1 Introduction

Argument recognition is a task that touches on the fields of philosophy, linguistics, psychology and computer science. It aims at establishing argumentation models and methods to identify arguments in written texts. This task finds multiple applications in information retrieval platforms, automated assessment tools, writing assistance tools, etc.

Traditionally, an argument is composed at least of two components: a claim and a premise (Palau and Moens, 2009; Peldszus and Stede, 2013). Premises are the reasons provided to persuade the audience into accepting the truthfulness of a refutable statement: the claim (Britt and Larson, 2003). The claim itself, often called conclusion (Palau and Moens, 2009), is a controversial proposition.

It is not our goal to apply strict argumentation models, among other reasons because the corpus is an heterogeneous collection of texts of different nature, not necessarily argumentative. This is why we do not adopt a strict definition of claim. Our aim is to annotate all claim-like statements. Since premises are frequently claim-like statements and express the stance of the author, we do not exclude them from the annotation task. Thus, the our goal is to annotate all claim-like statements, regardless of whether they act as claims or premises in the argumentation structure.

All examples of claims given in these guidelines are about the topic of vaccination. However, the claims you will be annotating are about a variety of topics. The topic which the text is related to will be displayed alongside the text. The same rules of what (does not) qualify as being a claim, explained in these guideline, should be applied to all topics.

These guidelines are structured as follows. Section 2 presents the steps to take in order to carry out the task. Section 3 contains helpful information on how to identify claims. It includes definitions and common linguistic indicators associated to claims. It describes the different kinds of claims that can be found in the corpus, and Section 4 describes what sections of text do not qualify as a claim. Section 5 contains examples of text annotated with claims.

2 Overview of the annotation process

The annotation task consists of annotating sentences with the label **CLAIM** or **NO CLAIM**.

CLAIM will be used to mark the existence of claim-like statements in the sentence.

- Annotators should first read the sentence presented to them.

- Then they should identify the main claims made by the authors or by sources introduced by the authors, if such exists in the sentence.

- If a claim is made in a sentence, the sentence should be labelled **CLAIM** and otherwise **NO CLAIM**.

3 Identifying claims

3.1 Unit of annotation

Annotation will be carried out at the sentence-level. The claim itself may or may not span the whole sentence and the annotator should therefore recognise when a claim appears in a sentence. Example 1 presents a claim spanning over two tokens (marked in bold). Example 2 demonstrates a claim spanning over a clause. Example 3 shows a claim spanning over a whole sentence. All three sentences should be annotated with the label CLAIM.

Claims can span over multiple clauses. It is often the case that a claim is introduced by a conditional statement expressing a hypothetical situation. The claim would then be the consequence of the hypothetical statement. Since the hypothetical statement contains information that is essential to the understanding of the claim, both are a part of a single CLAIM. An example of this is given in 4.

1. Please, **stop vaccinating**!

2. I believe that **children should not be vaccinated**.

3. **MSM outlets are fear mongering the public into getting the MMR shot which they claim will protect you from the disease**.

4. **If reported cases are not eequired to be lab-confirmed, the this scientist's dicovery would lead us to believe that there has been gross over-reporting of measles cases**.

3.2 Definition

The claim is the central component of an argument. Claims are sections of text that express the stance of the author. Sometimes, claims are introduced by an explicit source in the text (different from the author). Since they are opinionated statements with respect to the topic, claims are often introduced by stance expressions, such as "In my opinion", "I am against", etc (Stab and Gurevych, 2014). A list of claim indicators is provided in Appendix A. An example follows:

5. In my opinion **children should not be vaccinated**.

6. Researchers claim that **vaccines are safe and beneficial.**

Habernal (2014) provide several definitions of *claim* from different studies on argumentation. Freeley and Steinberg (2008) wrote that a claim is "the conclusion we seek to establish by our arguments". From Toulmin et al. (1984) the definition of claim is "assertion put forward publicly for general acceptance." Schiappa and Nordin (2013) give the following definition: "Assertion (which has to be supported), you want to be accepted by some audience, and therefore, you have to make it public."

