
ISO 24617-8 Annotation Instructions

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1. Introduction

We understand **discourse** (here: text) as a set of **situations** — events, states, facts, propositions which are semantically linked through causal, contrastive, temporal and other **discourse relations**.

For example, consider the sentence:

I am tired because I forgot to drink coffee today.

Here, we observe the state of being tired and the situation of forgetting to drink coffee, which are linked by a **causal relation**. Apart from naming the relation, we also name the role of its arguments, following one of the existing standards (here: ISO 24617-8). In this case, *I am tired* can be annotated as the **RESULT**, and *I forgot to drink coffee today* as the **REASON**. This is just one example of the many types of discourse relations that exist.

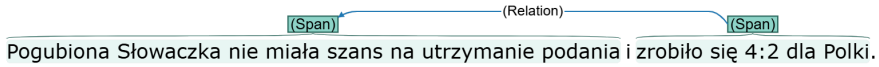
As shown above, some discourse relations are explicitly signaled by **connectives** (conjunctions, adverbial and prepositional phrases, adverbs), such as *because*. However, many relations are **implicit**, lacking overt connectives. For instance, in the example:

I am shaking. It is cold today.

We also observe a causal relation, but this time it is implicit, requiring the annotator to infer the connection between the two discourse units. The discourse relation would then be annotated as **CAUSE**; *I am shaking* would be annotated as **RESULT**; *It is cold today* as **REASON**.

2. The annotation process

Our aim in this task is to annotate discourse relations. To do that, we need to annotate several different elements as well: connectives, argument spans, argument roles. Then, we can annotate discourse relations occurring between arguments.



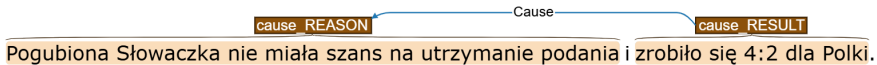
Then, the relation name needs to be selected from the right pane:



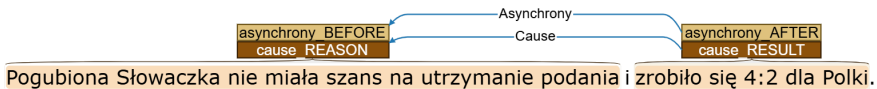
and, similarly, argument roles need to be set by clicking on each SPAN and selecting the role from the right pane:



After this operation, the respective text fragment should carry both relation names and named argument roles:



Multiple relations can be annotated between the same situations. This requires duplicating spans and linking the duplicates with another relation:

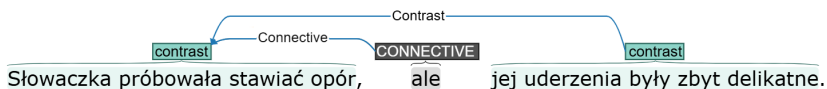


Reference relations (entity relations) are represented as EXPANSION.

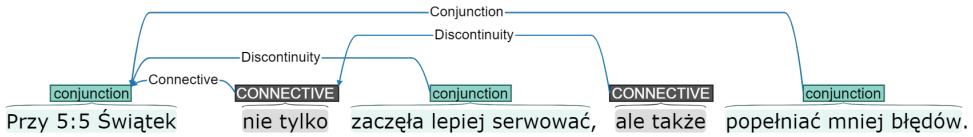
Not all spans in the text must be interconnected.

2.3. Annotating connectives

Connectives are also annotated as spans (role: CONNECTIVE) and then linked to the first argument of a relation they correspond to with a CONNECTIVE type relation:



Discontinuous connective spans are allowed and should be annotated with DISCONTINUITY relation between connective fragments (similarly to discontinuous situation spans):



When a connective (or its part) occurs in the middle of the situation span, it should split it into discontinuous fragments, When it appears outside the argument span, it should not be included in the span.

3. Discourse relations

Discourse relations are **meaning relations between discourse units**. They link two situations/arguments (state, event, fact, proposition, or dialogue act). Each argument of a discourse relation is assigned an interpretation or role.

We annotate discourse relations to improve our **understanding of discourse structure** and **be able to explain various linguistic problems**. We divide discourse relations into two main types:

- *implicit* = not signaled linguistically, or
- *explicit* = identified through some *connective*, in other words some linguistic marker for example a word, a lexical expression, tense, mood, aspect, syntactic structure.

This is an example of an implicit relation: *She drank a gallon of coffee. She felt tired after 5 hours of annotating discourse relations*. How should we annotate implicit relations?

