

# Postpositive Past Participles Used on Their Own

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**Abstract**—The past participle can be used as an adjective in all the positions and functions of a typical adjective; thus, many past participles can come before or after nouns, just as many adjectives can. Basically, past participles on their own can be used as attributive use whereas past participles with complementation normally require postposition. However, in many cases postposition is allowed even if the past participle is used on its own without any complementation (e.g., The issues raised are more diverse and just as difficult./ The grapes produced are very small.). The postpositive participles in such examples designate temporary as opposed to permanent attributes. However, this area of English grammar is not well described in dictionaries and grammar books and often causes troubles for learners of English. In this paper, I focus on the postpositive past participles used on their own in order to modify the preceding nouns and identify the most typically used past participles as well as the preceding nouns. The contextual features and functions of these structures are also explored.

**Index Terms**—Postpositive past participles, corpus-driven, frequency and distribution, contextual features.

## I. INTRODUCTION

### A. Aims of the Study and Procedure

In English, some postpositive adjectives...retain the basic meaning they have in attributive position but convey the implication that what they are demoting has only a temporary application. Thus, the stars visible refers to stars that are visible at a time specified or implied, while the visible stars more aptly refers to a category of stars that can (at appropriate times) be seen. (Quirk, Greenbaum, Leech, & Svartvik, 1985, pp. 419).

The same is said to be true with postpositive past participles. Postpositive past participles after nouns are used in order to define or identify the nouns in the same way as we identify relative clauses (Swan, 2005). These postpositive structures can be regarded as reduced relative clauses (Araki & Yasui, 1993).

In this paper, I focus on the postpositive past participles used on their own to modify the preceding nouns in an effort to identify and classify the most typically used past participles as well as grasp the features of the preceding nouns. The contextual features and functions of these structures are also explored.

In order to achieve these aims, I first retrieved these constructions from a corpus and presented their frequency and distribution. Second, I identified the most frequently used past participles postpositioned on their own after nouns

and classified these participles and the nouns according to their meanings. Finally, after examining the characteristic collocational/colligational features of the structures, I explored why these structures are used and presented the functions of the expressions.

### B. Corpus-driven Approach

To deal with these questions, a large amount of data was analyzed using the corpus-driven approach, which “aims to derive linguistic categories systematically from the recurrent patterns and the frequency distributions that emerge from language context” (Tognini-Bonelli, 2001). Römer (2005) explained this approach in more concrete terms: Corpus-driven work ...provides us with much invaluable information on the nature of language. It shows us how language is typically used in natural discourse and, among other things, reveals what items are frequent in which text types, which words are likely to occur in combination, or what meaning is the most common of several senses an item may have. (p. 8)

She further describes the obvious strengths of the corpus-driven approach in its application to pedagogical use.

Naturally, these points are—or should be—of major interest to everyone whose aims are to understand the language better and to help learners master it with less difficulty and greater confidence. The more learners know about how a language works, the more confident they can be about its use. (p. 276)

### C. Corpus and Software

In this research, BNCweb (Version 4.2) (Hoffman & Evert, 2008), a web-based client program for searching and retrieving lexical, grammatical, and textual data from the British National Corpus (BNC), was used extensively. This software measures the degree and strength of collocation using several statistical formulas, such as log-likelihood and mutual information. The data in this paper were calculated using the log-likelihood algorithm. It is also possible to retrieve collocates of a specific word within a designated span.

## II. DATA AND ANALYSIS

In order to retrieve various patterns of this structure from the corpus, I invented a query syntax that enabled me to retrieve all the basic patterns at one time: [\_{N} (\_{ADV})\* (\_{VVN}|\_{VDN}) (\_{AVP})\* (\_{VBB}|\_{VBD}|\_{VBZ}|\_{VDB}|\_{VDD}|\_{VDI}|\_{VDZ}|\_{VHB}|\_{VHD}|\_{VHI}|\_{VHZ}|\_{VM0}|\_{VVB}|\_{VVD}|\_{VVI}|\_{VVZ}) ] (for details on tags, see Hoffman, Evert, Smith, & Prytz, 2008).

Before I invented this query, a preliminary survey revealed that this structure is often accompanied by adverbs occurring before the past participle (e.g., *Money so far raised is being used to increase the number of donors./Many things previously forbidden are now allowed.*). In this case, the function of the past participles is the same as those without

Manuscript received October 10, 2012; revised November 20, 2012. This work was supported in part by JSPS KAKENHI Grant Number 21520649.

