

GUMBridge: Bridging Annotation & Classification Guidelines

Introduction to Bridging Anaphora:

Bridging is an anaphoric phenomenon which occurs when **the reference of one entity is dependent on a previous associated, non-identical entity for interpretation**. An instance of bridging consists of an antecedent-anaphor pair, where understanding the anaphor first requires the understanding of the associative, non-identical antecedent. The anaphor in this pair is referred to as the bridging anaphor. Consider the following example:

There is a house on the hill. **The door** is red.

In this example, the anaphor **The door** is understandable as a specific door (the door of the house) only when the associative antecedent, a house, is first interpreted. This is an instance of bridging via the part-whole lexical relation (meronymy) between the words “house” and “door”. Beyond the part-whole relation, there are a variety of ways that bridging can be realized in a discourse. The different varieties we are aiming to capture in this project are outlined in the [subtype classification overview](#) and detailed in the [bridging subtypes](#) section below.

In this project, we will be using an **information status** informed view to identify instances of bridging. The information status (IS) of an entity refers to the extent to which an entity is accessible to the reader/hearer of a discourse. Broadly speaking, an entity is either New, Given, or Accessible. A New entity has not been mentioned before and is unfamiliar to the reader/hearer in the context of the discourse, while a Given entity has been mentioned before and is thus familiar to the reader/hearer. An **Accessible** entity has **not been mentioned before but is inferable for a reader/header in the discourse**. For example, in the following sentences:

John has bought [a house]_{new}. [The house]_{giv} is very nice. When the sun_{acc} is high, the windows_{acc:bridge} get a lot of light.

- “a house” is new; the reader has no reason to expect its mention or a preceding entity to connect it to
- “the house” is given; it is the second mention of an already introduced entity “a house”
- “the sun” is accessible; it is contextually recognizable world knowledge
- “the windows” is accessible due to bridging; their referent is inferred to be the windows of the house

A bridging anaphor is accessible to the reader/hearer from its **first** mention in the text, specifically because of its relationship with its associative antecedent. In other words, for the purposes of this project, **bridging occurs when an entity is Accessible via an inference**

from a previous non-identical entity in the discourse, like “the windows” in the example above.

In English, newly introduced definite entities are a common signal of an instance of bridging, but bridging anaphora are **not** limited to definite entities. **Indefinite entities** can also be instances of bridging if they are in some way inferrable upon their introduction (e.g., via comparative markers “a plan” → “a better plan”). Additionally, newly introduced definite entities with a descriptive adjunct/relative clause or prenominal modifier are common and typically **not** instances of bridging (e.g., “the psychology exam” or “the man who I saw” may be introduced as New entities, despite being definite - however, see more on [relative clauses modifying candidate bridging anaphora](#)). For bridging to occur, the link to the antecedent entity is crucial.

As noted in the information status guidelines of the GUM corpus, there are some definite NPs (noun phrases) that are not considered Accessible and should be considered discourse New (and thus not a candidate for bridging), even if a speaker/reader could generally assume to have knowledge of them. For instance:

[an Officer in [the [United States]_{new} Air Force]_{new}]_{new}

Although the US is definite and “well-known” it is considered New on first mention, like any country introduced into the common ground. The officer is New (and indefinite), and though the reader/hearer may know what “the US Air Force” is, it still needed to be introduced into the discourse model, so its IS is New, much like the introduction of a proper name that we know.

In the same way, the first mention of [Barack Obama]_{new} is tagged as New, even though his identity is available to many readers/hearers. This is because newness refers to the introduction into the discourse model, while accessibility suggests that something is already highly salient by participating in the current situation.

Generally, if you can find a wikipedia article with a title that matches the string of your candidate bridging anaphor exactly, it is not an instance of an accessible entity, but a New entity understood from general world knowledge, and therefore cannot be an instance of bridging. However, even if the entity itself has a Wikipedia entry, it may still be considered an instance of bridging if some previous entity in the discourse allows the reader/hearer to distinguish it (e.g., “House of Representatives” bridging from “United States”, even though it is the case that “United States House of Representatives” has a Wikipedia entry.).

