The notion of “adjective” in Dhao
A language spoken in eastern Indonesia

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ABSTRACT
It is cross-linguistically defined that adjective is a word category that typically denotes quality and attributes. This category basically falls into semantic properties denoting age, dimension, values, and colours. They also indicate human propensities, physical properties, and speed. Syntactically, adjective typically functions as noun modifiers. However, many adjectives also share features with verbs and/or nouns. This makes adjectives not easy to define. Therefore, morphological and syntactic accounts are required, in addition to semantics, to define the prototypical characteristics of adjectives. This paper has shown that majority of lexemes denoting adjectival properties in Dhao share features with verbs. Although the prefix pa- can be attached to verbs and adjectives to generate causative meaning, adjectives are confined only to the second verb in serial verb construction, instead of being the predicate heads. Further, only four adjectives can function as noun modifiers in their bare forms. These latter adjectives are considered as pure or simple adjectives, while the other nine qualifying for adjectives as “recategorized” adjectives.

KEYWORDS
Word category, adjective, modification, predication, grammatical properties, recategorization.

1. INTRODUCTION
Word categories, also known as word classes, are cross-linguistically defined on the basis of grammatical and semantic functions. Thus, nouns are defined
as lexeme that semantically refer to entities and grammatically heads phrase referring to that entities. Verbs refer to actions, events, or states used for predication. Adjectives, on the other hand, are defined as modifiers of nouns in terms of properties. Finally, adverbs refer to verbal modification. The four categories of lexemes are cross-linguistically distinguished. Unlike the first two categories, the last two categories, in many languages, are difficult to define because their grammatical properties are not distinctive; similar either to nouns or verbs, or even expressed through idiomatic expression (see Dixon 2010b: 73–74).

This paper will focus on the notion of “adjective”. Adjectives cannot be characterized in terms of a prototype because adjectives stand between nouns and verbs, evoking property concepts, rather than things or events. Some languages have no grammatically distinct category of adjectives (Payne 2006: 116). However, it is significant to investigate the properties of adjectives, whether adjectives grammatically tend to share properties with verbs or nouns. Traditionally, a word is defined as adjective when it is able to be used in a noun phrase to specify some property of the head noun of the phrase (Payne 2006: 116). As such, adjective usually falls into the semantic types, such as lexemes indicating age (see Section 2). Dixon (2010b: 63–64) divides adjective into four types based on the grammatical properties; (1) similar to verbs by which adjective is said to be subclass of verbs, (2) similar to nouns by which adjective is classified into subclass of noun, (3) combine grammatical properties of nouns and verbs by which adjective is defined as between nouns and verbs, and (4) different from both nouns and verbs which is classified as independent class. The recognition of “adjective” class of a particular language is very useful not only for the explanatory power within grammar, but also for the general typological theory.

The focus of the present study is the lexical items that are used for noun modification or referring to the properties of nouns in Dhao, an Austronesian language spoken in eastern Indonesia. Dhao itself is spoken by about 3,000 people mainly on the island of Ndao, westward of Rote in East Nusa Tenggara Province, Indonesia. Genetically, Dhao is subclassified into the Sumba-Hawu group of the Central Malayo-Polynesian (CMP). Thus, its phonology is mostly similar to languages of Hawu and Sumba (Grimes 2010, 2012; Walker 1982; Jonker 1903). However, its syntax is very similar to languages spoken on Rote and Timor (Balukh 2013). For instance, while Hawu language applies VS(O) type, Dhao is a SV(O). Besides having influence from Rote due to intense social contact (Balukh 2013), Dhao is also heavily influenced by local Malay, in this case Kupang Malay (Jacob 2001; Jacob and Grimes 2006; Paauw 2008).

Before describing the grammatical properties of adjectives in Dhao, it is important here to briefly introduce the basic clause structure and the distribution of lexemes in terms of nominal and predicate modification. As mentioned above that Dhao is syntactically a SV(O) type, which means that verbs are clause medial. S(ubject) and O(bject) are occupied by nominal categories. In Dhao, clausal predicate is not always occupied by verbs. Other
categories also fill in predicate position in non-verbal construction. This is not unique to Dhao, yet common to many languages that have no particular markers to link S and complement, like auxiliary in English. As such, non-verbal categories are simply juxtaposed. Therefore, predicate universally represented as V does not apply to Dhao. It is better to use P as a cover symbol. In this regard, Dhao has SPO basic word order. The examples are presented below. The sentence (1) illustrates a SPO order with the transitive verb *puu* ‘pick’ as the P that occurs medially, while personal pronoun *ja’a* ‘1sc’ as S and the noun *hua* ‘fruit’ as O. The sentence (2) applies simply SP order with the intransitive verb *mai* ‘come’ as P and pronoun *ja’a* ‘1sc’ as S. The prepositional phrase *ngèti Sahu* ‘from Sawu’ is a complement.

1. *ja’a puu hua*
   
   1sc pick fruit
   ‘I picked the fruit.’

2. *ja’a mai (ngèti Sahu)*
   
   1sc come from Sawu
   ‘I came from Sawu.’

Non-verbal clauses are illustrated by the examples (3) and (4) below. In (3) the two NPs are juxtaposed without any linking marker. Knowing that predicate in Dhao always follows subject NP, the construction in (3) below of course suggests that NP1 is S and NP2 is P. It is true, since the NP2 indicates the identity of NP1. In this regard, it is labelled as nominal predicate, because P position is filled with nominal phrase.

3. [*ina nèngu*]$_{NP1}$ [*dhèu dedha liru*]$_{NP2}$
   
   mother 3sc person above sky
   ‘His mother is a person of the sky.’

The examples above presumably give illustrations about the typical verbs, such as *puu* ‘pick’ and *mai* ‘come’ and nouns, such as *hua* ‘fruit’, *Sahu* ‘Sawu’, and *dhèu* ‘person’ in Dhao. The lexemes that will have the same syntactic distribution as those typical verbs should be considered as having verbal properties. Further, those with the same distribution as typical nouns should be considered as having nominal properties.

In (4), the S is *nèngu* ‘3sc’ and P is *kapai* ‘big’. Since no linking is indicated at all, a construction like this may be interpreted as adjectival or verbal predicate, depending on the grammatical properties of the lexeme *kapai* ‘big’. This will be one of the concerns in this paper.

4. *nèngu kapai*
   
   3sc big
   ‘S/he is big.’
The situation is getting more complicated when particular lexemes can occupy both predicative and non-predicative position. Observe the following examples in (5) through (7).

(5)  jì'i  usu  cèle  ìì  kaj'alu  ètu  dara  ìììna  
    1PL.EXCL  bail  away  water  dirty  LOC  inside  DIST.SG  
    ‘We bail the dirty water out of that (place).’

(6)  nèngu  pa-mèu  kaj'alu  ètu  kolo  dhua  
    3SG  CAUS-clean  dirt  LOC  top  palm.tree  
    ‘S/he cleans up the dirt on the palm tree.’

(7)  èmu  ìììna  kaj'alu  
    house  DIST.SG  dirty  
    ‘That house is dirty.’

The lexeme kaj'alu ‘dirty’ can be adjectival, like (5) as the modifier of the noun ìì ‘water’. It can be nominal, like (6) when functioning as object of the predicate pamèu ‘to clean up’. In (7), it behaves like verbal expressing the state of the subject NP èmu ìììna ‘that house’. Referring to its modifying function in (5), it should be treated as adjectival predicate in (7). Lexemes of this type of course cannot be classified into adjective as an independent category because they share properties with other categories.

This paper will examine the grammatical properties of lexemes that are expressing adjectival behaviour, especially noun modification in Dhao based on the universal semantic types proposed by Dixon (1982), among others. In addition, the size (number) of lexemes that matches the definition of “adjective” will also be highlighted. The discussion will be confined to the so-called “descriptive adjective”. The description will start with the presentation of lexemes expressing the universal semantic types in Section 2, followed by morphological properties in Dhao in Section 3. The description of how the lexemes are applied for noun modification will be presented in Section 4. In Section 5, the investigation is focusing on the possibility of the lexemes to occupy predicate position. In order to support more on the analysis, a brief presentation about comparison will also be given in Section 6. The discussion and summary on the grammatical profiles will be presented in Section 7. Finally, conclusion is given in Section 8.

2. Universal semantic types
Dixon (1982: 12–13, 2010a: 53, 2010b: 73–74) proposed semantic types that are universally expressed by adjectives. There are seven universal semantic types; they are AGE, DIMENSION, VALUE, COLOUR, HUMAN PROPENSITY, PHYSICAL PROPERTY, and SPEED. Nevertheless, the lexemes applied to those semantic types are not always adjective class. It is because the class of adjective is not determined only by the semantics of the lexeme itself, but
also the syntactic distribution of the lexeme, as well as particular grammatical marker either morphological or syntactic, if any. If the language under study has no distinctive element to mark adjective different from other word categories, then the class of adjective is questionable. It may be subclass of nouns or verbs. It makes the adjective class difficult to recognize or at least not easy to put forward generalization about (Dixon and Aikhenvald 2004: 9). Before going to the grammatical analysis of adjectives in detail, firstly the Dhao lexemes based on the Dixon’s universal semantic types are presented in brief in order to have a broad idea of the basic meanings of the lexemes in question.

