

show how the dependent clause is related to the independent clause. The subordinate conjunctions are given the syntactic tag as SC. Subordinate conjunctions can be prepositions (IN), adverbs (RB), Wh-pronouns (WP), Wh-adverbs (WRB).

Rhetoric relations and connectives English and Telugu are shown in the below Table 2.

Table 2: Connectives and their Rhetoric relations in English and Telugu

Cause/Effect	Comparison	Condition	Place	Parallel
English				
As , Because, In order that, Since, So that, that, how	Although, though, whereas, while, than, who	Even if, if, in case, provided that, unless, whether	where, Wherever	After, before, still, till, until, when, wherever, while
Telugu				
నట్లు, కై, చే, చేత naTlu, kai, chE, chEta	ఐనను, ఐనప్పటికీ ainanu, ainappatiki	కానీ, చో, ఎడల kAni, chO, eDala	ఎక్కడ, ఎక్కడైనా ekkaDa, ekkaDaina	వరకు, తరువాత, పిమ్మట, అప్పుడు varaku, taruvAta, pimmata, appuDu

6. STEPS FOR TRANSLATING COMPLEXES

MT system involves general steps for lexical, syntactic and semantic analysis like POS tagging, chunking, parsing, reordering and generation. Apart from them some key activities were involved during translation of complex sentences. Three modules were developed to translate complex sentences from SL to TL. The modules comprise of discourse split, SC movement, clausal reordering.

- **Discourse Split:** Discourse split was the process of separating the dependent and independent clauses of a complex sentence. Dependent and independent clauses were separated and the lexical, syntactical and semantic analysis was done separately for the two clauses. The splitting was done by identifying the comma and checking the position of subordinate conjunction in the sentence.

Ex: S: Monica went for shopping, after she finished her home work.

S1: Monica went for shopping,

S2: after she finished her home work.

- **SBAR Shift:** Structural shift was done as there was a formal correspondence between the two languages involved in the process of translation i.e. English and Telugu have same elements but English elements were replaced in a different order in the Telugu.

In English the subordinate clause can be at any position, it can be at the beginning followed by an independent clause or can follow an independent clause. Telugu a subordinate clause always appears at the beginning of a complex sentence. The dependent clause always precedes the independent clause of the sentence, Figure 4. Because of the logical dependence of clause on sentence structure correct translations entail clause shifts.