1. Mark the argument spans and choose their argument roles.
2. Draw an arrow from Argument 2 to Argument 1.
3. Choose the appropriate relation name.

This is an example of an explicit (signalled) relation: *She drank a gallon of coffee because she felt tired after 5 hours of annotating discourse relations*. How should we annotate implicit relations?

Here, we would identify a connective/a linguistic marker *because*. Argument 1 would be *She drank a gallon of coffee*. Argument 2 would be *she felt tired after 5 hours of annotating*.

The relation name between Argument 2 and Argument 1 would be Cause.

How should we annotate explicit relations?

1. Mark the connective. If it is discontinuous, which means that..., you should...
2. Mark the argument spans and choose their argument roles.
3. From the connective, draw an arrow to Argument 1, and then, from the same connective, draw another arrow to Argument 2. *This would connect our connective with arguments*.
4. Draw another arrow from Argument 2 to Argument 1. Choose the appropriate relation name.

3.1. Relation inventory

Relation	Symmetry	Definition
Cause	Asymmetric	Arg2 is an explanation for Arg1.
Condition	Asymmetric	Arg2 is an unrealized situation which, when realized, would lead to Arg1.
Negative condition	Asymmetric	Arg2 is an unrealized situation which, when “not” realized, would lead to Arg1.
Purpose	Asymmetric	Arg2 is the goal or purpose of the situation described by Arg1.
Manner	Asymmetric	Arg2 describes how Arg1 comes about or occurs.
Concession	Asymmetric	An expected causal relation between Arg1 and \neg Arg2 is canceled or denied by Arg2.
Contrast	Symmetric	One or more differences between Arg1 and Arg2 are highlighted with respect to what each predicates as a whole or to some entities they mention.
Exception	Asymmetric	Arg2 indicates one or more circumstances in which the situation(s) described by Arg1 does not hold.
Similarity	Symmetric	One or more similarities between Arg1 and Arg2 are highlighted with respect to what each predicates as a whole or to some entities they mention.
Substitution	Asymmetric	Arg1 and Arg2 are alternatives, with Arg2 being the favored or chosen alternative.
Conjunction	Symmetric	Arg1 and Arg2 bear the same relation to some other situation evoked in discourse. Their conjunction indicates that they both hold with respect to that situation.
Disjunction	Symmetric	Arg1 and Arg2 bear the same relation to some other situation evoked in discourse, explicitly or implicitly. Their disjunction indicates that they are alternatives with respect to that situation, with the disjunction being non-exclusive so that both Arg1 and Arg2 may hold.
Exemplification	Asymmetric	Arg1 describes a set of situations; Arg2 describes an element of that set.
Elaboration	Asymmetric	Arg1 and Arg2 are the same situation, but Arg2 contains more detail.
Restatement	Symmetric	Arg1 and Arg2 describe the same situation, but from different perspectives.
Synchrony	Symmetric	Some degree of temporal overlap exists between Arg1 and Arg2. All forms of overlap are included.
Asynchrony	Asymmetric	Arg1 temporally precedes Arg2.
Expansion	Asymmetric	Arg2 is a situation involving some entity/entities in Arg1, expanding the narrative forward of which Arg1 is a part, or expanding on the setting relevant for interpreting Arg1. The Arg1 and Arg2 situations are distinct.

CAUSE

Examples:	Nie wykonali zadania w terminie więc zostali wezwani do kierowniczkii. [REASON: Nie wykonali zadania w terminie] [CONNECTIVE: więc] [RESULT: zostali wezwani do kierowniczkii]
Markers³:	PL: albowiem; bo; bowiem; dlatego; dlatego że; i dlatego; ponieważ; więc; wskutek; w wyniku czego

CONDITION

Examples:	Gdyby pogoda była lepsza, mogłaby wyjść na rower. [CONNECTIVE: Gdyby] [ANTECEDENT: pogoda była lepsza] [CONSEQUENT: mogłaby wyjść na rower] Jeśli nie będzie świecić słońce, to nie wyjdę na rower. [CONNECTIVE: Jeśli] [ANTECEDENT: nie będzie świecić słońce] [CONNECTIVE: to] [CONSEQUENT: nie wyjdę na rower]
Markers:	PL: gdyby... , to... ; jak... , to... ; jeśli... , to... ; ... , kiedy... ; na wypadek... , ... ; w przypadku gdy... , to...

