

English Expressions in the Articles of Physical and Occupational Therapies

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Abstract The aim of this study is to explore English expressions that are made characteristic use of in the articles of physical and occupational therapies published in the U.S. and the U.K. The articles examined are taken from journals of physical and occupational therapies that were published in the U.S. and the U.K. in 1998, and the number of articles amounts to 40. This paper contains 13 entries. Most of them have to do with English expressions, but explanations of grammatical problems are also included. The entries that appear here are mainly like the following: *although* and *though*, *based on* and *on the basis of*, *because* and *as*, *compared with* and *compared to*, *despite* and *in spite of*, *due to* and *because of*, *during*, *he or she*, the split infinitive, the subjunctive, *that* and *which*, *whereas* and *while*, and *whether* and *if*.

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1. Introduction

This article aims to examine English expressions that appear characteristically in the articles of physical and occupational therapies. The articles dealt with here are taken from *Physical Therapy* and *AJOT* (*The American Journal of Occupational Therapy*), and *Physiotherapy* and *The British Journal of Occupational Therapy*¹. The former two are published in the U.S. and the latter two in the U.K., which makes it easier to compare AmE with BrE. All of the articles chosen here were published in April, May, June, and July in 1998, and 10 articles are chosen from each of these journals, and a total number of articles examined here amounts to 40: 20 from the American journals and 20 from the British ones. And the articles chosen are confined only to original articles, and thus case reports, book reviews, etc. are excluded. And besides the authors whose articles are examined here are only American or British, and no other nationalities are included.

2. English Expressions Preferred in the Articles of Physical and Occupational Therapies

2.1 Although and though

When *although* and *though* are used as conjunctions, *although* is more frequently used than *though* in the articles of both American and British physical and occupational therapies. In the American articles *although* is used in 80 instances, whereas

though is used in only five instances; in the British articles *although* is used in 62 instances, whereas *though* is used in only eight instances.

With regard to the position of the *although*-clause in a sentence, since normally emphasis is placed on the latter clause, it may be imprudent to judge the position of the *although*-clause in a sentence without regard to the context, but in the U.S. the *although*-clause often comes before the main clause (68 instances before the main clause), and this clause is less frequently used after the main clause, or parenthetically in the middle of a sentence (nine instances after the main clause; three instances parenthetically). In the U.K., the clause preceded by *although* comes a little more frequently before the main clause than after it (34 instances before the main clause; 25 instances after the main clause).

Normally *although* is more formal than *though*, which may explain the frequent use of *although* in the U.S. and the U.K.

2.2 Based on (upon) and on the basis of

Based on (*upon*) is one of the expressions one frequently encounters in the articles of physical and occupational therapies. It is used with "be" (1a), or adverbially (1b), or as an adjective phrase (1c):

(1) a. ... conclusions are based on the opinions and views of selected experts

(AJOT, April 1998)

b. Based on the results, it appears that practice

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speeds do not have to match a normal "switching" speed.

(*Physical Therapy*, April 1998)

c. ... exercise prescription based on this would not be feasible. (*Physiotherapy*, May 1998)

Based on (upon) is one of the expressions equally well used in the U.S. and the U.K. It is used in the U.S. in 57 instances and in the U.K. in 35 instances. In the U.S. it is most often used adverbially. In the U.S. it is used adverbially in 34 instances, in the form of "be based on (upon)" in 26 instances, and as an adjective phrase in 13 instances. In the U.K. *based on (upon)* is not so often used adverbially. In the U.K. it is used in the form of "be based on" in 18 instances, as an adjective phrase in 13 instances, and adverbially in 10 instances.

Based on (upon) and *on the basis of* would supplement each other when they are used adverbially. *On the basis of* is used like the following:

(2) Lean body mass was computed on the basis of percentage of body fat.

(*Physical Therapy*, June 1998)

On the basis of is not so often used as *based on (upon)*. *On the basis of* is used in the U.S. in 14 instances, and in the U.K. five instances. Although it is used in the U.S. in three articles, in the U.K. it is used in one article.

2.3 Because, as, and since

When giving reasons, *because* is more often used than *as* or *since*. It is used in the U.S. in 107 instances, and in the U.K. in 49 instances. Although as in the case of *although*, it would be indiscreet to judge the position of the *because*-clause without reference to the context, in the U.S. the *because*-clause is used before the main clause as often as after the main clause (53 instances before the main clause; 54 instances after the main clause). In the U.K. the clause introduced by *because* is mainly used after the main clause (eight instances before the main clause; 41 instances after the main clause).