In some cases, the stance of the author is not expressed explicitly in the text; those will be instances of implicit claims. Implicit claims are out of the scope of this exploration, thus they will not have to be annotated.

3.3 Types of claims

The term "claim" is an overarching expression that includes different types of stance-expressing statements. From the work of Habernal (2014), three types of claims can be drawn: *fact claims*, *value claims*, and *policy claims* , which are elaborated below. More types of claims have been added in order to aid the annotation process. However, annotators are not required to indicate the type of claim.

3.3.1 Fact claims

Fact claims are assertions that indicate whether something is (or was, or will be) true or false according to a source. An example of a *fact claim* is provided below. If annotators do not agree with the author's statement and do not see it as a "fact", the statement still qualifies as a *fact claim*. Indeed, *fact claims* are not "things that everyone accepts as a fact" (Habernal, 2014); they are comments presented as "facts" by the author.

      7. **Global warming does not exist.**

3.3.2 Value claims

Another type of claim are *value claims*. They are propositions in which the author evaluates something. An example of a *value claim* is provided below. They are often a dispute about ethics, justice, meaning, or aesthetics.

      8. **Vaccination is good.**

3.3.3 Policy claims

Another type of claim is called *policy claims*. Through *policy claims* authors advocate for a certain course of action. These can be about external issues, such as national and political topics, or internal ones, such as personal health choices. Imperative constructions such as *"Go to school!"* qualify as *policy claims*, thus they should be marked as claims.

      9. **You should not vaccinate your children.**

3.3.4 Prediction claims

A type of claim that can often be found in the given sentences is the one characterized by forecasts about the effect of vaccines. This type of claim can be referred to as *prediction claim*. These claims express strongly the stance of the author in regards to the topic of vaccination because they provide a prediction of the impact of vaccination (or lack thereof) on the population. Therefore, according to the polarity and the subject of the forecast, the reader can understand the stance of the author.

10. **The vaccine will be highly successful.**

3.3.5 Pathos dimension

In user-generated Web data, it is common to find authors that appeal to the readers' emotions in order to strengthen their argument. Claims that aim at having impact on the receiver's cognition through appealing to emotions are said to belong to the *pathos dimension* (Micheli, 2008). Statements containing sarcasm, figurative language, fallacies, and exaggerations are part of this dimension (Habernal, 2014). An example of a claim in the *pathos dimension* is provided below. Although it depends on the interpretation of the reader whether this statement contains an exaggeration or not, it is clearly meant to appeal to emotions. Claims in the *pathos dimension* should me marked as claims.

11. **Vaccinating children is a form of child abuse.**

3.3.6 Premise claims

In order to support their claims, authors may give a reason or a justification. These often have similar characteristics to *value claims*, as they include evaluative language. In some cases, they share similarities with *fact claims*, as they can be presented with the aim of informing the public about the topic. In the literature claims and premises are generally separated, however premises often express the stance of the author as well as claims. Since the aim of this project is to identify the author's stance about the topic, this distinction is not useful. When the author or other sources provide a justification containing evaluative language or revealing the intention to persuade the audience, this qualifies as a *premise claim,* and a sentence containing a *premise claim* should also be annotated with the label CLAIM. *Premise claims* are often introduced by connectors such as "since","because", "assuming that", etc. An example of *premise claim* is given in the first clause of Example 12. This is also an example where two claims are present in a sentence, but this is not reflected in the annotation. It is also common to find *premise claims* that are not introduced by an indicator, like in Example 13.

12. Since **vaccines contain toxic substances <premise claim>, parents should not vaccinate their children <claim>**.

13. **Vaccines contain toxic substances**.

4 What is not a claim

In an attempt to simplify the annotation task, annotators are provided with examples of argumentation components that should not be marked as claims.