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adverbs. Therefore, to retrieve the structure with adverbs as well, the POS tag ADV(=adverb) was inserted as optional before the participles. The POS tag AVP (= adverb particle) was also inserted as optional to retrieve past participles composed of phrasal verbs (e.g., The range of occupations taken up is relatively narrow.../ Some of the energy given off is carried away by the electron....). An asterisk (\*) represents “for zero or more characters.”

The query retrieved 5,831 examples, with only about 0.01% being irrelevant to this study (e.g., It’s the day to get things done, isn’t it?/ ...even those who had arrows nocked were not aiming at anything in particular.).

### A. Frequency and Distribution

TABLE I: FREQUENCY AND DISTRIBUTION OF POSTPOSITIVE PAST PARTICIPLES

Spoken or Written:			
Category	No. of hits	No. of hits (extrapolated)	Frequency per million words (extrapolated)
Written	4,912	5,728	65.17
Spoken	88	103	9.86
<b>Total</b>	<b>5,000</b>	<b>5831</b>	<b>59.31</b>
Derived text type:			
Unpublished written material	457	533	119.32
Academic prose	1,469	1,713	108.58
Non-academic prose and biography	1,469	1,713	70.85
Other published written material	1,087	1,268	70.72
Newspapers	337	393	41.76
Spoken conversation	42	49	11.57
Other spoken material	46	54	8.69
Fiction and verse	93	108	6.72
<b>Total</b>	<b>5,000</b>	<b>5831</b>	<b>59.31</b>
Text Domain:			
Informative: Natural and pure sciences	426	497	130.09
Informative: Commerce and finance	805	939	127.88
Informative: Applied science	770	898	125.19
Informative: Social science	1,324	1,544	110.09
Informative: Leisure	507	591	48.5
Informative: Belief and thought	123	143	47.22
Informative: World affairs	627	731	42.4
Informative: Arts	228	266	40.44
Imaginative prose	102	119	7.21
<b>Total</b>	<b>4,912</b>	<b>5728</b>	<b>65.17</b>

By obtaining the total number of occurrences at one time, it is possible to see the overall frequency distributions of these constructions using the BNCweb. Although the total number of irrelevant patterns was very small, a quick review of the distribution revealed that the irregular ones were also spread proportionally across the domains.

Table I presents the distribution of this structure in the whole BNC with frequency per million words in different registers. The BNC made an initial division into written texts and spoken ones and, within each of these macro categories,

employed further categorizations and subcategorizations.

Table I shows that these expressions occur more than six times as frequently in written English text (65.17 /pmw) as in spoken words (9.86/pmw), suggesting that these patterns lend themselves well to written English. The domains with the highest occurrences are “Natural and Pure Sciences,” “Commerce and Finance,” “Applied Science,” and “Social Science.” The domain with the least occurrences is “Imaginative Prose.” These results might reflect that making precise and formal statements is more important in the Sciences and Commerce and Finance domains than in the Imaginative Prose domain.

### B. Postpositive Past Participles of High Frequency

Table II presents the 100 most frequently used past participles in the whole BNC. As this table indicates, *involved* (682), accounting for 12 percent, and *used* (588) accounting for 10 percent of the total occurrences, are quite conspicuous compared with other words.

These verbs are all transitive action verbs and are descriptors used to describe the preceding nouns. They are used as a kind of cue to remind someone of something and save the audience the effort of recalling what that noun refers to. These verbs can largely be classified into the following groups.

- Involve verbs (involved, covered, charged, included, contained)
- Use verbs (used, employed)
- Give verbs (given, offered, provided, presented, issued, represented, supplied, awarded, granted)
- Obtain verbs (obtained, raised, selected, collected, gained, received)
- Show verbs (shown, quoted, cited, listed, expressed, released, illustrated, outlined, depicted, displayed)
- Require verbs (required, needed, requested, demanded)
- Say verbs (described, mentioned, discussed, reported, refereed, agreed, claimed, named, addressed, interviewed, suggested, proposed)
- Create verbs (produced, made, created, generated, formed)
- Study verbs (studied, sought, examined, seen, observed, detected, tested, envisaged)
- Do verbs (done, achieved, established)

Typical examples are shown below:

- Many of the species **involved** are listed internationally as endangered.
- The product **used** was made by boiling a quantity of hops with treacle,....
- Because of this the skill **required** is often very challenging, but it is not the skill of the performer.
- The amount of detail **given will** have to be appropriate to the type of system installed.
- All efforts **made** will be doomed to failure for a number of reasons.
- The issues **raised** are more diverse and just as difficult.
- Discussion was wide ranging and the ideas **produced** were rich and varied.

