Agent Nominals in the Written Assignments
of Business Students

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Abstract

In academic English, nominalizations are used to achieve a higher level of abstraction, condensation and precision. This paper focuses on the actual usage patterns of -er nominalizations in academic writing, more precisely in the written assignments of business undergraduates. The research relies on the data collected from the British Academic Written English corpus.

The main aim is to shed some light on the formal characteristics of the agent-denoting nominalization patterns in student writing and to identify trends and tendencies in the use of these nominals.

The results of the research can increase student awareness of the linguistic patterns of nominalizations and improve the teaching techniques involved in developing academic writing skills.

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1. Introduction

Nowadays, with the rapidly developing international scientific collaboration and business, acquiring a foreign language for specialist purposes becomes essential in the linguistic instruction of students. Special attention has to be paid to the learners' communicative needs related to their future professional work and plans for the future. One such need is the writing of various types of texts.

In this paper we focus attention on a particular linguistic structure in English that is used in the academic written assignments of business undergraduates, more precisely, on the structures with an agent nominal, i.e. a nominal derived from a verb by suffixation in *-er*. The source of information on the actual usage patterns of agent nominals is the data collected from BAWE (*The British Academic Written English* corpus, 2004-2007).

The paper is organized in three main sections. First, we will overview the main research on agent nominalizations in English, highlighting the syntactic configurations in which agent nominals may occur. Then, we will give a brief account of the research method. Finally, we will examine the data collected from the BAWE corpus, focusing on the written assignments of business undergraduates.

The outcome of the research is expected to contribute to the maximization of the effectiveness of the teaching methods involved in developing the business students' writing skills.

2. Theoretical background

The literature on the syntactic properties of *-er* nominalizations has shown that the nominalizing suffix *-er* frequently refers to ACTOR or AGENT of the base verb *(teacher, driver)*. This type of *-er* nominalizations is totally productive across languages.

However, the *-er* morpheme may refer to other thematic roles, as well: INSTRUMENT *(scanner, printer, keyholder)*, SOURCE *(cash generator/dispenser)*, THEME *(breaker)*, EXPERIENCER *(lover of French cuisine, scorner of the media manipulation)*. (cf. Rappaport Hovav & Levin 1992, Fabb 1984, van Hout & Roeper 1998, among others).

There are also *-er* nominalizations derived from adjectives (*foreigner*), prepositions (*downer*) or nouns (*pensioner*). Nevertheless, these are not fully productive but (to some extent) idiosyncratic (cf. Alexiadou and Schäffer 2010).

In this paper we focus attention on the properties of agent *-er* nominals and, more specifically, on
the nominal configurations in which they occur, commonly known as agent nominalizations.

We will examine the agent nominalizations in correlation with the argument structure of the corresponding verbs. Then, we will identify the types of adjectives that can appear in premodification with agent nominals. All examples selected for this research are commonly employed in economics or business texts and most of them have been chosen from various corpora (BNC, COCA, iWEB, NOW).

2.1. Argument-taking agent nominals

The examination of the structure of *-er* nominalizations focuses on the relative order of the agent nominal and the object (direct, indirect or prepositional) of the base sentence. Nominals are correlated with the types of predicates.

Thus, agent nominals derived from simple transitive verbs, such as (*manage -> manager, manufacture -> manufacturer*, etc.) occur in the expected N*of*O structure (nominal + *of* + object), i.e. the agent nominal inherits the internal argument of the base verb:

1)
> the manufacturer/ advertiser of the product
> They manufacture/ advertise products.

Agent nominals allow in prenominal position a possessive phrase with a noun denoting a country that points to the possessor or the origin of the agent:

2)
> *Russia's* leading *producer* of meat and *the country's* number one *producer* of high quality, meat-based ready meals.

Agent nominals can be embedded under the same range of nominal functional categories as other NPs (cf. Alexiadou 2001). For example, in English they combine with the usual range of number markers, determiners, and quantifiers (*the/a producer, every producer, no producer, five producers*). However, agent-denoting nominalizations cannot appear without a determiner, when the nominal is in the singular:

3)
> *Producer *of* IT-lifestyle products announced the launching of a new smartphone.

However, an *of*-phrase is not always an indicator of an argument in the structure of the verb, but it may point to a relationship of possession or temporal specification. In such cases the definite determiner is obligatory: *the consumers of this market*, *the winner of the day, the manager of the year*, etc.

The basis of derivation for agent nominals may be a ditransitive verb (*sell sth to sb.->seller, buy sth. for sb. -> buyer*). Again, the agent nominalization has the N*of*O structure, or the rather infrequent N*of*O PO configuration, which preserves both objects from the clausal configuration:

4)
> a) a buyer of timber   N*of*O
> b) a buyer of timber for a German manufacturer   N*of*O PO
> c) a timber buyer for a German veneer manufacturer   N PO

As it can be noticed, the object is found in argument position in the agent nominalizations, in (4a) and (4b), and in adjunct position in (4c), as a prenominal modifier of the agent nominal.

