



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
Omar Javed	06 th November, 04	0.1	Created
Sara Hussain	17 th Dec, 04	4.1.0.0	modified for compatibility with grammar/Lexicon file (changed PERSON to PERS, _MORPH FORM to _MORPH_FORM)

POS ID: UPOS14

Part of Speech Name: Aspectual Auxiliary

= SG, $^{\wedge}$ GEND = M, $^{\wedge}$ PERS = {1, 2, 3}, $^{\wedge}$ SUBJ = NORESPECT.

Part of Speech String: Asp_Aux

Lexical Entry Template:

<word>: asp_aux, ^_AUX_FORM = '<logical form of word>', ^ JA_TYPE = {aa, ja}, ^_ALLOWED_FORM =
{BARE, SUBJUNCTIVE, PERFECTIVE, HABITUAL}, ^_SUBJ_CASE = {NOM, ERG}, ^_MORPH_FORM = {BARE,
SUBJUNCTIVE, PERFECTIVE, HABITUAL}, ^ TNS_ASP HABITUAL = POS, ^CAUSATION = {NO, SINGLE,
DOUBLE}, ^ NUM = {SG, PL}, ^ GEND = {M, F}, ^PERS = {1, 2, 3}, ^ RESPECT = {NORESPECT, FAMILIAR,
USUAL, EXTRA}.

Sample Lexical Entry:

i : asp_aux, ^_AUX_FORM = 'aa', ^ JA_TYPE = aa, ^ _ALLOWED_FORM = {BARE, habitual},^ SUBJ_CASE=NOM, ^ MORPH_FORM = habitual, ^ TNS_ASP HABITUAL = POS, ^CAUSATION = NO, ^ NUM = SG, $^{\land}$ GEND = M, $^{\land}$ PERS = {1, 2, 3}, $^{\land}$ RESPECT = NORESPECT. asp_aux, ^_AUX_FORM = 'aa', ^ JA_TYPE = aa, ^ _ALLOWED_FORM = {BARE, habitual},^ _SUBJ_CASE=NOM, ^_MORPH_FORM = habitual, ^ TNS_ASP HABITUAL = POS, ^CAUSATION = NO, ^ NUM = PL, ^ GEND = M, ^ PERS = {1, 2, 3}, ^ RESPECT = {NORESPECT, FAMILIAR, USUAL, EXTRA}. asp_aux, ^_AUX_FORM = 'aa', ^ JA_TYPE = aa, ^ _ALLOWED_FORM = {BARE, habitual},^ _SUBJ_CASE=NOM, ^_MORPH_FORM = habitual, ^ TNS_ASP HABITUAL = POS, ^CAUSATION = NO, ^ NUM = SG, ^ GEND = M, ^ PERS = {1, 2, 3}, ^ RESPECT = {FAMILIAR, USUAL, EXTRA}. asp_aux, ^_AUX_FORM = 'aa', ^ JA_TYPE = aa, ^ _ALLOWED_FORM = {BARE, habitual},^ _SUBJ_CASE=NOM, ^_MORPH_FORM = habitual, ^ TNS_ASP HABITUAL = POS, ^CAUSATION = NO, ^ NUM = SG, $^{\wedge}$ GEND = F, $^{\wedge}$ PERS = {1, 2, 3}, $^{\wedge}$ RESPECT = NORESPECT. asp_aux, ^_AUX_FORM = 'aa', ^ JA_TYPE = aa, ^ _ALLOWED_FORM = {BARE, habitual},^ _SUBJ_CASE=NOM, ^_MORPH_FORM = habitual, ^ TNS_ASP HABITUAL = POS, ^CAUSATION = NO, ^ NUM = PL, ^ GEND = F, ^ PERS = {1, 2, 3}, ^ RESPECT = {NORESPECT, FAMILIAR, USUAL, EXTRA}. : asp_aux, ^_AUX_FORM = 'ja' , ^ JA_TYPE = ja, ^_ALLOWED_FORM = {BARE,habitual,SUBJUNCTIVE},^ _SUBJ_CASE=NOM, ^_MORPH_FORM = habitual, ^ TNS_ASP HABITUAL = POS, ^CAUSATION = NO, ^ NUM

