Semantic Classification of Adjectives: A Comparative Study

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Abstract

The present paper deals with the semantic classification of adjectives in Bangla and English. Here I have followed the framework proposed by Broekhuis (2013) which is based mainly on internal semantic features of adjectives applicable in Dutch. I have tried to examine the availability of semantic classes of adjectives in Bangla and English. This paper provides the judgment of native speakers on grammaticality concerning the linguistic constructions in the selected languages. Finally, it presents a comparative study.

Keywords: adjective, semantic classification, set-denoting, relational, evaluative, residue, Dutch, Bangla and English.

Abbreviations
CLA= classifier
N= noun
NEG= negation
NP= noun phrase

Diacritic
* denotes ungrammaticality.

1. Introduction

This paper concentrates on the semantic categorization of the word class adjective in Bangla (Indo-Aryan language) and English (Germanic language) with reference to Dutch (Germanic language). Depending upon the semantic domains adjectives like other word classes can be grouped into several types (Giri, 2018). But here the crux is the application of the framework by Broekhuis (2013) where binary-valued semantic features are in focus. It investigates the accessibility of the semantic categories of adjectives in Bangla and English.

2. Semantic Classification of Adjectives

The semantic categorization of adjectives is based on the semantic features called [±QUALIFYING] and [±KIND-OF-RELATION]. On the one hand, the qualifying feature denotes properties or characteristics of the particular referents specified by an adjective. On the other hand, the kind-of-relation feature expresses a relation between two different referents which is established by the adjective given.
1) X Y (X = adjective, Y = noun)

In a word, the *qualifying* feature indicates that the property of BEING X is assigned to the given referent Y. The *kind-of relation* feature states that the noun Y has the property X. These features have binary values positive or negative and their presence or absence determines the classification. Broekhuis (2013, p. 14) noted "a positive value for the first feature indicates that the adjective ascribes some property or positive/negative value to the modified noun (phrase). A positive value for the latter feature indicates that the adjective expresses some relation between the denotation of the noun and something else". Now on the basis of this conception, four types of adjectives are categorized semantically: *set-denoting adjectives, relational adjectives, evaluative adjectives* and the *residue* class.

### Table - 1: Semantic classification of adjectives

<table>
<thead>
<tr>
<th>Semantic Features</th>
<th>[+KIND-OF RELATION]</th>
<th>[-KIND-OF RELATION]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+QUALIFYING]</td>
<td>Set-denoting</td>
<td>Evaluative</td>
</tr>
<tr>
<td>[-QUALIFYING]</td>
<td>Relational</td>
<td>the Residue</td>
</tr>
</tbody>
</table>

[Broekhuis (2013)]

#### 2.1. Set-denoting Adjectives

Set-denoting adjectives refer to the class of adjectives which indicate attributes of nouns or noun phrases to modify them and can be placed both attributively and predicatively. For examples, in Dutch *aardige* ‘kind’ and *blauwe* ‘blue’ are set-denoting adjectives. On the one hand, the property of BEING KIND is attributed to *de jongen* ‘the boy’. On the other hand, *de jongen* ‘the boy’ has the property *kindness*. In (2), the adjective appears in two syntactic positions attributively and predicatively.

**Dutch**

2) a. de aardige jongen the kind boy
b. de blauwe ballon the blue balloon

a’. de jongen is aardig. the boy is nice
b’. de ballon is blauw. the balloon is blue

Likewise, *fugor* ‘handsome’ in (3) is a set-denoting adjective in Bangla. The property of BEING HANDSOME which is expressed by the adjective *fugor* ‘handsome’ is ascribed to *c⁶eleta* ‘the boy’. Again, it can be said that *c⁶eleta* ‘the boy’ has the attribute to be *fugor* ‘handsome’. This adjective has both the syntactic usages: attributive and predicative as represented in the (3) and (3a’) respectively.