2.1 AGE

The lexemes of AGE in this case include lexemes that denote not only the meaning of ‘young’ and ‘old’, but also a period of time. In Dhao, the lexemes, such as *uuru* ‘earlier’ and *limuri* ‘latter’ typically indicate period of time. These two lexemes, however, can also be used to modify persons. For instance, *dhêu uuru* which literally means ‘people in old times’ may also refer to ‘old people’. There are six lexemes found in Dhao indicating age. The list is presented in (8) below.

(8) Lexemes of AGE

| Lexeme   | Meaning                  |
|----------|--------------------------|
| *hiu*    | ‘new’                    |
| *dhui*   | ‘old (inanimate)’        |
| *heka*   | ‘old (animate)’          |
| *ngêru*  | ‘young’                  |
| *limuri* | ‘latter’                 |
| *uuru*   | ‘earlier’                |
| *kalicu* | ‘immature’               |
| *madhu’u*| ‘mature’                 |

All the eight lexemes of AGE occur in antonym pairs. The first pair denotes the state of entity or situation *hiu* ‘new’ versus *dhui* ‘old’. They are used for general nominal modifiers, such as the example *êmu dhui* ‘old house’ in (9) below. The second pair indicates the age *heka* ‘old’ versus *ngêru* ‘young’ as illustrated by the example in (10). While *heka* can only be used for human, *ngêru* can be used for both human and nonhuman. For non-human animate entities, such as *kahibi* ‘goat’ and the like, Dhao uses the lexemes of DIMENSION *iiki* ‘small’ and *kapai* ‘big’ to indicate age, instead of using ‘young/old’ (see Section 2.2). As indicated by its translation, the second pair *limuri* ‘latter’ and *uuru* ‘earlier’ are literally referring to period of time, instead of age as illustrated in (11). Therefore, it can also be used for other entities, such as things or non-human. The last pair is *kalicu* ‘immature’ versus *madhu’u* ‘mature’. They originally refer to fruits or plants as illustrated by the example in (12). Those lexemes, however, can also be used figuratively for human, such as whether
someone is still young (immature) or adult (mature).

(9) pa-ngad’o èmu ho èmu cee èmu dhui
recip-visit house so.that house who house old
‘Visit each other’s house so that (see) whose house is the oldest house.’

(10) ka mone heka ne’e la’e asa dara
part man old prox.sg go.3sg to inside
‘Then, the old man came into the room.’

(11) ji’i ana limuri se’e ka ji’i pake...
1pl.excl child latter prox.pl part we use
‘We as current young people use (it).’

(12) hèru hua aj’u kalicu
moon fruit wood immature
‘The time for trees to have young fruits.’

2.2 DIMENSION
There are 12 lexemes of DIMENSION in Dhao. They are presented in (13).

(13) Lexemes of DIMENSION
marèma ‘deep’
bab’a ‘short, shallow’
madhera ‘long, tall’
(ana) iiki ‘small’
(mone) aae ‘big, great’
kapai ‘big, large’
dèbho ‘big (wood)’
kobo ‘narrow’
bhèla ‘wide’
ma’aa ‘thick’
manii ‘thin’
tede ‘flimsy’

As shown that the lexeme bab’a means ‘short, shallow’, as illustrated in example (14), is antonymous with both madhera ‘long’ and marèma ‘deep’. Unlike its opposite meaning, bab’a refers to both physical and non-physical entities. The lexeme for ‘small’ applies two options. One is simply iiki, as shown in (15) and another one combines with ana which lexically means ‘child’. Ana cannot stand alone to mean ‘small’. Likewise, the lexeme aae ‘big, great’ can combine with mone which lexically means ‘male’. Both ana and mone are obligatory when
iiki and aae occupy predicate position (see Section 5 for details). There are three lexemes to express the meaning ‘big’; aae that can indicate physical and non-physical entities, kapai which only indicates physical entities, and dèbho which only refers to wood. The example is illustrated by dèbho in (16) (also considered as classifier in Walker 1982). The example of aae ‘big’ is given in (17). In addition, the lexemes for ‘thin’ distinguish general use, which is manii ‘thin’, and the entities that are physically very thin tede ‘flimsy’.

(14) deo èèna ja’a peka dhu bab’a deo sèi
recent DIST.SG 1SG say REL short recent REM.PL
‘Just now, I told (the story) that is short.’

(15) boto hèba iiki èèna
bottle mouth tiny DIST.SG
‘The bottle with small mouth’

(16) aj’u dèbho ne’e unu dhèu leo
wood big PROX.SG own person other
‘This big wood belongs to another person.’

(17) hèru hèngu ne’e neo lolo ka ne’e lolo
roll thread PROX.SG want roll.yarn PRT PROX.SG roll.yarn
sig’i aae
sarong big
‘(I) am rolling this yarn to make big sarong.’

2.3 Values
There are 18 lexemes denoting values in Dhao. The list is presented in (18).

(18) Lexemes of VALUES
karehe ‘bad’
aapa ‘bad’
be’a ‘good’
saraga ‘beautiful’
kaj’alu ‘filthy; dirty’
hera ‘dirty’
mèu ‘clean’
sala/sale ‘wrong’
pana ‘hot’
sagoro ‘hot’
pacuhi ‘cold’
As shown that Dhao has two different lexemes *karehe* and *aapa* that both mean ‘bad’. While *karehe* is generic, as illustrated in (19), *aapa* can only refer to non-physical entities, such as behaviour or abstract entities. The lexeme *be’a* ‘good’ is generic, as in example (21), in that it can be used for any entities. The lexeme denoting ‘dirty’ distinguishes general meaning *kaj’alu* as in (22) and unnatural or disordered things *hera*, as illustrated in (23). Another synonymy is shown by *pana* that refers to the state of materials, such as water, and *sagoro* that refers to situation, such as weather or atmospheric air, as illustrated in (24).

(19) Abu na èu tao asa era *karehe*  
\( \text{Abu PART 2SG make to place bad} \)  
‘(if I were) Abu, you bring to wrong place.’

(20) dènge mèdha *aapa* sèra di  
\( \text{with goods bad DIST.PL only} \)  
‘Only with those bad things’

(21) *aku* nèngu na tèti èu asa era *be’a*  
\( \text{according to 3SG PART 1PL.INCL.bring 2SG to place good} \)  
‘He said, “bring you to the right place”.’

(22) *ji’i* uusu eele èi *kaj’alu* ètu dara èèna  
\( \text{1PL.EXCL bail.out PART water filthy LOC inside PROX.SG} \)  
‘We bail out the dirty water.’

(23) *buku* ne’e *hera* ae  
\( \text{book (Ind) PROX.SG dirty many} \)  
‘This book is too dirty.’

(24) dènge hèru *sagoro* hèi  
\( \text{with moon hot also} \)  
‘When it is dry season.’
2.4 Colours

There are six lexemes indicating colours in Dhao as presented in (25).

(25) Lexemes of COLOURS

- mèdi ‘black’
- pudhi ‘white’
- mangèru ‘green’
- mea ‘red’
- karara ‘yellow’
- rara ‘a bit yellow’

It is obviously seen from the list of colours, that Dhao applies five basic colour systems. The lexeme rara ‘a bit yellow’ is considered as the reduced form of karara ‘yellow’. The examples of colours are presented in (26) and (27) below. The colour mea ‘red’ modifies the head noun nyama ‘raffia’, while pudhi ‘white’ modifies the head noun rai ‘land’.

(26) dasar nèngu nyama mea
basic(Ind) 3sg raffia red
‘The basic is made of red raffia strings.’

(27) pakihu rai pudhi dènge j’u’u
mixed land white with grass
‘Mix the white soil with grass.’

2.5 Human propensities

There are eleven (11) lexemes indicating human propensities as presented in the list (28).

(28) Lexemes of HUMAN PROPENSITIES

- kacèla ‘angry’
- j’èra ‘sad’
- karej’e ‘happy’
- maj’èni ‘diligent’
- baieeda ‘lazy’
- carui ‘difficult’
- goa ‘stupid’
- huj’u ‘crazy’
- madha’u ‘afraid’
- bani ‘brave’
- makae ‘ashamed, shy’
The lexeme carui ‘difficult’ and goa ‘stupid’ do not have antonymous meaning in terms of lexical items. They are expressed with phrases, such as carui boe ‘not difficult’ or figurative expression, such as dèlu mèu ‘smart’ which literally means the inside of body is clean. Two examples (29 and 30) are given below.

(29) èu ne’e dhèu huj’u dhèu goa na e

2SG prox.SG person crazy person stupid part excl

‘Are you crazy or stupid person.’

(30) èdhi baku j’èra ae

1PL.incl proh.neg suffer many

‘We do not have to be very sad.’

2.6 Physical properties

There are 24 lexemes indicating physical properties in Dhao, as presented in list (31).

(31) Lexemes of Physical Properties

mango ‘dry’
basu ‘wet’
bia ‘heavy’
samaa ‘light’
mako ‘soft’
adhu ‘hard’
kapulu ‘thick (liquid)’
kabhète ‘condensed, thick’
roe ‘weak’
era ‘strong’
tabolo ‘round’ (pillow)
kahore ‘round’ (ball)
lutu ‘fine, narrow’
bhaka ‘dull’
topo ‘blunt’
madèka ‘sharp’
mola ‘straight’
koe ‘bent’
motu ‘leafless’
rapo ‘leafy’
bhetu ‘lush’
kabe’e ‘moist’
Some lexemes do have synonym pairs. For example, the adjectives for ‘thick’ distinguishes *kapulu* ‘thick’ for liquid materials, such as water and milk and *kabhète* ‘thick’ for other materials, such as porridge and the like. The example of *kapulu* is given in (32). Dhao also distinguishes complete round shape *kahore* ‘round’ which refers to entities, like ball, and long round shape *tabolo* ‘round’, like bolster pillow, as illustrated in the example (33). Other examples of physical properties are given in (34) and (35).

