

A Comparative Study of Nominalization in an English Applied Linguistics Textbook and its Persian Translation

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Abstract

Among the linguistic resources for creating grammatical metaphor, nominalization rewords processes and properties metaphorically as nouns within the experiential metafunction of language. Following Halliday's (1998a) classification of grammatical metaphor, the current study investigated nominalization exploited in an English applied linguistics textbook and its corresponding Persian translation. Selection of these textbooks was motivated by consulting 10 ELT professors. Analysis started by identifying nominalization instances and recurrent patterns of nominalization in the books through adopting a mixed approach. The frequency of nominal expressions was counted, and eventually *chi-square* was run to find out the probable significance of nominalization use in English and Persian academic text samples. The quantitative differences in using nominalization turned out to be significant, and results revealed variations in the ranking patterns of nominalization in both texts. Qualities as entities tended to recur more in English than in Persian. However, the noun to noun modifier was frequently exploited in the Persian translation. The similarities in the employment of nominalization patterns might reflect the awareness of both the author and the translator of the role of metadiscourse markers in scientific texts. The main reason for the differences lies in the matter that knowledge is realized in different languages. The findings of this study have implications for textbook writers, English for Academic Purposes students, and translators.

Keywords: Systemic Functional Linguistics, grammatical metaphor, nominalization, textbook, translation

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INTRODUCTION

As a register of English having its own distinctive features, scientific or literacy English is defined as a form of English in which certain words, and more significantly certain grammatical constructions, stand out as more highly favored while others correspondingly recede and become less favored (Halliday & Martin, 1993). As argued by researchers, the most obvious reason for analyzing scientific texts seems to be educational because learners find them hard to read. In the case of scientific writing, it seems that there are certain features of the way meanings are organized and the way they are worded that present special problems for a learner, over and above the unfamiliar subject matter and its remoteness from everyday experience (Halliday, 1993). Halliday contends that although technical terms are part of this overall effect, the difficulty lies more with the grammar than with the vocabulary. Grammatical metaphor (GM) is regarded as a significant feature of scientific English, involving a substitution of one grammatical class or structure by another (Halliday, 1993, 1998a; Martin & Rose, 2007). This substitution occurs when *congruent* structures typifying spoken discourse are used *incongruently* (*metaphorically*) such as those used in English scientific discourse. According to Halliday (1994), nominalization is the most powerful repository for creating GM. By this strategy, processes (congruently worded as verbs) and properties (congruently worded as adjectives) are reworded metaphorically as nouns within the experiential metafunction of language (Bloor & Bloor, 2004; Halliday, 1994); instead of functioning in the clause as process or attribute, they function as thing in the nominal group. Scientific and technical registers are probably the birth place of nominalizing metaphor in which it plays a dual role: constructing hierarchies of technical terms and developing an argument using complex passages packaged in nominal form as themes (Halliday, 1994).

Most of the studies of GM have been devoted to nominalization in scientific research articles. The impetus for this research comes from the important and undeniable role of GM in scientific and formal texts. It is worth noting that the use of nominalization, though of prime concern in scientific discourse, is entirely unexamined in translated textbooks. The study also helps to increase the knowledge of nominalization for those who are the readers of applied linguistics textbooks in English and

Persian and aids them in proper understanding and using of nominalization in applied linguistics.

LITERATURE REVIEW

A significant body of empirical research has explored GM in scientific and formal discourse such as description of aspects of the use of GM in request e-mails (Ho, 2010), exploration of GM in English pharmaceutical discourse from the systemic functional perspective (Mău, 2012), examination of GM in English business letters (Vãn, 2011), the application of Hallidayian metafunctional framework in both political and health texts of English newspapers (Tabrizi & Nabifar, 2013), analysis of instances of ideational metaphor in a corpus comprising three business and three political texts (Hadidi & Raghani, 2012), and study of the ideational GM types in medical research articles (RAs) published in Iranian and English journals (Sayfour, 2010). Nominalization has also been the subject of a few empirical investigations, including analysis of British newspaper editorials with regard to nominalization (Sušinskienė, 2010), the particular lexicogrammatical resources that Spanish use to realize academic language (Colombi, 2006), the role that nominalization plays in EMP (English for Medical Purpose) (Wenyan, 2012), and analysis of deverbal nominalizations (nominalizations with verb origin) across written and spoken scientific language (Norouzi, Khomeijani Farahani & Borzabadi Farahani, 2012). In what follows, two of the relevant studies are briefly described.

