



### Revision History:

Name	Change Date	Version	Description of Changes
Tafseer Ahmed	23 Sep, 2004	4.1.0.1	Created
Sara Hussain	16 Dec, 2004	4.1.0.2	rule modified for compatibility with grammar file (changed name of AdjP to AdjPmain)
Sara Hussain	7 <sup>th</sup> Feb, 2005	4.1.0.3	Modified to add infinitival rule (VPinf)
Sara Hussain	22 <sup>nd</sup> Jan, 2005	4.1.0.4	Modified to add checks for Deverbal
<b>Nayyara Karamat</b>	<b>07-Jul-2005</b>	<b>5.1.0.1</b>	<b>Current NPnoun checked and rectified</b>
<b>Tafseer Ahmed</b>	<b>07-Jul-2005</b>	<b>5.1.0.2</b>	<b>Current NPnoun checked and rectified</b>
Aasim Ali	13-Jul-2005	5.1.0.3	WP (wala phrase) is shifted in the start (right after GP) AdjPmain is changed to AdjP*
Aasim Ali	16-Jul-05	5.1.0.4	Changed GP to GPmain

**Rule ID:** UGR106

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

NPnoun -> (GPmain) (WP) (DeverbalVP) (dem) ([QuantP | NumberP]) [AdjP]\* (n) [n | VPinf].

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

NPnoun -> (GPmani: ^ SPEC GEN=!, ^ NUM = ! NUM, ^ GEND = ! GEND, ^ RESPECT = ! RESPECT, ^ FORM = ! FORM ;)  
(WP: ^ SPEC WAL = !, ^ NUM = ! NUM, ^ GEND = ! GEND, ^ RESPECT = ! RESPECT, ^ FORM = ! FORM ;)  
(DeverbalVP: ^ SPEC DVER = !; )  
(dem: ^ SPEC DEM = !, ^ NUM = ! NUM, ^ GEND = ! GEND, ^ FORM = ! FORM;)  
([QuantP: ^ SPEC QUANT = !, ^ NUM = ! NUM, ^ GEND = ! GEND, ^ RESPECT = ! RESPECT, ^ FORM = ! FORM;  
| NumberP: ^ SPEC NUMBER = !, ^ NUM = ! NUM, ^ GEND = ! GEND, ^ RESPECT = ! RESPECT, ^ FORM = ! FORM;])  
(AdjP: ^ ADJUNCT ADJ = !, ^ NUM = ! NUM, ^ GEND = ! GEND, ^ RESPECT = ! RESPECT, ^ FORM = ! FORM ; )  
[n: ! \$ ^ ADJUNCT MOD\_N, ^ NUM = ! NUM, ^ GEND = ! GEND, ^ RESPECT = ! RESPECT, ^ FORM = ! FORM;]#0#3  
[ n: ^=!, ^ PERS = 3, !\_INFL\_AGREEMENT = NA; | VPinf: ^=!, ^ PERS = 3, !\_INFL\_AGREEMENT = {NEGATIVE, POSITIVE}, ^ SEM\_TYPE = ABSTRACT;].

**Frequency:** 1

**Description:** The rule shows the Noun Phrase having noun with its modifiers and specifiers.

*c-structure:* Noun Phrase can have Genitive Phrase, Deverbal Phrase, Determiner, Number, Demonstrative, Quantifier Phrase, Number Phrase, Adjective Phrase nodes with compulsory Noun or infinitival node.



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*f-structure*: Features present in any of the daughter nodes are copied to NP.

**Example:**

حامد کی کتاب  
حامد کا پڑھنا  
میرا قلم  
چند گھوڑے  
ایسی تین کتابیں  
گھاس چرتے ہوئے سفید گھوڑے  
وہ گاڑی والا لڑکا  
اوپر والی تین کتابیں  
نیچے والی کتابیں  
اوپر والی کتابوں والا بستہ  
صبح والی بلی  
ایک صبح والی میز والے کام والے لڑکے والی دو کتابوں والی باتوں کا ذکر  
بڑے اچھے بہت پیارے بہت زیادہ بڑے بڑے خوبصورت پہاڑ  
حامد کی، اسلم کی اور امجد کی کتابیں

**Rule Status:** Under-process

**Reference:** [1] Javaid, Ismat

”نئی اردو قواعد“  
1985, 2<sup>nd</sup> Ed

[2] Platts, John T

”A Grammar of the Hinsustani or Urdu Language“  
1909, 5<sup>th</sup> Ed.

**Related Rules:** UGR008, UGR010, UGR011, UGR013, UGR016

**Replaces:** - UGR008, UGR010, UGR011, UGR013, UGR016, UGR104

**Reason:** - NPcommon and NPproper are merged. Previous rules have hierarchal structure, which are merged into a flat structure rule.

**Replaced by:** -



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

*Analysis 1:* The previous analysis discussed in UGR008, 010, 011, 013, 016 that has different rules for Common and Proper Noun.

*Analysis 2:* Common and Proper noun are different in semantic properties, but their usage in sentence is similar. The Noun Phrase consists of a noun that is head word. It has modifiers and specifiers that describe it. Genitive Phrase, Deverbal Phrase, Demonstrative, Quantifier, Number and Wala phrase are used to specify the noun. Adjectives and Noun acting as adjective are used to describe properties of the head noun. The order of these modifiers/specifiers in a noun phrase can change but it has a more frequently used order.

Infinitivals have been modeled as noun since they occur in nominal positions and can take same modifiers (GP, adjectives, deverbals etc.) as nouns do. For this reason infinitival phrase has been placed in this rule.

WP (Wala Phrase) can handle translation of English phrase like “Top 3 books” as “اوپر والی تین کتابیں”. This also works for “صبح والی دو چیزیں”, and thus with every noun before “والی، والا، والے” in this position (i.e, right after GP) in the Noun.

Long list of adjective (without any separator), as in بڑے اچھے بہت پیارے بہت زیادہ بڑے بڑے خوبصورت پہاڑ, caused the use of AdjP\* in place of AdjPmain. Experiencing the problem that \* allows only 0 to 3 occurrences changed the \* to become #0#7 instead. Though بڑے بڑے in this example is not a pair of simple adjectives (rather it holds the sense of “numerous” as well) yet they are left as it is for the sake of reducing ambiguity / time-complexity for Generator.

**Result:** We decided on analysis 2.

**Future Work:**

Examples as given below are not included in current analysis because they have not been encountered yet while translating from English, and they are complicated enough that may cause a marginal delay in response time of the Generator:

میز پر کی کتاب  
اور سرخ  
کوئی اور سرخ  
اور بھی کالا  
نیلا سا رنگ  
بہت سا پانی  
شیر کی سی صورت  
کہیں بہتر بات  
ایک ایک  
دس دس  
دودھ والا