

Chapter 2

Structuring a Sentence: Word Order

Factoids

In Old English, the language spoken in English over 1000 years ago, a word could be placed almost anywhere in a sentence, and often with no change in meaning.

Word order differs massively from language to language, even to say a simple concept such as 'I like you': *like to me you* (Croatian), *you like to me* (Estonian), *you are liking to me* (Irish), *I you like* (Korean), *to me you like* (Spanish), *you me I like* (Wolof).

The English sentence *This is the rat that lives in the house that Jack built* would be rendered in Japanese as: *this Jack-built-house live-in-rat is*.

Even when expressing extremely basic concepts different languages put the words in different orders. For example, many languages say *men and women*, but *mother and father*. However in China, they say *father and mother*. This probably has nothing to do with putting one sex in front of another, but simply that in cases of pairs of words we tend to say the word with the easiest sound first. This explains why around half the world's languages say *black and white*, while the other half say *white and black*. For English speakers it's easier to make the sound of *b* rather than *w*, for the same reasons a Spanish speaking person says '*bianco e negro*' rather than '*negro e bianco*'.

When we scan results from a search engine, our eye rapidly goes vertically down the left hand side of the page, before starting again to read horizontally. This means that you need to think carefully about what grammatical subject to place at the beginning of the first sentence that begins a new paragraph, otherwise there is a chance that browsers and readers won't spot the key information that you want to give them.

2.1 What's the buzz?

1) How could these sentences be improved?

- S1. Finding a candidate with all the right qualifications, with a high level of communications skills, a good knowledge of at least two languages and a friendly personality is a rare event.
- S2. It is advisable that a foreign language should be learned at a young age.

2) Which is better? S3 or S4? Why?

- S3. You are doing this course in your own time but at the expense of your department in order to learn English.
- S4. In order to learn English you are doing this course. The course takes place in your own time but at the expense of your department.

3) Which sentence is the least readable? Why?

- S5. English, although currently the international language of business, may one day be replaced by Spanish or Chinese.
- S6. Although English is currently the international language of business, it may one day be replaced by Spanish or Chinese.
- S7. English may one day be replaced by Spanish or Chinese, even though it is currently the international language of business.
- S8. English is currently the international language of business. However, it may one day be replaced by Spanish or Chinese.

4) Decide if the following statements are true or false.

- People want key information first. On CVs people put their most recent achievements first. They don't put what primary school they went to.
- If you put the most important element at the beginning of sentence, it forces you to think what the most important element is. This will also help the reader understand more.
- By putting subject and main verb at the beginning, you will be forced to write more concisely and probably with shorter sentences.

This chapter provides rules for deciding where to put various types of words within a sentence. For further details see Chapters 16–18 in *English for Research: Grammar, Usage and Style*.

2.2 Basic word order in English: subject + verb + object + indirect object

The order in which you put information in a sentence (or paragraph) conditions the weight that your reader will give to each element of information.

Native English-speaking readers have a clear expectation regarding the order in which information should be given to them.

English has a strict order in which words can appear in a sentence. Below is an example of this order.

The researchers sent their manuscript to the journal.

This order is rarely altered. It is:

- subject (*the researchers*)
- verb (*sent*)
- direct object (*their manuscript*)
- indirect object (*the journal*)

The key is to keep the subject, verb, direct object and indirect object as close to each other as possible:.

Last week *the researchers sent their manuscript to the journal* for the second time.

The sentence below does not follow the correct order:

**The researchers last week sent for the second time to the journal their manuscript.*

The position of *last week* and *for the second time* is wrong, and the indirect object comes before the direct object.

2.3 Place the various elements in your sentence in the most logical order possible: don't force the reader to have to change their perspective

Readers expect words/phrases that are closely related to each other, to appear next to each other within the sentence.