Adopting Hallidayan Functional Grammar, Wenyan (2012) analyzed nominalization in discussion sections of 10 medical papers by native English writers and 10 medical papers by Chinese academic writers drawn from popular medical English journals to identify the frequency of nominalization types, lexical density, and thematic progression. Results revealed that nominalization accounts for the higher percentage for native writers, which serves to organize texts and might be the reason for their fluency and coherence. The study suggested that nominalization plays a crucial role in building the logical structure of medical English papers and improving formality, which is in accordance with the special requirements of EMP. The results of the analysis also showed that Chinese writers made significantly insufficient use of nominalization in their medical papers. Accordingly, it was suggested, in

teaching English academic writing to Chinese, attention should be paid to the application of nominalization.

In another study, Norouzi, Khomeijani Farahani, and Borzabadi Farahani (2012) compared the phenomenon of deverbal nominalizations across written and spoken scientific language. The spoken samples were chosen from BBC programs in the genre of science, and the written samples were extracted from science textbooks and credited science magazines. The findings showed a higher frequency of verbs in spoken modality and of nominalizations in written modality. Another interesting point was the highest frequency of material process types in both verbs and deverbal nominalizations. Relational process type which claimed the second highest frequency among verbs showed a much lower frequency among nominalizations.

Very few if any of the above studies have investigated nominal phrases in textbooks and typically in applied linguistics textbooks. Moreover, to the best of these researchers' knowledge up to now, it seems hardly has any research undertaken an investigation into the use of nominalization in applied linguistics textbooks across English and Persian. Given that little is known about how nominalization is exploited in academic books, this major problem in the literature on nominal expressions clearly needs to be addressed.

PURPOSE OF THE STUDY

In this regard, the current study aims to explore the role and function of nominalization in an English applied linguistics textbook and its Persian translation. By analyzing an adequate amount of data in applied linguistics, the study compares and contrasts the findings in the English textbook and its corresponding Persian translation to find out what types and patterns of nominalizations are dominant in English and Persian applied linguistics textbooks. This study aims to reflect on the following question:

How and to what extent is nominalization reflected in an English applied linguistics textbook and its Persian translation?

METHOD

The study relies on a mixed method— quantitative and qualitative. It comprises a description of nominalization as a rhetorical strategy in the sampled textbooks in the field of applied linguistics. In addition,

quantitative data are tabulated to illustrate nominalization in these textbooks. Observations are circumscribed only to the data of the present study to arrive at suggestions for translation and EAP courses. Thus, generalizations about the patterns of nominalization to the entire discipline of applied linguistics should be cautiously made.

Materials

An English applied linguistics textbook as well as its Persian translation was chosen for the purpose of collecting data following a strict procedure. Ten professors were visited in the English Language Teaching (ELT) departments of two state universities and asked to suggest three essential ELT textbooks they regard to be important at Bachelor level. The suggested textbooks were juxtaposed to find the ones which are considered essential by all the professors. Three books, *Principles of Language Learning and Teaching* (Brown, 2007), *Approaches and Methods in Language Teaching* (Richards & Rodgers, 2001), and *Techniques and Principles of language teaching* (Larsen-Freeman, 2000) were ranked as highly important by all the professors and their Persian translations were available in the market. Among these books *Principles of Language Learning and Teaching* (Brown, 2007) was the most recent one, and edited five times at the time when this study was conducted while the two other books were edited twice. A further reason was the recency of translation of this book (Fahim, 2011). Accordingly, as one of the most suggested textbooks, Brown's (2007) along with its Persian translation was assumed to be a representative of this discipline.

Data Analysis

In order to start textual analysis, Halliday's (1998a) classification of nominal phrases as part of GM formed the theoretical basis of this study. Six types of nominalization, which contain a shift from quality, process, circumstance, and relator, prepositional phrase to an entity and noun to noun modifier, formed the basis of this study. Following Halliday's (1998a) types of GM, the researchers of this study considered the following utterances as examples of nominalization. In what follows, the first example of each strategy was extracted from the English text and the second example was taken from the Persian text.

1. In this type, the congruent form of being a quality (i.e., an adjective) changes to the metaphorized form of being an entity (i.e., a noun). In example 1, the quality of being *able* is transferred to an entity, *ability*: children are *able* to communicate. The same happens for example 2 in which the quality *tafkikpazir* (separability) has changed to a nominalized entity, *tafkikpaziri*: zaban *tafkikpazir* ast.

Ex 1: Everyone at some time has witnessed the remarkable *ability* of children to communicate. (p. 25)

Ex 2: dar haghghat tavajohe shoma be darke *tafkikpazirie* zaban matouf khahad boud. (p. 12) (You will attend carefully to an understanding of the separability of the forms of language).

