

RST Annotation Guideline

In this guideline, we provide a flowchart to identify which EDU is more important in a sentence pair. We also illustrate in details the RST relations we encounter frequently in students' essay, and explain them with examples extracted from the context of students' writing.

1. Relative Importance

To identify whether two EDUs or spans are equally important, you can use the flowchart in Figure 1.

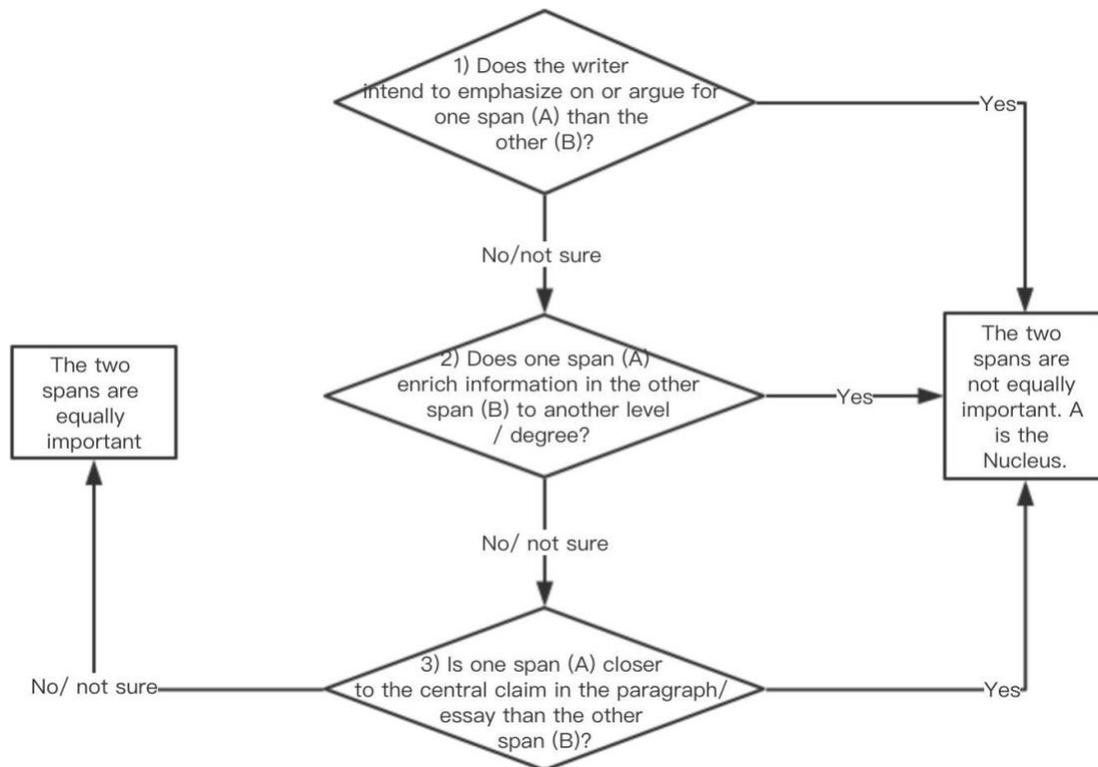


Figure 1. Relative importance

Here is an example in students' essay of identifying the relative importance of EDU A and B in a paragraph using the flowchart in Figure 1.

A: Privacy is an issue that has long been a major point of argument in the United States.

B: Do corporations have the right to take pictures of your vehicles?

Central claim in this paragraph: Both articles call into question the constitutionality of plate scanning, using elements of pathos, ethos, style, word choice, and tone to strengthen their arguments.

First, It's hard to tell whether the writer wants to emphasize on A or B. A is a general claim about privacy and B is a specific question about privacy. We cannot decide using the criteria of writer's intention.

Second, A and B are from different angles of privacy. One EDU is not enriching information for the other EDU to another level. (Note: An example of enriching information is that one EDU is "A wrote a story" and the other EDU is "The story is about ...").

Third, B is closer to the central claim in this paragraph since B points out the central issue in two articles, whether corporations have the right to take pictures of vehicles, while A is a general argument.

Therefore, EDU B is the Nucleus.

2. N-S Relations

2.1 Restatement

This relation is used when one EDU reiterates part of the other EDU. This relation is different from a N-N relation called multinuclear restatement. Multinuclear restatement presents two similar EDUs of equal importance and similar information. However, restatement relation here can present a partial reiteration.

Phrases that can be inserted to connect two EDUs: in other words...

E.g.

A: The invasion of personal information should be strictly prohibited.

B: It's trespassing.

