



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	25 th October, 04	0.1	Created
Shanza Nayyer	18 th February, 05	0.2	Updated features after re-analysis of adverbs. Many features which were not required for translation were removed.
Zunaira Malik	22 nd June, 05	0.3	Addition of comparative and superlative in SEM_TYPE and change of PRED to show logical form and POS

POS ID: EPOS102

Part of Speech Name: Adverb

Part of Speech String: adv

Lexical Entry Template:

<word>: adv, ^PRED = <logical form of the word and POS>, ^ADV_TYPE = {S_MOD, ADJ_MOD, N_MOD, V_MOD, P_MOD}, ^SEM_TYPE = {TIME, MANNER, PLACE, EXTENT, INTERROG, CONJ, COMPARITIVE, SUPERLATIVE}.

Sample Lexical Entry:

yet : adv, ^PRED = 'yet_adv', ^ADV_TYPE = V_MOD, ^SEM_TYPE = TIME.

more : adv, ^PRED = 'more_adv', ^ADV_TYPE = ADJ_MOD, ^SEM_TYPE = COMPARITIVE.

most : adv, ^PRED = 'most_adv', ^ADV_TYPE = ADJ_MOD, ^SEM_TYPE = SUPERLATIVE.

Description: Adverbs are words that modify another adverb, a verb, an adjective or clause on the whole [2]. The feature associated with adverb is:

ADV_TYPE:	S_MOD:	<i>Example: Unfortunately she died.</i>
	V_MOD:	<i>Example: She is sleeping well.</i>
	ADJ_MOD:	<i>Example: She is very unhappy.</i>
	N_MOD:	<i>Example: She made quite a mess in the room.</i>
	P_MOD:	<i>Example: She is sitting right behind you.</i>
SEM TYPE:	TIME:	<i>Example: She will come home today.</i>
	MANNER:	<i>Example: She ran quickly.</i>
	PLACE:	<i>Example: He went upstairs</i>
	EXTENT:	<i>Example: I am extremely sorry</i>
	INTERROG:	<i>Example: When are you going to school?</i>
	CONJ:	<i>Example: She is not home yet</i>
	NEGATIVE:	<i>Example: She is never working</i>
	COMPARITIVE:	<i>Example: She is more beautiful than me.</i>
	SUPERLATIVE:	<i>Example: She is the most beautiful girl.</i>



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Examples:

1. I am very happy.
2. She drove slowly.
3. She moved quite slowly.
4. He moved right after me.

POS Status: Active

Reference:

[1] Miriam Butt, "A Grammar Writer's Cookbook"

[2] <http://webster.comnet.edu/grammar/adverbs.htm>

[3] Pam Peters, "The Cambridge English Guide to Usage"

Related Rules: EGR105

Related POS: -

Replaces: -

Reason: -

Replaced by:

Reason: ADV_TYPE introduced after meeting with Dr. Butt



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

Analysis 1: Adverbs are words that modify a verb, an adjective or another adverb [2].

There are five kinds of adverbs as shown below [2]:

1. **Adverbs of Manner**
She moved slowly and spoke quietly.
2. **Adverbs of Place**
She has lived on the island all her life.
She still lives there now.
3. **Adverbs of Frequency**
She takes the boat to the mainland every day.
She often goes by herself.
4. **Adverbs of Time**
She tries to get back before dark.
It's starting to get dark now.
She finished her tea first.
She left early.
5. **Adverbs of Purpose**
She drives her boat slowly to avoid hitting the rocks.
She shops in several stores to get the best buys.

Also, the position of adverb can vary in a sentence:

- Example:* i) Solemnly the minister addressed her congregation.
ii) The minister solemnly addressed her congregation.
iii) The minister addressed her congregation solemnly.

Most of the adverbs discussed above *define* the words they occur with, but special kinds of adverbs also exist which often function as *intensifiers*. They convey a greater or lesser emphasis to something [2]. Intensifiers are said to have three different functions. They can:

1. Emphasize: *Example:* I really don't believe him.
2. Amplify: *Example:* The teacher completely rejected her proposal.
3. Downtone: *Example:* I kind of like this college.

The feature ADV_TYPE is used to differentiate between adverb intensifiers and attributive adverbs.

Analysis 2: Another detailed analysis on adverbs is given in [3].

Adverbs are the most varied class of English words, with a variety of syntactic roles. Following are the types of adverbs:

SUBJUNCT: (adjective, adverb): they typically modify other adverbs or adjectives. They moderate the force of various kinds of word. Many such as *really, relatively, too, very*, modify adjectives and other adverbs. Some such as *almost, quite, rather* can modify verbs as well. Subjuncts of both kinds have the effect of either softening or intensifying the words they modify, hence the two major groups:

(downtoners)	fairly	rather	somewhat
(intensifiers)	extremely	most	so

A special group of restrictive subjuncts serve to spotlight others and to narrow the focus of the sentence. They include adverbs such as *especially, even, only*.



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CONJUNCT(sentence, clause): they forge a semantic link between a sentence and the one before it. They play a cohesive role between separate sentences, or clauses. They include words like *also, however, therefore*, and thus express logical relationships such as addition, contrast and causation.

DISJUNCT (clause, sentence,v(sometimes)): modifies whole clauses or sentences. They affect the interpretation of the whole clause or sentence, either as judgements of the likelihood of something happening (*maybe, possibly, surely, probably*); or as expressions of attitude towards the event (*fortunately, mercifully, regrettably, worryingly*). They can be moved around within it:
Fortunately the letter got there in time.
The letter *fortunately* got there in time.
The letter got there in time *fortunately*.
They can also be used for emphasis.

ADJUNCT (sentence, verb) : adverbs which detail the circumstances of the verb are these days often called adjuncts, to indicate that they connect with the core of the clause without being part of it. They add detail to whatever action the verb itself describes. They may specify the time or place of the action, the manner in which it took place, or its extent.

Example

Time: tonight, tomorrow, soon, then

Place: abroad, upstairs

Manner: well, thoughtfully, energetically

Extent: largely, totally, partly, thoroughly, mostly

NEGATIVE: *not*, the negative adverb, is treated separately from other adverbs in modern English grammars. This is because of its affinity with negative words of other kinds, such as determiners and pronouns (*neither, no, none*). *Not* has wide-ranging powers within sentences, to modify a word(verb, adjective or another adverb), a phrase, or a whole clause.

COMPOUND ADVERBS: there are also compound adverbs, for example *downtown* and *indoors*. Many adverbs are phrases:

Straight away

In no way

To the bottom

A little bit

Without a care in the world

Adverbial ideas can be expressed through several kinds of clauses.

Adverbs also allows degrees of comparison. Those consisting of one syllable, e.g. *fast, hard, soon*, make their comparative and superlative forms with inflections in the same way as adjectives: *sooner, soonest etc*. Adverbs formed with *-ly* enlist the help of *more* and *most*, as in *more energetically, most energetically*. [1, pg. 18]

Result: As adverbs belong to the most diversified class, hence modeling its semantic features is relatively cumbersome. Hence syntactic and semantic distinction of adverb is kept separate. Syntactically an adverb can be a sentence, verb, adjective/adverb or noun modifier. This distinction is modeled through the feature of **ADV_TYPE**. Semantically adverb can have a wide variety of features which are cut down to few features as was the requirement of the translation. Compound adverbs do not have separate semantic properties and hence are mapped till now using the existing semantic properties. PP or other phrases acting as adverb are modeled in f-structure by **ADJUNCT** structure.

Future Work:

1. The semantically different kinds of adverbs discussed in the above analyses will be catered later.



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2. New semantic features may be added to the adverb.