NEGATIVE CONDITION

Examples:	Nie pójdziemy na plażę, chyba że będzie ciepło. [NEGATIVE-ANTECEDENT: Nie pójdziemy na plażę] [CONNECTIVE: chyba że] [CONSEQUENT: będzie ciepło]
Markers:	PL: chyba że

³These are just examples of possible connectives that can be used to link two or more arguments. Remember that arguments DO NOT have to be linked with a connective and you should pay special attention to implicit relations. Remember that if you spot one of these connectives, it does not mean that this relation is definitely CAUSE – there are more possibilities.

PURPOSE

Examples:	Idź do babci, żeby dała ci 20 złotych. [ENABLEMENT: Idź do babci] [CONNECTIVE: żeby] [GOAL: dała ci 20 złotych]
Markers:	PL: aby; poprzez (zrobienie czegoś); więc; w ten sposób; żeby

MANNER

Examples:	Udowodniła swoją skuteczność poprzez udaną realizację wielu zadań. [ACHIEVEMENT: Udowodniła swoją skuteczność] [CONNECTIVE: poprzez] [MEANS: udaną realizację wielu zadań]
Markers:	PL: ... w ten sposób...; ... w taki sposób, że..., poprzez...

CONCESSION

Examples:	Mimo że ciężko pracowali, nie udało im się dostać podwyżki. [CONNECTIVE: Mimo że] [EXPECTATION-RAISER: ciężko pracowali] [EXPECTATION-DENIER: nie udało im się dostać podwyżki]
Markers:	PL: a jednak; a mimo wszystko; chociaż..., to jeszcze nie...; choć; natomiast; ...; mimo to...; ..., mimo że...; pomimo że..., ... , ale

CONTRAST

Examples:	Jedni chwalą ją za bycie świetną liderką, inni zaś krytykują ją za despotyczną postawę. [CONTRAST 1: Jedni chwalą ją za bycie świetną liderką] [CONTRAST 2: inni] [CONNECTIVE: zaś] [CONTRAST 2: krytykują ją za despotyczną postawę]
Markers:	PL: ale; podczas gdy; z drugiej strony

EXCEPTION

Examples:	Wszystkie studentki musiały napisać test, z wyjątkiem tych sprytniejszych, które zdobyły zwolnienie lekarskie. [REGULAR: Wszystkie studentki musiały napisać test] [CONNECTIVE: z wyjątkiem] [EXCLUSION: tych sprytniejszych, które zdobyły zwolnienie lekarskie]
Markers:	PL: z wyjątkiem tego, że; z zastrzeżeniem, że

SIMILARITY

Examples:	Podobnie jak jego żona, lubił sobie podjadać po 18:00.
	[CONNECTIVE: Podobnie jak] [SIMILARITY: jego żona] [SIMILARITY: lubił sobie podjadać po 18:00]
Markers:	PL: podobnie jak; tak jak

SUBSTITUTION

Examples:	Zamiast pójść na spacer, postanowiła zostać w domu i napisać instrukcję anotacyjną.
	[CONNECTIVE: Zamiast] [DISFAVOURED ALTERNATIVE: pójść na spacer] [FAVOURED ALTERNATIVE: postanowiła zostać w domu i napisać instrukcję anotacyjną]
Markers:	PL: ..., raczej niż...; ..., zamiast...

CONJUNCTION

Examples:	<i>Karol wreszcie dostał finansowanie z projektu.</i> Kupił nowego laptopa i wybrał nowoczesne akcesoria.
	[CONJUNCTION: Karol kupił nowego laptopa] [CONNECTIVE: i] [CONJUNCTION: wybrał nowoczesne akcesoria]
Markers:	PL: i; i co więcej; a; ale także; oraz; zaś

DISJUNCTION

Examples:	<i>Mam dla Ciebie ofertę pracy. Albo teraz się zdecydujesz na pracę przy tworzeniu rodzimych technologii, albo stracisz tę okazję na zawsze.</i>
	[CONNECTIVE: Albo] [DISJUNCTION: teraz się zdecydujesz na pracę przy tworzeniu rodzimych technologii] [CONNECTIVE: albo] [DISJUNCTION: stracisz tę okazję na zawsze]
Markers:	PL: albo; albo..., albo...

EXEMPLIFICATION

Examples:	Ludzie robią różne rzeczy, żeby polepszyć swój materialny byt. Na przykład grają na loterii.
	[SET: Ludzie robią różne rzeczy, żeby polepszyć swój materialny byt] [CONNECTIVE: Na przykład] [INSTANCE: grają na loterii]
Markers:	PL: ..., czego dowodzi...; ..., na przykład...; ... w szczególności...; ... w tym...