2i. In type 2, the congruent form of being a process (i.e., a verb) changes to the metaphorized form of being an entity. In example 3, *search, learning, acquiring, getting, knowledge, study, experience* and *instruction* are unpacked in the following verb forms: *to search, to learn, to acquire, to get, to know, to study, to experience, and to instruct*. This also accounts for the fourth example in our Persian translation: *tousif konad* (*describe*), *sharh dahad* (*explain*), and *moshakhas konad* (*identify*) are metaphorized as *tousif* (*description*), *sharh* (*explanation*), and *moshakhas kardan* (*identification*).

Ex 3: A *search* in contemporary dictionaries reveals that *learning* is *acquiring* or *getting* of *knowledge* of a subject or a skill by *study, experience, or instruction*. (p. 7)

Ex 4: be nazare sakhtgarayan, *vazifeye zabanshenas tousif* va *sharhe zabanhaye mokhtalef* va *moshakhas kardane khosoosiate sakhtarie* an zabanha boud. (p. 15) (The linguist's task, according to structuralists, was to describe human languages and to identify the structural characteristics of those languages).

2ii. This type which follows the previous one is a shift from a tense phase verb to a noun. In example 5, *try to* is the unpacked form of the nominalized expression, *attempt*. The congruent form is: we *try to* broaden the base of behavioristic theory.

Ex 5: In an *attempt* to broaden the base of behavioristic theory, some psychologists proposed modified theoretical positions. (p. 27)

2iii. This type as a sub-group of process to entity category changes a modal verb to a noun. In example 6, *probability* is the metaphorized

form of the modal verb *could*. The unpacked form is: a recurrence of that response *could* be increased. In example 7 which is the translation of the latter example, the unpacked modal verb *mitavanad* is metaphorized as *ehtemal*: *mitavanad* ijade an pasokh ra afzayesh dahad.

Ex 6: According to Skinner, the events or stimuli -the reinforcers- that follow a response and that tend to strengthen behavior or increase the *probability* of a recurrence of that response constitute a powerful force in the control of human behavior. (p. 26)

Ex 7: tebghe nazare skinner vaghaye va ya moharekha va ya taghviatkonandehae ke bad az pasokh miayand va say dar taghviate rafter ya afzayeshe *ehtemale* ijade an pasokh ra darand nirooye por ghodrati dar kontrole raftare ensan ra misazand. (p.37).

3. In this type of GM, a circumstance transfers to an entity which is a shift from a preposition to a noun. In example 8, the preposition *without* is transferred to the nominal expression, *lack*: it is totally *without* reinforcement. In our Persian example, the relator *ba* is transferred to the nominal expression *vasile* (means). The unpacked form will be: *ba* zaban mitavan fekr kard va donya ra be khishtan erae kard.

Ex 8: When consequences are punishing, or there is a total *lack* of reinforcement, the behavior is weakened and eventually extinguished. (p.27)

Ex 9: zaban *vasileie* baraye fekr kardan va eraeye donya be khishtan ast. (p. 75) (Language is a means of thinking and representing the world to oneself).

4. In this type of GM, a relator changes to an entity which is a shift from a conjunction to a noun. In example 10, *means*, as a nominal expression, can be unpacked to the relator *by*. The congruent form is: attention to texts *by* gaining insights into those processes. The last part of our Persian example will be unpacked as *va az in roo* tojihe. The relator *az in roo* (*therefore*) is transferred to the nominal expression *baes* (*cause*).

Ex 10: This perspective might be described as an emphasis on active processes of construction [of meaning], attention to texts as a *means* of gaining insights into those processes, and

an interest in the nature of knowledge and its variations, including the nature of knowledge associated with membership in a particular group. (p. 11)

Ex 11: in harkat dar motaleye faragirie zabane koodak baes shod moalemane zabane khareji va morabiane chenan moalemani barkhi yaftehayeh kolie in motaleat ra ba didi moghayeseie beine zabane aval va zabane dovom barasi namayand va hata *baese* tojihe barkhi raveshha va teknikhaye tadrise zaban mabni bar osoole faragirie zabane aval gardid. (p. 35) (This wave of research in child language acquisition led language teachers and teacher trainers to study some of the general findings of such research with a view to drawing analogies between first and second language acquisition, and even to justifying certain teaching methods and techniques on the basis of first language learning principles).

5. In this type of GM, a prepositional phrase shifts to a noun modifier. In example 12, the congruent form of *brain cells* has been *cells in brain*, and in its corresponding translation, the congruent form of *seloolhaye maghz* is *seloolha dar maghz*.

Ex 12: Sentences are the result of the simultaneous interconnection of multitude of *brain cells*. (p. 31)

Ex13: tolide jomleha natije eretbate darouni va hamzamane tedade kasiri az *seloolhaye maghz* ast. (p. 46).

