

A short guide to the rhetorical functions

Rhetoric has to do with “the study of methods employed to write or speak effectively and persuasively” (Microsoft® Encarta® 2007. © 1993-2006 Microsoft Corporation). The rhetorical functions are ways of organizing information. This is just a brief guide intended to introduce the student in their use in academic texts (your teacher must provide you with additional information). For examples of each one, look at the activities on pages 2 and 3.

1. Definition

- 1.1. Formal definition: **Term** = Class + **Differences** ($T = C + D$).
- 1.2. Semi-formal definition: it only contains **T** and **D**.
- 1.3. Non-formal definition: they are usually given in form of synonyms or antonyms.
- 1.4. Complex definition: it requires extensive explanatory information.

Key grammatical points: Verb to be, noun phrases.

- **Arrhythmia**: too fast, too slow or nonsynchronized *beating*

2. Description

- 2.1. Physical description: characteristics of an object.
- 2.2. Function description: information about a device.
- 2.3. Process description: steps in a procedure.

Key grammatical points: Verb to be, noun phrases, passive voice.

3. Generalizations

They help to establish levels of importance when the readers are dealing with information.

Key grammatical points:

- Proportions or percentages.
- Adverbs of frequency: always, ever, frequently, never, occasionally, often, once, rarely, seldom, sometimes, twice, usually.

4. Classification

It involves grouping things together (on the basis of similarities) and dividing them (according to differences).

- 4.1 Complete classification: it must provide *the items* being classified, *the class* to which they belong, and *the basis* for classification.
- 4.2 Partial classification: it lacks *the basis* for classification (authors tend to think it is obvious).
- 4.3 Implicit classification: the text contains several elements belonging to the same category, but they are not explicitly classified.
- 4.4 Order of importance: it involves classifying parts according to their relative position in terms of some predefined criteria, such as: importance, appeal, authority, benefit, cost, delivery, durability, frequency, size, difficulty etc. It is closely related to generalizations.

5. Cause-effect (causality and result)

It happens when an action (cause) has a direct result (effect) on something else.

- 5.1 Contributory cause.
- 5.2 Necessary (but not enough) cause.
- 5.3 Sufficient cause.

Key grammatical points:

- Causal connectors: as, because, for, in order to, since.
- Consequential connectors: as a result, consequently, hence, so that, thereby, therefore, thus.

6. Argumentation (pros and cons)

Its function is to persuade by giving reasons in favor (**pros**) or against (**cons**) something, either by inductive reasoning (going from particular facts to general facts), or deductive reasoning (going from generalizations to specific facts).

6.1 Persuasive: it appeals to the reader's thoughts or emotions.

6.2 Logical: it uses rational facts or reasons.

7 Comparison and contrast - Analogy

7.1 A **comparison** points out similarities (when two things are alike). A **contrast** points out differences. You compare two or more things when they share common traits (like camels and dromedaries), but when they are clearly different, you contrast them (like camels vs horses).

7.2 An **analogy** is a special form of comparison and contrast which allows a writer to compare and contrast subjects in different classes to make a point, comparing and contrasting, for example, life to a rubber band, as Forest Gump did: "life is like a rubber band; harder you go forward, harder you snap back. So do not make slip-ups." (Gumpisms) In Biology, analogy means equivalence between two parts: gills in fish and lungs in other vertebrates (both are breathing organs).

8 Instructions

8.1 Direct instructions: they involve the imperative form of the verbs.

8.2 Indirect instructions: they involve modal verbs and passive voice.

9 Exemplifications - Illustrations (visual-verbal relationships)

They consist of short accounts to clarify something (*exemplifications*), or *illustrative* material and a piece of text in order to give additional information: algorithms, cartoons, charts, diagrams, drawings, graphs, maps, photographs, schematics, tables.

ACTIVITIES: analyzing rhetorical functions in academic texts

Look for the indicated rhetorical functions in the adjoining texts.

Activity 1

Cause-effect, classification, comparison, contrast, definition, description, generalization.

