



### Revision History:

| Name          | Change Date               | Version | Description of Changes                                     |
|---------------|---------------------------|---------|--|
| Tafseer Ahmed | 25 Oct, 2004              | 4.1.0.1 | Created  |
| Tafseer Ahmed | 4 <sup>th</sup> Nov, 2004 | 4.1.0.2 | F-Description are added to cover various types of VerbalP. |

**Rule ID:** UGR109

**Rule Syntax:** Following is the constituent description of the rule.

VerbalP -> ComplexP (TenseAuxP).

VerbalP -> ComplexP asp\_aux (TenseAuxP)

VerbalP -> ComplexP TenseAuxP

VerbalP -> ComplexP

**Rule Functional Description:** Following are the functional specifications of the rule.

VerbalP -> ComplexP: ^ = !, ~[! \_MORPH\_FORM =c PERFECTIVE], ^ VTYPE = Usual,! \_SUBJ\_CASE =c NOM, ^ \_MORPH FORM = ! \_MORPH FORM; (TenseAuxP: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;).

VerbalP -> ComplexP: ^ = !, ~[! \_MORPH\_FORM =c PERFECTIVE], ^ VTYPE = ERG,! \_SUBJ\_CASE =c ERG, ^ \_MORPH FORM = ! \_MORPH FORM; (TenseAuxP: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;).

VerbalP -> ComplexP: ^ = !, ^ VTYPE = Usual,! \_SUBJ\_CASE =c NOM; asp\_aux: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH\_FORM =c ! \_ALLOWED\_FORM, ^ \_MORPH FORM = ! \_MORPH FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND; (TenseAuxP: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;).

VerbalP -> ComplexP: ^ = !, ^ VTYPE = ERG,! PERF\_CONTROL = c POS; asp\_aux: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH\_FORM =c ! \_ALLOWED\_FORM, ^ \_MORPH FORM = ! \_MORPH FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND; (TenseAuxP: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;).

VerbalP -> ComplexP: ^ = !, ~[! \_MORPH\_FORM =c PERFECTIVE], ^ VType = DAT,! \_SUBJ\_CASE =c DAT, ^ \_MORPH FORM = ! \_MORPH FORM; (TenseAuxP: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;).

VerbalP -> ComplexP: ^ = !, ^ VType = DAT,! \_SUBJ\_CASE =c DAT; asp\_aux: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH\_FORM =c ! \_ALLOWED\_FORM, ^ \_MORPH FORM = ! \_MORPH FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND; (TenseAuxP: ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;).



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! \_MORPH ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;).

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VTYPE = Usual, ! \_SUBJ\_CASE =c NOM, ^ \_MORPH FORM = ! \_MORPH\_FORM; TenseAuxP: ^ TNS\_ASP TENSE = PAST, ^ TNS\_ASP FAR\_TYPE = ! FAR\_TYPE, ^ \_MORPH FORM = ! \_MORPH\_ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VTYPE = Usual, ! \_SUBJ\_CASE =c NOM, ^ \_MORPH FORM = ! \_MORPH\_FORM; TenseAuxP: ! TNS\_ASP TENSE =c FUTURE, ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH\_ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VTYPE = Usual, ! \_SUBJ\_CASE =c NOM, ^ \_MORPH FORM = ! \_MORPH\_FORM, ^ TNS\_ASP TENSE = PAST, ^ TNS\_ASP FAR\_TYPE = NEUTRAL;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VTYPE = ERG, ! \_SUBJ\_CASE =c ERG, ^ \_MORPH FORM = ! \_MORPH\_FORM; TenseAuxP: ^ TNS\_ASP TENSE = PAST, ^ TNS\_ASP FAR\_TYPE = ! FAR\_TYPE, ^ \_MORPH FORM = ! \_MORPH\_ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VTYPE = ERG, ! \_SUBJ\_CASE =c ERG, ^ \_MORPH FORM = ! \_MORPH\_FORM; TenseAuxP: ! TNS\_ASP TENSE =c FUTURE, ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH\_ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VTYPE = ERG, ! \_SUBJ\_CASE =c ERG, ^ \_MORPH FORM = ! \_MORPH\_FORM, ^ TNS\_ASP TENSE = PAST, ^ TNS\_ASP FAR\_TYPE = NEUTRAL;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VType = DAT, ! \_SUBJ\_CASE =c DAT, ^ \_MORPH FORM = ! \_MORPH\_FORM; TenseAuxP: ^ TNS\_ASP TENSE = PAST, ^ TNS\_ASP FAR\_TYPE = ! FAR\_TYPE, ^ \_MORPH FORM = ! \_MORPH\_ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VType = DAT, ! \_SUBJ\_CASE =c DAT, ^ \_MORPH FORM = ! \_MORPH\_FORM; TenseAuxP: ! TNS\_ASP TENSE =c FUTURE, ^ TNS\_ASP = ! TNS\_ASP, ^ \_MORPH FORM = ! \_MORPH\_ALLOWED\_FORM, ^ NUM = ! NUM, ^ RESPECT = ! RESPECT, ^ PERS = ! PERS, ^ GEND = ! GEND;.

VerbalP -> ComplexP: ^ = !, ! \_MORPH\_FORM =c PERFECTIVE, ^ VType = DAT, ! \_SUBJ\_CASE =c DAT, ^ \_MORPH FORM = ! \_MORPH\_FORM, ^ TNS\_ASP TENSE = PAST, ^ TNS\_ASP FAR\_TYPE = NEUTRAL;.

**Frequency: 1**

**Description:** This rule shows main rule for verb phrase.

*c-structure:* Verb phrase consists of a complex predicate phrase followed by optional aspectual auxiliaries and tense auxiliary phrase.

*f-structure:* Complex predicate phrase, auxiliary and tense auxiliary have agreement on the basis of number, gender, person and morphological form of verb.



### Examples:

- وہ [پڑھتا ہے].
- وہ [پڑھتا ہو گا].
- وہ [پڑھے گا].
- وہ [پڑھ رہا ہے].
- اس نے [پڑھا].

**Rule Status:** Under Process

### Reference:

- [1] UGR103
- [2] Miriam Butt, Discussion at EGD\_ULP meetings

**Related Rules:** UGR116, UGR024

**Related POS:** UPOS104

**Replaces:** - UGR020

**Reason:** - UGR020 was a general rule for all types of VP.

**Replaced by:** -

**Analysis:** Following is the analysis of the rule.

*Analysis:* The Usual Verb Phrase consists of Complex Predicate, Optional Auxiliary Phrase and Tense Auxiliary Phrase. In syntax of commonly used Urdu, only one aspectual auxiliary is used after Complex Predicate. Morphological form of each node depends on form of the next node. For example, 'ہے', 'تھا' and 'ہوگا' allow PERFECTIVE or HABITUAL form. 'گا' allows SUBJUNCTIVE form before it. The Complex Predicate provides the Sub-Categorization frame for the phrase. The case of subject is provided by last main or light verb of the phrase.

**Result:** We decided on above analysis.

**Future Work:** Verbal Phrase should deal all possible combinations of Aspectual auxiliaries so the sentences like 'جلے جا رہے ہوتے ہوں گے' should be parsed successfully.