**Bangla**

3) a. *fugor c⁶ele-ta* the boy is nice
b. *c⁶ele-ta fugor* the balloon is blue
handsome boy-CLA  boy-CLA  handsome
‘the handsome boy’  ‘the boy is handsome’

The instance in (3) shows that $\textit{fa\text{a}}$ ‘white’ is a set-denoting adjective having both the qualifying and the kind-of relation features.

b.  $\textit{fa\text{a}}$  $p^\text{ul-}ta$  b'.  $p^\text{ul-}ta$  $\textit{fa\text{a}}$
white  flower-CLA  flower-CLA  white
‘white flower’  ‘The flower is white.’

Interestingly, it is found that English also possesses set-denoting class of adjectives. For examples, $\textit{clever}$, $\textit{green}$ etc. In (4) it is seen that the attribute of $\textit{being clever}$ is assigned to the given noun $\textit{the boy}$ and (4a') shows that the boy has the property to be $\textit{clever}$. The same is also true for the adjective $\textit{green}$. However, they are used attributively as well as predicatively.

English
4) a. the clever boy  a'. the boy is clever
   b. the green leaf  b'. the leaf is green

- **Sub-Classification of Set-denoting Adjectives**

Set-denoting adjectives are mainly divided into four semantic sub-categories. They are $\textit{Scalar Adjectives}$, $\textit{Absolute Adjectives}$, $\textit{Gradable Adjectives}$; and $\textit{Stage Level and Individual Level Adjectives}$. As there may have some overlapping in conception, such a semantic study of sub-classification of set-denoting adjectives is not always clear-cut.

2.1.1. **Scalar Adjectives**

Scalar adjectives denote various degrees of a particular property which are possessed by the referents. The primed examples of (5) present that the referents $\textit{Jan}$ and $\textit{Marie}$ in Dutch are of the same set as they both are $\textit{ziek}$ ‘ill’. On the other hand, in the primeless examples there are intensifiers like $\textit{vrij}$ ‘little’ and $\textit{zeer}$ ‘very’ which modify the set-denoting adjective $\textit{ziek}$ ‘ill’. The presence of the intensifiers implies that the degree of illness varies from one person to the other. This can be shown by indicating different places on the Scale (a).

\textit{Scale: a}

Scale of illness:

```
Jan    Marie
vrij  |  |  zeer
```

\textit{Dutch}

5) a. Jan is vrij  ziek.  \Rightarrow  a'. Jan is ziek.
   Jan is rather  ill  \Rightarrow  Jan is ill
   b. Marie is zeer ziek.  \Rightarrow  b'. Marie is ziek.
Marie is very ill

Marie is ill

In Bangla the subject NPs Piklu and Piu in the primed instances of (6) belong to the same set as both of them have the property illness. Here the set-denoting adjective ʃusṭo ‘ill’ is modified by the intensifiers kʰub ‘very’ and ekṭu ‘little’ shown in the primeless instances.

**Bangla**

6) a. piklu ekṭu ʃusṭo ⇒ a’. piklu ʃusṭo
   ‘Piklu is little ill.’
   ‘Piklu is ill.’

   b. piu kʰub ʃusṭo ⇒ b’. piu ʃusṭo
   ‘Piu is very ill.’
   ‘Piu is ill.’

John and Mary in English come under the same set as both of them are *ill*. Here the adjective gets modified by *little* and *very* in the examples of (7).

**English**

7) a. John is little ill. ⇒ a’. John is ill.

   b. Mary is very ill ⇒ b’. Mary is ill

2.1.2. **Absolute Adjectives**

A pair of set-denoting adjectives which has absolute properties and of which either of them occurs in the complementary distribution is called a pair of absolute adjectives. They are not at all scalar adjectives as they do not vary in degree. Even they cannot be modified by the intensifiers and cannot form comparative or superlative constructions.

Dutch has absolute adjectives like *dode* ‘dead’ and *levende* ‘living’ as found in the following example of (8). They are not modified by adding adverbs like *vrij* ‘rather’ and *zeer* ‘very’ before the adjectives as well as do not permit comparative and superlative degree formations.