6. This type describes the changes from an entity to a noun modifier. In example 14, *language acquisition* can be unpacked into *language is acquired*. In example 15, *zabane aval faragerefte mishavad* (first language is learned) and *zabane dovom yad gerefte mishavad* (second language is learned) are the unpacked forms of *faragiryeh zabane aval* (first language learning) and *yadgiryeh zabane dovom* (second language learning).

Ex 14: Modern research on child *language acquisition* dates back to the latter part of the eighteenth century. (p. 24)

Ex 15: dar in fasl khotoote *faragiryeh zabane aval* be onvane payehie baraye darke osoole *yadgiryeh zabane dovom* matrah mishavad. (p.35) (This chapter is designed to outline issues in first language leaning as a foundation on which you can build an understanding of principles of second language learning).

In order to account for the reliability of analysis, about 25 percent of the data, in the two languages in focus, was analyzed by the two researchers of this study to help minimize the likelihood of endangering the reliability of the analyses and the findings. The major thrust of analysis was identifying the functions of each nominalized expression which required extensive discussion and negotiation to arrive at an agreement on the method of analysis. Analysis was conducted separately and Spearman correlation was applied to calculate the inter-rater reliability of the analyses. The obtained correlation coefficient enjoyed an acceptable reliability index of 0.82. The rest of the data was analyzed by one of the researchers of the study.

The two texts were read carefully and after about one month interval, the data were reanalyzed the second time for tokens of nominalized expressions used by the author and the translator. The index of intra-rater reliability was counted to be 0.84. Discrepancies on the method of analysis were recorded and resolved.

Analysis continued until we reached a stage in which no major differences appeared in the way the patterns were extracted. Accordingly, the English text collected for this study comprised the first 40 pages of this book (16454 words or 820 sentences) while the equivalent Persian text included 78 pages (18356 words or 810 sentences).

Putting nominalized expressions in appropriate categories was not a straightforward process, and in fact it was somewhat a contentious matter. For instance, note the following utterances extracted from the English and Persian corpus:

Ex 16a: Late in the nineteenth century, the Classical Method came to be known as the Grammar *Translation* Method. (p. 16)

Ex 16b: dar avakhere gharne nouzdahom raveshe sonati (kelasic) be onvane haman raveshe dastoor-*tarjome* shenakhte shod. (p. 26) (Late in the nineteenth century, the Classical Method came to be known as the Grammar *Translation* Method).

It seems injudicious to categorize the above italicized utterances into Nominalization categories, since they are fixed expressions that refer to phenomena which cannot be changed. For instance, 16a and 16b do not refer to the process of translating something. The congruent form was not a process to be changed into a thing (entity). In other words, the writer and the translator are not referring to the act of translation but to a

phenomenon called *translation*. Neither the word *translation* nor its Persian equivalent can be replaced by a congruent form and so they cannot be unpacked. These expressions, called “dead metaphor”, should not be included in the GM categories (Halliday, 2008, p. 97).

There were also some nominal expressions which were regarded to be both verb derived and adjective derived, hence classified as a new type. Note the following examples to clarify the point:

Ex 17: How can a person ensure *success* in language learning? (p. 2)

Ex 18: gharnhast ke *tavanaee* shegerf dar faragirye zabane madari dar salhaye nokhoste zendegi az mozoate besiar jalebe tavajoh boode ast. (p. 24) (The marvelous capacity for acquiring competence in one’s native language within the first few years of life has been a subject of interest for many centuries).

In example 17, the nominal expression, *success*, can be unpacked in either of the following ways:

Congruent 17a: How can a person ensure that he will *succeed* in language learning?

Congruent 17b: How can a person ensure that he will be *successful* in language learning?

Our Persian example holds the same, unpacked as a verb (*mitavanim*) and an adjective (*tavana*):

Congruent 18a: dar salhaye nokhost ke zendegi mikonim *mitavanim* zabane madari ra be tore shegerf fara begirim.

Congruent 18b: dar salhaye nokhost ke zendegi mikonim *tavana* hastim zabane madari ra be tore shegerf fara begirim.

RESULTS

The results of the study indicated that nominalization, functioning as Theme to present the given information in order to avoid repeating what has gone before and also functioning as Rheme to comprise the new information, happens in both corpora in a similar way as it is the characteristic of scientific texts to build on the previous arguments and to indicate new information. In what follows, the quantitative and qualitative analyses of the data are presented.

Results of Quantitative Analysis

Each sentence happened to embrace two nominal phrases on average in both corpora. The observed frequencies, percentages, and chi-square analysis of nominalization types with regard to their occurrences in the sample texts are summarized in Table 1.

