

Yelp Reviews Annotation Guidelines – Draft

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1 Introduction

This document provides annotation guidelines for the Yelp restaurant reviews annotation task. The Yelp restaurant reviews annotation task involves (1) annotating the relation between a specific dish mentioned in a review and its described quality or characteristics, (2) annotating the relation between a dish and its ingredients or its parts, and (3) annotating the anaphors of dishes. These guidelines provide details on how to annotate Yelp restaurant reviews.

This document is organized in the following manner: Section 2 is focused on annotating extent tags, i.e. FOOD, QUALITY and ANAPHORA, while Section 3 is focusing on annotating link tags, i.e. PART_OF, OPINION, and COREFERENCE.

When examples of annotation are provided in this document, texts with different extent tags are marked in different colors: **blue** is for FOOD, **red** is for QUALITY, and **yellow** is for ANAPHORA. A QUALITY tag contains three types: *positive*, *negative*, and *neutral*, and in this document, a type of QUALITY will be presented in subscript. Then, each link tag is represented using a predicate argument structure given in Table 1.

Table 1: Link Tag Predicate Argument

Link Tag	Predicate Argument Structure
PART_OF	PART_OF(from=text#1, to=text#2)
OPINION	OPINION(from=text#1, to=text#2, relation=opinion_type)
COREFERENCE	COREFERENCE(from=text#1, to=text#2)

The following is an example of how the format is utilized: For example:

1. I had a **Shrimp dish** that was **out of this world**_{positive} and **it** was served over **amazing**_{positive} **fresh**_{positive} **veggies**.

PART_OF(from=**veggies**, to=**it**)

COREFERENCE(from=**it**, to=**Shrimp dish**)

OPINION(from=**out of this world**, to=**Shrimp dish**, relation="explicit-opinion")

OPINION(from=**amazing**, to=**veggies**, relation="explicit-opinion")

OPINION(from=**fresh**, to=**veggies**, relation="explicit-opinion")

2 Extent Tags

2.1 FOOD

The FOOD tag concerns with specific food or beverage names, i.e. corns, beans, burritos, street tacos, margaritas, etc. When annotating a food name, articles (i.e. *a* and *the*) should be excluded. For example:

2. The **chips** and **salsa** were **great**_{positive}.
OPINION(from=**great**, to=**chips** , relation=“explicit-opinion”)
OPINION(from=**great**, to=**salsa** , relation=“explicit-opinion”)

One exception where a specific food name is not annotated is when there is no description for that dish or beverage, in terms of ingredients or quality. The following example is a complete review of a customer. In this review, a specific dish, *Beach Burger*, is mentioned. It is not annotated with a FOOD tag, because there is no description for this dish.

3. Phew, this is a GREAT place for sure. The reviews are what got me here and no doubt I WILL be back. Had the Beach Burger.

When the generic term “food” is used, it should not be annotated. In the following examples, the terms “food” and “meal” are not annotated with a FOOD tag, because they are not specific food names.

4. The food here is great!
5. We stopped for our first meal in Phoenix and loved it.

2.2 QUALITY

The quality tag marks words or phrases that indicate an explicit or implicit description of the quality of a specific food or list of foods. Quality is often indicated by by an adjective describing a particular food or an modifying an anaphora that is coreferent to a particular food. Quality should be marked as either positive, negative, or neutral. For example, in the following review, the quality descriptions indicate positive qualities of the food.

6. The tacos there are **SO good**_{positive} , and **SO cheap**_{positive}...its easy to justify coming back again and again and again.
OPINION(from=**SO good**, to=**tacos**, relation= “explicit-opinion”)
OPINION(from=**SO cheap**, to=**tacos** relation=“explicit-opinion”)

In the following review the quality of “Don’t order” is neutral because the description of “chicken” is not indicating anything about the chicken, but instead, mentioning it to serve as a comparison. Also note that in the tag for “You will be amazed”, the span is the entire sentence.

7. Be adventurous. **Don't order**_{neutral} the **chicken**. Try **lengua**, or **suadero**! You will be **amazed**_{positive}.