(32) èdhi tao èi kapulu bèi nga 3sg.1pl. make water thick grandmother tag  
‘Grandmother, we have to put the first coconut milk.’

(33) bèke ma nanèlu tabolo lacerate toward pillow round  
‘(The tiger) lacerate the pillow.’

(34) dhoka sa-saba bia only red-work heavy  
‘only the difficult job’

(35) abhu rulai i’a mola get tail fish straight  
‘Got fish which had straight tail.’

### 2.7 Speed
There are six (6) lexemes indicating speed in Dhao, as presented in (36).

(36) Lexemes of SPEED

- *karohe* ‘fast’
- *mèri* ‘quick’
- *malai* ‘quick’
- *nena* ‘slow’
- *nèbhu* ‘slow, long’
- *babago* ‘slow’

There are three lexemes for ‘slow’. They are different in terms of their semantic content. The adjective *nena* refers to action, while *nèbhu* refers to time frame. The example in (37) illustrates that the running of the boat is slow. Whereas, in (38), the phrase signals that the ship takes longer time to reach the destination,
compared to other ships. The antonymous expression is *kapa malai* ‘express ship’. Another example indicating speed is illustrated by the lexeme *mèri* ‘quick’ in (39).

(37)  
\[
\text{kapa } \text{ne’e } nena  \\
\text{ship } \text{PROX.SG} \text{ slow}
\]

‘This ship is (running) slow.’

(38)  
\[
\text{kapa } \text{nèbhù}  \\
\text{ship long.time}
\]

‘slow ship’

(39)  
\[
\text{aku } \text{meoaasu na } \text{mèri ciki ma te } ja’a \ldots  \\
\text{according.to tiger PART quick little PART because 1SG}
\]

‘The tiger said, “quickly please” because I am (hungry) ...’

3. Morphological properties

The morphological properties presented here refer to the morphological markers that can distinguish the category of nouns and verbs. There is no morphological marker to indicate other categories, such as adjective and adverb. The morphological markers that will be discussed in this section include prefix *pa*- and *(C)a*- reduplication. Prefix *pa*- is typically used for the process of verbalization or causativization, while *(C)a*- reduplication is for the process of nominalization.

3.1 Prefix *pa*-  
Prefix *pa*- in Dhao can be attached to verbal categories, whether intransitive or transitive verbs and non-verbal categories, such as nouns. It is typically to indicate causative meaning when attached to intransitive verbs and reciprocal meaning when attached to transitive verbs. When attached to non-verbal elements, it derives the lexemes to verbal categories which also in fact have causative reading, the same as when attached to intransitive verbs. Some examples applying the prefix *pa*- are presented in the examples (41) to (44).

(40)  
\[
\text{dhèu } \text{sèra } \text{madhe } \text{boe}  \\
\text{person DIST.PL die not}
\]

‘Those people did not die.’

(41)  
\[
\text{rèngu } \text{pa-madhe} \text{ kahibi } \text{èena}  \\
\text{3PL CAUS-die goat DIST.SG}
\]

‘They kill that goat.’
(42) \([\text{nèngu} \; \text{dènge} \; \text{ana} \; \text{èèna}] \; \text{pa-gama}\)

3sg with child dist.sg recip-hit

‘S/he and the child hit each other.’

(43) \(\text{miu} \; \text{pa-ngara} \; \text{kabarai} \; \text{ne’e} \; \text{ne} \; \text{na} \; \text{ngaa}\)?

2pl caus-name land prox.sg def part what

‘What name do you give to this place?’

(44) \(\text{ja’a} \; \text{pa-èi} \; \text{nèngu} \; \text{ne’e}\)

1sg caus-water 3sg prox.sg

‘I soldered it.’

The example (40) has the intransitive verb madhe ‘die’ which in this respect occupies predicate position with the noun phrase dhèu sèra ‘those people’ as the subject. In example (41), the prefix pa- is attached to the intransitive verb madhe ‘die’ which denotes causative meaning ‘kill’. In this regard, the subject rèngu ‘3pl’ causes the object kahibi èèna ‘that goat’ to die. Whereas in (42), the prefix pa- designates reciprocal meaning when attached to the transitive verb gama ‘hit’. The examples in (43) and (44) illustrate the use of prefix pa- to verbalize nominal categories, such as ngara ‘name’ and èì ‘water’. The earlier example denotes causative meaning in that causing something (kabarai ‘land’) to have name. The derived form pa-èi ‘to solder’ does not imply that something becomes water or causing something to have water, but rather executing an action that causes something to melt. It seems that the concept of ‘to melt’ does not exist in Dhao; therefore, the analogy of water is applied. Nevertheless, as it has causative reading, pa- is also glossed as CAUS. In this section, the investigation is made towards lexemes that have been listed in Section 2.1 through Section 2.7 above in order to disclose the possibilities of those lexemes taking the prefix pa-. The syntactic function of the derived forms will be discussed in Section 5, so only briefly mentioned here when necessary.

Most lexemes of AGE can take the prefix pa- to signal causative meaning. Take the example hiu ‘new’ and dhui ‘old’. When making something to look like new or old, the prefix pa- is simply attached, such as pahiu ‘make new’ and padhui ‘make old’ respectively. The examples are illustrated in (45) and (46) below. Three lexemes of AGE cannot take the prefix pa-, they are ngèru ‘young’, heka ‘old’, and kalicu ‘immature, young’. This is most likely due to their semantic properties in that they are natural process, and cannot undergo changes artificially.

(45) \(\text{nèngu} \; \text{pa-hiu} \; \text{mèđha} \; \text{tuku} \; \text{nèngu}\)

3sg caus-new thing smith 3sg

‘He renew his smithing materials.’
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(46) \textit{ji’i pa-madu’u tèke hua lëmi karö}  
\hspace{1cm} 1\text{PL.EXCL CAUS-ripe keep fruit five sack} \hspace{1cm} ‘We keep five sacks of fruit to become mature.’

All lexemes of DIMENSION as listed in Section 2.2 are possible to take the prefix \textit{pa-} to denote causative meaning. The examples are illustrated as follows. The example in (47) has the prefix \textit{pa-} attached to the lexeme \textit{manii} ‘thin’ yielding the meaning ‘to be thin’. Likewise, when the lexeme \textit{baba} ‘short’ in (48) and \textit{kapai} ‘big’ in (49) are prefixed with \textit{pa-}, they bear causative meanings, ‘make brief’ and ‘make big’ respectively.

(47) \textit{tuku pa-manii, ladhe manii n-are ciki ...}  
\hspace{1cm} \texttt{smith CAUS-thin see thin 3SG-take little} \hspace{1cm} ‘Pounded to be thin, if it is almost thin …’

(48) \textit{t-are pa-baba ka la}  
\hspace{1cm} \texttt{1\text{PL.INCL-take recip-short PART PART}} \hspace{1cm} ‘Just make (it) brief.’

(49) \textit{pa-kapai èci sëna ka saraga}  
\hspace{1cm} \texttt{CAUS-big one so.that PART beautiful} \hspace{1cm} ‘Make (it) big in order to be beautiful.’

For the lexemes of VALUES, only two lexemes, which are \textit{pacuhi} ‘cold’ and \textit{to’a} ‘in need’ cannot take the prefix \textit{pa-}. The first syllable \textit{pa} in \textit{pacuhi} is apparently not a prefix, because there is no root \textit{*cuhi} in Dhao. In addition, the impossibility of attaching the prefix \textit{pa-} to the lexeme \textit{to’a} ‘in need’ is most like because there is no concept in Dhao to cause someone to be in need, although it is still understandable. The semantic properties of ‘in need’ include also ‘poor’ or ‘in difficult situation’. For this respect, Dhao can make use of the lexeme \textit{j’èra} ‘difficult/hard (life)’, which belongs to human propensity. The examples of the lexemes taking the prefix \textit{pa-} are presented as follows. The example in (50) illustrates that the lexeme \textit{hera} ‘dirty’ takes the prefix \textit{pa-}, that in turn results in the meaning ‘make s.t. dirty’. In addition, the example in (51) demonstrates the use of the prefix \textit{pa-} attached to the lexeme \textit{mèu} ‘clean’ which results in the meaning ‘make s.t. clean’.

(50) \textit{nèngu pa-hera buku ne’e}  
\hspace{1cm} \texttt{3SG CAUS-dirty book(Ind) PROX.SG} \hspace{1cm} ‘S/he makes this book dirty.’
The same causative meaning brought by the prefix *pa-* can also apply to all the lexemes of COLOURS. Take the example in (52) using the lexeme *pudhi* ‘white’. It yields a causative meaning ‘become white’.

(52) *ja’a rase pa-pudhi ho nengu j’aj’i mi mëdha*

1sg wash caus-white so.that 3sg become to thing

‘I washed in order to become white and become something.’

Like most other lexemes, the prefix *pa-* attached to the lexemes of HUMAN PROPENSITIES here also indicates causative meaning. Take the example using the lexeme *j’èra* ‘difficult’. The example in (53) illustrates that the subject *èu* ‘2sg’ is the actor that causes the object *ja’a* ‘1sg’ experiencing hard life.