**Dutch**

8) a. een dode plant
   ‘a dead plant’
   a’. *een vrij dode plant
   a rather dead plant
   a”. *dodere/de doodste
   more.dead/the most.dead

   b. een levende plant
   ‘a living plant’
   b’. *een zeer levende plant
   a very living plant
   b”. *leventer/de levendste
   more.living / the most.living

Bangla also possesses absolute adjectives like *mriṭo* ‘dead’ and *jibīṭo* ‘alive’. They express two absolute states of the referents. The process of modification by adding adverbs like kʰub ‘very’ to the adjectives results in ungrammaticality as found in the examples of 9). Again, they do not produce comparative and superlative adjectives as seen in the instances of 9 (a” & b”).

**Bangla**
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Likewise, *dead* and *alive* are absolute adjectives in English because they denote absolute properties. They do not allow modification with *very* as shown in the examples 10 (a′ & b′) and they do not also have forms in comparison as examined in the 10 (a″ & b″)-examples.

**English**

10)  

<table>
<thead>
<tr>
<th></th>
<th>a.</th>
<th>b.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dead</td>
<td>alive</td>
</tr>
<tr>
<td>a′</td>
<td>*very dead</td>
<td>b′.</td>
</tr>
<tr>
<td>a″</td>
<td>*(more/most) dead-er/est</td>
<td>b″.</td>
</tr>
</tbody>
</table>

**Scalar vs. Absolute Adjectives**

On the one side, scalar adjectives and absolute adjectives can be distinguished on the basis of variable states or absolute states implied on a given scale. On the other side, they are modified by two different types of modifiers. In case of scalar ones, the modification is done by intensifiers which indicate various states on an implied scale, but absolute adjectives are modified by adding *approximatives*. ‘Approximative’ is the lexical item which denotes that the argument has reached the condition near a particular absolute state expressed by the adjective.

The succeeding instances in the selected languages present that scalar adjectives co-occur with the intensifiers. For examples, Dutch intensifiers such as *vrij / zeer* ‘rather / very’ which imply several degrees of illness appear before the scalar adjectives.

**Dutch**

11)  

|    | a. Jan is vrij/zeer ziek. | ⇒ | a’. Jan is ziek. |

|    | Jan is rather/very ill. | Jan is ill |

The intensifiers like *kʰub* ‘very’ and *ektu* ‘little’ are in use to modify scalar adjectives such as *ʃʃus⁲ho* ‘ill’ in Bangla. Their function is to indicate different degrees on the implied scale.

**Bangla**

12)  

|    | a. ʃe ektu/kʰub ʃʃus⁲ho. | ⇒ | a’. ʃe ʃʃus⁲ho. |

|    | s/he little/very ill | S/he ill |

|    | ‘S/he is little/very ill.’ | ‘S/he is ill.’ |

In English *very / quite* are used to modify the respective class of adjectives as given in the example (13). The use of the intensifiers indicates that illness of the concerned subject varies on the implied scale.
English
13) a. she is quite/very ill. ⇒ a’. she is ill.

On the contrary, the study shows that in Dutch the absolute adjectives can be modified by the approximatives such as vrijwel ‘almost’, zo goed als ‘as good as’ and helemaal ‘completely’.

Dutch
14) a. Die plant is vrijwel dood. ⇒ a’. Die plant is niet dood.
   that plant is almost dead
   that plant is not dead

b. Die plant is helemaal dood. ⇒ b’. Die plant is dood.
   that plant is completely dead
   that plant is dead

In the same way, Bangla mrito ‘dead’ is modified by the approximative praj ‘almost’.

Bangla
15) a. gacʰ-ta praj mrito. ⇒ a’. gacʰ-ta mrito noj
   tree-CLA almost dead
   tree-CLA dead no-NEG
   ‘The tree is almost dead.’
   ‘The tree is not dead.’

Like Bangla, absolute adjectives like dead in English take approximatives almost and completely.

English
16) a. that plant is almost dead ⇒ a’. that plant is not dead
   b. that plant is completely dead ⇒ b’. that plant is dead

Again, modification of scalar adjectives by means of adding approximatives results in unacceptability.

Dutch
17) *Jan is vrijwel /zo goed als / helemaal aardig.
   Jan is almost / as good as / completely nice

In Bangla fungor ‘beautiful’ is a scalar adjective which cannot be modified by the approximatives like akebare / jompurnobʰabe ‘almost / completely’. Such modification is not accepted by native speakers.