NO!	YES
Several authors have evaluated the possibility to minimize the levels of background compounds, both those released from the bag material and those from the previous sample collection <i>using a cleaning procedure</i> .	Several authors have evaluated the possibility <i>of using a cleaning procedure</i> to minimize the levels of background compounds, both those released from the bag material and those from the previous sample collection.
All PCR-amplified products were visualized on 2% agarose gel containing ethidium bromide, <i>under ultraviolet light</i> .	All PCR-amplified products were visualized <i>under ultraviolet light</i> on 2% agarose gel containing ethidium bromide.
<i>The figures show</i> , for each observation time, the average values of the peak areas of the compounds present in the dry gaseous standard mixture.	For each observation time, <i>the figures show</i> the average values of the peak areas of the compounds present in the dry gaseous standard mixture.
Overall the match between the aggressiveness of season-based inoculations and the capacity of the fungus to be active in vitro as a function of the temperature, <i>appears strict</i> .	Overall <i>there seems to be a close match</i> between the aggressiveness of season-based inoculations and the capacity of the fungus to be active in vitro as a function of the temperature.

In the NO! versions of the first two examples, the information in italics is key to the readers' overall understanding and should be placed earlier in the sentence closer to the elements it refers to. In the third example, the YES version avoids the need to break up the flow of the sentence. In the last example, the verb in the NO! version is almost at the end of the sentence - this is extremely rare in English and should be avoided.

Below are some more examples:

NO!	YES
It is important to remark that our components are of a traditional design. <i>However</i> , we want to stress that the way the components are assembled is very innovative.	<i>Although</i> our components are of a traditional design, the way they are assembled is very innovative.
Working in this domain entails modifying the algorithms as <i>we are dealing</i> with complex numbers.	<i>Since we are dealing</i> with complex numbers, working in this domain also entails modifying the algorithms.
Therefore, the rescaled parameters seem to be appropriate for characterizing the properties, <i>from a statistical point of view</i> .	Therefore, <i>from a statistical point of view</i> , the rescaled parameters seem to be appropriate for characterizing the properties.

The YES sentences all provide signals to the reader about what they can expect next.

The NO! sentences are confusing:

- In the first example, readers initially think that *traditional design* is the key information that the author wants to give them. The author then introduces new information that completely contrasts with the preceding information. In such cases, you need to forewarn your readers of such contrasts by using a linker that introduces a qualification, such as *although*, at the beginning of the phrase.
- In the second and third examples, the key information is only given at the end of the sentence. On the other hand in the YES examples, the author immediately tells readers the point of view he wants them to assume.

2.4 Place the subject before the verb

The subject (in *italics* in the sentences below) must come before the verb.

NO!	YES
In the survey participated <i>350 subjects</i> .	<i>Three hundred and fifty subjects</i> participated in the survey.
Were used <i>several different methods</i> in the experiments.	<i>Several different methods</i> were used in the experiments.
With these values are associated <i>a series of measurements</i> .	<i>A series of measurements</i> are associated with these values.
Once verified <i>the nature of the residues</i> ...	Once <i>the nature of the residues</i> had been verified ...

The key rule is: Say what something is before you begin to describe it.

In the NO! versions below, the authors have delayed the subject until the end of the clause. They have used an introductory subsidiary clause to stress the importance or evidence of the subject before telling the reader what the subject is.

NO!	YES
Among the factors that influence the choice of parameters <i>are time and cost</i> .	<i>Time and cost</i> are among the factors that influence the choice of parameters.
Of particular interest <i>was the sugar transporter</i> , because...	<i>The sugar transporter</i> was of particular interest, because...
Important parameters <i>are conciseness and non-ambiguity</i> .	<i>Conciseness and non-ambiguity</i> are important parameters.

A verb can come before a noun, if the verb is in the imperative, or if the sentence begins with *there + to be*.

NO!	YES
Noteworthy <i>is the presence</i> of a peak at ...	<i>Note the presence</i> of a peak at ...
	There is a peak at ...

The verb in the infinitive form is also found at the beginning of a phrase:

(In order) to learn English, a good teacher is required.

2.5 Don't delay the subject

As mentioned in the Factoids, when we scan results from a search engine, our eye rapidly goes vertically down the left-hand side of the page, before starting again to read horizontally.

This means that you need to think carefully about what information to place at the beginning of the first sentence that begins a new paragraph. If you misplace the key information, there is a strong chance that browsers and readers won't spot it.

In the following sentences, the parts highlighted in italics occupy the key left-hand position. They delay the subject, with the risk that readers may not even see the subject.

S1. *It is interesting to note that* x is equal to y.

S2. *As a consequence of the preceding observations,* x is equal to y.