(53) *èu ne’e pa-j’èra ja’a sèmi ngaa*

2sg prox.sg caus-difficult 1sg like what

‘You make me in trouble very much.’

For lexemes of PHYSICAL PROPERTIES in Dhao, four lexemes cannot take the prefix *pa-*, namely *motu* ‘leafless’, *rapo* ‘leafy’, and *bhetu* ‘lush’. Their semantic properties most probably indicate natural process that cannot be changed artificially, unless by nature. The prefix *pa-* attached to other lexemes of this type also indicates causative meaning. The examples of *pa-* construction using the lexemes of this type are illustrated by *palutu* ‘make s.t. small/fined’ in (54), *pa’adhu* ‘to braze (literally: to make s.o’s heart hard to follow s.t)’ in (55), and *pamola* ‘make s.t. straight’ in (56).

(54) *ja’a caci kabhèu pa-lutu suu ca èta*

1sg k.o.cut.palm beam caus-fine tip a piece

‘I cut a beam making its tip small’

(55) *sèna ka ji’i baku pa-adhu dara j’i*

so.that part 1pl.excl do.not caus-hard inside 1pl.excl

‘in order that we do not braze our heart’

(56) *sèna ka baris nengu pa-mola ho èdhi kèi*

so.that part line(Ind) 3sg caus-straight so.that 1pl dig

‘in order its line becomes straight, so we can dig’
Only two lexemes of SPEED can take the prefix pa-; they are mèri ‘quick’ and nena ‘slow’. The example of this type is illustrated by the construction in (57) with the lexeme mèri ‘quick’. Here, the attachment of the prefix pa- results in the meaning of causing someone or something to move more quickly. As seen below that the derived form pa-mèri ‘CAUS-quick’ co-occur with the motion verb kako ‘to walk’ forming a serial verb construction.

(57) na kako pa-mèri ka ...
    3SG.CL walk CAUS-quick PART
‘He walked quickly then …’

Abundance of evidence has been presented in this section that the prefix pa-brings causative meaning to all possible lexemes. This indicates that those lexemes undoubtedly behave the same as intransitive verbs, as illustrated in the example (41). In contrast, none of the lexemes show characteristics similar to the example (42) that denote reciprocal meaning. Thus, none of the lexemes behave like transitive verbs. Similarly, none of the lexemes demonstrate an example, such as the causativization of the nominal categories pa-ngara ‘cause to have name’. For this respect, the prefix pa- provides evidence that most lexemes behave the same as intransitive verbs. A few lexemes which are impossible with pa-, such as lexeme of AGE kalicu ‘immature’, lexeme of DIMENSION iiki ‘small’, and lexeme of HUMAN PROPENSITIES to’a ‘in need’ need further detailed analysis (see Section 7).

3.2 (C)a- REDUPLICATION

The partial reduplication in Dhao is attested as (C)a- reduplication in that it copies the initial consonant of the first syllable and add the phoneme /a/ to the given lexeme. Initial consonant is absent whenever the lexeme to be reduplicated is vowel initial, such as the long vowel initial lexeme aapa ‘bad’. Thus, the phoneme /a/ is fixed in this regard. Such (C)a- reduplication is the only overt morphological marker in Dhao for nominalization process. The base of reduplication is the categories other than nouns. Lexemes which are identified as verbal categories are undergoing (C)a- reduplication to become nominal categories. As a result, the reduplicated lexemes are of course able to occupy nominal positions, such as the clausal arguments.

The typical (C)a- reduplication in Dhao is illustrated in the following examples. In (58), the verb goe ‘lock’ occupies the predicate position with the subject nèngu ‘3sc’ and the object boraka èèna ‘that box’. The verb goe is in turn partially reduplicated as ga-goe that refers to an instrument, which is ‘key’, as demonstrated by the example in (59). As such, it occupies argument position, which in this case, as object of the verb ladhe ‘see’. Another example is using the verb ngee ‘think’ in (60). The reduplicated form nga-ngée ‘thought’ in (61) functions as possessed noun of nèngu ‘3sc’.

(58) nèngu goe boraka èèna ka …
\hspace{1cm} 3sg lock cloth.box dist.sg part
‘He locked that box then …’

(59) hèia aku nèngu na ladhe ga-goe
\hspace{1cm} then according.to 3sg part see red-lock
‘Then he said, “look for the key”.’

(60) ja’a ngee na rèngu dua ra mahu
\hspace{1cm} 1sg think part 3pl two 3pl.cl drunk
‘I think they both are drunk’

(61) dhoka nga-ngee nèngu ne’e la’e asa karehe
\hspace{1cm} only red-think 3sg prox.sg go-3sg to bad
‘but her thought refers the negative thing.’

Regarding the lexemes indicated in the universal semantic types in Section 2, none of the lexemes of AGE can be reduplicated. The lexeme hiu ‘new’ can in fact be reduplicated into hahiu. However, the reduplication results in an expression referring to an abstract concept related to time, instead of nominal entity, as demonstrated by the typical examples previously. In example (62), the reduplicated form ha-hiu covers the entity that has been made clear in the previous context and the time related to it. It can be freely translated as ‘something new’. Consequently, it cannot occupy the core argument position, such as subject or object. It appears like adverbial function or topic in such construction. No other construction is possible for hahiu.

(62) heka ha-hiu kèna aa èdhi te’a mèka
\hspace{1cm} just red-new def and 1pl.incl 1pl.incl-know not.yet
‘As it (the work) is still new, so we do not know yet.’

Only two lexemes of DIMENSION can be reduplicated; they are baba ‘short’ and bhèla ‘thick’. The examples are illustrated below. The reduplication of bhèla ‘thick’ results in bha-bhèla which is here translated as ‘the thick part’ or ‘thickness’. The example (64) shows that the lexeme baba ‘short’ is reduplicated into ba-baba that again indicate the part of the entity it refers to. In this case, it is translated as ‘the shallow part’.

(63) ènyu pertama èdhi tari bha-bhèla nèngu
\hspace{1cm} weave first(Ind) 1pl plait red-thick 3sg
‘Firstly, we plait the thick part (of the leaves).’
As shown that reduplicating the only two lexemes of DIMENSION denotes part-whole reading, not creating a complete entity, as illustrated in (59) and (61).

For lexemes of VALUES, nine of them can be reduplicated, while 11 of them cannot. The examples of well-formed reduplicated lexemes are presented as follows. The lexeme be’a ‘good’ is reduplicated into ba-be’a which means ‘goodness’ which in example (65) refers to prosperity when combined with ka-kee ‘sweetness’. Meanwhile in (66), the lexeme sala ‘wrong’ is reduplicated into sa-sala ‘wrongness, sin’.

(65) ba-be’a ka-kee hia ana èdhi dhèu dua se’e  
    RED-good RED-sweet give child 1PL.INCL person two PROX.PL  
    ‘The prosperity for both of our children’

(66) … dhu pa-èle ji’i nga’ti sa-sala ne’e  
    … REL CAUS-finished 1PL.EXCL from RED-wrong PROX.SG  
    ‘… (only God) that can forgive us from our sins.’

The other seven lexemes which are also possible to undergo reduplication are listed in (67) below.

(67) Lexemes of VALUES reduplicated

- aapa ‘bad’ > a-aapa ‘badness’
- hera ‘dirty’ > ha-hera ‘dirt’
- mèu ‘clean’ > ma-mèu ‘cleanness’
- lèke ‘right’ > la-lèke ‘the right one’
- kaja ‘rich’ > ka-kaja ‘wealth’
- maho ‘cold’ > ma-maho ‘shade’
- to’a ‘in need’ > ta-to’a ‘difficulty’

The reduplication of lexemes of COLOURS is confined to mea ‘red’ and mèdi ‘black’. Similar to the lexemes of DIMENSION, the reduplication of these lexemes denotes part-whole reading in that the colour of the entity represents the entity as a whole.
The only two lexemes of HUMAN PROPENSITIES that undergo reduplication are j’èra ‘difficult’ and goa ‘stupid’. The example (70) illustrates it. The lexeme j’èra is reduplicated into j’a-j’èra ‘difficulty’ which indicates mental situation.

(70) j’a-j’èra sèmi ja’a ne’e
    RED-difficult like 1SG PROX.SG
    ‘The difficulty like (what) I (experience) here.’

For the lexemes of PHYSICAL PROPERTIES, reduplication is confined to five lexemes. Two examples are presented in (71) and (72) as illustration. The reduplicated form ba-bia ‘heaviness’ indicates the weight of the material mentioned in the previous discourse, which is a roll of yarn. The form a-’èra that is derived from èra ‘strong’ designates the meaning ‘power’ in this case. The other three lexemes with reduplication are mola ‘straight’, bhetu ‘lush’, and roe ‘weak’, which become ma-mola ‘the straight’, bha-bhetu ‘the lush’, and ra-roe ‘weakness’ respectively.

(71) ca kaloos ba-bia nèngu ...
    a bale(Mal) RED-heavy 3SG
    ‘the weight of one bale is …’

(72) padelo uuru a-’èra èu
    reveal earlier RED-strong 2SG
    ‘Show your power first.’

The only lexeme of SPEED that can be reduplicated is mèri ‘quick’. No example is indicated in the corpus. However, elicitation proves that this lexeme can be reduplicated into ma-mèri that denotes the meaning ‘the speed’. It can be evinced by the fact that it is possible to occur as possessed noun within NP, such as mamèri nèngu ‘its speed’.