There are also some common scenarios to point out which we **do not consider to be bridging**:

- **Coreference**: If an entity has a previous mention, it **cannot** be an instance of bridging, even if it has an associative relationship with a previous non-identical entity, because it already has an IS of Given at that point in the discourse.
- **Bridging-contained**: If the associative antecedent is a direct modifier in the NP of the potential bridging anaphor, e.g. “**the focus of the story**” or “**two of them**”, it should not be

annotated as bridging. In other words, the antecedent must be outside of the nominal phrase containing the anaphor.

- **Generics/Situational bridging:** Entities that are accessible due to general world knowledge or situational context are not considered instances of bridging, i.e., if it doesn't have an associated antecedent to be bridging from, it cannot be bridging. For example "the salt" in "pass the salt please" is accessible in the situation, but not inferable by back reference to some antecedent. Indexical expressions ("I", "you", "here", etc.) are also not considered bridging.
- **Possession with an explicit possessive:** If the potential bridging anaphor contains an explicit possessive which corefers with the associative antecedent, no bridging relation is necessary. Explicit coreference between the associative antecedent and the possessive is sufficient (e.g., [Mark]...[[his] house] → no bridging, coreference between "Mark" and "his"). Contrast this with [the family] ... [the house] → bridging, since we cannot interpret which house it is (the house of the family) without referring to "the family", which is outside of the anaphor phrase.

Annotation Procedure: Identifying Bridging Anaphora

Note: This project relies on the entity and coreference annotations existing in GUM. Do not make any alterations to these annotations.

Read through the document sentence by sentence. For each sentence, first read through the whole sentence to understand the context (In GitDox, you can do this first read through with first mentions highlighted to quickly identify which entities are candidates for bridging). Then reread the sentence, pausing at the end of each entity. For each entity, consider the following criteria to determine whether it is a bridging anaphor:

1. Do you judge this entity to be **Accessible** in the discourse in the sense described above? Accessible entities have not been mentioned before, but the reader/listener is supposed to know that they exist. For example:

Mary went to a wedding. **The bride** was very beautiful.

The read/listener can infer the probable existence of a bride when encountering "a wedding", so when the entity "the bride" is encountered, it is resolved as the bride of the aforementioned wedding.

2. Does the accessibility of the entity rely on the **understanding of a previous entity** in the discourse? If so, identify that previous entity's most recent mention. If there are multiple previous entities which could reasonably be considered to be the associative antecedent, select the one which is **nearest** to the candidate bridging anaphor.

For instance, in the following example, the accessibility of the bolded entity "the driver" derives from the previous underlined mention, "a yellow bus":

A yellow bus pulled up, and **the driver** opened the bus doors.

The reader/listener resolves “the driver” to specifically be the driver of the yellow bus. “the bus doors” is not considered a bridging anaphor because the reference to the bus is made explicitly in the entity NP through the modifier “bus” inside of “bus doors”.

However, in the first example below, the bolded entity is accessible, but does not rely on a previous entity interpretation. “The moon” is resolvable as a specific entity from generic world knowledge:

John wants to become an astronaut and go to the moon.

3. Check that your candidate bridging anaphor does not fall into the “not considered to be bridging” categories described in the section above (coreference, bridging-contained, generics, explicit possession). The following examples illustrate these briefly:

Coreference

[Catherine] and Henry had their wedding last week. [The bride] was very beautiful.

Even though there is an associative relationship between the wedding and the bride, since “the bride” corefers with “Catherine”, which has already been introduced to the discourse, “the bride” is not eligible to be an instance of bridging. (In GitDox, use the “highlight first mentions” button to check.)

Bridging-contained

Mary has a big house. The door of the house is red.

As the reference to the house is explicitly made in the NP “the door of the house”, it is not an instance of bridging.

Generics/world knowledge

John loves to watch clouds in the sky.

“The sky” is accessible via world knowledge (not a previous entity), so it is not considered bridging (it is not thanks to mention of the clouds that we understand

what “the sky” is - we would interpret it in the same way even if clouds had not been mentioned).

However, it may be the case that a **context** allows for what is typically considered a **generically Accessible** entity to be an instance of bridging:

I want to go to Mars. I bet **the sky** would appear very different.