4.1 Questions and rhetorical questions

Although rhetorical questions are often asked by the author in order to appeal the reader to agree with his/her view, questions and rhetorical questions generally do not qualify as claims. An example of this is given below.

19. *Why wouldn't you want you child to be protected from dangerous diseases?*

4.2 Backing

Authors often give evidence that is meant to validate their claims; this is called *backing* (Habernal, 2014). Backing is often expressed in statements aimed at establishing credibility where the author asserts his/her expertise in the field. An example of backing is given below.

20. *I am a nurse.*

4.3 Common ground

In some cases, authors present self-evident facts and accepted truths to establish common ground (Al Khatib et al., 2016). An example of common ground is given below. Common ground does not qualify as claim as it does not convey the author's stance.

21. *Measles can spread by airborne transmission.*

4.4 Testimony

Authors often cite statements made by an expert, a witness, or other authority figures in order to support their argument (Al Khatib et al., 2016). When these statements contain established truths, self evident facts, or verifiable assertions, they qualify as *testimony* and should not be marked as CLAIM. These are usually characterized by neutral language. An example of *testimony* is provided in 22.

22. *The CDC claims to have tracked 644 cases of measles in 2014.*

4.5 Statistics

Authors might also cite the results of quantitative studies in order to support their claims (Al Khatib et al., 2016). These results qualify as statistical evidence, not as claims.

23. *80% of vaccinated children experience serious side effects.*

4.6 Anecdote

Another common choice made by authors in order to support their argument is to include anecdotes. Anecdotes can often be considered as belonging to the *pathos dimension*. Personal experiences, concrete examples, and specific events (Al Khatib et al., 2016) usually do not fall under the category of "claim".

24. *I experienced hearing loss after being given the MMR vaccine.*

5 Examples

To facilitate the annotation process, some examples of annotated text are given in this section. Claims are marked in bold and the label for the sentence is indicated following the sentence.

25. Please **do your own research and work your natural immune system which in the end is the only thing that will protect you.** —CLAIM

The example above contains a *policy claim* and should, therefore, be marked as CLAIM.

26. The recent measles outbreak in Disneyland has caused quite a stir, as the disease was thought to be nearly eradicated in the US. — NO CLAIM

In the example above, the whole text qualifies as *common ground*, therefore it should as NO CLAIM.

27. The World Health Organization (WHO) underscored this fact in their report; they wrote that, **"Children under two years of age do not consistently develop immunity following vaccination."** — CLAIM

In the example above, the text in quotation marks contains a claim about the effectiveness of vaccination administered to patients under two years of age, therefore the sentence should be marked as CLAIM.

28. **Vaccines Expose Kids To Toxins** — CLAIM

29. According to the FDA, **"Excessive exposure to formaldehyde may cause cancer."** — CLAIM

In the two example above there are two claims presented by two different kinds of sources. The first is presented by the author. The second expresses information about the potential negative effects of one of the ingredients of vaccines and it is introduced by the source "the FDA".

30. I personally think that **the vaccines were too much for him and that they "threw him over the edge"** — CLAIM

31. My son was diagnosed with Hashimoto's disease when he was just 12 which was completely unexpected and probably fro about a year prior to this, I started seeing signs of autism in him. — NO CLAIM

While example 30 above is marked as CLAIM, example 31 is marked as NO CLAIM because it only contains an anecdote, hence not a claim.

References

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Appendices

A   Claim Indicators based on Stab and Gurevich (2014)

accordingly
as a result
consequently
conclude that
clearly
demonstrates that
entails
follows that
hence
however
implies
in fact
in my opinion
in short
in conclusion
indicates that
it follows that
it is highly probable that
it is my contention
it should be clear that
I believe
I mean
I think
must be that
on the contrary
points to the conclusions
proves that
shows that
so
suggests that
the most obvious explanation
the point I'm trying to make
therefore
thus
the truth of the matter
to sum up
we may deduce