As shown above, in the U.K. *because* is less frequently used than in the U.S. In the U.K., when giving reasons, *as* and *since* seem to be used more often. In the U.S. at least this time there is no instance of *since* and in giving reasons *as* is used in only a few instances, whereas in the U.K. *as* is used in 21 instances and *since* in 10 instances. In the U.K. *as* appears in almost all articles. And in the U.K. the *as*-clause is used a little more often after the main clause than before the main clause (nine

instances before the main clause; 12 instances after the main clause).

Since *as* has a number of meanings, it can often give rise to ambiguity: there are often times when one wonders whether *as* means reason or time or manner. Certainly in the articles of the U.S. *as* often appears, but in most cases its meanings are ambiguous and it is often unclear whether it means reason or time or manner. In (3), it is not clear at first glance whether *as* means reason or time:

(3) ... infants should be observed as they move about freely. (*Physical Therapy*, May 1998)

In the U.S. there are at least 25 instances where the meaning of *as* is unclear. In this way although *as* is used relatively often in the articles of the U.S. and the U.K., it should be avoided: when giving reasons, *because* should be used.

2.4 Compared with, compared to, as compared with, when compared with, and in comparison with

Although *as compared with* and *when compared with* are slightly different in meaning from *compared with* and *compared to*, in that the meaning of time is somewhat stronger in the former two than in the latter two, when giving comparisons *compared with* is most often used in the U.S. (20 instances), followed by *as compared with* (13 instances), *in comparison with* (two instances) and *when compared with* (two instances). *Compared to* is used in the same meaning as *compared with*, but in the U.S. there is no instance of *compared to* or *as compared to*. In the U.K. although the number of instances is relatively few, *compared to* is most often used (eight instances), followed by *compared with* (three instances), *as compared with* (three instances), and *as compared to* (two instances). *In comparison with* is seen only in the U.S. (two instances).

2.5 Despite and in spite of

Despite and *in spite of* can be used interchangeably, and both of them can be followed by a noun or gerund. However, *despite* is more often used than *in spite of* in the U.S. and the U.K. In the U.S. *despite* is used in 12 instances and *in spite of* is not used, whereas in the U.K. *despite* is used in 10 instances and *in spite of* in two instances.

Despite is more formal than *in spite of*, which may largely explain the reason for the frequent use of *despite*.

2.6 Due to, because of, and owing to

Of these three expressions, *due to* is most often used. In the U.S. *due to* is used 31 times, and in the

U.K. 23 times. In the U.S. *because of* is used 28 times, and in the U.K. 16 times. *Owing to* is not used in the U.S., and it appears in the U.K. only twice.

Due to seems to be more often used adverbially like (4a) (in this use 31 instances in the U.S. and the U.K.) than with the verb "be" like (4b) (in this use 18 instances in the U.S. and the U.K.).

- (4) a. Due to financial constraints such extravagant getaways were not feasible for the elderly persons in our groups.

(AJOT, May 1998)

- b. This may be due to a lack of recognition of the potential value of delegation

(Physiotherapy, May 1998)

Due to can also be used as an adjective phrase like (5), but this is less frequently used (five instances altogether in the U.S. and the U.K.).

- (5) Persons with a hip implant due to rheumatoid disease ... were not selected.

(Physical Therapy, May 1998)

2.7 During

During is mainly used like the following:

- (6) during comfortable walking, during treadmill training, during the stance phase, during actual locomotion, during ambulation, during the swing phase, during running, etc.

(Physical Therapy, April 1998)

In the articles of the physical and occupational therapies, *during* is most often used like (6), which suggests that *during* is an expression peculiar to physical therapy. In the U.S. although *during* appears only 30 times in *AJOT*, in *Physical Therapy* it appears as many as 228 times. In the U.K., in *The British Journal of Occupational Therapy*, *during* appears 14 times, whereas in *Physiotherapy* it appears 50 times. That suggests that *during* is a word that is favored by physical therapists, especially by American physical therapists.

2.8 He or she

When the antecedents are third person singular nouns or indefinite pronouns like *patient*, *person*, *student*, *someone*, etc, mainly three kinds of pronouns can be used to refer back to them, that is, *he or she*, *he*, or *they*:

- (7) a. ... the older the student the better he or she is likely to understand physiotherapy.