Nominalizations of complex transitive verbs, such as (*acquire sth. from/for sb.> acquirer, borrow sth. from sb.> borrower*) are frequently encountered in the N*of*O structure and rarely with a full complement structure, that preserves both the direct and the prepositional object of the clausal

structure. For instance, the agent nominal *producer* derived from the verb *produce something for sb./sth.* occurs frequently in the N*of*O configuration and occasionally as N*of*O PO:

5)
>   Which country is the biggest *producer* of bicycles?
>   Lee Mendelson, the longtime executive *producer of* numerous specials *for* the TV animated series "Peanuts"…

Agent-nominalizations corresponding to clauses with prepositional intransitive verb have the NPO structure (nominal + prepositional object) and inherit the idiosyncratic preposition of the verbal base: *bid for sth -> bidder for., cater for sth.-> caterer for*:

6)
>   …the successful *bidder for* the first expansion of the New York Subway
>   They bid for the first expansion of the New York Subway.

Another property of argument-taking agent nominals is that they can freely occur in all argument positions in the sentence: in subject position (7a), in predicative position (7b), direct object (7c), indirect object (7d), prepositional object (7e):

7)
>   a) *An acquirer of goods and services* acts as an intermediary between merchants and customers.
>   b) They knew China's potential to be an *acquirer of* foreign multinational corporations.
>   c) The publication includes several new *acquirers of services*.
>   d) Regulation 40-5.06 gives *an acquirer of financial interests* the status of a financial provider.
>   e) It will also be used by UK *acquirers of goods*.

The facts presented prove that *-er* nominals are clearly argument-taking nominals and that they inherit the argument-structure of their verbal sources. Thus, agent nominals derived from transitive verbs allow the distribution of the internal argument in the N*of*O, while those from prepositional predicates preserve the idiosyncratic preposition in the NPO or N*of* O PO nominal structure.

As far as usage is concerned, corpora data reveals that there are fewer occurrences of agent nominals as argument-taking nominals than as argumentless nominals.

Table no. 1. The frequency of occurrence of the agent nominal 'acquirer'

Agent nominal	NP structure	BNC	COCA	iWEB	NOW
acquirer	N	120	147	5936	3868
acquirer of	N*of* O	3	13	344	314
acquirer of sth. for sb.	N*of* O PO	-	-	2	-

Source: Author's contribution based on data selected from four corpora: *British National Corpus (BNC)*: (Davies, 2004); *The Corpus of Contemporary American English (COCA)*: (Davies, 2008); *The 14 Billion Word iWeb Corpus*: (Davies, 2018); *Corpus of News on the Web (NOW)*: (Davies, 2013).

The table shows that the number of occurrences of agent nominals greatly decreases with the more complex nominal structures. Thus, the agent nominal (*acquirer*), as a non-argument taking nominal has roughly 6000 occurrences in iWEB and 3900 in NOW, as an argument-taking nominal (*acquirer of*), it occurs in over 300 instances in both corpora, and with a full complementation pattern (*acquirer of sth. for sb.*), it is almost non-existent.

2.2. Adjectival modification in agent nominalizations

The presence of a nominal head in a nominalization opens up the possibility of adjectival modification. Modification by means of referential adjectives deserves special attention because these adjectives are related to the argument structure of the verbal base (cf. Oersnes and Markantonatou, 2002). The set of referential adjectives includes adjectives that express nationality (*English, American, German*), affiliation with a political party (*Liberal, Democrat, Republican*), etc.

In agent nominalizations referential adjectives correspond to the Subject-NP in the clausal paraphrase, while Object-like argument is realized as an oblique prepositional phrase with the marker *of*:

8)

the *Chinese* producers of toys   N *of* O
The Chinese produce toys.

Besides referential adjectives, other types of adjectives can also modify agent nominals with (or without) an idiosyncratic preposition, for instance: status denoting adjectives, as: *professional, official, institutional, academic,* etc.

9)

I am *a professional worrier* about the impact of trade on the American income distribution.
The World Bank is the greatest *institutional worrier* about population growth.
Boston University economist, Laurence Kotlikoff, the nation's foremost *academic worrier* about such matters wrote these pages.