It can be difficult to tell whether an entity is truly a “generic” reference (and thus independently understandable), or if it is understandable based on a previous entity. For simplicity: if there is a **definite “generic” entity** (“the street”, “the day”, “the office”, etc.) and there is **any** previous entity in the discourse that it could be a reasonable bridging antecedent, **mark it as an instance of bridging**.

To determine if something is a “reasonable bridging antecedent” in this situation: If you have a candidate bridging anaphor that is a generic definite entity “the X” and a candidate associative antecedent “Y”, ask the question “which X?”. If Y is a reasonable associative antecedent, the answer should be “the X of Y”.

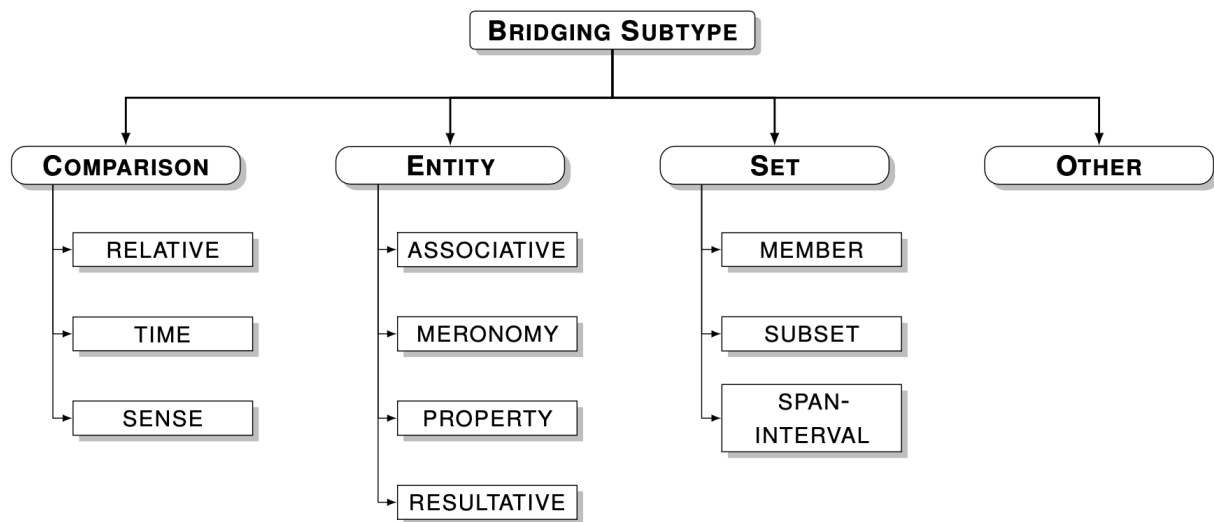
Possession

[John] drove [his] car to work.

The possession relationship between John and the car is made explicit in the NP “his car” through the possessive pronoun “his”, which corefers with “John”. Therefore, “his car” is not a bridging anaphor.

If your entity passes **all three** of the above criteria, it is a bridging anaphor and the previous entity is its associative antecedent.

Bridging Subtype Overview:



Bridging Subtypes:

Bridging subtypes are descriptive categories for how an instance of bridging manifests in a discourse. As such, **multiple subtypes** can be applied to a single instance of bridging. A description of each subtype is included below with examples. When multiple subtypes apply to an example, it is noted. An additional section on [multi-subtype examples](#) is included at the end.

comparison

The anaphor is interpretable via a comparison to the antecedent (or vice versa).

comparison-relative

The anaphor is preceded by a descriptor which implies a comparison to the antecedent (or vice versa). This includes:

(1) comparative markers (other, another, same, different, more, such, that kind, etc.):

Several women walked into the room. **Other women** soon followed.

(2) ordinals (first, second, etc.):

Several women walked into the room. **The first woman** was tall.

Note: The above should additionally be annotated with the **set-member** subtype.

(3) comparative adjectives (larger, smaller, etc.):

I took a picture of a group of women. **The shorter women** stood in front.

Note: The above should additionally be annotated with the **set-subset** subtype.

(4) superlatives (the best dog, the worst, etc.):

Several women walked into the room. **The tallest** entered first.