Table 1: Nominalization in the English and Persian corpora

Nominalization	English		Persian		Sig
	Frequenc y	Percenta ge	Frequenc y	Percenta ge	
Adjective to noun	207	10.46	125	5.60	0.00
Verb to noun	1462	75.16	1693	75.91	
Modal verb to noun	1	0.05	1	0.04	
Tense verb to noun	2	0.10	0	0	
Preposition to noun	1	0.05	1	0.04	
Conjunction to noun	2	0.10	1	0.04	
Prepositional phrase to noun	58	2.98	64	2.86	
Adjective/verb to noun	33	1.69	27	1.21	
Noun to noun modifier	148	7.60	255	11.43	
Total nominal expressions	1945	11.82	2230	12.14	

Table 1 reveals that verb (process) to noun (entity) accounted for a large portion of nominals in the English text, with 75.16% of occurrences. Adjective (quality) to noun (entity) and noun to noun modifier were the second and third frequently used types which comprised 10.64% and 7.60% of instances respectively. The table also shows that the use of prepositional phrase (circumstance) to noun (entity) in the English text was 2.98%. Adjective/verb to noun had even a lower tendency to occur (1.69%) in English. The use of the other types was inconspicuous in the English book. As shown above in the Table, there was a statistically significant difference in the use of nominals in the English text book and its corresponding Persian translation ($\chi^2 = 50.54$, $df = 4$, $p < 0.05$).

Table 1 shows that in the Persian translation, the use of verb (process) to noun (entity) outnumbered the other types of nominalization with the percentage of 75.91. Noun to noun modifier and adjective

(quality) to noun (entity) were used as the second and third frequently used types of nominalization followed by prepositional phrase (circumstance) to noun (entity) while other instances of nominalization were almost not exploited.

Table 2 summarizes the dominant nominal patterns adopted in English and Persian texts in the order of frequency:

Table 2: Patterns employed in Persian and English texts

Persian	English
Verb to Noun	Verb to Noun
Noun to Noun	Adjective to Noun
Adjective to Noun	Noun to Noun
Preposition To Noun	Preposition To Noun

Results of Qualitative Analysis

Nominalization types obtained from the analysis were put in their context of use and examined to extract the nominal patterns and to determine their functions in the textbooks in English and Persian. Note the following examples in our analysis:

...total involvement...	...ashenae kole...
...total commitment...	...ehateye kamel...

The pattern utilized in the examples above illustrates the use of nominal expressions with a modifier (preceding the noun in Persian). According to Halliday (1993), this combination of a modifier + head is called Epithet. Similarly, this pattern recurred in Persian as demonstrated in the above examples. The pattern is also extended into more than one adjective modifying a nominal expression.

...B. F. Skinner's thought... skinner...	...afkare bi ef
...children's thinking... koodakan...	...fekr kardane

Deictic functions are also realized by determiners: demonstratives (*this, that, these* and *those*), the article *the*, and possessive nouns or pronouns (*Sony's* in *Sony's latest model*; *your* in *your home*). Further, there can be non-specific items such as the indefinite article *a/an, some, each, every, neither, both, all*. This pattern recurs frequently in English as well as in Persian.

...language acquisition...	...faragiri
zaban...	
...concept formation...	...sheklgiri
masael...	

The expression *language acquisition*, a nominal group having as Head/Thing the word *acquisition* which is the name of a process can be unpacked as "we acquire language". This nominal expression is preceded by a Classifier. *Acquisition* is classified as belonging to *language*. The Persian translation also demonstrates the employment of this pattern, with *faragiri* as the head of the nominal group, *faragiri zaban*, is classified as being specific to *zaban* which precedes the head.

...careful defining of questions...	...tarife
daghigha soalat...	
...freedom from the restrictions...	...rahaee az
mahdoodiatha...	

In the English example above, the head noun is followed by a post modifier or Qualifier which is a prepositional phrase. Looking at the Persian equivalent of these examples, we realize that sometimes Qualifiers are realized in the same way, by a Qualifier in Persian (the second example). However, sometimes Qualifiers in English are realized as Classifiers in Persian (the first example above). *Defining* as the head is used with the Qualifier *questions*. Nevertheless, in Persian *tarif* as the head is being classified into *soalat*. Moreover, the second set of examples elucidates that nominal expressions being modified by Qualifiers are translated in the same way, being modified by Qualifiers. *Freedom* functioning as head in the phrase, *freedom from the restrictions*, is modified by Qualifier, *from the restrictions*. In Persian, this is translated as *rahaee az mahdoodiatha* in which *rahaee* as the head is modified by the Qualifier, *az mahdoodiatha*.

...in considering...	...dar barasie...
...in constructing...	...dar
sakhtane...	

