

# Counterfactual Annotation Guidelines

## 1. Overview

This document is a guideline for a counterfactual annotation task. Judges will read sentences and decide whether they are counterfactual statement or not.

**What are counterfactual statements?** Counterfactual statements describe events that (1) might be true (e.g. if the phone had a better battery, I *might* have given it a higher rating), (2) aren't true but could or would've have been, and whether their consequents is possible given if the event had happened (e.g. if the phone had a longer battery, the phone would stay on all day.) and (3) what should be done (e.g. the phone should have come with a battery that lasts longer).

## 2. Judgement Instructions

Judges will find the data in the format below;

Sentence ID	Sentence Group ID	Sentence
62	8	However, I'm not certain this is the type of sequel Jane Austen would have envisioned
64	8	Emma would have not taken up with a vulgar friend, no matter how fascinating
110	13	This teetered a bit too much toward a strawman for my taste, although I must admit that in my own industry (software), the "six sigma" idea strikes me as a joke, as if there weren't clusters and dependencies and all kinds of complications with respect to defect rates

- **Sentence ID** is an identifier of each sentence to judge.
- **Sentence Group ID** indicates that the sentences with the same Sentence Group ID belong to a single data source. For example, Sentence ID 62 and 64 share the same Sentence Group ID 8, meaning they are from the same paragraph. This could be useful to know the context of the sentence.
- **Sentence** is the target statement for counterfactual judgement.

### Judgement Steps:

1. Read a given sentence for judgement.
2. Determine whether the sentence is counterfactual or not. Consider if the sentence includes 3.1 Elements of Counterfactual Statements, and/or applies to 3.2 Counterfactual Types described below.
3. Mark the sentence as counterfactual (=True) or not counterfactual (=False).
4. Leave comments as necessary.

### 3. Useful Definitions

#### 3.1 Elements of Counterfactual Statements

A **conditional conjunction** is a conjunction that describes a condition. The use of a conditional conjunction implies that one clause of a sentence is dependent on another clause being possible.

**Modal verbs** are used to express probability, ability, obligation, possibility, permission and requests. Common modal verbs include: can, could, may, might, will, would, must, shall, should and ought to.

**Subjunctive Mood** The subjunctive mood refers to a hypothetical state or a state inconsistent with reality. For example, wishes, desires, imaginary situations and suggestions can be expressed using the subjunctive mood.

#### 3.2 Counterfactual Types

There are 7 main types of counterfactuals. These types can be broadly identified as by the occurrence and order of an antecedent <sup>1</sup>(Ant) and consequence<sup>2</sup> (Con). Each of these forms employs conditional conjunctions, modal verbs, or the subjunctive mood. We will *not* require you to distinguish them in annotation but we do expect you to be aware of the types before annotating. Below are examples of each type, followed by a description for each one.

	Counterfactual Type	Sentence	Description	Order
1	Wish Verb	<b>I wish I had</b> been richer	<b>"I wish I had"</b> indicates Subjunctive mood	
2	Conjunctive Normal	<b>If</b> everyone <b>put</b> differences aside and get along, everything would be so much enjoyable	The antecedent consists of a conditional conjunction (" <b>if</b> ") followed by a past tense subjunctive verb or past modal verb (" <b>put</b> ")	Ant -> Con
3	Conjunctive Converse	<b>I would</b> be stronger, <b>if I had</b> lifted weights	The consequence consists of a modal verb ("would") and past or present tense verb. The antecedent consists of a conditional conjunction ("if") followed by a past tense subjunctive verb ("I had") or past tense modal.	Con -> Ant
4	Modal Normal	They <b>should of shown</b> this guy gettin shot, that <b>would've</b> been TV gold.	The antecedent consists of a modal verb (should of) and past participle verb. The consequence consists of a past/present tense modal verb ("would've").	Ant -> Con
5	Verb Invasion	<b>Had I left</b> the event early, <b>I would not have met</b> John	The antecedent uses the subjunctive mood by inverting the verbs 'had' and 'were' to create a hypothetical conditional	Ant <-> Con

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<sup>1</sup> Antecedent: is the past hypothetical experience within a counterfactual.

<sup>2</sup> Consequence: is the potential outcome within a counterfactual.

			statement along with a past tense verb (I would not have...).	
6	Should Have	I <b>should have</b> joined the event early	We distinguish this from 'modal normal' type when no consequence is expressed.	Ant
7	Modal Propositional	I <b>would have been happier</b> without John	The antecedent consists of a past/present modal verb (would have). The consequence consists of a prepositional phrase ("without John").	Con -> Ant

### 3.3 Notes on identifying Counterfactual Conditionals

Note that we can narrow down counterfactuals to hypothetical (non-)occurrence or (non-)existence expressing an action or state **with respect to present or past**. Counterfactuals do not refer to states in the future, although the consequences of a current/past action/state may be in the future. Below are examples of counterfactual conditionals with different combination of state-consequence tenses.

