

# DETAILED ANALYSIS OF COMPOUND SENTENCES IN PUNJABI LANGUAGE

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## ABSTRACT

Compound sentences constitute major parts of the Punjabi language. All the large sentences are either of compound or of complex type. Analysis of compound sentences is helpful in processing the Punjabi language through computer. This study will be helpful in identification and separation of compound sentences from Punjabi corpus. Also this study will also be helpful in developing and improving many Natural Language Processing tools like simplification of compound sentences to simple sentences, grammar checking of compound sentences, summarization and machine translation etc.

**Keywords:** *Compound sentence, Punjabi language, NLP*

## 1. INTRODUCTION TO PUNJABI LANGUAGE

Punjabi is the most widely spoken language in Pakistan [1], the eleventh-most widely spoken in India [2], and the third-most spoken native language in the Indian Subcontinent. Punjabi is the fourth-most spoken language in the United Kingdom [3] and third-most spoken native language (after English and French) in Canada [4][5]. The language also has a significant presence in the United Arab Emirates, United States of America, Saudi Arabia, and Australia. Punjabi has as a cultural language link in the Indian Subcontinent is vast due to Bollywood with many songs partially or fully sung in Punjabi. At any point in time, Punjabi songs in Bollywood movies now account for more than 50% of the top of the charts listings [6][7][8].

## 2. INTRODUCTION TO PUNJABI SENTENCE

Sentences are the largest unit of grammar and are composed of second largest element that is clauses. A sentence may contain one to any number of clauses. The clauses in a sentence are joined with conjunctions. In Punjabi language, the sentence structure follow SOV order which means a sentence will start with subject followed by object and then verb in the last. Consider the following example:

ਮੁੰਡਾ ਸਕੂਲ ਜਾਂਦਾ ਹੈ । (muṅ ḍ ā sakūljāndāhai .) Boy goes to school

In above sentence, ਮੁੰਡਾ (muṅ ḍ ā) is the subject, ਸਕੂਲ (sakūl) is the object and ਜਾਂਦਾ ਹੈ (jāndāhai) is the verb. Depending upon the type of clauses used in the sentence, this can be classified in to three categories:

## 3. INTRODUCTION TO COMPOUND SENTENCES:

Compound sentences are composed of at least two independent clauses. These do not contain a dependent clause. In these sentences, clauses are joined by a coordinating conjunction (with or without a comma), a correlative conjunction (with or without a comma), a semicolon that functions as a conjunction, a colon instead of a semicolon between two sentences when the second sentence explains or illustrates the first sentence and sometime no coordinating conjunction is used to connect the clauses. Consider the following examples:

ਮੀਂਹਪੈਰਿਹਾਸੀ ਤੇ ਲੋਕਭਿੱਜਰਹੇ ਸਨ ।  
(mīṁhpairihāsī tē lōkbhijrahē san)  
'It was raining and the people were on breeze.'

In above examples, ਮੀਂਹਪੈਰਿਹਾਸੀ (mīṁhpairihāsī) and ਲੋਕਭਿੱਜਰਹੇ ਸਨ (lōkbhijrahē san) are two independent clauses connected by coordinate conjunction ਤੇ (tē).

#### 4. STRUCTURE OF COMPOUND SENTENCE

In Punjabi language compound sentences have simple structure. These are composed of independent clauses and conjunctions. Two or more than two independent clauses are joined by using either conjunction or comma. The conjunctions used in the construction of compound sentences are mainly coordinate conjunctions. These conjunctions join two symmetric parts (independent clauses) of the compound sentences.

##### 4.1 Independent Clause

The independent clause can be defined as an independent grammatical unit that is congruent with the sentence. A finite verbal phrase is further of two types. First one is affirmative verbal phrase that is composed of one to five verbal forms (Main verb + primary operator + progressive operator + modal operator + auxiliary verb). The second form is negative and emphatic verbal phrase which contains one to seven forms. This is essential element of the independent clause. This finite verbal phrase occurs finally in the clause. On the basis of structure an independent clause can have more than one noun phrase, adjective phrase, adverb phrase, prepositional phrase etc but it cannot have more than one verb phrase. These independent clauses can occur at any position in the compound and complex sentences.