Note: The above should additionally be annotated with the **comparison-sense** and **set-member** subtypes.

Please note: An **indefinite** entity with any of the above markers in 1-4 can also be an instance of bridging. For instance:

One woman was sitting at the table. **A second woman** soon joined her.

In the examples above, the bridging anaphora create an “ellipsis of the compared” which can generally be explicitly constructed by adding a “than” or “as” phrase containing the antecedent to the anaphor (if this phrase is already present, it is a case of bridging-contained, and it does not need to be annotated as bridging). In example (1) above, “besides those women that previously entered the room” could be added after “Other women”. Notably, the lexical head is present in the anaphor (“women”, in the above example).

In the case that a comparative modifier is present on a new entity which is not directly in contrast with a previous entity in the discourse, but instead in contrast with an assumed/related element of a previous entity, the subtype **entity-associative** can be applied in addition to **comparison-relative**:

I don't like **the house we saw yesterday**. I want to see a house with a **better floor plan**.

comparison-sense

The type of the anaphor is omitted but inferable via comparison to the antecedent (or vice versa) (also called “sense anaphora”). For example:

Several women walked into the room. **One** left immediately.

Note: The above should additionally be annotated with the **set-member** subtype.

I've been to the Chinese restaurant. I want to go to **the Italian one**.

The nominal version of comparative markers (others, another (by itself, without a lexical head)) are included here as well as under **comparison-relative**.

For example:

I went to an Italian restaurant for the first time. I want to go to **others**.

Words like “instance”, “example”, etc., can be **comparison-sense** if the type of the instance of example is omitted:

There are many interesting animals. To give **an example**, giraffes.

The antecedent should be the answer to the question, “an instance/example of what?”

comparison-time

The anaphor refers to a specific time/timeframe which is understandable with reference to the time/time frame expressed by the antecedent (or vice versa), (e.g., today → next week, this year → 10 years later). For example:

I don't have a lot going on in May, but I have a big trip planned in **June**.

I went shopping Wednesday, March 3rd. I will go again **the following Wednesday**.

Note: The above example should also be annotated as **comparison-relative** due to the inclusion of the comparative modifier “following”.

If a year appears in a discourse, a date or month of that year that appears later in the discourse should be labeled with **set-span-interval** as well as **comparison-time**:

An important election was held in 2020. The election was in **November**.

Please note: In GUM, there is some inconsistency with the span of entity boxes for relative time periods, such as “six months later”. Sometimes “later” may be included in the span, and other times it may not be. For this project, do not alter the entity spans. In the case that “later” is included in the span, it should be considered a **comparison-time** instance of bridging and should also be annotated as **comparison-relative**. If “later” is not included in the span, it should not be annotated as an instance of bridging:

I went to the dentist in January. I had to go again **six months later**.

However:

I went to the dentist in January. I had to go again **six months** later.

entity

The anaphor is an attribute or associated entity of the antecedent (or vice versa). This associated attribute/entity may be necessary, probably, or inducible from the specific context of the discourse.

entity-meronymy

The anaphor is a subunit of the antecedent (or vice versa) (there is some part-whole relation between the anaphor and the antecedent). This includes:

(1) physical subparts:

I saw a large house. **The door** was red.

People are fascinating. **The brain** can do so many things.

(2) substance-portion relations:

I got some essential oils. Just **two drops** is very fragrant.
Also comparison-sense

(3) regions/subsections (the left, the edge, etc.):

Look at this graph. **The right** shows the hypothesis and **the left** shows the results.

entity-property

The anaphor is a physical or intangible property (e.g., smell, length, size, style, etc.) of the antecedent (or vice versa). For example:

I picked up a bouquet of roses. **The scent** was lovely.

Expressions like “this/that kind/type/variety” can be given the **entity-property** subtype:

I love sports cars. Anything of **that type** is cool to me.

When you ask the question “what type?”, the answer is “the type that is the same as the type of a sports car”. In the same way, you might say, “the size that is the same as the size of a sports car”. So we see that “type” is a property of “sport car”.

entity-resultative

The anaphor is logically inferable as existing as a result of the antecedent (or vice versa). This includes:

- (1) transformed/transmuted version of the antecedent entity:

Though my flour had a strange texture, **the bread** came out perfectly.