To avoid this problem:

- delete or reduce the part before the subject
- shift the linking expression to later in the sentence

S1 and S2 thus become:

Note that x is equal to y. // *Interestingly,* x is equal to y.

Consequently, x is equal to y. // X is *thus* equal to Y.

Putting *it* in first position (S1) often delays the real subject. Instead, use modal verbs (*might, need, should* etc.) where possible (5.12).

OK	IMPROVED
It is probable that this is due to poor performance.	This <i>may / might / could</i> be due to poor performance.
It is possible to do this with the new system.	This <i>can</i> be done with the new system.
It is mandatory to use the new version.	The new version <i>must</i> be used.

2.6 Keep the subject and verb close to each other

The verb contains important information: keep it as close as possible to the subject. Anything that comes between the subject and the verb will be read with less attention, and readers will consider it of less importance (see next subsection).

S1 and S2 force the reader to wait too long to find out what the verb is and thus delay important information.

- S1. *A gradual decline in germinability and vigor of the resultant seedling, a higher sensitivity to stresses upon germination, and possibly a loss of the ability to germinate *are recorded* in the literature [5, 8, 19].
- S2. *People with a high rate of intelligence, an unusual ability to resolve problems, a passion for computers, along with good communication skills *are generally employed* by such companies.

S3 and S4 shift the verb to the beginning of the sentence and make the meaning / direction of the sentence immediately clear.

- S3. There is generally a gradual decline in germinability and of the resultant seedling, followed by a higher sensitivity to stress upon germination, and possibly a loss of the ability to germinate [5, 8, 19].
- S4. Such companies generally employ people with a high rate of...

S3 and S4 use active verbs. But sometimes you may need to use the passive and you may have several subjects for the same verb. In such cases, locate the passive verb after the first subject (S5):

- S5. People with a high rate of intelligence are generally employed by such companies. They must also have other skills including: an unusual ability to...

2.7 Avoid inserting parenthetical information between the subject and the verb

If you insert more than a couple of words between the subject and the verb, this may interrupt the reader's train of thought. Readers may consider this parenthetical information to be of less importance.

Sentences are much easier to read if they flow logically from step to step, without any deviations.

NO!	YES
The result, after the calculation has been made, can be used to determine Y.	After the calculation has been made, the result can be used to determine Y.
This sampling method, when it is possible, is useful because it allows....	When this sampling method is possible, it allows us...
These steps, owing to the difficulties in measuring the weight, require some simplifications.	Owing to the difficulties in measuring the weight, these steps require some simplifications.
	These steps require some simplifications, owing to the difficulties in measuring the weight.

This does not mean that you cannot have a series of short clauses within one sentence. In the example below, readers do not have to change their perspective while moving from one clause to the next.

In Old English, the language spoken in English over 1000 years ago, a word could be placed almost anywhere in a sentence, and often with no change in meaning.

Of course, the rule not to insert parenthetical information, like every rule, should not be regarded as sacrosanct - i.e. you are at liberty to break it. If you think that the insertion makes the sentence flow better and be clearer, then ignore the rule.

2.8 Don't separate the verb from its direct object

When a verb is followed by two possible objects, place the direct object (i.e. the thing given or received) before the indirect object (the thing it is given to or received by).

This kind of construction is often found with verbs followed by 'to' and 'with': associate X with Y, apply X to Y, attribute X to Y, consign X to Y, give X to Y (or give Y X), introduce X to Y, send X to Y (or send Y X).

NO!	YES
We can <i>separate</i> , with this tool, <i>P and Q</i> .	We can <i>separate P and Q</i> with this tool.
We can <i>associate</i> with these values <i>a high cost</i> .	We can <i>associate a high cost</i> with these values.

In S1 below, the direct object is very long and consists of a series of items, so the reader has to wait a long time before discovering what all these items are associated with. The solution, S2, is to put the indirect object after the first item and then use 'along with'. S3 and S4 are other alternatives to dealing with this problem.