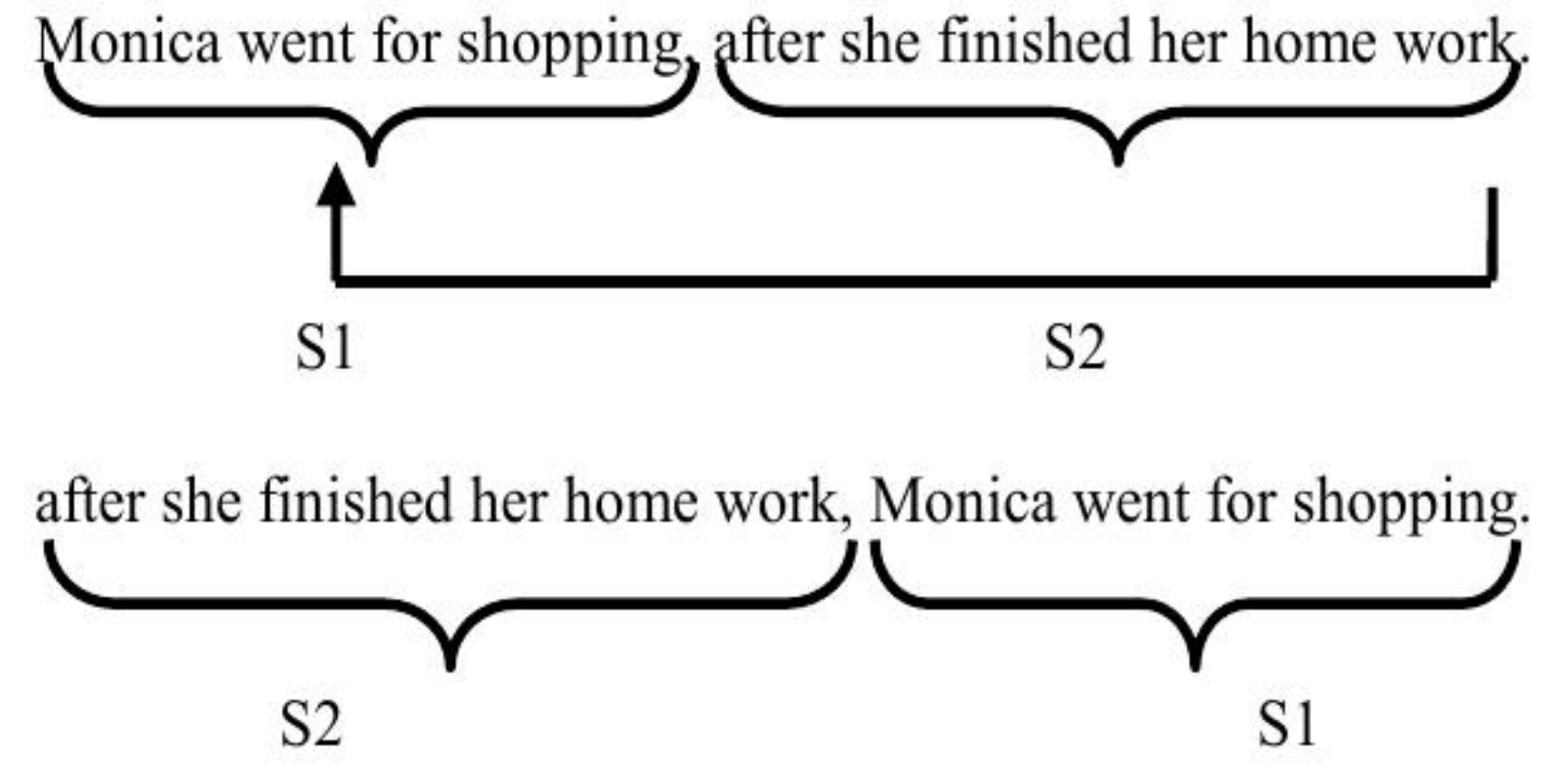


Figure 4. SBAR Shift

- **Subordinate Conjunction (SC) Movement:** In Telugu language the subordinate conjunction should always come at the end position of the dependent clause, Figure 5. It occupies the place of an object to a verb signifying to speak, to tell

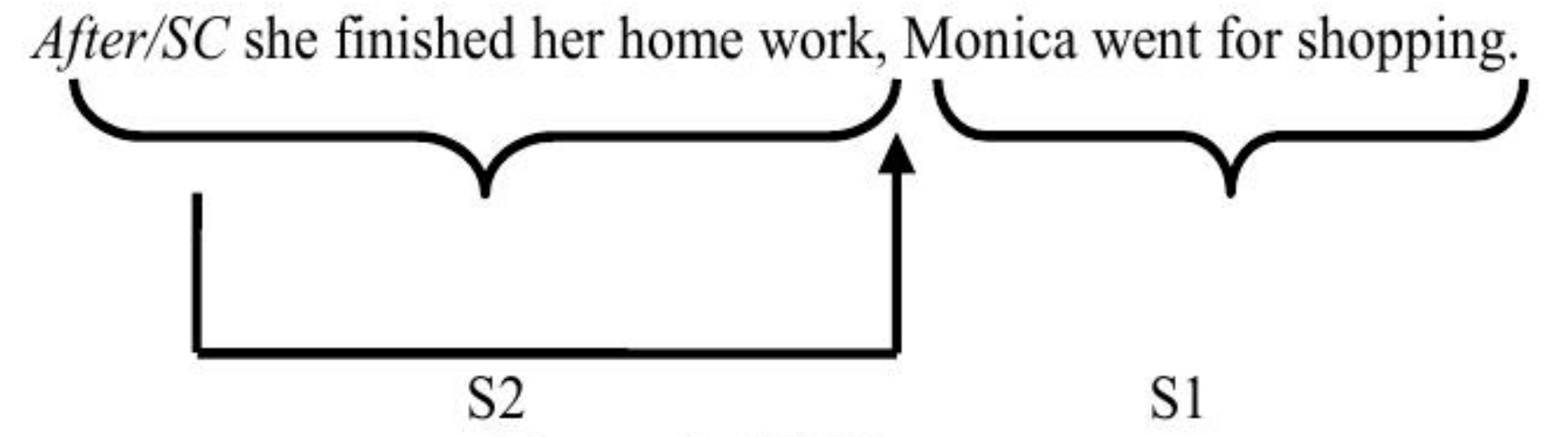


Figure 5. SC Movement

TL: She finished her homework *after/SC*, Monica went for shopping.

7. ALGORITHM FOR TRANSLATING COMPLEX SENTENCE

MT system involves general steps for lexical, syntactic and semantic analysis like POS tagging, chunking, parsing, reordering and generation. Apart from them some key activities were involved during translation of complex sentences. Three modules were developed to translate complex sentences from SL to TL. The modules comprise of discourse split, SC movement, clausal reordering.

The algorithm was developed to translate complex sentences of SL into TL. This algorithm handles complex sentences with a comma in between and having single word subordinate conjunctions.

Step 1: Get the Input sentence

Step 2: Split the sentence using the delimiter space (' ') into a string array of strings, S

Step 3: for int i = 0 to S.Length

a) if(S[i].Contains(','))