- (2) the entailed result of the antecedent event:

A tomato fell off the table. **The splatter** was terrible.

- (3) the reason/cause of the anaphor:

The committee put a new policy into place. **The reaction** was very negative.

entity-associative

The anaphor is an attribute or closely associated entity of the antecedent (or vice versa). An entity relation that does not fit in one of the previous categories should be given this label.

This frequently manifests as:

- (1) implicit arguments of a predicate (including VPs if they are marked as entities):

There was a murder last night. **The victim** has yet to be identified.

Last week, John got married. **The bride** was very beautiful.

The implicit arguments of a predicate (those which do not appear in the same clause as the predicate) should be annotated as a bridging anaphor if they occur after the predicate in an accessible manner. If multiple arguments occur after the predicate, they should all be annotated as bridging anaphora, all with the predicate as the bridging antecedent.

- (2) verbal nominalizations:

Next month, the local theater will put on a play. I am looking forward to **the performance**.

The nominalization of a verb whose arguments are missing from the NP in which it appears should be annotated as a bridging anaphor if one or more of its arguments appears earlier in the discourse. In the case that multiple arguments occur before the NP in which the

nominalization occurs, when selecting the antecedent, give preference to the argument that falls into the following semantic-role categories in this order:

1. patient or theme
2. recipient, instrument, etc. (anything besides agent)
3. agent

If there are multiple candidate antecedents within one of the 3 semantic-role groupings above, select the one that occurs nearest to the bridging anaphor. In the example above, “the local theater” and “a play” are both arguments for “the performance”, but “a play” was selected as the bridging antecedent because it is the patient/theme of “the performance”.

(3) relational nouns, a noun whose lexical meaning expresses how it relates to another entity, frequently conveying a social role, including kinship and organizational roles (e.g., murderer → victim, company → ceo, business → customer):

There is a child in the park. **The parent** must be nearby.

(4) prototypical/inducible association (e.g., book → publication, teaching → class):

I went to a wedding last week. **The reception** was really fun.

I helped clean my school. **The attic** was a mess.

In the above examples, “a wedding” prototypically has “a reception”, and while “a school” does not prototypically have “an attic”, it is clear from the context that this one does.

(5) non-explicit possession, when it is inferred from the discourse that the anaphor is belongs to/is in the domain of the antecedent:

At the end of a long week where you have had no time to clean, **the house** is probably a mess.

A definite “generic” entity (“the street”, “the day”, “the office”, etc.) can be annotated as an **entity-associative** instance of bridging if there is an associative antecedent that further specifies the “generic” entity via an inducible association or non-explicit possession. In other words, if you have a candidate bridging anaphor that is a “generic” definite entity “the X” and you ask the question “which X?”, if there exists a Y such that “the X of Y” is a reasonable answer to the question, you can annotate X and Y as an **entity-associative** instance of bridging:

The most just city is Wilmington. No one is above **the law**.

set

There is a set relation between the bridging anaphor and antecedent.

set-member

The anaphor is an element of the antecedent set (or vice versa). This includes:

(1) lists/examples:

The hotel has several amenities, including **the pool, the exercise room, and the business center**.

(2) groups → members:

I like the Georgetown soccer team. **The goalie** is very talented.
could also be entity-associative

(3) indefinite member → definite plural set:

I put a candle on each cupcake. I will light **the candles** later.

(4) plural set → particular member of the set:

I got several books for my birthday. **The mystery novel** was my favorite.

(5) class → instance:

The dealership sells several cars. **The sedan** is the most popular.

Please note: If all of the instances of a set/group are enumerated, and there is a coreference link between the full list and the antecedent set, it is not necessary to mark anything as bridging.

set-subset

The anaphor is a subset of the antecedent set (or vice versa) For example:

A group of students entered the hall. **The boys** wore neckties with their uniforms.

Plural versions of the categories described above in the **set-member** section should be included here.

set-span-interval

The anaphor is a sub-span of the **spatial** or **temporal** antecedent interval (or vice versa). This includes:

(1) sub-span of a time period (e.g., several days/weeks/months in a week/month/year):

I am very busy in August. I will be out of town **the 21st through the 27th**.