In this example, B restates the part of "invasion of personal information" in A. Therefore, the relation should be restatement and B is the satellite.

E.g.

A: The invasion of personal information should be strictly prohibited.

B: It's trespassing and something needs to be done.

In this example, A and B present similar information. Therefore, the relation should be multinuclear restatement.

2.2 Summary

This relation is used when the writer use one EDU to summarize the whole paragraph. It can be placed either at the beginning or the end of a paragraph.

Phrases that can be inserted to connect two EDUs: in short; in summary...

E.g.

A: In the end, I believe that the second article presented the stronger argument.

B: The second article uses more facts than Sirota's article, citing more information directly from the DRN to show the level to which plate scanning has reached.

C: The author cites that the DRN "operates in conjunction with around 400 repossession outfits across the US, has increased tenfold its plate scans since September 2010, and adds 70 million scans a month" ("Private license plate scanners amassing vast databases open to highest bidders").

D: The argument presented is overall a more compelling and well explored one than its rival.

In this example, A is a summary of the paragraph that includes A, B, C, and D, more specifically, it summarize B,C and D.

2.3 Evidence

The relation is used when the writer makes a claim in one EDU and support the claim with evidence (e.g., facts and information) from any source (e.g., anecdotal experience or authoritative data) in the other EDU.

Phrases that can be inserted to connect two EDUs: In support..., Evidence is..., Proof is...

E.g.

A: The second article uses more facts than Sirota's article, citing more information directly from the DRN to show the level to which plate scanning has reached.

B: The author cites that the DRN "operates in conjunction with around 400 repossession outfits across the US, has increased tenfold its plate scans since September 2010, and adds 70 million

scans a month" ("Private license plate scanners amassing vast databases open to highest bidders").

In this example, A claims that the second article used more facts from DRN while B provides a citation from DRN as an evidence. Therefore, B is the satellite supporting the claim in A and the relation between A and B is evidence.

2.4 Cause

One EDU is the cause of the other.

Phrases that can be inserted to connect two EDUs: Because..., Due to...

E.g.

A: Congress wants to prevent any future terrorist attack from happening.

B: Congress passed the Patriot Act.

In this example, A is the direct reason that B happens, therefore, the relation between A and B is cause.

2.5 Result

One EDU is the result of the other EDU, while the result could be volitional or non-volitional.

Phrases that can be inserted to connect two EDUs: As a result..., In consequence...

E.g.

A: What the government does with this Patriot Act is that they look at what they see on phone.

B: The Patriot Act is supposed to catch anyone do anything like terrorists acts and keep people safe and they had said they didn't find anyone.

In this example, A is about what the government did under the Patriot Act and B is about the actual effect/result of the Patriot Act. B is the result of A. Therefore, the relation between A and B is result.

E.g.

A: With this Patriot Act, the government can look at what they see on phone.

B: The Patriot Act is supposed to catch anyone do anything like terrorists acts and keep people safe and they had said they didn't find anyone.

In this example, A is about what the government can do under the Patriot Act and B is about the actual effect/result of the Patriot Act. B is NOT the result of A although B contains a result.

Therefore, the relation is NOT result. We should CRITICALLY think about whether it's just one EDU has a result component or one EDU is the result of the other EDU. This principle also applies to other relations when we annotate.

E.g. (this example is not from our dataset of student essay)

A: The blast, the worst industrial accident in Mexico's history, destroyed the plant and most of the surrounding suburbs.

B: Several thousand people were injured and about 300 are still in hospital.

In this example, A is about the worst accident and B is about a non-volitional result of the accident. B is a result of A. Therefore, the relation is result.

2.6 Solutionhood

One EDU is the solution of the other EDU.

Phrases that can be inserted to connect two EDUs: as a solution...

E.g.

A: Privacy is a major issue in collecting information from license plates.

B: What the government can do is to collect information and at the same time make sure that the information is not shared with the public without permission.

In this example, A proposes the issue of violating privacy when collecting information while B proposes the solution of ensuring privacy. Therefore, the relation between A and B is solutionhood.

2.7 Evaluation-N and Evaluation-S

The relation is used when the writer uses one EDU to make judgements and evaluations on the other EDU. The judgement or evaluation should come from the writer's understanding and reasoning, instead of others' understanding or common sense. In addition, the judgement or evaluation follows a logic line and tend to be more impersonal and objective. When the judgement or evaluation is N, the relation should be evaluation-N; otherwise, it is evaluation-S.

Phrases that can be inserted to connect two EDUs: Rarely signalled by connectives.

E.g.

A: The author also uses ethos to get people's emotions so they can support his argument.

B: I think that this argument is weak because it does not have a lot credibility as logoi.