Evaluative or quality adjectives modifying agent nominals assess the significance, worth or quality of the referent of the nominal:

10)

biggest/prime/ultimate/major/consistent borrower of funds
top/leading/largest/biggest producer of cosmetics

Aspectual or temporal adjectives, such as: *constant, frequent, life-long, long-term,* etc. may also occur in prenominal position to indicate duration or frequency of the action in which the agent is involved:

11)

He is a constant worrier about the future.
She is a 24-hour-a-day worrier about the organization's future.
Powell has been a long-time admirer of France's president.

Modification by adjectives such as *frequent* and *constant* implies an actual event and is only possible with *-er* nominals which have a complement structure, i.e. nominals that occur in the N*of*O pattern:

12)

the constant defender of the government's policies
a frequent consumer of tobacco

In this section we have shown that argument-taking agent nominals correlate with a range of adjectives in premodification.

3. Research methodology

One of the most distinctive linguistic characteristics of academic writing is the high frequency of nominalized structures (cf. Biber and Gray 2013).

In order to examine the actual usage patterns of *-er* nominals in the academic writing tasks of business students, we have collected data from the *British Academic Written English* corpus.

The BAWE corpus includes the writing of both native and non-native speakers, but native speakers predominate. It is a 6.5-millionword corpus (approximately 2,800 texts) compiled in 2004–2007 at the universities of Warwick, Reading and Oxford Brookes in the UK. The texts were written by students in in 35 different disciplines, ranging from history and philosophy to medicine business and mathematics.

Though factors such as native-speaker status, discipline, level of achievement (lower-graded vs. higher-graded texts) and level of expertise in academic writing may have an influence on the use of nominalizations, they are not investigated in this paper.

The corpus displays the results of the search in context, in the form of a concordance that can be sorted, filtered, counted to obtain the desired result.

The illustrative instances of agent nominalizations have been manually selected from the BAWE corpus responses to the search instructions. Therefore, the analysis of the frequency of such patterns indicates trends in the data and is meant to be a qualitative rather than a quantitative analysis (cf. Lindquist 2009).

4. Findings

In this section, we will investigate the frequency of occurrence of the syntactic patterns in which agent nominals occur in *The British Academic Written English* corpus, then we will look at the frequency and type of adjectival modification in such nominalizations.

4.1. Argument-taking agent nominals

In order to analyze the argument-taking properties of agent nominals, we have chosen the following agent nominals, mostly employed in business English: *advertiser, borrower, buyer, carrier, deliverer, employer, examiner, exporter, importer, leader, maker, manager, manufacturer, producer, purchaser, seller* and *trader.*

We have identified instances of agent nominals in the N(*of*)O configuration derived from all types of verbal bases, transitive in (13a), complex transitive in (13b), prepositional intransitive in (13c):

13)
- a) …by convincing the Allies that he was rightful *leader of a postwar republic.* (TEXT 1228)
- b) *Importers of capital goods to UK* can only hope to exploit … (TEXT 806)
    …resources increase as Russia becomes a major *exporter of gas to Europe.* (TEXT 806)
- c) …had bound itself in accepting the highest *bidder for the shares* that they had invited to bid for. (TEXT 609)

The statistical data gathered about the selected agent nominals is given in Table 2 that exhibits the overall number of occurrences of an agent nominal as a simple, argumentless nominal, as well as the number of occurrences of the agent nominalizations with the structure N(*of*)O. The last column gives the frequency of occurrence of argument-taking agent nominalizations, in percentage:

Table no. 2. The frequency of occurrence of agent nominalizations of the type N(of)O

Agent nominal	Total number of occurrences	Agent nominal in N(*of*)O structure	Occurrences in N(*of*)O structure	%
producer	362	producer of	37	10,2
manufacturer	212	manufacturer of	13	6,13
employer	565	employer of	5	0,88
purchaser	46	purchaser of	8	17,39
carrier	188	carrier of	10	5,31
maker	153	maker of	14	9,15
manager	1490	manager of	52	3,48
buyer	259	buyer of	7	2,70
seller	102	seller of	5	4,90
leader	946	leader of	104	10,99
importer	19	importer of	7	36,84
exporter	53	exporter of	8	15,9
TOTAL	4395	TOTAL	265	6 %

Source: Author's contribution based on the data selected from *The British Academic Written English* (2004-2007).

The table provides frequency information about each agent nominal selected. For instance, the examination of the agent nominal *producer* in the BAWE corpus reveals that of the corpus's 362 occurrences of *producer*, 325 (89.8%) occur as a simple NP, while 37 (10.2%) occur with an *of*-complement.

As it can be easily noticed, the number of occurrences of agent nominals in the N*of*O configuration varies from the highest (*importer of*) to the lowest (*employer of, seller of*). On the other hand, there are agent nominals like: *advertiser, bidder, deliverer, examiner, trader* that are not included in the table because they do not appear with an *of* complement in the corpus data.