4. Noun Phrases
The head of noun phrases (NP) in Dhao can be a noun, a personal pronoun, a demonstrative, or an interrogative. The NP modifiers typically follow the head nouns. In this section, the possibility of the lexemes indicated in Section
2 above to occur as NP heads and NP modifiers are examined. Besides that, the discussion will also touch on their occurrence within NP either as direct modifiers or indirect modifiers through relative clauses and in possessive phrases.

4.1 NP HEADS AND MODIFIERS

The lexemes that are able to occupy NP heads are said to bear nominal properties, whereas those that are able to modify NP are referring to adjectival properties. Modification in Dhao is expressed in two ways. The first is direct modification, where the modifying lexeme typically juxtaposed follows the head noun. Another way is indirect modification in that the modifying lexeme can modify the head noun through relative clause, which in Dhao is marked with dhu ‘REL’. In the example (73) below, the noun dhèu ‘person’ is the head NP which is modified by the demonstrative èèna ‘DIST.SG’. In such construction, the NP dhèu èèna ‘that person’ syntactically occupies clausal subject position. Furthermore, the object position is filled with a complex NP sasadhu kalai kare cue ‘a sasando made of kare wood’. The NP head is sasadhu ‘k.o. musical instrument’, while the modifiers are the other NP kalai ‘branch’ and kare ‘k.o. tree’. The numeral cue ‘one’ modifies the whole object NPs. The example (74) shows that the modification is expressed through relative clause marked with dhu ‘REL’. The head NP is the compound word lìi lolo ‘story’, modified by the relative clause dhu baba ne’e ‘which is short’. The relative clause expresses the attribute of the story which is short in length.

(73) dhèu èèna hia ja’a sasadhu kalai kare cue

‘That person gave me a sasando made of kare wood.’

(74) sange eena ka lii lolo dhu baba ne’e

‘That’s all this short story.’

All lexemes of AGE and COLOURS can modify NPs which indicate that they have adjectival functions. For example, in (75), the noun mone ‘male’ is modified by the lexeme heka ‘old’ to form the NP mone heka ‘the old man’. The NP is in turn modified by the numeral èci ‘one’ to express quantity. The example in (76) illustrates that the lexeme hìu ‘new’ modifies the noun rai ‘land’. The modification using lexemes of COLOURS is illustrated in (77) in which the lexeme mea ‘red’ modifies the head noun nyama ‘raffia’.

(75) calaa mone heka èci kako re èèna

‘Suddenly, an old man passed through that (place)’.

(76) sange eena ka lii lolo dhu baby ne’e

(77) sange eena ka lii lolo dhu baby ne’e
While all lexemes of AGE can function as NP modifiers, only two of them can function as the NP heads, namely limuri ‘latter’ and uuru ‘earlier’. The example (78) illustrates that the lexeme limuri ‘latter’ functions as modifier in the NP ana limuri ‘the current young people’ with the head noun is ana ‘child’, while the example (79) shows that the same limuri ‘latter’ functions as the head of the NP limuri ne’e ‘nowadays’ indicating time. Its function as NP head is evinced by the occurrence of the modifying demonstrative ne’e ‘PROX.SG’ which in this regard demonstrates the similar NP construction as shown in (74) and (75) above. Likewise, the lexeme uuru ‘earlier’ alone in example (79) also functions as NP head.

(78) ji’i ana limuri se’e ka ji’i pake
1PL.EXCL child latter PROX.PL PART 1PL.EXCL use
‘We as current young people use (it)’

(79) ngèti uuru toke dai limuri ne’e ne
from earlier until reach latter PROX.SG DEF
‘from the past until nowadays.’

Not all lexemes of AGE can modify head nouns through relative clauses. As indicated in (75) above that heka ‘old’ can directly modify the head noun, but it cannot occur in relative clause. Thus, it is unacceptable to have the sentence as shown (80) below. This also holds for its antonym ngèru ‘young’.

(80) *calaa mone dhu heka êêna kako re êêna
not.long male REL old DIST.SG walk through DIST.SG
‘Suddenly a man who is old passed through the place.’

The lexemes of AGE demonstrated above give strong evidence that lexemes directly modifying nouns do not always occur in relative clauses in terms of modification. In other words, direct and indirect modifications are not always

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1 The lexemes uuru ‘earlier’ and limuri ‘latter’ behave the same as other temporal nouns, such as lodo ‘day’, madae ‘morning’, and bèli ‘tomorrow’.
symmetrical. This is also true for the lexemes of VALUES. The lexemes ciki ‘a little, few’ and sagoro ‘hot’ can directly modify head nouns, but cannot occur in relative clauses. For example, the lexeme ciki ‘little’ in (81) below illustrates its function as NP modifier but it cannot appear like the example in (82).

(81) ja’a abhu doi ciki ama e
1SG get money little father PART
‘I had some money, sir.’

(82) *doi dhu ciki ne’e …
money REL little PROX.SG
‘The very little money …’

For the lexemes of DIMENSION, only one lexeme cannot function as NP modifier which is kobo ‘narrow’. Thus, it is wrong in (83) below. The lexeme kobo ‘narrow’ can only modify noun through relative clause, as given in (84).

(83) *boto hèba kobo èèna ana iiki ae
bottle mouth narrow DIST.SG child small many
‘The bottle with narrow mouth is very small.’

(84) èmu dhu kobo èèna unu ce?
house REL narrow DIST.SG own who
‘The house that is narrow belongs to who?’

Six lexemes of DIMENSION can function as NP heads; they are madhera ‘long’, bhèla ‘wide’, kapai ‘big’, marèma ‘deep’, ma’aa ‘thick’, and manii ‘thin’. For instance, the lexeme madhera ‘long’ in (85) functions as modifier within the NP aj’u madhera ‘long wood’. Whereas, in (86), madhera ‘long’ functions as the NP head.

(85) dhèu leo abhu aj’u madhera sèra
person other get wood long DIST.PL
‘Other people get those long woods.’

(86) mahera sèra unu ce?
long DIST.PL own who
‘Those long ones belong to who?’

The lexeme iiki ‘small’ and aae ‘big, great’ cannot function as NP heads, except combine with the nouns, ana and mone respectively. For instance, the sentence (87) indicates that the lexeme iiki ‘small’ modifies the head noun sabha ‘k.o.
container’. The noun *ana ‘child’ is optional in that construction. The context does not indicate any meaning in connection with human ‘child’. Meanwhile, *ana iiki ‘small child’ in (88) confirms its function as NP head. When *ana iiki ‘small (child)’ occurs alone, it may have two interpretations. One is ‘small child’, and the other is ‘the small one’. In this respect, the context of the discourse plays an important role here. If the discourse involves persons, it may indicate ‘small child’, but if not, then it refers to the non-human entity.

(87) *sabha (ana) iiki èci tempel ètu karasa na
k.o. container (child) small one patch(Ind) loc side 3SG CL
‘A small container was on its side.’

(88) *ana iiki èèna babago ae
child small dist SG slow many
‘The small child is very slow.’
‘The small one is very slow.’

As mentioned above that the lexemes of VALUES *ciki ‘a little, few’ and *sagoro ‘hot’ can only occur in direct modification. While the majority can function this way, the lexemes *mèu ‘clean’, *lèke ‘right’, and *maho ‘cold’ cannot directly modify head nouns. Thus, the modification illustrated by NP, such as *èi pana ‘hot water’ in (89), is acceptable but *èi maho ‘cold water’ in (90) is not, unless it is in relative clause, such as (91). In order to express such an intended meaning, the lexeme *pacuhi ‘cold’ is most preferably used, as in (92).

(89) *pai *èi pana se’e hia ne hèi
cook water hot prox PL give 3SG O also
‘Boil much water for her, too.’

(90) *hia ja’a *èi maho
give 1SG water cold
‘Give me cold water.’

(91) hia ja’a *èi dhu maho èèna
give 1SG water rel cold dist SG
‘Give me the water which is cold.’

(92) hia ja’a *èi pacuhi
give 1SG water cold
‘Give me cold water.’

Only two lexemes of VALUES can function as the NP heads, namely *karehe and *kaj’alu. For instance, in (93) below, the occurrence of *karehe ‘bad’ after the
preposition asa ‘to’ signals a position very similar to physical entities, like places. The example is telling about an opinion that is driven to a bad thing.

(93) dhoka nga-ngee nèngu ne’e la-e asa karehe ka ne
    only RED-think 3SG PROX.SG go-3SG to bad PART PROX.SG
    ‘But she began to think about the negative thing.’

While all other lexemes of COLOURS can function as NP head, the lexeme rara ‘a bit yellow’ cannot be NP head. It is most probably because its phonological reduction from karara ‘yellow’ with the semantic shift in this respect. In example (94) and (95), the colours mea ‘red’ and karara ‘yellow’ can occupy NP head position, but rara ‘a bit yellow’ cannot.

(94) ja’a sanèpu mea deo èèna
    1SG tying red recent DIST.SG
    ‘I used to tie the red.’

(95) ja’a sanèpu karara/*rara deo èèna
    1SG tying yellow recent DIST.SG

Of eleven lexemes of HUMAN PROPENSITIES, six of them cannot directly modify head nouns, they are kacèla ‘angry’, jèra ‘sad’, carui ‘difficult’, maj’èni ‘dilligent’, baieeda ‘lazy’, and karej’e ‘happy’. This signals that they can only modify nouns through relative clause, as illustrated by the example in (98). The lexemes huj’u ‘crazy’ and goa ‘stupid’ respectively modify the noun dhèu in (96). In contrast, it is ill-formed when using lexeme, such as kacèla ‘angry’ to directly modify NP dhèu kacèla in (97). None of them can function as NP heads.

