Contradiction annotation

Recognizing Textual Entailment (RTE) items consist of two pieces of text, a brief text and a short hypothesis. For some, the hypothesis follows from the text (that is, a normal reader would be happy to accept the text as strong evidence that the hypothesis is true, assuming that the text is reliable). This is technically referred to as "entailment". These items are marked "YES". You shouldn't change these. For the rest, we wish to distinguish between whether the text and hypothesis are contradictory, which we will label "NO", or whether the two pieces contain overlapping or different information but the hypothesis neither follows from or contradicts the text, which we will label "UNKNOWN".

Definition of contradiction

To decide if the text and hypothesis are contradictory, ask yourself the following question: If I were shown two contemporaneous documents one containing each of these passages, would I regard it as very unlikely that both passages could be true at the same time? If so, the two contradict each other. Another way of stating this would be: the hypothesis is contradictory if assertions in the hypothesis appear to directly refute, or show portions of the text to be false/wrong, if the hypothesis were taken as reliable. You should be able to state a clear basis for a contradiction, such as "the text says the group traveled west to Mosul, while the hypothesis says they were traveling from Syria (which is to the east of Mosul).

 For example, the following are contradictions:

[RTE-1 828] contradiction
T: Jennifer Hawkins is the 21-year-old beauty queen from Australia.
H: Jennifer Hawkins is Australia's 20-year-old beauty queen.

[RTE-2 404] contradiction
T: In that aircraft accident, four people were killed: the pilot, who was wearing civilian clothes, and three other people who were wearing military uniforms.
H: Four people were assassinated by the pilot.

You should mark as a contradiction a text and hypothesis reporting contradictory statements, if the reports are stated as facts. We can see these as carrying an embedded contradiction. For example:

[RTE-2 320] contradiction
T: That police statement reinforced published reports, that eyewitnesses said de Menezes had jumped over the turnstile at Stockwell subway station and was wearing a padded jacket, despite warm weather.
H: However, the documents leaked to ITV News suggest that Menezes, an electrician, walked casually into the subway station and was wearing a light denim jacket.

For something to be a contradiction, it does not have to be impossible for the two reports to be reconcilable, it just has to appear highly unlikely in the absence of further

evidence. For instance, it is reasonable to regard the first pair below as a contradiction (it is not very plausible that the bodies (of someone who has a secretary, etc.) were not found for over 18 months), but it does not seem prudent to regard the second pair as contradictory (despite a certain similarity in the reports, they could easily both be true):

Contradiction
T: The anti-terrorist court found two men guilty of murdering Shapour Bakhtiar and his secretary Sorush Katibeh, who were found with their throats cut in August 1991.
H: Shapour Bakhtiar died in 1989.

[RTE-1 2113] Unknown: not a contradiction
T: Five people were killed in another suicide bomb blast at a police station in the northern city of Mosul.
H: Five people were killed and 20 others wounded in a car bomb explosion outside an Iraqi police station south of Baghdad.

How to interpret the data?

Noun Phrase Co-reference
Compatible noun phrases between the text and the hypothesis should be treated as co-referent in the absence of clear countervailing evidence. For example, below we should assume that the two references to "a woman" refer to the same woman:

[RTE-1 201] contradiction
T: Passions surrounding Germany's final match at the Euro 2004 soccer championships turned violent when a woman stabbed her partner in the head because she didn't want to watch the game on television.
H: A woman passionately wanted to watch the soccer championship.

Similarly, references to dates like "Thursday" should be assumed to be coreferent in the absence of countervailing evidence.

Event Co-reference
Whether to regard a text and hypothesis as describing the same event is more subtle. If two descriptions appear overlapping, rather than completely unrelated, by default assume that the two passages describe the same context, and contradiction is evaluated on this basis. For example, if there are details that seem to make it clear that the same event is being described, but one passage says it happened in 1985 and the other 1987, or one passage says two people met in Greece, and the other in Italy, then you should regard the two as a contradiction. Below, it seems reasonable to regard "a ferry collision" and "a ferry sinking" as the same event, and then the reports make contradictory claims on casualties:

[RTE-2 237] contradiction
T: Rescuers searched rough seas off the capital yesterday for survivors of a ferry collision that claimed at least 28 lives, as officials blamed crew incompetence for the accident.
H: 100 or more people lost their lives in a ferry sinking.

In other circumstances, it is most reasonable to regard the two passages as describing different events. You have to make your best judgment, given the limited information available. You should use world knowledge about the frequency of event types in making this decision. For instance, example RTE-1 2113 above was not marked as a contradiction, as it does not seem compelling to regard "another suicide bomb blast" and "a car bomb explosion" as referring to the same event. And for the two passages below, there just doesn't seem much evidence that they have anything to do with each other:

[RTE-2 333] Unknown (not a contradiction)
T: The European-born groups with the highest labor force participation rates were from Bosnia and Herzegovina.
H: The European country with the highest birth rate is Bosnia-Herzegovina.

In the general RTE guidelines, it says the text and the hypothesis are meant to be regarded as roughly contemporaneous, but may differ in date by a few days, and so details of tense are meant to be ignored when deciding whether a text entails the hypothesis or not. However in an example like the following, it seems clear that the hypothesis is not possible as a consistent, contemporaneous statement with the text, and so we mark it as contradictory.

[RTE-3 357] contradiction
T: The Italian parliament may approve a draft law allowing descendants of the exiled royal family to return home. The family was banished after the Second World War because of the King's collusion with the fascist regime, but moves were introduced this year to allow their return.
H: Italian royal family returns home.

Contradictions in RTE data

For past RTE data sets, contradictions represent about 30% of the non-entailment RTE data. This isn't a target for the data you will annotate, but is just meant to give you some idea of what to expect.

We have made available RTE3_dev data annotated for the 3-way classification of YES, UNKNOWN, and NO. In this data, the texts and decisions of YES are unchanged from the (revised) RTE3_dev data (no matter if occasional errors still lurk therein). The answers that were previously "NO" were subclassified as to whether they were contradictions (still "NO") or not – that is, unrelated or incomplete informational overlap (now "UNKNOWN").