Description

Aspectual Auxiliaries are used to show manner and aspect of the verb. Different inflectional forms of it can be represented using following features: _AUX_FORM, JA_TYPE, _ALLOWED FORM, _SUBJ_CASE, _MORPH_ FORM, TNS_ASP HABITUAL, CAUSATION, Gender, Number, Person and Respect. The detailed description of





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these features is given in [1]. The feature list does not have Predicate, because it only introduces some features in Tense_Aspect of the main verb. Aux_Form is an alternate of Predicate that shows the name of verb. The description of the features is following:

JA_TYPE can be: aa Example: نام

ja Example: ا

It cannot be NULL or both

_ALLOWED_FORM can be:

BARE: Example: اتّا SUBJUNCTIVE: Example: جاتا

PERFECTIVE:

أتى:HABITUAL: Example

It cannot be null or more than one.

_SUBJ_CASE can be: NOM Example: اتّـے

ERG

It cannot be NULL

_MORPH_FORM can be: BARE: Example:

SUBJUNCTIVE: Example:اَنے
PERFECTIVE: Example:اَن

It cannot be NULL

TNS_ASP HABITUAL can be:

POS: Example: اتّا

CAUSATION can be: NO: Example: اِبَا

SINGLE: DOUBLE: It cannot be null.

NUM (Number) can be: SG (singular): Example: ਪੀ

PL (plural): Example: اتـے

It cannot be null or both.

GEND (Gender) can be: M (masculine): Example: ๒๋

آتى: F (feminine): Example

It cannot be null or both.

PERS (Person) can be:

RESPECT can be: NORESPECT, FAMILIAR, USUAL, EXTRA

It cannot be null. It is used for agreement.

Examples:

جاتا، آتا، پڑا، ملا، دیتا، لیتا وغیره





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POS Status: Active

[1] Urdu Verbs Forms and Features (MT-02_Verb Features.doc) جامع القواعد، ابو الليث صديقى [2] جامع القواعد، ابو الليث صديقى [3] Miriam Butt

نئى اردو قواعد، عصمت جاويد[4]

Related POS: UPOS113

Replaces: -UPOS14

Reason: -

Replaced by: -





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Analysis: Following is the in-depth analysis of the rule.

Analysis 1: Urdu Grammar Writers have introduced a category of verbs called Helping Verbs [2]. Miriam Butt has termed these verbs as Light Verbs [3]. These verbs are used after main verb to enhance its meaning or to show some aspectual feature. These verbs are also used to make compound verbs by combining a noun or adjective and a verb. Some examples of these verbs are.

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اسے خط لکھنا پڑتا ہے۔
وہ آم کھاتا جاتا ہے۔
وہ کام کرتا ہے۔
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In above examples, בוו א ביו אליו און are helping or light verbs. In first sentence, parta shows that the subject has to write the letter. In second sentence, jata shows the continuity of eating action. And in third sentence, karta is used after noun kaam to show action of work.

Analysis 2: In Analysis 1, we discussed light verbs that perform two different tasks. a) Some light verbs are used to enhance meaning of a main verb, like jata and karta used in first and second example. b) Some light verbs are used after nouns/adjective to show some action. Ismat Javed gives two different classes for these two tasks. He termed verbs of a) as Helping Verb and b) as Non-Helping Verbs [4].

This analysis seems true, because both of these categories have different purposes. Another important point is that verbs of a) can be used after verbs of b). The compound word formed by noun/adjective and a verb acts as a single noun. For example,

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اس نے کہانی یاد کی۔
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We can use verbs of a) after compound word kaam karna.

In these examples, parta and jata are used after karma in the similar way as they are used after main verbs likhna and khana.

Another point is that we can have causation of group b) verbs but not of group a). For example, we can write

*اسے خط لکھنا پڑواتا ہے۔

Therefore, there should be two categories, a) Aspectual Auxiliary for enhancement of verb's meaning and b) Light Verbs to use after noun/adjective in a compound word.

Different inflectional forms of an aspectual auxiliary can be represented using following features: _AUX_FORM, JA_TYPE, _ALLOWED_FORM, _SUBJ_CASE, _MORPH_FORM, TNS_ASP HABITUAL, CAUSATION, NUM (number), GEND (Gender), PERS (Person) and RESPECT. The description of these features is given in [1].

Result: We decided on Analysis 2.

Future Work: Some Aspectual Auxiliaries can be classified as Modals.