

# WSC Error Analysis

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Old Dataset

## Sentence 196

**John**+ tricked **Bill**- because he was mischievous.

- When you're mischievous against something or someone it is almost always implied that the object is being mistreated or hurt by the subject. The predicate "tricked" will in this case most certainly imply to a human reader that John is behaving badly towards Bill.
- There are two candidates for the incorrect answer and none for correct one. However, the two incorrect candidates are duplicate.
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They are described as being beautiful young maidens with long blonde or green hair and the tail of a fish.

They are often seen playing in the waves or riding on sea horses along with the Tritons as the attendants of Neptune, the sea god, and his Nereid wife, Amphitrite.

5 There are said to be somewhere between 50 and 100 of them in existence, and most of their names are in Spenser's The Faerie Queen.

The most famous among them are Amphitrite, Doto, Galatea, Panope, and Thetis.

In Modern Greek folklore they are said to be beautiful maiden nymphs who dwell in the countryside and in forests, where one may hear them playing in their bouzouki (a stringed instrument with a long neck and a pear-shaped body).

10 They can be MISCHIEVOUS toward humans, by TRICKing them into dancing until they're exhausted, or by kidnapping them and leading them astray into muddy places.

If offended they may retaliate by making one s face swell or become otherwise distorted.

15 Oceanids This is the name of the sea nymphs also known as Okeanides and Okeaninai, in Greek and Roman mythology .

The daughters of Tethys and Oceanus, there were anywhere between 50 and 3,000 of them.

The most popular Oceanids are Amphitrite, Doris, mother of the nereids by Nereus, Styx, Asia the wife of Prometheus.

20 In the Roman mythology of Homer Electra is the daughter of Atlantis and one of the nymphs in the constellation Pleiades.

Listing 1: Context for  $R_1$  and  $R_2$  (duplicates).

- This is an article about Greek mythology which is probably unimportant for our sentence. The correct subject in this sentence is *They*, which points to something that is clarified in the context and not within the sentence (beautiful maiden nymphs). The correct object is *humans*.
- They can be MISCHIEVOUS toward humans, by TRICKing them into dancing until they're exhausted, or by kidnapping them and leading them astray into muddy places.

Listing 2: Target sentence in  $R_1$  and  $R_2$ .

- The test sentence is of the form  $X$  trick,  $X$  mischievous. The corpus sentence is of the form  $X$  mischievous towards,  $X$  trick.
- A predicate in English can be of the form *adjective towards* or *adjective against*. Is this considered?

### Sentence 201

**Rick Davis-** campaigned for **John McCain+** since he was the best man for office.

- This sentence is only possible to resolve easily if we look among corpora related to politics.
- With a good corpus this would be very easy to resolve if the object candidate was of the form **man for office** instead of just **man**. The latter case will be way too general and has nothing to do with this special kind of political situation our sentence describes.
- The system should be able to make the comparison **X man for office**  $\sim$  **campaign for X** vs. **X campaign for**  $\sim$  **X man for office** instead of **X man**  $\sim$  **campaign for X** vs. **X campaign for**  $\sim$  **X man**.

### Sentence 350

**Claudia-** lost all her money to **Valarie+** because she is really smart.

- This sentence obviously has a lot of issues, since we have only 6 votes for the correct candidate, **X smart**  $\sim$  **lose to X**, but 142 votes for the incorrect one, **X lose**  $\sim$  **X smart**. However the logic behind the candidate comparison looks completely correct, and this should be easy to resolve.
- It would be very interesting to make comparisons between negating opposites, for example: **X lose**  $\sim$  **X smart** vs. **X lose**  $\sim$  **X stupid**.
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Subcontractors couldn't collect for work completed.

Businesses, once successful, went belly up.

5 Neighborhoods became patch worked with empty houses and overgrown lawns.

The only people making good money were bar tenders and "repo" men.

Colonial lent money into almost every type of business.

10 Even though they were SMART about it, they lost some serious money.

Their mortgage warehouse took a hit, along with commercial loans.

15 Meanwhile, business banking, retail mortgage, consumer lending, wealth management, and the investment brokerage were hedging against the tide.

Colonial's problems were economy related and not as severe as propaganda testified.