- **Present counterfactual state, future hypothetical consequence:** I would retire next year if I had more savings (now).
- **Present counterfactual state, present hypothetical consequence:** If D H Lawrence were alive (today), he would be horrified by the amount of pornography openly on sale (today).
- **Past counterfactual action, future hypothetical consequence:** If I had saved more (in the past), I would retire next year.
- **Past counterfactual action, present hypothetical consequence:** If Watson hadn't bungled that interview last year, he would be the anchorman now.
- **Past counterfactual state, past hypothetical consequence:** If it had been fine yesterday, we would have had a barbecue

### 3.4 Considerations

- After gaining a sufficient understanding what counterfactuals are and reading examples of counterfactual types, if you are still unsure if a sentence counterfactual or not, please leave a comment regarding where the uncertainty lies.
- Verbs such as "wish", "should", "would" and "could" do not always convey counterfactuals (e.g. "happy birthday wishes") so please be careful in these circumstances.
- Negation is not counterfactual. When a sentence simply negates an antecedent as opposed to a counter-fact that would or could have happened, please consider them not counterfactual. (e.g. "It's not made of leather" is negation. "If it was made of leather, I would have considered buying" is a counter-fact").

## 4. Examples

	Text	Counter Factual	Comments
1	I needed to upgrade because Office 2003 would not save worksheets anymore.	False	They did actually upgrade from Office 2003 and so the event did in fact happen

2	Neat, but I just wish William Shatner narrated it instead of....batman.	True	William Shatner did not narrate and so this is considered a counter-fact ("wish" is a trigger term in this case)
3	Didn't come with hat	False	Negation, not counterfactual.
4	Unlike many other "rugged" cases, this one doesn't have complex 2 layer protection that a kid cannot put on.	False	Not counterfactual. The sentence contains no event that could or would have happened.
5	I loved them, but didn't realized they had silver in them and needed gold in that room	False	Not counterfactual. "didn't realize" does not imply that the event did not happen.
6	The dress was shipped quick and I received it on the date promised but the dress is not dark purple, it came in a lilac or lavender which is a light purple	False	Color of dress "lilac or lavender" is a fact. Had they have said, "if the color of the dress", it would have been conditional conjunctive.
7	Wish it had wheels	True	Wish verb used as a part of a counter-fact here, wishing it "had" (past tense) wheels.
8	Cute but no support	False	Negation, not counterfactual
9	Good movie, I wish it becomes available on Blu Ray disc.	False	Although "wish" verb is present, it refers to the future with no counter-fact condition, compared to "I wish I had been richer", which is past tense.
10	Great price, no carrying to my car from a cart at the store, then drag into my house as well.	True	"no carrying to my car..." suggests that this is what would be required if they had not got delivery by buying online.
11	It doesn't capture my interest as much as the Trails in the Sky games or Trails of Cold Steel games.	False	Doesn't express any kind of event here, only a comparison of interest between different games.
12	It's not genuine leather.	False	Negation, not counterfactual
13	Not waterproof though, don't wear them to ride during a heavy rain.	False	Negation, not counterfactual
14	We wanted the Yankee Candle Car Jar "Ultimate" which as we found out were the correct ones (gel in a small plastic jar rather than cardboard).	True	Suggests that the Jar they had was in fact the wrong one and if they had "Yankkee Candle Car Jar" it would have been correct.
15	Its not padded, which is great	False	No counterfactual element here

16	I hope to find the coffee table and console table to match later.	False	This is not counterfactual because it is describing a future event i.e. counter-facts are about alternatives to past events, actions, or states.
17	Not a good choice if you own the Daydream VR	True	Counterfactual because the conditional 'if', describing what would be true conditioned on the premise that you own Daydream VR.
18	It is much quieter than my rear Spartan locker	False	No counterfactual element
19	For those who also wanted the same setup as mine where this is mounted behind the rear view mirror and your vehicle is not a GM, Chrysler, Ford or Toyota, you'll need other universal parts.	True	Counterfactual because if the vehicle was not GM, Chrysler, Ford or Toyota, then universal parts were necessary.
20	Closest thing to Mario Kart I've found for Xbox One, and fun entry in the genre.	False	No counterfactual element
21	I don't usually watch an anime by its self. Usually I would play a game or read something while watching it.	False	Not counterfactual because it does not describe alternatives to an event that happened i.e. "I don't usually watch an anime by itself" is a null event.
22	Beautiful but not battery operated :(	False	No counterfactual element
23	even more visceral and raw than if it had been filmed in color	False	The event did happen and therefore counterfactual
24	It would have been more visceral and raw than if it had been filmed in color	True	The event didn't happen and therefore counterfactual