(96) èu ne’e dhèu huj’u, dhèu goa na e
    2SG PROX.SG person crazy person stupid PART PART
    ‘Are you crazy or stupid,’

(97) *dhèu kacèla èèna mai le
    person angry DIST.SG come already
    ‘The angry person already comes.’

(98) dhèu dhu kacèla èèna mai le
    person REL angry DIST.SG come already
    ‘The person who is angry already comes.’

Most lexemes of PHYSICAL PROPERTIES can function as NP modifiers, except seven lexemes. They include madèka ‘sharp’, mola ‘straight’, koe ‘bent’,
motu ‘leafless’, rapo ‘leafy’, bhetu ‘leafy’, and kadhii ‘strong’. Thus, an NP, such as kapoke topo ‘blunt arrow’ is well-formed, while the phrase aj’u koe for the intended meaning ‘bent wood’ is wrong. Similar to other indirect modifying lexemes, these also can only modify noun through relative clauses. None of lexemes indicating physical properties can function as NP heads.

For the lexemes of SPEED, only malai ‘fast’ and nèbhu ‘long’ can directly modify nouns, for instance, in the NP kapa malai ‘fast boat’ and kapa nèbhu ‘slow boat’. None of them can occur as modifier through relative clauses and function as NP heads.

In terms of noun modification in Dhao, lexemes attested as verbal categories can also modify head nouns. For instance, the verb paredha ‘govern’ in (101) and madhe ‘die’ in (102) are typically expressing action and state respectively. Thus, they typically occur predicatively. However, in these two examples, they function as noun modifiers. The verb paredha ‘govern’ denotes the activity the head noun bears and the verb madhe ‘die’ signals the state of the head noun.

4.2 Possession

Dhao has two strategies of expressing possession. One is through NP structure which is so-called NP-internal possession (Dixon 2010b). The other strategy is lexical, using the lexeme unu ‘own’ and dènge ‘with’, which in turn occur as predicative possession. In this section, the discussion is confined to the earlier strategy, which is NP-internal possession. In Dhao, the possessor NP and possessed NP are simply juxtaposed without any overt marking. The possessor follows the possessed NP. The example (103) below demonstrates
that the NP èmu ‘house’ functions as the possessed, whereas ja’a ‘1sg’ as the possessor.

(103) ja’a pua nèngu dame dara èmu ja’a
1sg ask 3sg paint inside house 1sg
‘I asked him to paint the inside part of my house.’

It seems that the lexemes that can independently function as NP heads, as presented in Section 4.1 above, may not always be well-formed as possessed NP. Only those that refer to physical entities can be possessed nouns. Lexemes indicating temporal nouns, such as limuri ‘latter’ and uuru ‘earlier’, cannot be possessed NP in this regard despite being NP heads. The example in (104) illustrates the use of the lexemes of DIMENSION as possessed nouns. The lexemes, such as kapai ‘big’ and madhera ‘long’ are compatible as possessed nouns since they are able to function as NP heads independently and refer to physical properties. Unfortunately, the possessor of these lexemes cannot be full NPs, but rather confined to pronouns. For instance, in (104) and (105), the lexeme kapai ‘big’ and madhera ‘long’ occur before the personal pronoun nèngu ‘3sg’ as the possessor. The two possessed nouns refer to entities that are already made clear in the previous contexts. Whenever, the possessor is a full NP, the construction is unacceptable, as shown in example (106) using the lexeme of COLOURS.

(104) uku kapai nèngu dènge …
measure big 3sg with
‘measure its bigness (size) with …’

(105) madhera nèngu dènge ba-bhèla
long 3sg with red-wide
‘its length and width’

(106) *karara kodho èèna be’a bia
yellow shirt DIST.sg good heavy
‘Its yellow colour of the shirt is very good.’

As such, only a few lexemes can occupy the position of possessed NP. Lexemes of DIMENSION can function as possessed NP, except baba ‘short’ and bhèla ‘wide’ that need to be reduplicated. Only kaj’alu ‘dirty’ from VALUES can be possessed NP by reason that it can also occur independently to express property or attribute of physical entities. All lexemes of COLOURS are compatible as possessed NP, except rara ‘a bit yellow’. On the other hand, no lexeme of PHYSICAL PROPERTIES is acceptable in this slot, simply because they mostly indicate the physical state, instead of the physical entities. This is also evinced by the fact that they also cannot appear alone in nominal position.
They can only function as NP modifiers or clausal predicates. Similarly, lexemes of HUMAN PROPENSITIES and SPEED cannot fill such a possessed NP slot, except nèblu ‘long, slow’, as illustrated in (107). The possessor nèngu ‘3sg’ refers to a context in which the action in the clause requires some duration of time for completion.

(107) ja’a rasa nèblu nèngu …
1sg feel(Ind) long 3sg
‘I think, it spent …’ (Literally: its length of time)

5. Predicate Phrases

This type of construction is labelled as predicate phrases, instead of verb phrases simply because the predicate position in Dhao is occupied not only by verbal categories, but also by non-verbal categories, as explained in Section 1. Most of the lexemes listed in the universal semantic types preciously can function as clausal predicate. Whenever they do, they are intransitive verbs in that they express statement of a property (Dixon 2010b: 71). Many of them can occur both as NP modifier and intransitive clausal predicate (Dixon, 2010a: 63–100). This phenomenon should be considered as lexemes used in two different functions, instead of conversion or zero derivation (this will be highlighted later in Section 7 below). Take the lexeme of AGE heka ‘old’ that functions as NP modifier, as in (75) above, heka can also function as clausal predicate to denote age of the subject. In the example (108), heka is in predicate position modified by ae ‘many’ which in this respect functions as an adverb and le indicating perfective context. Likewise, the lexeme dhui ‘old’ indicates the state of èmu ‘house’ - the subject of the clause.

(108) dhe’u èèna heka ae le
person DIST.SG old many already
‘The man is already too old.’

(109) èmu ne’e dhui le
house PROX.SG old already
‘The house is already old.’

The same also holds for other lexemes. The lexemes of DIMENSION functioning as predicate are illustrated by the examples in (110) and (111). Madhera ‘long’ and kapai ‘big’ indicate the state of the respective subjects, aj’u ‘wood’ and èmu ‘house’.

(110) aj’u èèna madhera ae
wood DIST.SG long many
‘The wood is very long.’
Unlike those other lexemes of DIMENSION, *iki ‘small’ and *aae ‘big, great’ can never function as predicate, except combined with their noun counterpart ana ‘child’ and mone ‘male’ respectively. The unacceptable example in (113) provides evidence of such argumentation.

(113) *èmu èèna aae/iiki
      house DIST.SG big/small

All lexemes of VALUES can function as predicate, except to’a ‘in need’. As mentioned above that this lexeme can function as NP modifier, especially for human, such as dhèu ‘person’ in order to denote the meaning ‘poor person/people’. However, there is no way to verbalize it. The prefix pa- can be attached to it in order to indicate the causative meaning; pa-to’a ‘to make poor’. The attachment of the prefix pa- is understandable but pragmatically not acceptable. Making some one poor implies that someone makes someone else suffer. In such as context, the lexeme *j’èra ‘suffer, sad’ is preferably employed with prefix pa-. For example, as illustrated in (114), someone does not want to make other people suffer, the prefix pa- is attached to the lexeme *j’èra ‘suffer, sad’. The lexeme *j’èra ‘suffer’ itself is a lexeme of HUMAN PROPENSITIES that cannot be used as NP modifier. It can only function as predicate. It indicates that it is an intransitive verb, rather than a lextene that can be used for noun modification.

(114) ja’a dèi boe pa-*j’èra dhèu
      1SG want not CAUS-suffer person
      ‘I do not want to make people suffer.’

Besides the lexeme *j’èra ‘suffer’, three more lexemes, namely kacèla ‘angry’, carui ‘difficult’, and karej’e ‘happy’ can only be predicates, and never be used as NP modifiers, as stated previously. Some lexemes are really expressing the attributes of the head nouns, nevertheless impossibly occur directly in NP structure. Those are, for example, adjectives of VALUE mèu ‘clean’, PHYSICAL PROPERTY mola ‘straight’ and HUMAN PROPENSITY maj’èni ‘diligent’. Therefore, their occurrence following the NP head is a predicative function, instead of modification. For instance, the lextene mèu ‘clean’ follows the NP in (115). It is, however, not modifier, but rather predicate. It is evinced by the
fact that the example (116) is ill-formed. The modification is acceptable only through relative clause, as in (117).

\[(115) \quad [\text{èmu dhèu}]_{\text{NP}} \ mèu \quad \text{house person clean} \quad \text{‘The house of the person was clean.’}\]

\[(116) \quad *\text{èmu mèu ne’e} \quad \text{house clean PROX.SG} \quad \text{‘This clean house’}\]

\[(117) \quad [\text{èmu dhèu}]_{\text{NP}} \ dhu \ mèu \quad \text{house person REL clean} \quad \text{‘The house of the person was clean.’}\]

The same also holds for the lexeme \textit{mola} ‘straight’. In (118), it comes immediately after the NP. Nevertheless, it does not indicate a modification, but a predicative function. The ill-formed construction in (119) in contrast with the well-formed one in (120) implies that \textit{mola} is not compatible for direct modification of the NP head.

\[(118) \quad abhu \ [\text{rulai i’a}]_{\text{NP}} \ mola \quad \text{get tail fish straight} \quad \text{‘(We) got fish which had straight tail.’}\]

\[(119) \quad *\text{rulai i’a mola ka ne’e} \quad \text{tail fish straight PART PROX.SG} \quad \text{‘The straight fish tail is here.’}\]

\[(120) \quad [\text{rulai i’a}]_{\text{NP}} \ dhu \ mola \ ka \ ne’e \quad \text{ail fish REL straight PART PROX.SG} \quad \text{‘The straight fish tail is here.’}\]

The example using the lexeme \textit{maj’èni} ‘diligent’ is given below.

\[(121) \quad aku \ nèngu \ na \ ho \ maj’èni \ na \quad \text{according.to 3SG PART so.that diligent PART} \quad \text{‘He (the king) said, if you were diligent then …’}\]

For the lexemes of SPEED, three of them can be heads of predicates, they are \textit{babago} ‘slow’, \textit{nena} ‘late, slow’, \textit{malai} ‘quick’, whereas the others cannot. The example (122) with the lexeme \textit{nena} ‘slow’ below illustrates the lexeme of
SPEED in predicate position.