- S1. *We can *associate* a high cost, higher overheads, a significant increase in man-hours and several other problems *with these values*.
- S2. We can *associate* a high cost *with these values, along with* higher overheads, a significant increase in man-hours and several other problems.
- S3. We can *associate several factors with these values:* a high cost, higher overheads, a significant increase in man-hours and several other problems.
- S4. *The following can be associated with these values:*
 - a high cost
 - higher overheads
 - a significant increase in man hours

2.9 Put the direct object before the indirect object

Don't put the indirect object (in *italics*) at the beginning of the sentence or main clause. This is not the usual word order in English.

NO!	YES
However, only <i>for some cases</i> this operation is defined, these cases are called...	However, this operation is only defined <i>for some cases</i> , which are called...
Although <i>in the above references</i> one can find algorithms for this kind of processing, the execution of ...	Although algorithms for this kind of processing are reported <i>in the above references</i> , the execution of...
This occurs when <i>in the original network</i> there is a dependent voltage.	This occurs when there is a dependent voltage <i>in the original network</i> .

2.10 Don't use a pronoun (*it, they*) before you introduce the noun that the pronoun refers to

It is OK to use a pronoun at the beginning of the sentence, provided that this pronoun refers back to a noun in a previous sentence (i.e. a backward reference). For example:

S1. *Beeswax* is a very important substance because... In fact, *it* is...

In S1 it is clear that *it* refers to beeswax. But in S2, below, *it* refers to a noun that comes after (i.e. a forward reference). The reader does not know what the pronoun refers to and thus has to wait to find out.

S2. *Although *it* is a very stable and chemically inert material, studies have verified that the composition of *beeswax* is ...

A better version is S3, which immediately tells the reader what the subject is.

S3. Although *beeswax* is a very stable and chemically inert material, studies have verified that *its* composition is ...

2.11 Locate negations near the beginning of the sentence

The order you put the words in your sentence should be designed to take your reader through a logical progression of thoughts. These thoughts should move forward, never backtracking, never forcing the reader to reconsider or reinterpret what they have just read in the light of what they are reading now.

In S1 and S2 readers cannot predict how the sentence might progress. They are forced to wait to the end before being able to understand what they have just read.

- S1. * Data regarding the thyroid function and the thyroid antibodies before the beginning of the therapy *were not available*.
- S2. * *All* of the spectra of the volatiles *did not* show absorptions in the range ...

Both S1 and S2 appear to begin in a positive way and then suddenly change direction.

Instead, S3 and S4 help the reader to immediately understand the central purpose and driving force of the sentence (also known as the ‘thrust of a sentence’).

- S3. *No data were available* regarding thyroid function and thyroid antibodies before the beginning of the therapy. // Before the beginning of the therapy, *no data were available* regarding ...
- S4. *None* of the spectra of the volatiles showed absorptions in the range ...

Negations (*no*, *do not*, *does not*, *none*, *nothing* etc) are often a key element in the thrust of a sentence - try to locate them as close as possible to the beginning of a sentence.

Below are some more examples:

NO!	YES
The number of times this happens when the user is online is generally <i>very few</i> .	This <i>rarely</i> happens when the user is online.
Documentation on this particular matter is almost <i>completely lacking</i> .	There is <i>virtually no documentation</i> on this particular matter.
*Consequently <i>we found</i> this particular type of service <i>not</i> interesting.	Consequently <i>we did not find</i> this particular type of service interesting.

As highlighted in the first two NO! examples, English tends to express negative ideas with a negation. This helps the reader to understand immediately that something negative is being said. The last example is incorrect English because the verb and the negation (*not*) have been separated. See 15.16 in *English for Research: Grammar, Usage and Style*.

2.12 Locate negations before the main verb, but after auxiliary and modal verbs

The word *not* should be placed before the main verb it is associated with.

In S1 *not* is placed after the verb and is thus incorrect.

- S1. * Patients *seemed not* to be affected by intestinal disorders.
- S2. Patients *did not seem* to be affected by intestinal disorders.

When the verbs *to have* and *to be* are used in the present simple or past simple, *not* is located after the verb.

- S3. These findings *are not* significant.
- S4. Their results *had no* value. // Their results *did not have* any value.

Not is located after modal verbs and auxiliary verbs.

- S5. Such patients *should not* be treated with warfarin.
- S6. We *have not* encountered such a problem before.

2.13 State your aim before giving the reasons for it

When you explain a new game to someone, do you tell them the rules/strategies and then the objective, or vice versa? Which sounds more logical to you: S1 or S2?