The pattern revealed in the English and Persian examples above represents the use of a preposition before the head of a nominal group. *In considering* is an example of a preposition (in) + head (considering) which is realized as preposition (*dar*) + head (*barasie*) in Persian.

...communication...	...ertebet
bargharar kardan...	
...research...	...tahghihat...

Sometimes, nominal expressions are used alone without any pre or post modifier as a Head/Thing. That is, heads which are used alone in English are translated as heads alone in Persian. *Communication* as a head alone is translated into *ertebat bargharar kardan* in Persian.

...the learners that you are teaching...
...yadgirandegani ke be anha amoozesh midahid...

...reliable knowledge that is available to us...
...daneshe motmaen aan ra ke aknoon dar dastresse mast...

Nominal expressions are sometimes followed by a relative clause as illustrated in the above English and Persian examples. In the English example, *the learners* functioning as head is followed by the relative clause (*that you are teaching*). Accordingly, in the equivalent translation of this phrase *yadgirandegani* modified by the post modifying clause *ke be anha amoozesh midahid*) shows that this pattern is realized in the same way in Persian.

...the ability to organize...	...tavanaee
nazm bakhshidan...	
...the attempt to ignore...	...talash baraye
nadide gereftan...	

The examples above reveal another pattern in which nominalizations appear, that is the use of infinitives or gerunds following a nominal expression. Nominalization involved in this pattern was realized in another patterns in Persian usually with Classifiers and sometimes with Qualifiers. The first example elucidates how infinitives in English are realized as classifiers in Persian. In the example *the ability to organize*, ability as head is followed by infinitive *to organize*. In the translation of this phrase, *tavanaee nazm bakhshidan*, the head *tavanaee* is preceded by the Classifier, *nazm bakhshidan*. The second example reveals that infinitives following a nominal expression appeared as Qualifiers in Persian. In the example, *the attempt to ignore*, *attempt* as head is followed by infinitive *to ignore*. The corresponding translation (*talash baraye nadide gereftan*) indicates that *talash* as head is modified by Qualifier, *baraye nadide gereftan*.

Comparison of English and Persian Textbooks

Comparing the English textbook with its corresponding Persian translation led to the emergence of different patterns of nominalization. Using Deictic was the most prevalent pattern in English whereas Classifiers comprised the dominant pattern in Persian. The next recurring pattern in English was the employment of Qualifiers (post modifiers) followed by Epithet and Classifiers, occurring almost to a similar extent. The second frequent pattern in Persian was applying Epithet followed by prepositional phrase + noun, Qualifiers (post modifiers), and Deictics respectively whereas prepositional phrase + noun constituted a smaller number of instances in English. Although Head/Thing is the essential part of a nominal expression, it frequently occurred with the above mentioned patterns rather than being exploited alone. On the other hand, the exploitation of patterns such as noun+ relative clause was scarce in both texts. In addition, the pattern noun+ infinitive/gerund was rarely utilized in English whereas it recurred in two forms of Classifiers and Qualifiers in Persian. Often times, Qualifiers in English were realized as Classifiers and sometimes as Qualifiers. Changing the patterns of infinitive and some of the Qualifiers into Classifiers in Persian provides the reason why the utilization of Classifiers abounds in Persian.

DISCUSSION

Functions of Nominalization in the English and Persian Applied Linguistics Texts

As a point of departure, let's consider the following extract from Brown:

Ex 19: By about age three, children can comprehend an amazing quantity of linguistic input; *their speech and comprehension capacity* geometrically increases as they become the generators of nonstop chattering and incessant conversation, language thereby becoming a mixed blessing for those around them! *Their creativity* alone brings smiles to parents and other older siblings:

Erase the window daddy. [upon seeing a frosted window in the winter] headlights are lights that go in the head.

Is this where you get safe? 'cause the is Safeway and you get safe from the cold. [3-year-old in a Safeway supermarket]

This fluency and creativity continues into school age as children internalize increasingly complex structures, expand their vocabulary, and sharpen communicative skills. (pp. 25-26)

The paragraph starts by stating that *by about age three, children can comprehend an amazing quantity of linguistic input*. To avoid repeating the whole clause and form a component part of a new clause, the author recapitulates it into *their speech and comprehension capacity*, which he can then make thematic. The element is, in this way, *backgrounded* as a point of departure which, according to Halliday (1993), performs a powerful cohesive function in a text. This is obviously essential to scientific discourse (Halliday, 1993). Following that, to annul repetition of a longer part of information, the author packages *as they become the generators of nonstop chattering and incessant conversation* into *their creativity* which functions as the theme and the given information of the clause. In the next paragraph, the author uses *this fluency and creativity* as given information to refer to the examples. Therefore, what is shown or exemplified once by the author is capsulized as theme.