#### 5. POSSIBLE PATTERNS OF COMPOUND SENTENCES

As discussed above, compound sentences are composed of independent clauses and conjunctions. On the basis of method used for joining the independent clauses using co-ordinate conjunctions, possible proposed patterns [Brar, B.S., 2008] have been listed in Table 1:

**Table 1: Possible Patterns of Compound Sentences**

Sr. No.	Pattern	Example
1.	Independent Clause + / , / +Independent Clause	ਆਦਮੀਂ ਕੋਈ ਖਿਡਾਉਣਾ ਤਾਂ ਨਹੀਂ ਕੁਦਰਤ ਕੋਈ ਮੰਤਕ ਦੀ ਕਿਤਾਬ ਤਾਂ ਨਹੀਂ Independent Clause comma Independent Clause
2.	Independent Clause + / Conjunction / +Independent Clause	ਪਹਾੜਾਂ ਵਿਚ ਮੀਂਹ ਪਹਿਲਾਂ ਵੀ ਤਿੰਨ ਮਹੀਨੇ ਹੀ ਵਰ੍ਹਾ ਦਾ ਸੀ ਪੁਰ Independent Clause Conjunction ਪਾਣੀ ਸਾਰਾ ਸਾਲ ਵਗਦਾ ਸੀ Independent Clause
3.	Independent Clause + / , / +Independent Clause + / Conjunction / +Independent Clause	ਆਂਢੀ ਗੁਆਂਢੀ ਹੈਰਾਨ ਸਨ ਉਸਦੇ ਬੱਚਿਆਂ ਦਾ ਪਿਉ ਤੁਰਗਿਆ ਸੀ ਤੇ Independent Clause comma Independent Clause Conjunction ਬੱਚਿਆਂ ਦੀ ਮਾਂ ਨੇ ਕਦੀ ਇਕ ਵਾਰ ਉਸ ਨੂੰ ਯਾਦ ਨਹੀਂ ਸੀ ਕੀਤਾ Independent Clause
4.	Independent Clause + / , / +Independent Clause + / , / +Independent Clause	ਇਕ ਦੇਸਤਰੀ ਕਾਫੀ ਹੁੰਦਾ ਹੈ ਦੇਸਤਾ ਜਿਹੀ ਕੋਈ ਰੀਸ ਨਹੀਂ Independent Clause comma Independent Clause ਤਿੰਨ ਦੇਸਤਰੀ ਮਾਂ ਵਾਲਿਆਂ ਦੇ ਹੁੰਦੇ ਹਨ ਚਾਰ ਦੇਸਤਰੀ ਸੰਭਵ ਨਹੀਂ Independent Clause comma Independent Clause

5.	Independent Clause + / Conjunction / +Independent Clause+ / Conjunction / +Independent Clause	<p>ਪਾਣੀਜੀਵਨਦਾਸ਼੍ਰੇਣੀ ਅਤੇ ਇਸਤਰੀਜੀਵਨਦਾਸ਼੍ਰੇਣੀ Independent Clause Conjunction Independent Clause</p> <p>ਸੋ ਇਸਤਰੀਨਾਲਪ੍ਰਕਿਰਤੀਦਾਸੰਬੰਧਮਾਧੀਵਾਲਾਹੈ Conjunction Independent Clause</p>
6.	Independent Clause + / , / +Independent Clause+ / Conjunction / +Independent Clause+ / , / +Independent Clause	<p>ਉਸਦੇਕਾਫੀਚੇਲੇਸਨਸਜੇ , ਉਹਵੀਸ਼ਰਯਾਭਰਪੂਰਹੋਗਏਸਨ ਪੁਰ Independent Clause comma Independent Clause conjunction</p> <p>ਸਿੰਘਨਹੀਂਸਨਸਜੇ , ਮੁਖਚੇਲੇਨੂੰ 'ਮੁਰੀਦ' ਜੀਕਹਿੰਦੇਸਨ Independent Clause comma Independent Clause</p>
7.	Independent Clause + / , / +Independent Clause+ / , / +Independent Clause+/ Conjunction / +Independent Clause	<p>ਪਾਣੀਦੀਬੁੜ੍ਹਨਾਲਹਿੰਸਾਵਧਦੀਹੈ , Independent Clause comma</p> <p>ਇਕਦੂਜੇਉਤੇਵਿਸ਼ਵਾਸਦੀਭਾਵਨਾਘਟਦੀਹੈ , Independent Clause comma</p> <p>ਅਤੇ ਸਾਂਝਤੇਮਿਲਵਰਤਨਦੀਬਿਰਤੀਮਾਂਦਪੈਜਾਂਦੀਹੈ conjunction Independent Clause</p>

## 6. CHARACTERISTICS OF COMPOUND SENTENCES

- The compound sentences of Punjabi language have the advantage over the complex sentences that the conjunction used in the compound sentences never comes in the start of the sentence.
- There is no limit for the length of compound sentences. The length of these sentences can be increased whenever desired.
- The compound sentences are composed of only independent clause whereas the complex sentences contain at least one dependent clause along with independent clause.
- In compound sentences co-ordinate conjunction is used to join two in-dependent clauses where as in complex sentences sub-ordinate conjunction is used for this purpose.

## 7. CONCLUSIONS AND FUTURE WORK

In this study, author made a detailed analysis of compound sentences and observed that compound sentences have fixed pattern that is composed of independent clauses separated by conjunctions or commas. This study could be helpful to computational linguistic for processing of compound sentences in Punjabi language. Further this could be helpful for machine translation and grammar checking of compound sentences. Another utilization of such study can be used to differentiate the compound sentences from simple and complex sentences.

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