In this example, the writer makes judgements about use of ethos to support arguments in A. Since the central claim of this paragraph is about analyzing an article, the judgement EDU B is the nucleus. The relation between A and B is evaluation.

2.8 Interpretation-N and Interpretation-S

The relation is used when the writer used one EDU to make judgements or evaluations on the other EDU. The judgement or evaluation comes from the writer's understanding, instead of others' understanding or common sense. In addition, the judgement or evaluation does NOT follow a logic line (one EDU is not a logical deduction of the other), but tend to be more personal and subjective. When the judgement or evaluation is N, the relation should be interpretation-N; otherwise, it is interpretation-S.

Phrases that can be inserted to connect two EDUs: I think..., My opinion is..

E.g.

A: Personal traits is how he quotes, "The mere fact that an individual has a first Amendment right doesn't mean that right is unlimited. There are circumstances under which the government is free to regulate speech."

B: This quote is very convincing based upon the info being presented to the audience.

In this example, B is more important than A. At the same time, B is an evaluation of A.

Therefore, the relation should be either evaluation-N or interpretation-N. Since the writer does not mention what "the info" represents in B, and this evaluation is more subjective than objective, the relation is interpretation-N.

2.9 Background-2

The relation is used when the writer presents one EDU to foreshadow the presentation of another EDU so that readers can better understand or accept the later-presented EDU.

Phrases that can be inserted to connect two EDUs: Rarely signalled by connectives; sometimes by a colon.

E.g.

A: The other author is RT wrote the article "Private License Plate Scanners Amassing Vast Databases Open to Highest Bidders".

B: In this article he talks about a how license plate can track people and find out a lot of people just by taking a picture of a license plate.

In this example, B is more important than A. We can understand both A and B independently. This is the major difference between background-2 and background-1. In the relation of background-1, It's also about foreshadowing, however, we cannot understand the later EDU without being presented the former EDU. In this example, EDU A shows the title of an article while B shows the content of an article. One does not need to know the title of an article to understand the content of an article. Since the essay is about analyzing the content of an article, B moves the line of argumentation to another level. So the relation is background-2.

E.g.

A: The act should be kept because of many reasons.

B: The first reason is that it can protect people from danger.

C: Another reason is that it can increase people's awareness of potential danger.

In this example, A seems like a summary of B and C. One might use relation of summary in this case. However B and C provide with more information, while A does not explicitly articulate the reasons. Therefore, we also use background-2 to describe the relation.

2.10 Background-1

The relation is used when the writer presents one EDU to help the reader to understand the other EDU.

Phrases that can be inserted to connect two EDUs: Rarely signalled by connectives.

E.g.

A: Sirota ends his essay with a debatable, but conserved concept to figure out his audience within the other side.

B: The point of view is whether or not the license plate is public or inattentive.

In this example, one cannot understand "the point of view" in B without reading A. Therefore, the relation is background-1.

2.11 Justify

The relation is used when one EDU poses a question and the second EDU serves as an answer. This relation is different from the relation of background-1 because background-1 is used when the writer uses one EDU to help the reader to understand the other EDU.

E.g.

A: Are those who are supposed to "provide and protect" the common good actually there for the people's good?

B: In reading this article one could get a definitive answer of: "No."

In this example, A is a question and B is the answer to it. Without understanding A, people can not make sense of B. Therefore A increases reader's readiness to accept writer's right to present B. So A and B are in relation of justify.

2.12 Elaboration

The relation is used when the writer uses one EDU to provide more information in another EDU.

In this relation, the "more information" is satellite.

Phrases that can be inserted to connect two EDUs: Specifically...; in particular...; for example...

E.g.

A: The numbers allow for scanning to come into question.

B: What does the company do with the data obtained through scanning?

C: How often do they scan?

D: Have you been scanned already?

In this example, A is the point that the writer wants to present, while B, C, and D are examples or detailed information in addition to A. Therefore, the relation between these EDUs is elaboration.

2.13 Concession

This relation is used when the writer argues for one EDU (Nucleus) than the other EDU (Satellite). At the same time, the writer acknowledges the claim in the satellite EDU. Usually, the writer presents a violated or failed expectation, and acknowledge the potential or apparent incompatibility between two EDUs.

Phrases that can be inserted to connect two EDUs: although...; but...; still...; despite...; however...

Example:

A: It's refreshing to know that Catherine Crump, the ACLU attorney, understands the invasion of privacy that has been taken.

B: It still doesn't change the fact that it's happening, and action needs to be taken.

In this example, the writer is arguing for B, so B is the more important EDU, thus the Nucleus.