Bangla
18) *Mantu akebare fungor.
   Mantu almost beautiful
   ‘Mantu is almost beautiful.’
When English scalar adjectives such as *nice* are modified by approximatives like *almost / completely*, native speakers do not accept it as shown below.

**English**

19) a. *John is completely nice.*
   b. *John is almost nice.*

2.1.3. **Gradable Adjectives**

Gradable adjectives include colour terms and words related to geometrical shapes which cannot appear in antonymous pairs. They cannot be measured by the implied scale as is done in case of scalar adjectives. The instances of gradable adjectives are presented in the Table 2 below.

<table>
<thead>
<tr>
<th>Languages</th>
<th>Colour terms</th>
<th>Geometrical shapes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dutch</strong></td>
<td>rood ‘red’</td>
<td>rond ‘round’</td>
</tr>
<tr>
<td></td>
<td>geel ‘yellow’</td>
<td>driehoekig ‘triangular’</td>
</tr>
<tr>
<td></td>
<td>blauw ‘blue’</td>
<td>vierkant ‘square’</td>
</tr>
<tr>
<td><strong>Bangla</strong></td>
<td>faḍa ‘white’</td>
<td>gol ‘round’</td>
</tr>
<tr>
<td></td>
<td>kalo ‘black’</td>
<td>couko ‘square’</td>
</tr>
<tr>
<td></td>
<td>nil ‘blue’</td>
<td>ḍinkona ‘triangular’</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td>black</td>
<td>round</td>
</tr>
<tr>
<td></td>
<td>white</td>
<td>triangular</td>
</tr>
<tr>
<td></td>
<td>blue</td>
<td>rectangular</td>
</tr>
</tbody>
</table>

2.1.3.1. **Colour Terms and Natural Objects**

In Bangla there are many colour terms which come from natural objects. Such examples can be listed in the next table.

<table>
<thead>
<tr>
<th>Colour terms</th>
<th>Natural objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>kômola ‘orange’</td>
<td>kômâlebu ‘orange’</td>
</tr>
<tr>
<td>mete ‘like soil’</td>
<td>meti ‘soil’</td>
</tr>
<tr>
<td>akâfi ‘sky blue’</td>
<td>akâfi ‘sky’</td>
</tr>
<tr>
<td>golapi ‘pink’</td>
<td>golap ‘rose’</td>
</tr>
<tr>
<td>tija ‘parrot’</td>
<td>tija ‘parrot’</td>
</tr>
<tr>
<td>koci kôla pata ‘green banana leaf’</td>
<td>koci kôla pata ‘green banana leaf’</td>
</tr>
<tr>
<td>fona ‘golden’</td>
<td>fona ‘gold’</td>
</tr>
</tbody>
</table>

2.1.3.2. **Other Colour Terms**

There are several colour terms which are derived from the basic colour terms. It is seen that they have –ce or –te ending comparable to -ish in English.
Likewise, some English examples can be mentioned.

**English**

21) a. blackish
b. whitish

### 2.1.3.3. Modifiers of Colour Terms:

- Colour terms can be modified by adding lexical items (intensifiers) like *halka* ‘light’, *gʰono* ‘deep’ and *garo* ‘deep’ before the colour adjectives in Bangla as given below.

**Bangla**

22) a. halka ḟobuj ‘light green’
b. gʰono nil ‘deep blue’
c. garo nil ‘deep blue’

- There are also shades of some colour terms that are expressed by natural objects.

**Bangla**

23) a. ḟalpaj ḟobuj
   ‘olive green’
b. mojurkontʰi nil
   ‘peacock blue’
c. ḟuḍʰ ḟudʰ ‘milky white’

### Reduplicated Constructions:

Some reduplicated constructions like *kætkæte, tɔktɔke* which are available in Bangla modify the colour terms and they especially indicate deep shades of colours.