(The Brit. J. of Occ. Therapy, June 1998)

- b. ... the older the student the better he is likely to understand physiotherapy.

- c. ... the older the student the better they are likely to understand physiotherapy.

However, in practice, in the articles of physical and occupational therapies of the U.S. and the U.K., (7b) and (7c) are seldom used. (7a) is the form used in almost all cases in the U.S. and the U.K. Forms like *he or she*, *his or her*, *him or her*, or, *himself or herself* appear in the articles of the U.S. 47 times, and in those of the U.K. 87 times. The third person singular noun or indefinite pronoun antecedents that appear most often in the U.S. and the U.K. is *child* (20 instances), followed by *individual* (14 instances), *therapist* (14 instances), *person* (13 instances), *client* (12 instances), *student* (11 instances), *plaintiff* (10 instances), *expert* (seven instances), *patient* (seven instances), *participant* (six instances), *someone* (five instances), *subject* (five instances), *infant* (two instances), *human* (two instances), *practitioner* (two instances), *caregiver* (one instance), *learner* (one instance), *solicitor* (one instance), and *witness* (one instance), respectively.

He or she is thus equally used both in the U.S. and the U.K., but this seems to be an expression preferred not by physical therapists, but by occupational therapists, in both countries. In the U.S. although *he or she* appears in *Physical Therapy* in eight instances, it appears in *AJOT* in 39 instances. In the U.K. although it is used in *Physiotherapy* in only four instances, it is used in *The British Journal of Occupational Therapy* in as many as 83 instances.

Popular as *he or she* seems to be among occupational therapists, it is an expression stilted and awkward. And it should be used sparingly. If it is used too often, the whole article will begin to look ludicrous.

2.9 Split infinitive

In a split infinitive, normally a single adverb comes between *to* and a verb like (8a), yet only occasionally two or more words come between them like (8b) and (8c):

- (8) a. ... patients were able to effectively use assistive devices upon return home.

(AJOT, April 1998)

- b. In order to more thoroughly understand the overall biomechanics of using a cane

(Physical Therapy, May 1998)

- c. ... enabling the participants to actively and strategically select an individualized pattern of

(AJOT, May 1998)

The split infinitive seems to be especially liked by

American physical and occupational therapists, above all by American occupational therapists. In the U.S. there are eight instances of the split infinitive in *Physical Therapy* and 15 instances of it in *AJOT*, whereas in the U.K. there are only two instances of it in *Physiotherapy*, and in *The British Journal of Occupational Therapy* there is no instance of it.

Although split infinitives have been in use since the 14th century and have a long history, there are some who still consider them informal, incorrect, or careless. As long as the rhythm of the sentence is not ruined or as long as an unintended meaning is not created, split infinitives should not be used.

2.10 Subjunctive

In the articles of physical and occupational therapies, two forms of the subjunctive are used, that is, the present subjunctive like (9a), and the past subjunctive like (9b):

- (9) a. The federal regulations ... mandate that these services be education related.

(*AJOT*, May 1998)

- b. If that were not sufficient as a reason for our challenge, the therapy part of occupational therapy is performed by ... the patient. (ibid.)

(9a) can also be paraphrased by using *should* like (10a) or by using the indicative like (10b):

- (10) a. The federal regulations ... mandate that these services should be education related.

- b. The federal regulations ... mandate that these services are education related.

Of the three forms, the subjunctive, *should*-constructions, and the indicative, the subjunctive seems to be more often used in the U.S. than in the U.K. In the U.S. there are altogether 10 instances of the subjunctive and in the U.K. seven instances. The *should*-constructions and the indicative are used more often in the U.K. than in the U.S. In the U.K. there are 21 instances in which *should* is used like (10a) and 10 instances in which the indicative is used like (10b), whereas in the U.S. there is one instance in which *should* is used, and there is no instance of the indicative in the U.S.

In the subjunctive, the present subjunctive seems to be more often used than the past subjunctive in both countries. In the U.S. there are seven instances of the present subjunctive, and three instances of the past subjunctive, while in the U.K. there are five instances of the present subjunctive and two instances of the past subjunctive.