OPINION(from=**Don't order**, to=**tacos**, relation="explicit-opinion")

OPINION(from=**You will be amazed**, to=**lengua**, relation="implicit-opinion")

OPINION(from=**You will be amazed**, to=**suadero**, relation="implicit-opinion")

2.3 ANAPHORA

The anaphora tag is to mark names or pronouns that refers to the food items or entities mentioned in previous sentences or paragraphs. An anaphora could be a pronoun like "it", "they", "both", or another name for the food. The use of anaphora enables the link between quality and food be in the same sentence or clause, which will be discussed in "OPINION" session. Some examples of anaphoras are listed below:

8. I had the **carne asada potato with cheese** and oh my **it** was **delicious**_{positive}.

COREFERENCE(from=**it**, to=**carne asada potato with cheese**)

OPINION(from=**delicious**, to=**it**, relation="explicit-opinion")

9. We ordered two **agua frescas**. One was **mango** and the other was **cantaloupe/watermelon** on the waitress' recommendation. Wow! **both** were so **fresh**_{positive} and **delicious**_{positive}.

COREFERENCE(from=**Both** to=**mango**)

COREFERENCE(from=**it** to=**cantaloupe/watermelon**)

3 Link Tags

3.1 PART_OF

The PART_OF link tag describes a part-whole relation between an ingredient and a dish, or between a dish and a combo. The predicative argument structure PART_OF(from=text#1, to=text#2) indicates, *text#1 is part of text#2*. The following is an example of PART_OF relation between ingredients and a dish. The ingredients should be connected to the closet mention of a dish or its anaphora.

10. I just couldn't believe my eyes when I saw all the stuff they squeezed into **both sandwiches!**

Ham, pork sirloin, chorizo, sausage, egg, avocado, jalapenos, breaded beef.

PART_OF(from=**Ham**, to=**both sandwiches**)

PART_OF(from=**pork sirloin**, to=**both sandwiches**)

PART_OF(from=**chorizo**, to=**both sandwiches**)

PART_OF(from=**sausage**, to=**both sandwiches**)

PART_OF(from=**egg** to=**both sandwiches**)

PART_OF(from=**avocado**, to=**both sandwiches**)

PART_OF(from=**jalapenos**, to=**both sandwiches**)

PART_OF(from=**breaded beef**, to=**both sandwiches**)

3.2 OPINION

The opinion tag links quality descriptions to the foods that they are referring to. The links are labeled with explicit or implicit. Explicit opinions are those that clearly describe aspects of the food, such as fresh, delicious, or cheesy. Implicit opinions are those where the quality is inferred from the description, such as in example 7, where the sentence You will be amazed does not directly refer to the foods lengua and suadero, but it implicitly applies that the foods are good.

11. The only **okay**_{neutral} dish was their **chips** and **salsa**. **Do not order**_{negative} the **enchilada suiza**.

It tastes **nasty**_{negative} and **do not order**_{negative} their **beans** and **rice**.

OPINION(from=**okay**, to=**chips**, relation="explicit-opinion")

OPINION(from=**okay**, to=**salsa**, relation="explicit-opinion")

OPINION(from=**Do not order**, to=**enchilada suiza**, relation="implicit-opinion")

OPINION(from=**nasty**, to=**it**, relation="explicit-opinion")

OPINION(from=**do not order**, to=**beans**, relation="implicit-opinion")

OPINION(from=**do not order**, to=**rice**, relation="implicit-opinion")

COREFERENCE(from=**it**, to=**enchilada suiza**)

3.3 COREFERENCE

The COREFERENCE tag links the anaphora with previous mention of the same entity. It serves, in addition, as the "to" object of the OPINION tag. Examples are as follows:

12. I had the **carne asada potato** with **cheese** and oh my **it** was **delicious_{positive}**.

COREFERENCE(from=**it** to=**carne asada potato**)

In the following example, the ANAPHORA **both** should be linked with the closest previous mentions of the entity, which is **mango** and **cantaloupe/watermelon** instead of **agua frescas**.

13. We ordered two **agua frescas**. One was **mango** and the other was **cantaloupe/watermelon** on the waitress' recommendation. Wow! **both** were so **fresh_{positive}** and **delicious_{positive}**.

COREFERENCE(from=**Both** to=**mango**)

COREFERENCE(from=**it** to=**cantaloupe/watermelon**)