Ex 20: A theory based on conditioning and reinforcement is hard-pressed to explain the fact that every sentence you speak or write -with a few trivial exceptions -is novel, never before uttered either by you or by anyone else! *These novel utterances* are nevertheless created by very young children as they literally “play” with language, and that *same creativity* continues on into adulthood and throughout one’s life. (p. 27)

Extracted from our English text, example 20 shows that the phrase *These novel utterances* acts as the condensed form of the sentence preceding the phrase. What is expressed as new in the first sentence is taken to be given in the second sentence. The phrase *These novel utterances* is the encapsulated form of the previous sentence and functions as the theme of the sentence. Similarly, *these novel utterances are nevertheless created by very young children as they literally “play” with language* is packed into the nominal expression, *same creativity*. Accordingly, condensing is a special function of nominalization, which can economize in language use. This feature corresponds to the characteristic of academic discourse that is using fewer words to express more information.

Similarly, we can elaborate on the use of nominalization as theme in Persian, as shown in example 21. The translator has packed three

clauses, namely *man baraye vasl kardane nazarie be amal talash khaham kard ta noghte nazarate tarikhi va matrah marboot be amoozeshe zaban ra erae daham va tozihat va tosifha ra be onvanhayeh morede bahs mortabet sazam* into the congested expression *Dar anjame chenin kari* as the synopsis of what has come before.

Ex 21: *alave bar in khanandegane ketabe hazer dar nahayate amr be yeki az janbehaye amoozeshi zaban alaghemand mishavand, va banabarin man baraye vasl kardane nazarie be amal talash khaham kard ta noghte nazarate tarikhi va matrah marboot be amoozeshe zaban ra erae daham va tozihat va tosifha ra be onvanhayeh morede bahs mortabet sazam. Dar anjame chenin kari,omidvaram shoma ra be tadrij ba gerayeshhaye ravesh shenakhti va janbeha va masaele amoozeshi dar in herfe ashena konam. (p. 25) (Besides, most readers of this book are ultimately interested in language pedagogy in one form or another, and so in an attempt to help to build bridges between theory and practice, I will offer occasional relevant historical commentaries on language teaching, and link those descriptions to topics and issues being treated. In so doing, I hope to acquaint you progressively with some of the major methodological trends and issues on the pedagogical side of the profession).*

In another sentence, the author wishes to present a rather complex argument, this time having the complementary status of New. Therefore, he uses this in a culminative position in the clause and hence is interpreted as having a tonic kind of nominalized packaging. The element is in this way *foregrounded* as a point of information. Examples 22 and 23 depict how Nominalization functions as Rheme which presents new information. In 22, the author used *production* and *comprehension* as Rheme to define performance. Since it is the first time the reader is confronting this term, it should be defined. Therefore, it is foregrounded to present new information. Halliday (1993) maintains that New is the element that constitutes the point of information for the message; this is signaled, in English, by nuclear prominence in the tone group. If the informational element is Rheme, the rhetorical effect is that of foregrounding. (Halliday, 1993).

Ex 22: *Performance is actual production (speaking, writing) or the comprehension (listening, reading) of linguistic events. (p. 36)*

In our Persian example 23, the word *amoozesh* is defined by some nominal groups: *hedayat va tashil dar yadgiri, tavanmand kardane*

yadgirande baraye yadgiri, va faraham kardane sharayete yadgiri to represent New information.

Ex 23: *amoozesh hedayat va tashil dar yadgiri, tavanmand kardane yadgirande baraye yadgiri, va faraham kardane sharayete yadgiri ast.* (p. 13) (Teaching is guiding and facilitating learning, enabling the learner to learn, setting the conditions for learning).

If so much of the lexical content is nominalized, what is the role of the verb? Consider the following examples:

Ex 24: Bloom noted that "*An explanation of language development depends upon an explanation of the cognitive underpinnings of language: what children know will determine what they learn about the code for both speaking and understanding messages*".

The clause in example 24 contains two nominalized processes: one backgrounded, *An explanation of language development* (if author had written *language development is explained because...*, this would have had only *language development*, not its explaining, as Theme), and the other foregrounded, *an explanation of the cognitive underpinnings of language*. But in this instance, the verb, *depends (upon)*, expresses the relationship between these two processes: one depends on the other. In other words, according to Halliday (1993), what is being set up as the *process*, by being represented as a verb, is in fact a relation *between* processes. The verb sets up a relationship between the processes themselves, that is two nominal groups are related by a verbal group.