Therefore, the relation should be either concession or antithesis. Also, A-B involves a violated or failed expectation. The fact that authorities notice the invasion of privacy should have led to some changes. However, the invasion of privacy is still active. Therefore, the relation should be concession.

2.14 Antithesis

This relation is used when the writer argues for one EDU (Nucleus) than the other EDU (Satellite). The difference between concession and antithesis is that antithesis does not involve the acknowledgement of the claim in the satellite EDU.

Phrases that can be inserted to connect two EDUs: but; rather; instead; ...

E.g.

A: Corporations argue that they have a right to collect data.

B: However, collecting personal information such as a license plate number can and most likely be considered as identity theft.

In this example, the writer argues for B and B is the Nucleus. Therefore, the relation should be either concession or antithesis. Also, the writer does not acknowledge that companies have the right to collect data as stated in A. Therefore, the relation should be antithesis.

2.15 Preparation

Besides the uncommonly seen situation of relation between title and body text, this relation is used when the first EDU is the generic description and the second EDU is the detailed description.

Phrases that can be inserted to connect two EDUs: in detail..., specifically...

E.g.

A: I have three reasons to be vegetarian.

B: First, it is healthier for people; second, it protects animal; and the third is, it save the earth from global warming.

In this example, A is a generic generalization that the author have three reasons, and in EDU B author listed the three reasons in detail. Therefore, A serves as the preparation for B.

3. N-N Relations

In this section, it involves relation where the two or multiple EDUs are of same or similar importance. Since it is hard to tell which part is nucleus and which part is satellite, these relations are thus called Nucleus-Nucleus relations.

3.1 Multinuclear restatement

The relation is used when the writer presents two similar EDUs.

Phrases that can be inserted to connect two EDUs: in other words; ...

E.g.

A: The DRN attempt to explain their use of the first amendment in saying, "Everyone has a first amendment right to take these photographers and disseminate this information" ("Who has the Right to Track You" Sirota).

B: DRN believes that under the first amendment rights, their corporation has the right to take picture of vehicle license plates in the public and do as they please with this information.

In this example, A and B present similar information. Therefore, the relation should be multinuclear restatement. This differ with the Nucleus- Satellite restatement in that here it is hard to tell which EDU is more important than the other.

3.2 Contrast

The relation is used when the writer presents two EDUs or spans for comparison.

Phrases that can be inserted to connect two EDUs: on the other hand; yet; but; ...

E.g.

A: Sirotta opts for less formal style, using rhetorical questions to get the reader thinking.

B: Sirotta's word choices are a bit more formal when it comes to the legality of the plate scanning, using a lot of law jargon that some readers may not be familiar with.

C: The author of the other article keeps a consistent, formal tone throughout the length of the article, presenting facts and quotes without the use of literary devices that would weaken the formality of the paper.

D: The word choice, for lack of a better phrase, is simple, so that the audience can read and understand the argument of the paper without being confused by a lot of official terms and phrases.

In this example, A and B are about one article while C and D are about another article. They are setting up for a comparison in the choice of tones and words in two articles. Therefore, the relation should be contrast between A-B and C-D.

3.3 Conjunction

The relation is used when the writer used multiple EDUs for a common purpose.

Phrases that can be inserted to connect two EDUs: and; ...

E.g.

A: The numbers allow for scanning to come into question.

B: What does the company do with the data obtained through scanning?

C: How often do they scan?

D: Have you been scanned already?

In this example, B, C, and D are used for a common purpose, serving as examples of questions caused by scanning. Therefore, the relation should be conjunction.

E.g.

A: He includes ethos in the article by including sources like, "We have nothing to do with the actual data collection process," said Chris Metaxas, chief executive of Digital Recognition.

B: "We provide technology to -repossession professionals." he says this to provide credible sources into his article.

C: He also mentions logos such as, "The bill would require law enforcement agencies to scrub their plate data after 48 hours."

In this example, A, B, and C are used for a common purpose, describing three aspects of an article. Therefore, A,B, C are in the relation of conjunction.

3.4 Joint

The relation is used when there was no relations between EDUs, spans, or paragraphs.

If there are some grammatical error in the sentence that prevent you from understanding the meaning, which make it hard to identify relation, we can put the relation as Joint.

E.g.

A: In source 3 the department of justice has charged 310 defendants with criminal charges of terror against the U.S. .

B: They have so many people going through the history of every american to try to find anything that they think is a terrorist plot they are helping to protect the U.S. just by going

In this example, B is ungrammatical, and incomplete which make readers hard to understand the relation between B and A. Therefore, the relation should be joint. In situation that it seems no explicit relations apply, we can use the relation of joint.