**Bangla**

24) a. kætkæte lal ‘dark red’
b. tɔktɔke lal ‘deep red’
c. ḟuḍʰobqʰobe ḟuḍা ‘bright white’

The derived colour terms can be found as modifiers in the given examples.
25) a. kalce ḣobuṣ
   ‘blackish green’

2.1.4. Stage-level / Individual-level Adjectives

The adjectives having transitory (stage-level) property ascribed to the given entity are called stage-level adjectives. On the other hand, adjectives which signify more permanent (individual-level) property of the referents are named individual-level adjectives. The adjectives like ɔʃuşt'o ‘ill’ and farq'opɔr ‘selfish’ in Bangla are stage-level and individual-level adjectives respectively.

Table – 4

<table>
<thead>
<tr>
<th>Language</th>
<th>Stage-level</th>
<th>Individual-level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch</td>
<td>ziek ‘ill’</td>
<td>intelligent ‘intelligent’</td>
</tr>
<tr>
<td>Bangla</td>
<td>ɔʃuşt'o ‘ill’</td>
<td>farq'opɔr ‘selfish’</td>
</tr>
<tr>
<td></td>
<td>krud'd'o ‘angry’</td>
<td>meɖabi ‘meritorious’</td>
</tr>
<tr>
<td>English</td>
<td>ill</td>
<td>intelligent</td>
</tr>
</tbody>
</table>

2.2. Relational Adjectives

Relational adjectives express a kind-of-relation between two distinct referents, but they do not signify any property like set-denoting adjectives. Syntactically, they have only attributive usage. In Dutch dagelijkse ‘daily’ attributes an NP krant ‘newspaper’ that appears daily.

**Dutch**

26) a. de dagelijkse krant  
     the daily newspaper
b. het morfologische handboek  
   the morphological companion

a’. *De krant is dagelijks.  
b’. *Het handboek is morfologisch

In Bangla too, such kind-of-relation can be described. They can be interpreted as “N appears daily” in (27a) and “N belongs to geography” in (27b). So, it is evident that the NPs are in relation to other things. In the primed examples it is shown that such relational adjectives cannot occur in the predicative position.

**Bangla**

27) a. ṭoinik poṭrīka  
     daily newspaper
b. b'ougolik gʰotona  
   geographical fact

a’. * poṭrīkatā ṭoinik  
b’. gʰotonāta b'ougolik

Similarly, the (a)-example of (28) can be paraphrased as ‘N appears everyday’ in English, that is, a newspaper appears daily. Here a relation is made in between two entities newspaper and each day.

**English**
28) a. daily newspaper a'. *the newspaper is daily

Again, it is seen that relational adjectives can set up two different types of relation between particular entities. The first relation depends on the specific context or culture and the second relation is based on the metaphoric one.

2.2.1. Contextual or Cultural Relation
Sometimes contextual or cultural information is needed to understand the meaning of the relational adjectives.

Dutch
29) Chomskiaanse taalkunde
Chomskyan linguistics

The example (30a) refers to the thought developed by the litterateur Rabindranath Tagore. In (30b) the philosophy which is of Indian tradition is dealt with. So, it is clear that in case of relational adjectives to grasp the relation between two entities, the concerned cultural or subjective knowledge is required.

Bangla
30) a. rabiṇḍrik cinḍa b. bāroṭio ḍārjon
‘thought of Rabindranath Tagore’ ‘Indian philosophy’

The example in (31) in English deals with a branch of linguistics which is developed by Noam Chomsky and his followers. Then, the instance (31) talks of a genre called comedy specially authored by William Shakespeare.

English
31) a. Chomskyan linguistics b. Shakespearean comedy

2.2.2. Metaphoric Relation
In some relational adjectives, the relation is metaphoric in nature. The (32)-example implies an admonition given by someone who acts like a father. The example in (32b) has more or less fixed combinations indicate a certain jargon related to the grammar of a language.

Dutch
32) a. een vaderlijke terechtwijzing
a fatherly admonition
b. bezittelijk voornaamwoord
possessive pronoun
In Bangla also, such instances are found of which few are mentioned below. In the (33)-example the speaker is talking about someone’s behaviour who is not at least a father. In (33) a certain category of pronoun is dealt with. Lastly, (33) refers to the behaviour which is appropriate for a king.