ELABORATION

Examples:	To jest po prostu zadanie dla geniuszy. Ściślej mówiąc, wymaga naprawdę niesamowitych umiejętności z zakresu Machine Learningu.
	[BROAD: To jest po prostu zadanie dla geniuszy] [CONNECTIVE: Ściślej mówiąc] [SPECIFIC: wymaga naprawdę niesamowitych umiejętności z zakresu Machine Learningu]
Markers:	PL: faktycznie; mianowicie; w istocie; w szczególności; ściślej mówiąc

RESTATEMENT

Examples:	Jest bardzo zajęty, czyli nie ma teraz czasu. [RESTATEMENT 1: Jest bardzo zajęty] [CONNECTIVE: czyli] [RESTATEMENT 2: nie ma teraz czasu]
Markers:	PL: innymi słowy; inaczej mówiąc

SYNCHRONY

Examples:	Gdy wszyscy spali, zdeorientowany nietoperz wtargnął z impetem do sypialni. [CONNECTIVE: Gdy] [SYNCHRONY 1: wszyscy spali] [SYNCHRONY 2: zdeorientowany nietoperz wtargnął z impetem do sypialni]
Markers:	PL: gdy; i jednocześnie; kiedy; podczas gdy

ASYNCHRONY

Examples:	Po tym, jak skończyła anotować pierwszą partię tekstów, uznała, że warto wyjechać w Bieszczady. [CONNECTIVE: Po tym, jak] [BEFORE: skończyła anotować pierwszą partię tekstów] [AFTER: uznała, że warto wyjechać w Bieszczady]
Markers:	PL: a wtedy; aż do momentu, gdy; po tym, jak; zanim

EXPANSION

Examples:	Kupiłam nową książkę. Czasami lubię czytać kryminały. [NARRATIVE: Kupiłam nową książkę] [EXPANDER: Czasami lubię czytać kryminały]
Markers:	PL: i

4. Annotation decisions: Expansion vs. Elaboration

Some discourse relations may have less clearly defined boundaries, leading to confusion during annotation.

Proposed Resolution: Refine the definitions by incorporating distinguishing features of those discourse relations, such as temporal characteristics (e.g., temporal inclusion for ELABORATION). Develop a decision tree or prioritization guidelines to aid in assigning relations consistently.

EXPANSION occurs when a new piece of information is added, but it is loosely related to the first argument. The second argument does not explain or specify the first one but simply extends the narrative.

ELABORATION, on the other hand, provides further details, explanations, or examples that clarify the first argument.

4.1. Example 1

EXPANSION:

Kupiłem nowy telefon. W moim mieście otworzyli nowy sklep z elektroniką. *(Two separate facts; the second does not explain the first one but adds a loosely related piece of information.)*

ELABORATION:

Kupiłem nowy telefon. Ma duży ekran i świetny aparat fotograficzny. *(The second sentence adds more details about the first one.)*

4.2. Example 2

EXPANSION:

Wyszedłem z domu. Na ulicy było dużo samochodów. *(Two observations, but the second does not elaborate on the first.)*

ELABORATION:

Wyszedłem z domu. Byłem ubrany w białą koszulę i kowbojki. *(The second sentence provides more details about the first action.)*

4.3. Example 3

EXPANSION:

Przeczytałem interesujący artykuł. Moja znajoma jest dziennikarką. *(Two separate statements; the second one does not explain the first but introduces a new, loosely related fact.)*

ELABORATION:

Przeczytałem interesujący artykuł. Opisywał nowe technologie w medycynie. *(The second sentence explains what the article was about.)*

Table 2: Comparison of EXPANSION and ELABORATION

Relation	Definition	Key difference	Examples
EXPANSION	The second segment adds new information, but is loosely related to the first.	The second segment does not clarify the first, but adds further facts.	I bought a new phone. A new electronics shop has opened in my town.
ELABORATION	The second segment provides more details, explanations or examples for the first.	The second segment clarifies or elaborates on the first.	I bought a new phone. It has a large screen and a great camera.

FAQ

1. **Can an argument span more than one sentence?**
Yes.
2. **Is it possible that there is no relation between sentence A and the subsequent sentence B?**
Yes.
3. **Can I assign more than one relation to a pair of sentences?**
Yes.
4. **Do relations have to be explicitly signaled by connectives?**
No.
5. **What should be done if a relation concerns a larger fragment of text, not just two sentences?**
Mark the entire fragment.
6. **Can arguments be discontinuous?**
Yes.

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