(2) a subsection of a day (e.g., morning, night):

If you want to meet up on Sunday, I will be free in **the morning**.

(3) intervals of distance:

I will drive a great distance tomorrow. **50 miles** will be through the desert.

If a year appears in a discourse, a date or month of that year that appears later in the discourse is considered a **set-span-interval** instance of bridging.

1969 was an important year. Man first walked on the moon on **July 20th**.

This is also the case for month and date, or similar instances:

My birthday is in August. My birthday party will be on **the 24th**.

Anything relating to dates/times can also be given the **comparison-time** subtype, which includes the previous 2 examples and also the examples in (1) and (2) above.

other

The anaphor and antecedent fit the criteria for identifying a bridging pair, but do not fall into any of the bridging subtypes detailed above. This may include near identity relations which are not annotated as coreference, such as:

(1) name metonymy: a single name referring to multiple facets of a complex entity (e.g., USA first referring to the country as an organization then to the landmass as a place). In GUM, such instances are given different entity types and this cannot be placed in a single coreference cluster. If you see entities which seem to refer to the same thing but are not a single cluster because their mentions have different entity types, the first mention of the second entity can be linked back to the most recent mention of the first as a bridging pair and given the subtype **other**.

(2) spatio-temporal dissimilation: when “the same” entity is split on spatial or temporal characteristics. (e.g., the same house in different time periods)

(3) metareference: reference back to a name or label. For example:

I went to Sensational Cakes yesterday, but I didn't think **the cakes** were very good.

Application of Multiple Subtypes

The criterion for identifying instances of bridging is anaphoric, relying on information status and resolution back to an associative antecedent, and the subtype labels merely allow us to understand how the phenomenon manifests in a discourse. As such, multiple subtypes can be applied to a single instance of bridging simultaneously (the following examples are compiled from various previous sections).

The **set** relations may co-occur with other relations frequently in the case of there being a hierarchical relationship between the entities, in addition to a comparative or associative relationship. Here is an example where both **comparison-sense** and **set-member** apply:

Several women walked into the room. **One** left immediately.

In the above example, the one woman is a member of the set of several women, and the type of the one woman is omitted in the bridging anaphor, so both subtypes apply.

In cases where there are additional comparative adjectives in the bridging anaphor, **comparison-relative** can be applied in addition to another relevant subtype. For instance, the example below should be annotated with both **comparison-relative** and **comparison-time**:

I will come to visit this week, as I could not come **the previous week**.

The following is an example of that can be annotated with **comparison-relative**, **comparison-sense**, and **set-member**:

Several women walked into the room. **The tallest one** entered first.

In the case that a comparative modifier is present on a new entity which is not directly in contrast with a previous entity in the discourse, but instead in contrast with an assumed/related element of a previous entity, the subtype **entity-associative** can be applied in addition to **comparison-relative**:

I don't like the house we saw yesterday. I want to see a house with a **better floor plan**.

Any **set-span-interval** instance relating to dates/times can additionally be given the **comparison-time** subtype, as in the following example:

An important election was held in 2020. The election was in **November**.

Genre Specific Considerations:

Academic

In academic citations are often in the format: (last_name et al.). In GUM, “al” is annotated as an entity of type “person”, as it is Latin for “others”. As such, it should be annotated as a bridging anaphor, subtypes **comparison-relative** and **comparison-sense**, with the first author as the antecedent.

In academic writing, figures and graphs are frequently referenced. When a part of a figure or graph is referenced, it should be annotated as bridging, with the subtype **entity-meronymy**.

Biography

In biographies, it is common to have section headings which refer to parts of the subject of the biography's life (e.g., childhood, career). These should be annotated as bridging anaphora with the most recent mention of the subject of the biography as the antecedent. The subtype should generally be **entity-associative**. However, in some cases other entity subtypes may also be appropriate. For instance, If the heading is something like “appearance”, **entity-property** should be the subtype.

Reddit

In an online discussion forum, questions are generally posed to a generic plural “you” and then answered by individuals. In such cases where multiple addressees are later referenced individually, the first usage of “I” in their individual posts should be annotated as a bridging anaphor, with the subtype **set-member**. If the post uses “we” or something similar, the subtype should be **set-subset**.