In the present subjunctive, the verb that is most often used in the main clause in both countries is *recommend* (four instances). *Advocate*, *demand*, *mandate*, *require*, and *urge* are used once. *Criteria*, *principle*, and *important* are also used once in the main clause in the present subjunctive.

2.11 That and which

In restrictive relative clauses, when the antecedents are things, *that* or *which* can be used as a relative pronoun. In the U.S. *that* is used exclusively in such a case: in the U.S. *that* is used 424 times as a restrictive relative pronoun and *which* only once. The following is the only instance where *which* is used as a restrictive relative pronoun in the U.S.:

- (11) The environment is not only that which currently surrounds the person but also includes the past, embedded in memory as history, and the future (*AJOT*, May 1998)

In (11) if *which* is used in place of *that*, the antecedent *that* is followed by another *that*, and *that* is repeated twice, which becomes awkward. That is why *which* is used instead of *that* here.

In the U.K. although *that* is certainly used more frequently than *which*, *that* is not predominantly used as in the U.S. In the U.K. *which* is still used in many cases as a restrictive relative pronoun. That is, in the U.K. *that* is used in 182 instances (58%), and *which* in 134 instances (42%).

2.12 Whereas and while

Whereas or *while* can be used to show a contrast:

- (12) a. In normal walking, however, the subject moves, whereas the ground is stationary.

(*Physical Therapy*, April 1998)

- b. ... while the condition is widely documented in the United States, ... there still exists controversy over its existence in the United Kingdom (*Physiotherapy*, July 1998)

In the U.S. *whereas* seems to be exclusively used than *while*: in the U.S. *whereas* is used 17 times but *while* is not used. That, however, does not mean that *while* is not used in the U.S. It only shows that at least this time no instance of *while* happened to be found. In the U.K. *while* seems to be used a little more frequently than *whereas*: *while* is used 24 times and *whereas* 13 times.

The clauses introduced by *whereas* or *while* can come before or after the main clause. Although it is not desirable to consider the position of the *whereas*-clause or *while*-clause in a sentence without reference

to the context, in the U.S. and the U.K. the subordinate clauses headed by *whereas* seem to come more often after the main clause (in this use, 25 instances) than before the main clause (in this use, five instances). On the other hand the clause introduced by *while* seems to come a little more frequently before the main clause (in this use, 14 instances) than after the main clause (in this use, 10 instances).

2.13 Whether and if

Whether and *if* can be used after *ask*, *know*, *find out*, etc, and at the start of a clause or before an infinitive that expresses or suggests a choice between two alternatives. Of *whether* and *if*, however, in the U.S. and the U.K. *whether* is overwhelmingly used in such a situation. In the U.S. *whether* is used in 44 instances and *if* in one instance, whereas in the U.K. *whether* is used in 12 instances and *if* in four instances.

With regard to the verbs that are used before *whether*, *determine* is predominantly used in the U.S. It is used in 34 instances in the U.S., of which 29 instances are found in *Physical Therapy*, and five instances in *AJOT*. In the U.K. too, *determine* is used a little more often than other verbs: it is used in five instances in the U.K.

Other verbs that are used before *whether* in both countries are *examine* (three instances), *assess* (two instances), *consider* (two instances), *know* (two instances). *Confirm*, *decide*, *demonstrate*, *establish*, *investigate*, *see*, and *verify* are used once, respectively.

The verbs that are used with *if* are *ask*, *investigate*, *see*, and *test*.

Whether is more formal than *if*, which may be one of the reasons why *whether* is predominantly used in the U.S. and the U.K.

3. Conclusion

Thirteen entries one often encounters in the articles of physical and occupational therapies have been discussed here. It will be seen from the above descriptions that there are some expressions that are used in the U.S. as often as in the U.K., that there are some expressions that are used more frequently in the U.S. than in the U.K. and vice versa, and that there are some expressions that are more preferably used in physical therapy than in occupational therapy and vice versa. Although the English expressions that seem to be characteristically related to physical and occupational therapies are picked

out and discussed here, they are, of course, not exhaustive. That makes it necessary to delve into this problem further in the future.

NOTES

1. The journals examined here are as follows:

- Physical Therapy*, April 1998, May 1998, June 1998.
- AJOT*, April 1998, May 1998.
- Physiotherapy*, April 1998, May 1998, June 1998, July 1998.
- The British Journal of Occupational Therapy*, May 1998, June 1998.

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