The conclusion that can be drawn from the data in the table is that, in actual usage, agent nominals occur overwhelmingly as argumentless nominals (94%) and rather infrequently as argument-taking nominals (6%).

4.2. Adjectival modification in agent nominalizations

The data on adjectival modification collected from the BAWE corpus indicates that adjectival modification involves the presence of the types of adjectives mentioned in section 2.2.: referential adjectives in (14), status denoting adjectives in (15), point-of-view adjectives in (16), evaluation/ quality adjectives expressing the speaker's opinion in (17), ranking adjectives in (18) and aspectual/ temporal adjectives in (19):

14)
… the *Jewish* manager of the theatre at which Dorian meets ...   (TEXT Sybill 954)
… the largest *US* maker of photographic films and supplement products. (TEXT 848)
… taxation of the worldwide income of the *American* manufacturer of carpets who only bought wool in India.   (TEXT 1515)
… Carrera was 'Morazan's (the *liberal* leader of Guatemala before Carrera)…(TEXT 1075)

15)
…and, as *institutional* and *pedagogical* leader of the Annales group of historians…
                              (TEXT 588)

16)
… if the *political, economic* and *financial* leaders of this country were not tainted by…
                              (TEXT 982)

17)
Jaguar is a *highly reputable manufacturer* of sophisticated luxury saloon and estate motor.
                              (TEXT1262)
Both Jamaica and Barbados became *significant producers* of sugar…   (TEXT 1076)
Their image as *trustworthy makers* of high-quality and durable electronics…(TEXT 959)
..of China and Japan to be the *uncontested leader* of this region.   (TEXT 1114)

18)
It is also a *large* importer of commodities from Latin America   (TEXT 1631)
Gloria is a *leading* maker of portable fire extinguishers…   (TEXT 116)
.. in accepting the *highest* bidder for the shares that they had invited to bid for. (TEXT 609)
The European Union, as *the second largest* exporter of butter and skimmed milk power, was selling…   (TEXT 2170)
To make Systech International into a *global supplier* of software services to the industry
                              (TEXT 405)

19)
… whose age is under 14 years are more *frequent purchasers* of organic milk and organic dairy products rather…   (TEXT 2091)
… women had the opportunity to be *temporary managers* of their husband's estate…
                              (TEXT 170)

Table 3. indicates the types of adjectives co-occurring with the twelve agent nominals mentioned in section 4.1.:

Table no. 3. Frequency of adjectival modification with argument-taking agent nominals

Adjective type	Adjective	Total number of occurrences
referential adjectives	*Jewish, American, liberal*	3
status denoting adjectives	*professional, official, institutional, academic*	0
point of view adjectives	*political, economic, financial, ideological*	2
evaluative adjectives	*prestigious, reputable, trustworthy, ideal, successful, capable, responsible, potential, significant, desirable, fearsome*	11
ranking adjectives	*prime, big, large, average, main, major, single*	14
temporal/aspectual adjectives	*frequent, temporary*	2
		TOTAL 32

Source: Author's contribution based on data selected from the corpus: *The British Academic Written English* (2004-2007).

The 12 agent nominals encountered in the N(*of*)O structure (in 265 instances) take an adjectival modifier in only 32 instances, i.e. only 12% of the argument-taking nominals are modified by an adjective. The data reveals that ranking adjectives have the highest frequency, 14 out of a total of 32 adjectives, i.e. 43.7%. The second highest frequency is that of evaluative adjectives that highlight significance, reputation, capability of an agent referent, 11 instances (34,3%). The lowest frequency is encountered with referential, point of view, temporal/ aspectual adjectives that score only 6,25 each. Overall, the BAWE data clearly shows that adjectival modification of agent nominals is rarely encountered in academic written assignments.

The frequency observations put together in this paper are useful to instructors, evaluators and teaching material designers whose efforts are aimed at improving the students' academic writing skills.

5. Conclusions

The purpose of this paper has been to find out how much agent nominalizations feature as part of an academic writing. With this view in mind, we have given a brief account of the structure of agent nominalizations and of the patterns of adjectival modification.

The discussion of the argument-taking properties of agent nominals has been based on the subtypes of their verbal base. Agent nominals inherit the internal arguments of their verbal bases, in two configurations N*of*O and NPO and co-occur with certain types of adjectives in premodification.

We have applied the results of the research on the syntactic properties of agent nominals to the study of agent-denoting nominalizations in academic written assignments of business undergraduates.

The analysis of the data derived from the BAWE corpus has pointed out that the more complex structures with agent nominals, i.e. the argument-taking occurrences and the structures with adjectival modification, are rather infrequent in student written assignments. Students, whether native or non-native, do not seem to be conversant with such elaborate structures, that is why developing nominalization awareness in teaching academic writing is necessary.

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