance*, while جيد (dzajid) collocated with almost 56% of the head nouns. This came as no surprise, given the fact that the item جيد (dzajid) is a very general term that can be applied to a wide range of expressions, whereas رشيد (rafīd) is rather domain-specific. All 91 occurrences of the expression *good governance* are translated as الحكومة الرشيدة (alḥukooma arrafīda), الحكم الرشيد (alḥukm arrafīd), and الإدارة الرشيدة (alʔidara arrafīda), with the underlined words literally means government, governance, and management, respectively.

Obviously, رشيد (rafīd) seemed to collocate with items describing the process of decision-making and the process by which decisions are implemented. This is one reason why there was no single instance in which it combined with a head noun denoting a static notion such as أساس (ʔasās, literally means bases), مؤشر (muʔaʔfir, literally means indicator) or وضع (wadʕ, literally means situation). The adjective *good* in the expression *good relationships* can be translated as طيبة (tajiba, dzajida) and probably حسنة (hasana), but not usually as رشيدة (rafīda). The way رشيد (rafīd) was used in the EAPCOUNT provided ample evidence that the exact meaning/sense of an adjective, and hence the choice of the target language equivalent, depends heavily on the head noun it modifies.

The incompatibility of some adjectives with some head nouns is telling. For instance, excluding static notions illustrates very well the idea that a head noun can limit the range of modifiers. Some heads dictate which equivalent should be associated with them. A case in point is the expression *Good Friday* which was found twice to be translated as الجمعة العظيمة (alḏumuʕatu alʕāzima). In the Christian theology, Good Friday is the day of the Christ's Crucifixion. *Good* is an Old English synonym for *holy*, whose equivalent in Arabic would be مقدس (muqaddas). Though *Good Friday* is not a collocation, the head noun *Friday*, in this case, did not lend itself to be associated with any other equivalent except عظيمة (ʕāzima). Collocations show some regularity, which can be used for pedagogical purposes.

Regularities and patterns, however, are not easy to handle. For novice translators, adjectival ambiguity and more generally the issue of lexical ambiguity presents major challenges. Coming across an expression such as *good offices* or *good governance*, novice translators often fail to select the appropriate collocational items (see Table 6), such as in مساع حميدة (masāʕin ḥamīda) and حكم رشيد (ḥukmun rafīd).

Table 6. Appropriate collocational items

	Example	Translation
1	Promoting a good <u>governance</u> agenda	تشجيع خطة الحكم الرشيد (taʕjīʕu xutati alḥukmi arrafīd)
2	A policy of good <u>offices</u>	سياسة المساعي الحميدة (sijāsatu almasāʕi ḥamīda)
3	Owing to good <u>rains</u>	بسبب الأمطار الوفيرة (bisababi alʔamtāri alwafīra)
4	Restore it to a good <u>biological</u> status	إعادته إلى وضع إيكولوجي سوي (ʔiʕādathu ʔilāwadʕin ikołodʒinsawij)
5	A good <u>opportunity</u>	فرصة سانحة (fursātun sāniha)
6	Attend orthodox Good <u>Friday</u>	حضور طقوس الجمعة العظيمة (ḥudʕoorutu quoosialḏumuʕāti alʕāzima)

This failure is, in the first place, due to the lack of the necessary collocational knowledge. Less occurring combinations, such as *restore it to a good biological status*, example 4 (Table 6), which can challenge even professional translators, can be translated as *إعادته إلى وضع إيكولوجي جيد* (ʔiʔādathu ʔilā wadʔin ikułodʒin sawij), while *سوي* (sawij) is more appropriate in this case.

The results of this study implied that it may be possible to uncover the underlying aspects of the ambiguous behavior of SL adjectives and their collocations through their equivalent pairs. A second conclusion of importance in this study was the fact that the meaning behavior of adjectives like *good* is more complex than it seems to be. Though it is possible to detect complementarily polysemous meanings through equivalence relationships, equivalence establishment in the case of complementary polysemy may be presented as a complex task for novice translators. The third conclusion was that it is possible to observe some correlation between the number of equivalents a polysemous adjective requires and ambiguity, on the one hand, and translation difficulty, on the other. The fourth conclusion was that the complementary polysemy behavior of the studied items could in fact generate ambiguous situations. In most cases, the potential awkwardness of this behavior is less likely to be addressed satisfactorily by novice translators and interpreters. In some cases, though the context is sufficiently clear, ambiguity is less likely to be resolved instantly.

Reliance on such data extracted from professional translations can help students make sound decisions on the selection of appropriate equivalent items and phrases. It seems very relevant at this point to argue for the potential advantages that parallel corpora may bring to novice and professional translators alike. Corpora can show the significance and complexity of the lexical ambiguity problem in and through translation. A corpus investigation can help students address three widespread problems that they face: (a) a lack of flexibility in handling the meaning of lexical items in different contexts; (b) a tendency to coerce the core meaning of words on the context, not the other way around, and (c) an apparent fear to accept the many meanings that an item may express in different contexts.

These problems are especially clear in the case of adjectives like *good*. These results could be explained by the fact that adjectives may differ from nouns because of the level at which their meanings are dependent on other classes, especially on the class of nouns (Pustejovsky, 1995). This factor may have a good impact on the way adjectival meaning is inferred and interpreted. In fact, high degree of dependence leads to ambiguity in the interpretation of the meaning of adjectives. Sometimes, it is difficult to interpret such a meaning before having an idea about the following noun. Hence, the more new head nouns it collocates with, the more interpretations, and thus the more equivalents, it requires. This was confirmed in the study. Therefore, it is possible to make generalizations about the ambiguity degree of grammatical classes.

5. Conclusion

This article investigated the ambiguity degree of *good* in the translation process. It combined a dynamic approach to the semantics of lexical items, namely the *Generative Lexicon* theory, with corpus-based translation studies. It made an intriguing discovery that big translation corpora could be used as rich mines to inform about a more faithful reality of the translational behavior of lexical items. Though there is not enough space here to discuss the data uncovered by the analysis in the detail that it undoubtedly deserves, it could be suggested that the findings about *good* were sufficient enough to draw reliable conclusions.

The findings have important theoretical, methodological and pedagogical implications, which were geared towards revisiting the problem of lexical ambiguity in translation and improving the teaching and learning processes. The study of good gave indications which can confirm the claim of Pustejovsky (1995) that all lexical items in natural language are polysemous to some extent, when he speaks about complementary polysemy. This meant that ambiguity research needs to find its way into translation studies. Translation theories need to reflect the real richness of the knowledge that can be elicited from lexis, terminologies and encyclopedias, available not only on paper but also in electronic format. Trainee translators can access these resources to resolve major terminological and lexicological problems. Again, what is needed, at this particular point in progress of linguistic and translation research, however, is a more comprehensive and systematic account of the contextual behavior of adjectival ambiguity in translation.

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