

**Overview:** The “emotion cause” (also known as cause events) refers to the immediate cause of the emotion, which can be the actual trigger event or the perception of the trigger event. In this study, cause events specifically refer to the explicitly expressed arguments or events that are highly linked with the presence of the corresponding emotions.

Cause events are categorized into two types: verbal events and nominal events. Verbal events refer to events that involve verbs, whereas nominal events are simply nouns. Some examples of cause event types are as follows:

**Examples:**

Words highlighted in **Maroon** is the emotion word, and causes span **in purple** are the cause

Verbal Events

“The owner was **frightened** to see that **his cattle caused troubles**, so he sold it at a low price.”

“He was **shocked** that **what she said was the truth**.”

Nominal Events

“Caroline was very **saddened by Leo’s words**.”

“Frankly, I am very **scared about the future**.”

**Steps:**

1. For each instance containing an emotion (Anger, Love, Fear, Joy, Sadness, Surprise), find the span of text (if any) that contributes to the annotated emotion.
2. Each instance then should be annotated with its corresponding causes if existing. Emotion can sometimes be associated with more than one cause, in such a case, both causes should be marked.

Since in some cases, more than one emotion can be present in an instance, the causes for emotion should be mapped as <emotion, cause span>.

There could also be instances where the cause is not present. Instances without causes could be mainly due to the following reasons:

- i) There is not enough contextual information, for e.g., the previous or the suffix sentence is interjections, e.g., “aha”;
- ii) The cause is obscure, which can be very abstract or even unknown reasons.