The most frequently used nouns modified by past participles were also revealed, including *information*, *money*,

amount, people, person, time, issues, sum, work, and data. Some examples are illustrated below.

TABLE II: POSTPOSITIVE PAST PARTICIPLES AND THEIR FREQUENCY IN THE WHOLE BNC

No..	Past participles	Fre-quency	No.	Past participles	Fre-quency
1	involved	682	51	developed	34
2	used	588	52	observed	34
3	required	207	53	sold	33
4	given	190	54	examined	33
5	made	153	55	tested	33
6	raised	148	56	achieved	32
7	produced	142	57	insured	32
8	needed	113	58	identified	31
9	taken	107	59	gained	30
10	mentioned	107	60	drawn	29
11	offered	107	61	held	29
12	obtained	104	62	agreed	29
13	chosen	100	63	imposed	28
14	provided	96	64	published	28
15	described	92	65	appointed	27
16	received	88	66	allowed	26
17	covered	86	67	encountered	26
18	studied	84	68	undertaken	26
19	shown	77	69	referred	26
20	affected	77	70	issued	26
21	adopted	75	71	saved	26
22	specified	75	72	released	24
23	employed	70	73	seen	23
24	presented	68	74	named	23
25	discussed	67	75	included	22
26	left	64	76	arrested	22
27	paid	63	77	spent	22
28	created	60	78	awarded	20
29	proposed	60	79	outlined	20
30	quoted	58	80	requested	19
31	found	58	81	granted	18
32	collected	56	82	acquired	18
33	claimed	55	83	demanded	18
34	selected	54	84	depicted	17
35	listed	52	85	stolen	17
36	generated	50	86	caused	17
37	done	49	87	featured	17
38	suggested	48	88	detected	17
39	considered	47	89	added	17
40	reported	47	90	established	16
41	interviewed	45	91	addressed	16
42	supplied	44	92	supported	15
43	sought	44	93	displayed	15
44	charged	42	94	assumed	15
45	recorded	41	95	incurred	14
46	cited	38	96	treated	14
47	formed	37	97	contained	13
48	represented	37	98	envisaged	12
49	illustrated	35	99	fitted	11
50	expressed	34	100	interviewed	11

- The information given is intended as a guide to prospective participants and organisations.
- The money spent could pay for a whole dinner party.
- The amount generated is about 3 watts.
- The number of people laid off was proportionately less than from some other record companies.
- If there is not the evidence, “the person arrested shall be released.”

- The total time taken was judged by interviewees to be between 40 and 60 minutes at review.
- The issues involved are extraordinarily difficult and their resolution is complicated.
- If you find your sum insured is not adequate, please let us know so that it can be increased.
- The criteria for analyzing work done must primarily be the job specification.
- The data thus collected will be used to identify trends in the technologies studied.

C. Collocation/Colligation Features

When trying to identify the formal patterning that determines a specific meaning or function of an item, the entire sentence or possibly even the discourse factors must be considered. However, looking at the most frequent collocates will provide clues to understanding this structure. Indeed, collocates within the L5:L1 span show more characteristics of this structure than those within the R1:R5 structure. The collocates number, amount(s), any, all, most, actual, many, none, some, etc., occur at a high frequency. Colligational collocates such as the, of, that, whether, although, if, and where are also conspicuous.

These collocates appear in fixed phrases, such as the number of, the amount of, and most of. Some of the instances from the data are shown below.

- The number of students involved was 240.
- The amount of money involved is not likely to be very large.
- Most of the reactions shown are universal....
- Many of the concepts explained may appear to be self-evident....
- The type of vitamin taken should depend on the general state of health....

III. CONCLUSION

This study revealed that the most frequently used past participle forms are involved, used, required, given, made, raised, produced, needed, taken and mentioned. The most typically used nouns modified by postpositive participles were also identified: information, money, amount, people, person, time, issues, sum, work, and data. These nouns typically occur with fixed phrases, such as the number of, the amount of, and most of, that seem to make it hard for the past participle to be placed before nouns in the attributive use. The same kinds of past participles, nouns, and fixed phrases are apparently recurrent in this structure. This target structure seems to play a role as a kind of reminder to ensure that the reader knows what he/she is reading. It also helps the writer convey the topic or information precisely and efficiently. Such expressions are most frequently used in the academic prose domain.

Hopefully, this paper has provided some characteristic features of postpositive past participles used on their own. However, more detailed explanation on the structure will have to await further research.

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