Bangla

33) a. pitrificioh acorɔn
fatherly behaviour
b. ḟɔmmɔŋbɔbɔcɔk ḟɔrbonam
possessive pronoun
c. ṭarɔkio ḟabbɔb
kingly behavior

The English examples have similarity to those of Dutch and Bangla examples.

English

34) a. fatherly admonition
b. possessive pronoun
c. princely salary

2.3. Evaluative Adjectives

Evaluative adjectives only provide some subjective evaluation (with positive or negative value in an intended context) of the entity in question. A characteristic feature of such adjective is that they can only be used as a modifier within a noun phrase but not as a predicative one as in a copular construction. Neither it attributes any property to the given noun nor does it express any kind-of relation.

Dutch has evaluative adjectives like verdomde ‘damned’ and dekselse ‘confounded’ that are negative valued adjectives. The predicative use of such examples results in unacceptability.

Dutch

35) a. die verdomde / dekselse jongen
that damned / confounded boy
a’. *Die jongen is verdomd / deksels.
‘That boy is damned / confounded.’
b. die (*erg) drommelse jongen
that very damned/devilish boy
b’. *Die jongen is drommels.

Bangla possesses some evaluative adjectives. Here the adjective ḟɔljeŋfo ‘burning’ and bidabbɔni ‘devastating’ have negative evaluation and they cannot appear in the predicative position.

Bangla

36) a. ḟɔljeŋfo ḟɔdabɔron

====================================================================
3) a.  ʃɔmbʰɑbbɔ ‘probable’
    ‘probable’
    the alleged culprit
    ‘the culprit is alleged’

   b.  ʃɔmbʰɑbbɔ ‘probable’
    ‘probable’
    the previous meeting
    ‘the meeting is previous’

   In Bangla ʃɔmbʰɑbbɔ ‘probable’ is such an adjective which does not ascribe any property and cannot be predicated of the given noun. So, it is not a set-denoting adjective. It does not express a kind-of-relation. Therefore, it cannot belong to the class of relational adjectives. Besides, it does not signify any subjective notion and so it is not an evaluative adjective. Rather it expresses that the fact may probably occur. Due to this, ʃɔmbʰɑbbɔ ‘probable’ is a modal adjective.

Bangla

====================================================================
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40) a. ʃɔmbʰaabbo gʰɔtona a’.  *gʰɔtona-ta ʃɔmbʰaabbo
    probable  fact
    fact-CLA probable
    ‘The fact is probable.’

    In the same way, some instances are found in English.

English

41) a. his possible departure
    *his departure is possible

b. the former queen
    *the queen is former.

3. Conclusion

After analyzing the data the main findings for this research paper can be noted down briefly. The semantic classification of adjectives in Dutch by Broekhuis (2013) is applicable to the selected languages Bangla and English. All the three languages possess set-denoting, relational, evaluative and the residue semantic classes of adjectives. Even, the sub-classification of set-denoting adjectives has analogy to Bangla and English with Dutch. The above data analysis exhibits that the over-all semantic categorization of adjectives in Dutch, Bangla and English is similar to the greatest extent. Interestingly, the last three semantic classes of adjectives do not permit predicative use. Here the unacceptability is taken depending on the intuition of native speakers of respective languages.

Representation of Data

Dutch data is taken from the secondary resource. Bangla data is transcribed by IPA symbols with some changes. English data is presented in Roman script.

Colophon

This paper is one of the fascinating outcomes of my M. Phil. dissertation named “A Descriptive Study of Bangla Adjectives with Reference to English and Dutch”. It is needless to say that the role of my supervisor Dr. Atanu Saha (Assistant Professor at the School of Languages and Linguistics in Jadavpur University) is the most important in this research work. I would like to mention the name of Hans Broekhuis (Researcher at Meertens Institute, Amsterdam) himself for his insight to develop my understanding for this study. I am indebted to my informant Madeleine Bertch for English data. Finally, I acknowledge the relentless encouragement of my Ma Pratima Giri and Bhai Debarshi Giri throughout.

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