At the time of the initial reporting, Colonial's 12.88% risk based capital rate was above regulating guidelines of 10% to be considered well capitalized.

20 Colonial had assets and strategic measures in place.

Listing 3: Context from  $R_1$  and  $R_2$ .

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- Even though they were smart about it, they lost some serious money.

Listing 4: Target sentence for  $R_1$  and  $R_2$ .

- Looking at this example, one issue could be that the object **it** in the target sentence is an exophor and not an anaphor. It is not clear from either the sentence itself or the context of what we are smart about.

- Similar problem as with sentence 196, **X smart** is not true here, instead we have the case of **smart about X** or **X smart about**
- This sentence is a *concessive clause* determined by **Even though**. *Even though they were smart about it, they lost some serious money* is equivalent to *They lost some serious money even though they were smart about it*.

#### Sentence 443

The **cheetah-** outran the **antelope+** so it got eaten.

- The comparison **eat ~ outrun X** vs. **X outrun ~ eat** makes no sense. Not sure if this sentence is actually translatable to a logic form since eat is conjugated to its passive form (eg. the antelope was eaten, the antelope got eaten, the antelope is being eaten, etc.), which is not the same thing as its corresponding active form (the antelope is eating, the antelope ate). However the system makes some kind of generalization here and suggests that "eating" in itself is an implication of *a cheetah that is outrunning* or *outrunning a cheetah*.
- **eat X ~ outrun X** vs. **X outrun ~ eat X**?

#### Sentence 70

**Jimbo** was running from **Bobbert+** because he smelled awful.

- The problem here is that we are comparing **X smell ~ run from X** vs. **X run ~ smell X**. The verb *smell* can have several meanings depending on context. It can be sort-of reflexive and not at the same time, i.e. "He smells" can be equivalent to "He stinks" and "He is sensing a smell" at the same time; it depends on the context.
- **X smell awful ~ run from X** vs. **X run ~ X smell awful** would probably solve this problem.

#### Sentence 116

**Bob-** sued **Bill+** because he was embezzling funds.

- **X embezzle ~ sue X** vs. **X embezzle ~ X sue** looks completely correct. Nearest neighbor gives us 4 votes for the correct candidate and 10 votes for the incorrect one.
- The incorrect candidate has ten votes, however most of them are duplicate. In reality there are only two incorrect matches. This is reoccurring in almost all sentences. Is it a front-end issue or something else?

The Court finds that De Rooy adequately disclosed the facts underlying her conclusion that Nicosia embezzled money from Jan Kerouac's heirs.

Accusations of criminal activity, like other statements, are not actionable if the underlying facts are disclosed.

5 In re Yagman 796 F.2d 1165, 1174 (9th Cir.  
 1986); Dunn v. Gannett New York Newspapers 833 F.2d 446,  
 453-54 (3rd Cir.  
 1987).

10 In Dunn the mayor sued a newspaper for suggesting that the  
 mayor embezzled funds.

The court found the statement not actionable, in part because  
 the newspaper disclosed the basis for its conclusion.

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The basis of the newspaper's embezzlement allegation was  
 that the city learned that funds were missing and the  
 mayor ordered employees not to talk to the press.

U. Like the newspaper in Dunn, De Rooy has disclosed the  
 underlying facts and allowed readers to decide for  
 themselves whether the facts amounted to embezzlement.

20 The Court finds that De Rooy's statements regarding  
 embezzlement contained in 34 of the complaint are  
 not actionable, and hereby GRANTS De Rooy's motion to  
 dismiss with respect to the same.

Listing 5: Context of first incorrect vote.

- Noisy, but in this case it shouldn't be an issue, the target sentence contains all information we need.

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In Dunn the mayor sued a newspaper for suggesting that the  
 mayor embezzled funds.

Listing 6: Target sentence of first incorrect vote.

- This is interesting. The sentence follows the logical structure we are looking for, although everything crashes because of *suggesting*. The mayor is suing because the newspaper made an accusation of him embezzling, not because he was actually embezzling.

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When I read the story, I couldn't get the head or the  
 tail of the story.

He recalled that a reporter called him while he was in South  
 Africa, to ask him about an amount of GH 5,000 and  
 he explained to the reporter, that regarding the  
 GH 5,000, he only fronted as the representative for  
 COSGA to supplement a larger amount of money which was  
 with K.K. Kabobo and other members to distribute as  
 royalties in Kumasi.