Additional Annotation Principles

- If you are heavily debating whether or not an entity is a bridging anaphor, err on the side of including it as a bridging anaphor.
- Do not change any entity spans in your documents (including adding or deleting entities), and do not change any coreference annotations in your documents. If you think that something *would* be bridging if the entity spans were different, or if you think there is a coreference error that prevents annotating something you think is bridging, do not make any corrections, and do not annotate it as bridging. You can make a note of any annotation errors you see in your notes document.
- In the GUM source data, sometimes a first mention is mistakenly given the instat “giv”. You are allowed to edit this. If you want to make the entity a bridging anaphor, you must first change the instat to “acc”. You will get a warning if you try to make a bridging cluster without changing it, at which point you should confirm that your candidate bridging anaphor is a first mention and change its instat value to “acc”.
- Once you have identified the entity that is the associative antecedent, select the mention of the antecedent entity that is closest to the bridging anaphor.
- If there are multiple reasonable candidates for the associative antecedent, select the one that is **closest** to the bridging anaphor.
 - Exception: The nominalization of a verb may have one or more of its arguments appear earlier in the discourse, all of which are reasonable candidates for an associative antecedent. In selecting the antecedent, give preference to the argument that falls into the following semantic-role categories in this order:
 1. patient or theme
 2. recipient, instrument, etc. (anything besides agent)
 3. agent

If there are multiple candidates within one of the 3 semantic-role groupings above, select the one that occurs nearest to the bridging anaphor.

- If you have a strong idea of what the associative antecedent “should be”, but you cannot find a mention of that entity earlier in the document, do not annotate the candidate anaphor as bridging. This situation is bridging from “null”, which is not covered in this project. You can make a note of the instance in your notes document.
- With regard to relative clauses modifying candidate bridging anaphora:
 - An definite entity with a relative clause can be sufficiently specified, and as not an instance or bridging:

I went out walking yesterday. The man who I saw while I was walking was tall.

However, not all relative clauses fully specify the entity they modify:

I saw a house yesterday. **The rooms which I saw** were nice.

Although the rooms are specified to have been seen, what they are rooms of is still left open for inference, and is considered an instance of bridging in the **entity-meronymy** subtype.

- A verbal modifier in a relative clause may introduce new, potentially reasonable candidate antecedents via the implicit arguments of the verb. However, these should not supersede antecedent which best helps to resolve the head of the candidate bridging anaphor. For instance:

My gymnastics performance did not go well with the judges. **The score which I received** was not very good.

“my gymnastics performance” is a better choice than “the judges” because the score is for the gymnastics performance, but only received from the judges. (Note: “the judges” would also be a bridging anaphor in the above example)

However, if there is no better antecedent, judges may still be selected:

The judges were harsh. **The score which I received** was not very good.

- **Verbalization Test:** most bridging anaphor and antecedent pairs can be verbalized in a joint unit, connected by a short prepositional phrase (“for (the)”, “of (the)”, “by (the)”, “from (the)”, etc.), or a possessive construction. You can use this to help verify the selection of a good associative antecedent. For example:

There is a house on the hill. **The door** is red. → **the door of the house**

At the end of a long week where you have had no time to clean, **the house** is probably a mess. → **your house**

However, certain subtypes can be verbalized with other patterns:

entity-resultative: “resulting from (the)”, “caused by (the)”, etc.

Though my flour had a strange texture, **the bread** came out perfectly.
→ **the bread resulting from my flour**

comparative-relative: “besides (the)”, “in comparison to (the)”, “than (the)”, etc.

Several women walked into the room. **Other women** soon followed. →
other women *besides the* several women

comparative-sense: the type of the antecedent should be able to fill in the missing type of the anaphor

Several women walked into the room. **One** left immediately. → **one**
woman

I’ve been to the Chinese restaurant. I want to go to **the Italian one**. →
the italian restaurant

Instances where multiple subtypes apply may require combinations of prepositions. For instance, in the following **entity-associative** and **comparison-relative** example:

I don’t like the house we saw yesterday. I want to see a house with **a better floor plan**. → **a better floor plan** *than of* the house we saw yesterday