



Center for Research in Urdu Language Processing National University of Computer and Emerging Sciences, Lahore Pakistan

Reference No:

Revision History:

Name	Change Date	Version	Description of Changes
Shanza Nayyer	2 nd Nov, 04	0.1	Created
Kiran Khurshid	8 th Dec, 04	0.2	Added rule for clausal negation
Zunaira Malik	20 th May, 05	0.3	New Release
Zunaira Malik	23 rd June, 05	0.3	Addition of coord-conj and ADVP
Zunaira Malik	7 th July, 05	0.4	Addition of coordconj with ADVs along with
			V_PREMOD and POSTMOD

Rule ID: EGR212

Rule Syntax: Following is the constituent description of the rule. VPact_main -> [HelpVP (ADVPmain_PREMOD) v (ADVPmain_POSTMOD) VPact_main -> (ADVP) v (ADVP) VPact_main -> aux neg v (ADVP)

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

1) VPact_main -> HelpVP: ^ = !,^_MAUX VOICE =c ACTIVE, ^TNS_ASP = !_MAUX TNS_ASP;(ADVPmain_PREMOD: ! \$ ^;) v: ^ = !, !_MORPH_FORM =c ^_MAUX _ALLOWED_FORM, !VOICE =c ACTIVE; (ADVPmain_POSTMOD: ! \$ ^;).

2) VPact_main -> (ADVP:! \$ ^ADJUNCT,!ADV_TYPE =c V_MOD;) v: ^ = !, ^_AUX1 _MORPH_FORM = !_MORPH_FORM, ^_MORPH_FORM = {PRES,PAST, TO_INF}, !VOICE =c ACTIVE, ^_FLAG = DECL; (ADVP:! \$ ^ADJUNCT,!ADV_TYPE =c V_MOD;).

3) VPact_main -> (adv:! \$ ^ADJUNCT,!ADV_TYPE =c V_MOD;) v: ^ = !, ^_AUX1 _MORPH_FORM = !_MORPH_FORM, !VOICE =c ACTIVE, ^_MORPH_FORM = {BARE,PERF, PROG},^_FLAG = INTERROGATIVE, ^HelpVP _ALLOWED_FORM = !_MORPH_FORM; (ADVP:! \$ ^ADJUNCT,!ADV_TYPE =c V_MOD;).

4) VPact_main -> (ADVP:! \$ ^ADJUNCT,!ADV_TYPE =c V_MOD;) v: ^ = !, ^_AUX1 _MORPH_FORM = !_MORPH_FORM, !VOICE =c ACTIVE, ^_MORPH_FORM = {PRES, PAST},^_FLAG = INTERROGATIVE; (ADVP:! \$ ^ADJUNCT,!ADV_TYPE =c V_MOD;).

5) VPact_main -> aux: ^TNS_ASP TENSE = !TNS_ASP TENSE, !_AUX_FORM =c 'do'; neg: ^=!; v: ^ = !, ^_AUX1 _MORPH_FORM = !_MORPH_FORM, ^_MORPH_FORM = BARE, !VOICE =c ACTIVE, ^_FLAG = DECL; (ADVP:! \$ ^ADJUNCT,!ADV_TYPE =c V_MOD;).

6) VPact_main -> (ADVP:! \$ ^ADJUNCT ADV,!ADV_TYPE =c V_MOD;) v: ^ = !, !_MORPH_FORM =c PROG, !VOICE =c ACTIVE , ^TNS_ASP TENSE = PRES, ^FLAG = HYPERLINK ; (ADVP:! \$ ^ADJUNCT ADV,!ADV_TYPE =c V_MOD;).

Frequency: -

Description: This rule shows the VP production in active form of English Grammar.

c-structure: This VP production is for the case where verb (v) is preceded by one or many helping verbs (modal and auxiliaries) or is a verb alone. This VP makes a sentence in active voice. It is to be noted that this production is

EGD Urdu Localization Project - Grammar Rule Document





Center for Research in Urdu Language Processing National University of Computer and Emerging Sciences, Lahore Pakistan

used by all forms of VP (intransitive, transitive and ditransitive). These productions are also used for both declarative and interrogative sentence types. Adverbial Phrase can optionally occur before or after main verb. Moreover, the adverbial phrases occurring before or after can contain multiple adverbs conjoined with the help of conjunctions like AND. The occurrences of these conjoined adverbs before or after the verb may cause different translations which is why they have been divided into V_PREMOD and V_POSTMOD to show whether the ADV phrases occurred before or after the verb.

f-structure: The information contained in HelpVPact (Active Helping VP) and verb is passed to the mother node. _MORPH_FORM feature contained in verb is for checking well-formed-ness. As the VP production is for active form hence VOICE of verb is checked. Production 1 is for main verb with helping verbs used for both interrogative and declarative sentences. It includes option ADVPmain_PREMOD and ADVPmain_POSTMOD productions to cater to ADVs separated by the conjunction AND occurring before and after a verb. This distinction has been made to help translation into Urdu which might be different for the PREMOD and POSTMOD forms. Production 2 is for a VP having only main verb and is used only for declarative sentences. Production 3 and Production 4 are for interrogative sentences having just main verb. The auxiliary of such productions occurs in the beginning. Production 5 represents the negative verb phrase which contains no helping verb phrase. In such a verb phrase the verb is in BARE form while the tense aspect is contained in the auxiliary "do" occurring before the negative particle "not".

Examples:

- 1) She <u>is working</u>.(for production 1)
- 2) What have you been writing (for production 1)
- 3) He <u>slept</u>. (for production 2)
- 4) She <u>works</u>. (for production 2)
- 5) What have you seen? (for production 4)
- 6) What are you <u>writing?</u> (for production 4)
- 7) She does not read slowly. (for production 5)
- 8) They <u>do not</u> work. (for production 5)
- 9) She is working quickly and neatly (for production 1 with coord_conj in V_POSTMOD)
- 10) She is finally working. (V_PREMOD production 1 without conjunction)
- 11) She is guickly and swiftly eating her soup. (V_PREMOD with conjunction)

Rule Status: Active Reference: -Related Rules: EGR214, EGR215, EGR235 Related POS: EPOS101, EPOS106, EPOS120 Replaces: EGR125 Reason: New release Replaced by: -Reason: -





Center for Research in Urdu Language Processing National University of Computer and Emerging Sciences, Lahore Pakistan

Analysis: Please refer to the related rules and related POS documents (in references) for details.

Result: -

Future Work: -