Anthrax, an infectious disease common to sheep and cattle, is only weakly communicable in humans and rarely causes disease, unless the bacterium comes into contact with the bloodstream through a wound (causing cutaneous anthrax) or is ingested in contaminated meat (resulting in intestinal anthrax). However, *Bacillus anthracis* has the ability to form resistant spores, which can remain viable for over a hundred years if kept desiccated and out of direct sunlight. Breathing in significant numbers of spores (typically estimated at about 10,000) can lead to inhalation anthrax in humans, which was historically called "wool sorter's disease" because spores were prevalent in the contaminated wool of sheep in 19th-century England. Inhalation anthrax is a very deadly disease in humans. Unless treated with large doses of a penicillin-type antibiotic within the first day or so of exposure it has a mortality rate in excess of 80 percent. This is to be contrasted with smallpox, which has a mortality rate of "only" around 30 percent. Only some filoviruses, such as Ebola, which cause hemorrhagic fevers, have comparable rates of mortality.

(American Scientist Jan-Feb. 2001)

Activity 2

Cause-effect, comparison, description, generalization.

Smallpox is caused by a virus that spreads from person to person in minute droplets discharged from the mouth or the nose. About 10 or 12 days after inhaling the virus the infected person becomes sick, with a high fever and aching sensations resembling those of acute influenza. After two to four days a rash develops on the face, and within a day or two it spreads over the

entire body. Usually it has a “centrifugal” distribution: it is densest on the face, arms and legs and less dense on the trunk. The small, red, pimplike papules quickly become enlarged vesicles filled first with a clear serum and then, by the fifth day of the rash, with pus. In severe cases the pustules may be so close together, particularly on the face and eyelids, that there is no normal skin: the face is swollen and the patient, now acutely ill, may be unrecognizable. By the 10th day scabs begin to form, and by the third week they fall off, leaving depigmented areas that become pitted, disfiguring scars. Some patients are left blind.

(Scientific American October 1976, Vol. 235, Number 4)

Activity 3

Analogy, cause-effect, description, generalization.

The body's first reaction to falling blood pressure is compensatory--an effort to forestall shock--and this response centers in the arterioles. These hollow tubes are ringed by muscle cells that contract or relax, varying the width of the tube. The normal orchestration of the arterioles is highly complex and entails the input of myriad compounds--including norepinephrine, vasopressin, angiotensin II, dopamine and nitric oxide. As blood pressure falls, some of these actors become involved. Both norepinephrine and angiotensin II, which constrict the arteriole muscles, are secreted into the bloodstream; at the same time, the body halts the secretion of atrial natriuretic peptide, a protein that causes arteriole muscles to relax and the arterioles to dilate. If successful, these maneuvers cause the arterioles in places such as the skin and certain nonessential muscles to constrict, increasing their resistance to the incoming blood; meeting this resistance allows the blood to flow to critical organs such as the brain. To visualize this, imagine a garden hose that branches in two; if one branch constricts, the pressure in and flow through the other branch increases. It is the same with arterioles.

(Scientific American, February 2004, Vol. 290, Number 2)

Activity 4

Which do you think are the predominant rhetorical functions in the following text? Explain

How to clone

Cloning is based on nuclear transfer, the same technique scientists have used for some years to copy animals from embryonic cells. Nuclear transfer involves the use of two cells. The recipient cell is normally an unfertilized egg taken from an animal soon after ovulation. Such eggs are poised to begin developing once they are appropriately stimulated. The donor cell is the one to be copied. A researcher working under a high-power microscope holds the recipient egg cell by suction on the end of a fine pipette and uses an extremely fine micropipette to suck out the chromosomes, sausage-shaped bodies that incorporate the cell's DNA. (At this stage, chromosomes are not enclosed in a distinct nucleus.) Then, typically, the donor cell, complete with its nucleus, is fused with the recipient egg. Some fused cells start to develop like a normal embryo and produce offspring if implanted into the uterus of a surrogate mother.

All the cloned offspring in our experiments looked, as expected, like the breed of sheep that donated the originating nucleus, rather than like their surrogate mothers or the egg donors.

(Scientific American, December 1998, Vol. 279, Number 6)

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That's all folks. If you have any doubt, comment, or suggestion; please do not hesitate to ask your teacher. Alternatively, you can e-mail me.

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