- S1. You need to develop a strategy, make decisions as to whether to collaborate or not with the other players, also keep an eye on the progress of the other players, and finally make the most money *in order to win the game*.
- S2. *In order to win the game* you need to make the most money. To do this, you need to develop ...

Game players and readers have the same expectations: they want to know the aim of the game before learning how to carry it out - i) aim ii) means (i.e. how).

In S1 you are forcing the reader to wait for the key information, which only appears 38 words into the sentence. In S2 the aim is immediately established.

However, if the sentence is short, it does not make too much difference which element (aim or means) you put first. So both S3 and S4 could be used.

- S3. In order to win the game you need to make the most money.
- S4. You need to make the most money in order to win the game.

2.14 Deciding where to locate an adverb

The rules for deciding where to locate an adverb are complex. This section only gives some very basic guidelines.

If you are in doubt about where to put the adverb, the following rules apply to most adverbs including *only* and *also*. Locate the adverb:

- Immediately before the main verb.

Dying neurons do not *usually* exhibit these biochemical changes.
The mental functions are slowed, and patients are *also* confused.

- Immediately before the second auxiliary when there are two auxiliaries.

Language would *never* have arisen as a set of bare arbitrary terms if ...
Late complications may not *always* have been notified.

- After the present and past tenses of ‘to be’

The answer of the machine is *thus* correct.

However other types of adverbs (e.g. certainty, manner, time) follow different rules.

For full details see Chapter 17 in *English for Research: Grammar, Usage and Style*.

2.15 Put adjectives before the noun they describe, or use a relative clause

Adjectives normally go before the noun they describe.

NO!	YES
This is a paper particularly interesting for PhD students.	This paper is particularly interesting for PhD students.
We examined a patient, 30 years old, to investigate whether ...	This is a paper that is particularly interesting for PhD students. We examined a 30-year-old patient to investigate whether ...
	We examined a patient, who was 30 years old, to investigate whether ...

If you want to put the adjective after the noun, you have to use a relative clause as in the second alternatives in the Yes column above (i.e. *which*, *that*, *who* - see 6.10)

2.16 Do not put an adjective before the wrong noun or between two nouns

Never put an adjective before a noun that it does not describe.

Generally, you cannot put an adjective between two nouns.

NO!	YES
The main document <i>contribution</i>	The main <i>contribution</i> of the document
The editor <i>main</i> interface	The <i>main</i> interface of the editor
The algorithm <i>computational</i> complexity	The <i>computational</i> complexity of the algorithm

2.17 Avoid creating strings of nouns that describe other nouns

You cannot indiscriminately put nouns in front of each other in a string. For example, you cannot say *art state technology* (state-of-the-art technology) or *mass destruction weapons* (weapons of mass destruction). But you can say *a software program* or *an aluminum tube*.

Native speakers do tend to string nouns together, but they intuitively know how to do it. In fact, they are not following any written rules, but they base themselves on examples that already exist. If you are a non-native speaker I strongly recommend that you verify on Google Scholar that your proposed string of nouns already exists and has been used by native English-speaking authors.

If it does not exist, it will sound very strange to any native English-speaking referees, and more than one occurrence of such structures could cause the referee to recommend that your English be revised.

If it has not been used by native English-speaking authors, then you need to change the order of the words, which normally entails inserting some prepositions. To learn how to do this, see 12.3.

2.18 Summary

- Basic English word order is: (1) subject, (2) verb, (3) direct object, (4) indirect object. Keep these four elements in this order and as close to each other as possible.
- If you have a choice of subjects, choose the one that is the most relevant and leads to the shortest construction.
- Avoid delaying the subject. So don't begin a sentence with the impersonal *it*.
- Avoid inserting parenthetical information between the subject and the verb.
- Most adverbs are located just before the main verb, and before the second auxiliary verb when there are two auxiliaries.
- Put adjectives before the noun they describe, or use a relative clause. Do not insert an adjective between two nouns or before the wrong noun.
- Do not indiscriminately put nouns in a string.

Rules tend to have exceptions. The rules given in this section also have exceptions, and so you might find sentences written by native English speakers that contradict my rules.



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