

How to organize information in English sentences

This material is adapted from *English Solutions for Engineering Research Writing* <http://www.hanyangowl.org>

3.12.1 English information in sentences is generally organized in a Given to New information pattern

Information that is new is usually put at the end of the sentence. When it is no longer new, it is moved into the subject position at the beginning of the next sentence, and new information about it is added to the end of that sentence. In this example, I saw the Major League Baseball pitcher Chan-ho Park on campus. He is a Hanyang alumni. Let's look at how the information is linked together in this paragraph example.

EXAMPLE

A few years ago I had an unusual lunchtime at Hanyang. I was walking on campus, when I saw Chan-ho Park. He was visiting campus to give money for scholarships for new students. The money was donated to help support student athletes.

In the first sentence, Hanyang is the new information. Being at Hanyang becomes old information and changes to the beginning of the sentence in the form of "on campus." Then the new information is introduced: Chan-ho Park. In the next sentence, Chan-ho is no longer news, so the word "He" is used and moved to the beginning of the sentence where more information is added about him giving money at the end of that sentence. Finally, the money is no longer the new topic, so it is moved to the beginning of the next sentence where the new information about how it will help student athletes appears at the end of the last sentence. We would expect the paragraph to continue talking about how the money will be used to support athletes.

This linking of Given to New information helps create the organization and flow of information in English paragraphs that explain, discuss, or analyze information. This type of organization is common in introduction and discussion sections. Other sections like the methods section that describe a process may not follow this rule as closely, however. Most, but not all, paragraphs are structured this way as it is a basic characteristic of good English writing. When the topic changes, a new transition signal such as "Next" or "Second" is usually introduced, and then the pattern may start again. The first sentence of a paragraph introducing a new topic may also not follow this pattern.

If a paragraph breaks this organization of information, it might seem awkward to a native speaker. Compare the following simple sentences. Which one sounds better to you?

EXAMPLES

X: He was born in Seoul. The largest city in Korea is Seoul.

O: He was born in Seoul. Seoul is the largest city in Korea.

The first sentence does not follow the principle of Given and New information. Not following this rule may make your writing difficult to read, even if the sentences are grammatically correct.

TASK

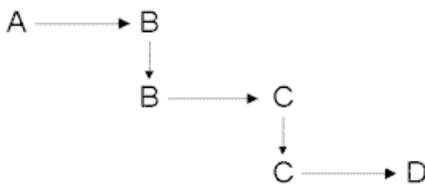
Choose a complex sentence. Move a clause from the beginning to the end of the sentence. Change the information from the main clause to the dependent clause. Does the meaning of the sentence feel different

to you? Does it still make sense in the paragraph? Can you understand why the writer chose to organize the information in that way?

As we can see, fully understanding clauses and how to place them is really the key to more advanced writing. The following section illustrates this principle with engineering text.

4.3.1 Linked chain

In the linked chain paragraph, a Given to New information pattern (see Section 3.12.1) organizes the sentences in the paragraph. To be able to move the information around in clauses correctly, it is important to master the different types of sentence structures presented in Chapter 3. Knowledge of sentence structures allows the writer to move information around between the beginning and end of the sentence by manipulating the placement of phrases, main, and subordinate clauses.



Source: <http://exchanges.state.gov/forum/vols/vol33/no4/p22.htm> from Dane (1974).

In this example, we can see how the pieces of information indicated by the letters are moved to create the linked chain of information structure.

EXAMPLE

Linked chain paragraph	Analysis
<p>A PLATFORM manipulator A is a closed-loop mechanism in which a moving platform is connected to the base by at least two serial kinematic chains B (legs). Applications of this type B of manipulator can be found in pilot-training simulators and in high-precision surgical tools because of C their <u>high load-carrying capacity and accurate positioning</u>. Recently, researchers have tried to utilize these features C to develop multiaxis machine tools [1] and precision assembly tools [2] based on D <u>platform-manipulator architectures</u>. However, the design, trajectory planning, and application development of parallel manipulators D are quite <u>challenging</u> E. The closed-loop nature of the mechanism E <u>limits the motion</u> of the platform and <u>creates complex kinematic singularities</u> F in its workspace. To overcome these <u>drawbacks</u> F, we employ the <u>modular</u> design concept in the development of platform manipulators G [3]. A <u>modular</u> platform manipulator G consists of a set of independently designed standard modules, such as actuators, passive joints, rigid links (connectors), mobile platforms, and end-effectors that can be rapidly assembled into various layouts with different kinematic and dynamic characteristics.</p>	<p><u>Two serial kinematic chains</u> B is the new information about platform manipulators A. In the next sentence <u>this type</u> B with serial kinematic chains is no longer new information, so it is moved to the beginning of the next sentence. The new information, <u>their high load-carrying capacity and accurate positioning</u> C, is then added. This information, which is summarized as <u>these features</u> using the summary noun strategy we saw before, is moved to the subject position because it is no longer new. The new information, <u>the tools based on</u> D <u>platform-manipulator architectures</u>, is added. However, new information about the manipulators, that they are <u>challenging</u>, E is added. How they are challenging is summarized by <u>these drawbacks</u> F in the beginning of the sentence. The new information about the modularity is then introduced G, which then becomes the subject of the next sentence, where information</p>

Let's compare the following two paragraphs. If we change the order of the information, the Given to New pattern is broken and the paragraph becomes hard to read. It seems like new topics are suddenly being introduced. Despite this, there is nothing grammatically wrong with the text. This is another example of how writing is more than just making correct sentences.

Here is the original example.

EXAMPLE

The closed-loop nature of the mechanism **E** limits the motion of the platform and creates complex kinematic singularities **F** in its workspace. To overcome these drawbacks **F**, we employ the modular design concept in the development of platform manipulators **G** [3]. A *modular* platform manipulator **G** consists of a set of independently designed standard modules, such as actuators, passive joints, rigid links (connectors), mobile platforms, and end-effectors that can be rapidly assembled into various layouts with different kinematic and dynamic characteristics.

Here is an example above that I have changed to break the information pattern. It becomes much harder to follow as a result.

EXAMPLE [MODIFIED FROM THE ORIGINAL]

The motion of the platform in its workspace is limited, and complex kinematic singularities are created **F** due to the closed-loop nature of the mechanism **E**. We employ the modular design concept **G** in the development of platform manipulators to overcome these drawbacks **F** [3]. A *modular* platform manipulator **G** consists of a set of independently designed standard modules, such as actuators, passive joints, rigid links (connectors), mobile platforms, and end-effectors that can be rapidly assembled into various layouts with different kinematic and dynamic characteristics.

Notice especially that research writing sometimes looks repetitive. For example, "... platform manipulators **G** [3]. A *modular* platform manipulator **G** ..." but this helps to create connections and flow between sentences. It also helps to avoid unclear sentences. Text can be made less repetitive by following the tips in Section 13 of *English Solutions for Engineering Research Writing* <http://www.hanyangowl.org>

Linear chain development is the standard method of development for English paragraphs.

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