

Conditional Clauses

Tejasvi Chebrolu, Padakanti Srijith
2019114005, 2019114002

Introduction

Problem Statement - Identify and search for patterns in conditional constructions in Hindi and Telugu sentences and compare them with English.

Current Knowledge

Conditional sentences are sentences that express one thing contingent on something else, e.g. "If it rains, the picnic will be cancelled". They are called because the impact of the main clause of the sentence is conditional on the dependent clause. A full conditional thus contains two clauses: the dependent clause expressing the condition, called the antecedent (or protasis); and the main clause expressing the consequence, called the consequent (or apodosis).

Types:

Zero Conditional

(if + present simple, ... present simple)

ENGLISH

If/IN you/PRP heat/VBP water/NN to/IN 100/CD degrees/NNS ,/,**then**/RB it/PRP boils/VBZ ./.

Word_1 = If

Word_2 = then

Condition = heat water to 100 degrees

Consequence = it boils

HINDI

Word_1 = agar, karoge

Word_2 = toh

Condition = paani ko 100 degree tak garam

Consequence = woh ubhlega

Agar tum paani ko 100 degree tak garam **karoge**, **toh** woh ubhlega.

TELUGU

Word_1 = **cheste**

Word_2 = **appudu**

Condition = water ni 100 degrees varaku vedi

Consequence = adi maragutundi

Nuvuu water ni 100 degrees varaku vedi **cheste**, **appudu** adi maragutundi.

The First Conditional:

(if + present simple, ... will + infinitive)

ENGLISH

Word_1 = *If*

Word_2 = *then*

Condition = *rains tomorrow*

Consequence = *going to cinema*

If it rains tomorrow, **then** we'll go to the cinema.

HINDI

Word_1 = *agar, hua*

Word_2 = *toh*

Condition = kal baarish

Consequence = hum cinema jaana

Agar kal baarish hua, toh hum cinema jaayenge.

TELUGU

Word_1 = *padthe*

Word_2 = *appudu*

Condition = Repu varsham

Consequence = memu cinemaki velladam

Repu varsham padte, appudu manam cinemaki veldam.

The Second Conditional:

(if + past simple, ... would + infinitive)

ENGLISH

Word_1 = *If*

Word_2 = *then*

Condition = *have a lot of money*

Consequence = *travelling around the world*

If I had a lot of money, I would travel around the world.

HINDI

Word_1 = agar, hota

Word_2 = toh

Condition = mere paas bohot paisa

Consequence = duniya bhar ghumna

Agar mere paas bohot paisa hota, toh mein duniya bhar ghumta

TELUGU

Word_1 = unte

Word_2 = appudu

Condition = Naa deggara chaala money

Consequence = prapancham mottam tiragadam

Naa deggara chaala money unte, appudu nenu prapancham mottam tiruguthunde.

The Third Conditional:

(if + past perfect, ... would + have + past participle)

ENGLISH

Word_1 = If

Word_2 = then

Condition = gone to bed early

Consequence = catching the train.

If I had gone to bed early, I would have caught the train.

HINDI

Word_1 = agar, jaata

Word_2 = toh

Condition = main jaldi so

Consequence = train pakadna

Yadi main jaldi so jaata, toh mein train pakad leta.

TELUGU

Word_1 = unte

Word_2 = appudu

Condition = Nenu todarga padukoni

Consequence = train pattukovadam

Nenu todarga padukoni unte, appudu nenu train pattukuntunde.

Literature Review

Relevant Papers and Resources

- 1) <https://hindilanguage.info/hindi-grammar/conditional-sentences/>
- 2) <https://hal.archives-ouvertes.fr/hal-01377532/file/Sharma-conditionals-hal.pdf>

- 3) <https://www.sciencedirect.com/science/article/pii/S0024384188900629>

Corpora

The corpora was created by taking sentences from the NLTK corpus of the Gutenberg library. The sentences were then filtered out so that only sentences that were of the conditional clause format were added. The English sentences were then translated manually into Hindi and English

Issues Faced -

- 1) Sentence length was very long in many cases.
- 2) The manual translation took a lot of time so resources like Google translate were used which are not very accurate.
- 3) Some of the text was in archaic English and had to be converted into Modern English

Steps:

Common Steps -

- 1) Identify word 1 and word 2
- 2) POS tagging the sentences to find the type of conditional.
- 3) Chunk condition phrase and consequence phrase together.
- 4) Identify the type of conditional
- 5) Find patterns
- 6) Draw graphs

Telugu Additional Step -

- 1) Identifying Morphemes

Tools

- 1) Stanford Stanza
- 2) LTRC Morphanalyser
- 3) Manual annotation in cases where these tools fail