5 This implied that he has never personally, processed any  
amount of money meant for royalties.

Anybody who knows the COSGA system and how money is disbursed  
will laugh at this story .

Mark believes some people who have no idea of how things are  
done at COSGA, are behind it and they have made the  
editor a victim to perpetrate their selfish interest.

10 I will sue the editor in court for her to tell the court  
where she saw me embezzling any money, and show the court  
evidence that proves that.

A lot of journalists write false stories about people; they  
threaten to send them to court but nothing happens and  
they go scot free.

15 I am going to go all out to make sure the editor pays for  
being unprofessional , Mark emphasized.

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Kesse, one of Ghana s representatives in the ongoing  
Project Fame West Africa talent show, brought Sunday  
evening s gala show to a glorious end with his  
fantastic rendition of Nigerian singer, Asa s  
So Beautiful .

Listing 7: Context for remaining votes.

- This text makes very little sense.

#### Sentence 407

**Luigi+** rescued **Mario-** because he was the only one who can.

- This sentence is not gramatically correct. It should be *Luigi+ rescued Mario- because he was the only one who could.*
- Current comparison is **X one**  $\sim$  **X rescue** vs. **X one**  $\sim$  **rescue X**. This is too vague.
- Results would probably be better if the system compared **X one who can**  $\sim$  **X rescue** vs. **X one who can**  $\sim$  **rescue X**.

#### Sentence 88

**The employer-** offered **Katie+** a job, because she was a fit for the company.

- We are comparing **X fit**  $\sim$  **offer X** vs. **X fit**  $\sim$  **X offer**. The sentence is about job offerings which makes the comparison too vague.
- Something like **X fit for the company**  $\sim$  **offer X** vs. **X fit for the company**  $\sim$  **X offer** would probably work better.

#### Sentence 47

**Watson-** beat **Ken+** at Jeopardy because he is an inferior human.

- This sentence is probably not possible to resolve using this method. Here we can only know from world knowledge that Watson most likely refers to the IBM Watson AI and that Ken is a human being. We cannot know this looking at the sentence alone.

#### Sentence 307

**Liverpool-** lost to **Manchester United+** because they were a superior team.

- **X team**  $\sim$  **lose to X** vs. **X lose**  $\sim$  **X team** will compare nothing relevant for this sentence. We are interested in which team is the better one, thus we need more information.
- **X superior team**  $\sim$  **lose to X** vs. **X lose**  $\sim$  **X superior team** may work better.

#### Sentence 256

**Lily-** gave **Amber+** a hug because she was sad.

- **X sad**  $\sim$  **give X** vs. **X give**  $\sim$  **X sad** is not enough for comparing. In this sentence we are interested in giving hugs, only *giving* will be too general.
- Has to look something like this in order to work: **X sad**  $\sim$  **give a hug X** vs. **X give a hug**  $\sim$  **X sad**

#### Sentence 494

**DVD Players-** are slowly being replaced by **Blu Ray Systems+** since they are becoming the new medium of entertainment.

- Already a pretty complex sentence. *become the new medium of entertainment* is highly important in order to resolve the pronoun but probably too stylistic to appear in a corpus in this way.
- At this moment we are comparing **X become**  $\sim$  **replace** vs. **X become**  $\sim$  **replace** which looks completely broken (looks identical?). Should at least be something like **X become**  $\sim$  **replace by X** vs. **X become**  $\sim$  **X replace**.

#### Sentence 241

**The hyena-s** scavenged from the **lion+**s because they had left scraps.

- **X leave**  $\sim$  **scavenge pass** vs. **X leave**  $\sim$  **scavenge** looks strange. Why is *pass* included for the correct candidate?
- Most likely we will not get relevant results if we omit *scraps* from this sentence.

## New Dataset

### Sentence 61

The **lifeguard**-s evacuated the **swimmer**+s from the public pool because they were in danger of getting sick from human wastes in the water.

- Nearest Neighbors performs following comparison: **X be ~ evacuate X** vs. **X be ~ X evacuate** which contains way too little information for script knowledge to be beneficial.
- **X be ~ evacuate X** vs. **X be ~ X evacuate**

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