(122) karena ma-mai ji’i doe ne’e ako nena
because(Ind) RED-come 1PL.EXCL today PROX.SG rather slow
‘because our coming is a little bit late.’

Other lexemes of SPEED karohe ‘fast’, mèri ‘quickly’, and lai-lai ‘quickly’ cannot function as both predicates and NP modifiers. They can only occur in the position in which they modify the predicate. The example (123) illustrates that the lexeme mèri ‘quickly’ occurs after the clausal predicate which is rai ‘run’. It modifies the predicate in that it describes the speed of the running done by the subject ana èèna ‘that child’. As such, mèri is in adverbial function.

(123) ana èèna rai mèri asa nèi
child DIST.SG run quickly to REM.SG
‘The child runs quickly over there.’

Lexemes of other semantic types can also function as adverbial. For example, the lexeme bia ‘heavy’ which is of PHYSICAL PROPERTIES is used as the predicate modifier for be’a ‘good’ as shown in (124). Likewise, the lexeme kapai ‘big’ of DIMENSION is used as modifier of the predicate saba ‘work’ in (125).

(124) èpu mola be’a bia nga
grandchild straight very good tag
‘(my) grandchild is very good (too straight).’

(125) tèke uu ru ku rai èèna te saba kapai
leave earlier tag land DIST.SG because work big
‘Just keep the land because there are still many things to do. (Literally: big work)’

Some lexemes of VALUES also play the same role in that they can be used in adverbial function. For example, the lexeme kateme ‘intact’ is used to modify the predicate which is in the form of serial verbs tao nare ‘manage.’ In this respect, it denotes the completeness of the action or events stated by the predicate.

(126) nèngu tao nare kateme ngaa-ngaa asa li’u ka
3SG make 3SG.take intact RED-what to outside PART
‘She managed all things completely outside.’

6. Comparison

In addition to stating a property and specifying the referent of a noun,
the notion “adjective” may also serve as the parameter in comparative constructions (Dixon 2010b: 70; Bhat and Pustet 2000). It means that comparative construction is among other things one way of distinguishing adjective from other categories. This section briefly describes the use of the lexemes already indicated in Section 2 in comparative constructions. Dhao uses the lexeme risi ‘more, exceed’ to mark comparative constructions. Another synonymous lexeme lènge ‘exceed’ is also used, as illustrated by the example in (127). The lexeme lènge is used to compare the height of person with the bud of plants. However, since it is less used in the corpus, this section is focusing on the use of risi. Since the marker risi in fact can also be used to indicate both comparative and superlative degree, it is simply glossed as ‘compa’.

(127) subhu taruu mola asa dedha la-e ho baka
     shoot continue straight to above go-3sg so that like
lènge èdhi
     pass 1pl.

‘(Its bud) is straight up, taller than us.’

In Dhao, the marker risi ‘compa’ is used for all comparison, regardless of nominal, adjectival, or verbal. For example, in (128), the marker risi ‘compa’ follows the lexeme of DIMENSION kapai ‘big’. In this sentence, the subject ana èèna ‘that kid’ is compared to the object ana ja’a ‘my kid’. The lexeme kapai ‘big’ here semantically indicates the property of kids in the comparison. Syntactically, kapai occupies the predicate position, as explained previously. In (129), risi ‘compa’ follows the verb ne’a ‘3sg-know’. It compares the knowledge of the subject ama ‘father’ with individual(s) who are implicit in this context about the situation of the adjunct rèngu ‘3pl’.

(128) ana èèna kapai risi ngèti ana ja’a
     child DIST.sg big compa from child 1sg

‘That kid is bigger than my kid.’

(129) Ama n-e’a risi eele keadaan rèngu
     father 3sg-know compa part situation(Ind) 3pl

‘Father, (you) know more their situation.’

Another example comes from the lexeme of COLOURS mea ‘red’ in (130). The marker risi ‘compa’ follows the colour mea ‘red’ which compares the colour of the subject kodho èèna ‘that shirt’ and the prepositional object kodho ja’a ‘my shirt’. In addition, the example (131) illustrates the use of risi after the numeral juta ‘million’. In this case, it does not compare the entities involved in the discourse, but rather states the exceeding quantity. The same also holds for the example in (132). The marker risi here signals the exceeding quantity of entity
that is implied in this context. Thus, it is glossed as ‘exceed’ in this respect.

(130) kodho èëna mea risi ngèti kodho ja’a
    shirt DIST.SG red COMPAP from shirt 1SG
    ‘The shirt is more red than my shirt.’

(131) nèngu abhu dai ca juta risi sèra
    3SG get until a million exceed DIST.PL
    ‘S/he gets more than one million.’

(132) sabha.tanae èna èta la pènu risi
    small.container six TAP PART full exceed
    ‘six palm juice container but full, even more’

The use of the comparative marker risi ‘COMPAP’ demonstrated above suggests that the marker risi ‘COMPAP’ occur post-predicatively. The predicate can be adjectival, such as kapai ‘big’ and mea ‘red’, verbal, such as ne’a ‘3SG-know’ and pènu ‘full’ and numeral, such as juta ‘million’.

The superlative reading is illustrated in the example (133) below. The marker risi follows the lexeme of SPEED nèbhu that in this case means ‘long’. It denotes that the house already exists in Dhao for a long time, compared to all other houses. The length of time in this regard is interpreted as the ‘oldest’.

(133) èmu èëna nèbhu risi étu Dhao
    house DIST.SG long COMPAP LOC Dhao
    ‘That house is the oldest one in Dhao.’

As demonstrated above, both comparative and superlative degrees are marked syntactically with risi ‘COMPAP’, regardless of the word category. In this regard, it is not only designates comparison, but also quantity and intensity.

7. Discussion on grammatical profiles

The description in the previous sections presumably indicates the characteristics of the lexemes, either morphologically or syntactically. Bhat and Pustet (2000) point out that the primary, categorial function of adjectives is the modification of nouns in an NP. Dixon (2010b: 80) also argues that only adjective can directly modify a noun, not a verb. However, Dixon does not deny that, in some languages, both verb and adjective can modify a noun. If the verbs do, then there must be a distinction between them, either morphologically, syntactically, or semantically. Under this view, the interpretation is that adjectives have restricted compatibility for verbal categorial function, such as predication. Similarly, verbs must have constraints when functioning as modifiers; for instance they modify noun only through relative clause. Summarizing the
size of the lexemes described above, the number of occurrences based on the semantic types is presented in Table 1.

| Semantic types       | Number of lexemes | Pref. | RED | MOD | P/MOD | P  | N | ADV |
|----------------------|-------------------|-------|-----|-----|-------|----|---|-----|
| AGE                  | 8                 | 5     | 1   | -   | 8     | -  | 2 | 2   |
| DIMENSION            | 12                | 12    | 2   | 2   | 9     | 1  | 5 | 1   |
| VALUE                | 18                | 16    | 8   | 2   | 14    | 2  | 2 | 6   |
| COLOURS              | 6                 | 6     | 1   | -   | 6     | -  | 5 | -   |
| HUMAN PROPENSITIES   | 11                | 9     | 2   | -   | 5     | 6  | 2 | 2   |
| PHYSICAL PROPERTIES  | 24                | 16    | 7   | -   | 18    | 6  | 2 | 2   |
| SPEED                | 6                 | 2     | 1   | -   | 2     | 2  | - | 6   |
| TOTAL                | 85                | 66    | 22  | 4   | 62    | 17 | 18| 19  |
| %                    | 100               | 77.65 | 25.88 | 4.71 | 72.94 | 20.00 | 21.18 | 22.35 |

Table 1. Number of occurrence based on semantic types.