The examples above indicate that in scientific discourse what has gone before has to be repeated in the next stage which is used as the prelude for the next move. Since each new step may need to include a great deal of what has gone before, the grammatical metaphor helps the writer to package earlier events by nominalizing the process in both languages, leading on to the next stage and functioning as the Theme of the subsequent clause. Scientific text is developed as a chain or sequence of logical argument and experiment in which each phase leads on to the next (Halliday, 1993). Accordingly, the very high degree of nominalization with all the grammatical metaphors which scientific discourse demands concerns the essential structure of scientific argument (Halliday, 1993).

Comparing Nominalizations across Persian and English Texts

The findings presented in Table 1 suggest that the most frequently used type of nominalization in both English and Persian applied linguistics textbooks is process to entity (e.g., *communication*). Endorsing Halliday's (1993, 1998b) stress on nominalization in English scientific discourse, the study suggests that this type of ideational GM is the most ubiquitous type of GM in the discourse of English, and here in the current study, in the Persian applied linguistics book as well, though further research is needed to substantiate the results.

The abundant use of nominalization in both English and Persian scientific discourse is in line with Colombi's (2006) finding that nominalizing is the single most powerful resource for creating GM in the academic texts of Spanish language. Nominalization appears to be related to a tendency of human languages to employ, among other types of processes, this property so frequently. This tendency suggests that processes have sufficiently and successfully been reconstrued into entities to make the scientific texts more concise and precise. However, the existence of a significant difference between the proportions of GM 1 used in the two corpora suggests that in Persian qualities were not exploited in using nouns.

The enormous use of nominalization lies in the awareness of both the author and the Persian translator in construing academic knowledge which appears to be an indispensable feature of scientific discourse used in the sample textbooks. Both the author and the translator showed a strong tendency in employing nominalization in constructing their discourse. This seems to demonstrate that the author and the translator were aware of the merits of exploiting nominalization and making the information concise, brief, and perspicacious. The abundant employment of nominalization in the data studied seems to suggest that applied linguistics discourse might not be simple and straightforward. In fact, scientific discourse tends to exploit knowledge of incongruent/congruent forms for effective transmission of information.

CONCLUSION AND IMPLICATIONS

The results of this study revealed that the ranking pattern of using nominalization was relatively different in both English and Persian texts. Type 2i (process to entity), type 1 (quality to entity), and type 7 (noun to noun modifier) were the most frequently used types in English respectively while the ranking pattern in Persian was Type 2i (process to entity), type 7 (noun to noun modifier), and type 1 (quality to entity). Accordingly, the realization of nominalization tended to be the same but different in degrees. Furthermore, nominalization used with Deictic, Epithet, Classifier, Head, Relative clause and Prepositional phrase + noun was distributed in a similar way in English and Persian whereas, nominalization used with Qualifiers was sometimes realized as Classifiers in Persian and sometimes as Qualifiers. Using noun + infinitive was also realized as Classifiers in Persian.

This study compared nominalization in an English applied linguistics textbook and its corresponding translation in Persian. Though care was exercised to provide a rich analysis of the texts, further studies are required, using more quantitative data, to provide more valid results. Moreover, the study could be further enriched by incorporating more genuine English and Persian academic textbooks in the same discipline in order to offer a thorough picture of how nominalization is exploited in the two languages in focus. Until this is done, generalization remains to be made with caution.

The current study embarked only on nominalization in two English and Persian applied linguistics textbooks. The research needs to continue for examination of nominalization in different genres or disciplines in hard and soft sciences. Moreover, even though GM plays a pivotal role in the academic texts, this study did not take account of other types of GM. Therefore, further research is called for to compare how other types of GM are realized in textbooks in different languages. The scope of the study of nominalization can even be more expanded. For instance, since the current study only examined written academic texts, it is worth exploring this functional aspect of language in oral contexts too. We may wish to trace nominalization in academic lectures, presentations, and in defense sessions. Comparing written and oral discourses can be informative in its own place.

The research undertaken in this study enables readers to unpack the sentences expressed in academic discourse, and this fosters

understanding. It is deemed necessary for learners, especially ESP/EAP learners, to be acquainted with features of academic texts. Familiarity with these features as one of the dominant characteristics of academic writing decreases the degree of difficulty that might jeopardize comprehension. Teachers, knowing these types, patterns and functions, can more efficiently present academic texts. Mastering these characteristics also contributes to translators of such texts. For a better translation, first one needs to understand the text. Familiarity with types and functions of GM and nominalization contributes to a more accurate and close-to-original translation. Knowing how to use nominalization in academic register is an indispensable element of developing academic language. Awareness of the similarities and differences between English and Persian can help interested learners to transfer these features from one language into another.

Bio-data

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