As shown in the Table 1, 17 lexemes or 20.00% can only occur predicatively (P) and never directly modify NP heads (MOD). For example, one lexeme of DIMENSION kobo ‘narrow’, two lexemes of VALUES mèu ‘clean’, and maho ‘cold’, six lexemes of PHYSICAL PROPERTIES mola ‘straight’, koe ‘bent’, madèka ‘sharp’, motu ‘leafless’, rapo ‘leafy’, and bhetu ‘lush’. These lexemes can only modify nouns through relative clause. As such, the lexemes of this type are undoubtedly included in verbal class. Four lexemes can only function in direct modification of nouns and never occur as predicate heads. Two lexemes of DIMENSION iiki ‘small’ and aae ‘big, great’ and two lexemes VALUES aapa ‘bad’ and to’a ‘in need’. These four lexemes need to be marked in order to function predicatively or nominally. While the other three can take the prefix pa- for verbalization, the lexeme iiki cannot. It can be used predicatively only when combined with the noun ana ‘child’, as explained previously. In order to function nominally, to’a and aapa undergo (C)a- reduplication becoming tato’a ‘obstacle’ and aaapa ‘bad thing’ respectively, whereas iiki and aae cannot be reduplicated. They simply function nominally with their compound forms ana iiki ‘the small one’ and mone aae ‘the big one’. Of these four lexemes, iiki is the only one that in its bare form cannot take the prefix pa-, unless attached to its compound form ana iiki to become pa-ana iiki ‘to make small’. This phenomenon may be explained as follows. The four lexemes may be the prototypical or “true” adjectives in Dhao that can only function as direct noun modifiers. They require prefix pa- to qualify for transitive predicate heads, except iiki. The impossibility of the lexeme iiki alone to take the prefix pa- is most probably because it loses its morphosyntactic characteristics and maintain the lexical form ana ‘child’ as its semantic counterpart. It is cross-linguistically not unusual that ana ‘child’ can denote the meaning ‘small’ (Heine and Kuteva 2002: 65–67).
The majority of the lexemes can be both predicate heads and noun modifiers (P/MOD), namely 62 lexemes out of 86 in total or 72.94%. Since only a few number of lexemes share features with nominal (N), that is 18 lexemes or 21.18%, it can be concluded here that the lexemes which have adjectival function share grammatical properties with verbs, instead of nouns. This finding more or less narrows down the investigation of defining the proto-typical adjectives in Dhao. The focus now is to account for the distinction between adjectives and verbs. Seeing that the semantic parameter has been done previously in which the lexemes have been classified into seven semantic types in Section 2, this section is focusing on the discussion of the morphological and syntactic properties already described in Section 3 through Section 5 above.

As seen on the Table 1 that the lexemes taking the prefix pa- is far higher in number, namely 66 or 77.65%, than those undergoing reduplication, namely 22 or 25.88% only. This also gives a strong indication that those lexemes tend to share morphological characteristic with verbs, rather than with nouns. The nominalization by reduplication also makes no distinction at all between verbs and those “adjectival” lexemes. Furthermore, like intransitive verbs, as illustrated in (41) above, the prefix pa- also signals causative meaning when attached to all possible lexemes. They can also occur as heads of intransitive predicates in their bare forms. For this, it can be said that they behave like intransitive verbs, if not saying that they are intransitive verbs. However, not all of them are able to head the transitive predicate as what intransitive verbs do when taking the prefix pa-. For example, the example in (47) above is using the lexeme of DIMENSION manii ‘thin’ to which the prefix pa- is attached. There is also a verb tuku ‘to smith’ in that construction, making the predicate a serial verb construction. The verb tuku ‘to smith’ as the first verb and pamanii ‘to make thin’ as the second verb. The second verb in this case, however, cannot be the head of transitive predicate, but combined with other verbs. This is different from other lexemes that when taking the prefix pa-, other verbs included in the predicate position are optional. More examples are presented below for the sake of clarity. The example (134) illustrates that the lexeme manii ‘thin’ functions as direct noun modifier, while in (135), it functions as intransitive predicate. The question mark (?) in example (137) signals that such a construction is understandable but is considered as not completely well-formed, except preceded by other verbs, such as tao ‘make’ in (136).

(134) aj’u manii sèra dhèu leo abhu le
    wood thin DIST.PL person other get already

    ‘For the thin woods, other people already get them.’

(135) aj’u sèra manii
    wood DIST.PL thin

    ‘Those woods are thin.’
nèngu tao pa-manii aj’u sèra
3sg make CAUS-thin wood DIST.PL
‘He makes the woods thinner.’

(137) ?nèngu pa-manii aj’u sèra
3sg CAUS-thin wood DIST.PL
‘He makes the woods thinner.’

Indeed, the attachment of the prefix pa- results in causative reading. However, the ill-formedness of its syntactic position as transitive predicate designates that the arguments involved in such construction do not belong to pa-manii, but tao. Thus, the first verb, in this regard, tao is the predicate head of the transitive construction and the second verb as the predicate modifier. It is different when applying lexemes of other semantic types, such as VALUES. In example (138), it is clearly seen that attaching the prefix pa- to the lexeme hera ‘dirty’ results in causative meaning which is syntactically heads the transitive predicate. Inserting the verb, like tao, in order to make the context explicit even violates the construction.

(138) nèngu (*tao) pa-hera èmu èèna
3sg (make) CAUS-dirty house DIST.SG
‘He makes the house dirty.’

To claim that the prefix pa- is used to causativize intransitive verbs and verbalize non-verbal categories, as illustrated in (43) and (44) above using the nouns ngara ‘name’ and èi ‘water’, then the derived form of pa-manii ‘to make thin’ in (136) should also be considered as a causative verb. Nevertheless, its ill-formedness in predicate head suggests that it cannot be included in verbs. Under this interpretation, it can be said that the prefix pa- in Dhao indeed denotes causative reading, yet does not always results in predicate heads. Lexemes typically behave adjectivally can take the prefix pa- to generate causative reading but cannot head transitive predicate. As Dixon (2010b: 82) argues that adjectives typically behave in a special way within serial verb constructions (compare Aikhenvald and Dixon 2006). The lexemes bearing this sort of morphosyntactic characteristics only come from the lexemes of DIMENSION. Other lexemes taking the prefix pa- behave the same as intransitive verbs. Consequently, they are included in intransitive verbs, instead of adjectives.

In Table 1 above, it is also demonstrated that out of 85 lexemes in total, 19 lexemes or 22.35% of them share properties with adverbial functions. It is undeniable that in many languages, adjectives can also serve as predicate modifiers. Two lexemes of SPEED can only occur as predicate modifiers to express manner, instead of noun modifiers. Those lexemes are karohe ‘fast’ and mèri ‘quickly’. These two lexemes are simply included in adverbial category,
leaving the other four lexemes mapped into intransitive verbs.

Based on the abovementioned analyses, the size of the lexemes attested as adjectives in Dhao is reanalysed as having eleven (11) adjectives denoting DIMENSION, excluding teede ‘flimsy’ as it functions only as predicate, and two adjectives denoting VALUES. These thirteen (13) adjectives may be classified into two subclasses, namely simple adjectives which has four members; two adjectives of DIMENSION aae ‘big, great’ and iiki ‘small’ and two of VALUES to’a ‘in need’ and aapa ‘bad’. The other nine adjectives of DIMENSION can be classified as “recategorized” adjectives in that they also take on the characteristics of verbal categories. This analysis is in line with the classification of semantic properties proposed in (Dixon 1982; Dixon and Aikhenvald 2004; Dixon 2010b), followed by (Bhat and Pustet 2000) that lexical items denoting the properties of dimension and values are the most two types representing prototypical core adjectives.

8. Conclusion

The description along this paper clearly demonstrates that, semantically, lexemes denoting age, dimension, values, colours, human propensities, physical properties, and speed are not always qualify for adjectives. Morphological and syntactic parameters should also be taken into account in order to define the prototypical characteristics of adjectives. Out of 85 lexemes examined in this paper, thirteen (13) lexemes are attested as adjectives in Dhao. This finding is based on the argumentation that these thirteen adjectives have the primary function which is to modify the head nouns. Four adjectives can only be in verbal categorial function when they are marked. The adjectives denoting dimension iiki ‘small’ and aae ‘big, great’ require the lexemes of their semantic counterpart ana ‘child’ and mone ‘male’ to function as intransitive predicates, while the adjectives of values aapa ‘bad’ and to’a ‘in need’ never become intransitive predicates. Like other adjectives and intransitive verbs, they also take the prefix pa-, except iiki ‘small’, to generate causative meaning. However, they are restricted in use as they require other verbs in syntactic level to function as the predicate heads. The same also holds for the other nine adjectives denoting dimension. Although they can be compatible for intransitive predicates in their bare forms, simply like intransitive verbs, they differ in terms of taking the prefix pa-. While intransitive verbs taking prefix pa- can always be the heads of transitive predicates, adjectives cannot. They can only follow the predicate head as the second verb in the serial verb construction as predicate modifiers in this regard. They are eventually considered as “recategorized” adjectives, by reason that they can fill in the intransitive predicate slot without any overt marking, the same as typical intransitive verbs. Thus, adjectives in Dhao include only two semantic properties, namely dimension and values. In terms of size, there are thirteen adjectives which are morphosyntactically divided into two, namely simple and recategorized adjectives.
ABBREVIATIONS USED

1 : first person
2 : second person
3 : third person
C : consonant
caus : causative
cl : clitic
compa : comparison
excl : exclusive
excla : exclamation
def : definite
dist : distal
incl : inclusive
Ind : Indonesian
k.o. : kind of
loc : locative
Mal : Malay
MOD : modifier
N : noun/nominal
neg : negation/negator
NP : noun phrase
O : object
P : predicate
pl : plural
Pref : prefix
proh : prohibition
prox : proximal
part : particle
recip : reciprocal
red : reduplication
rel : relative clause marker
rem : remote
S : subject
sg : singular
V : verb
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