On Denominalization in Paiwan

Chun-ming Wu
Institute of Linguistics, NTHU
tomcm0606@gmail.com

1. Introduction

1.1 Definition—what are denominal verbs?
Verbs are derived from nouns in terms of zero derivation; Words denoting concrete objects like ‘nail’, ‘water’, ‘shampoo’ can also be used as verbs ‘to nail’, ‘to water’, ‘to shampoo’ to report events associated with the corresponding concrete objects. These verbs are referred to as denominal verbs (Jespersen 1942, McCawley 1971, Green 1974, Clark and Clark 1979, Tai 1997).

1.2 Denominal Verbs in Some Languages
(1) English
   a. John watered the flowers yesterday.
   b. She shampooed her hair.

(2) Chinese
   a. 我把魚冰在冰箱
   b. 我被鎖在門外

(3) Mayrinax Atayal (Huang 2000:389)
   a. m-situing
      AF-clothes
      ‘to wear clothes’
   b. h-um-anaang
      sound-AF
      ‘to make sound’
   c. Ø-na’akis
      AF-old man
      ‘to be old’

(4) Mantauran Rukai (Zeitoun 2007: 229, 231)
   a. ma-valrovalro-nga    lalake-li     'avai.
      Stat.Fin-young woman-already child-1S.Gen female
      ‘My daughter is already a young woman.’
b. ma-Iroolai-na 'ina lalake-'o 'atoloro paori-ina-ina
    Stat.Fin-child-still this child-2S.Gen so stick to-Red-mother
    ‘Your child is still small so he clings to (his) mother.’

1.3 Research Issues
(1) How are denominal verbs formed in (Northern) Paiwan?
(2) How do we use Paiwan denominal verbs?—How are denominal verbs associated with their syntactic arguments?
(3) How is denominalization related to human thoughts and language use?

2. Denominalizing Processes in Paiwan
2.1 Focus System and Verbs
(5) Paiwan
a. ma-pulaw ti palang
   AF-drunk Nom Palang
   ‘Palang gets drunk.’

b. p-en-angul ti palang tjay kalalu
   hit-AF Nom Palang Obl Kalalu
   ‘Palang hits Kalalu.’

c. t-in-ekel a zua a vava ni palang
   drink-Asp.PF Nom that Lnk wine Gen Palang
   ‘Palang has drunk that wine.’

d. p-in-angulj-an ni palang tjay kalalu a icu a gaku
   hit-Asp-LF Gen Palang Obl Kalalu Nom this Lnk school
   ‘Palang has hit Kalalu right in this school.’

e. ku-si-tekel tua siaw a kizing
   1S.Gen-BF-drink Obl soup Nom spoon
   ‘I used the spoon to get soup.’

2.2 Denominalization vs. Non-Focus Verbalization
• Denominalization (Focus verbalization): Syntactically-derived

(6) a. cukui ‘desk’ >> c<em>ukui ‘to feast’
    b. takit ‘knife’ >> t<em>akit ‘to wear a knife’
    c. vurasi ‘sweet potato’ >> v<en>urasi ‘to plant sweet potato’
    d. ’erepus ‘cloud’ >> ?<em>erepus ‘to become cloudy’
   →Focus marker are less selective to the noun stems.
   →The meanings of resulting verbs are less predictable.
(7) b. v<en>urasi-anga=aken i-maza
sweet potato<AF>-COS=1S.Nom in-here
'I planted sweet potato here.'

c. ?<in>erepus nua ?erepus a gade
cloud<PERF.PF> GEN cloud Nom mountain
'The mountain was covered by clouds.'

→Focus markers encode grammatical properties (agreement and aspect information)

• Non-focus verbalization: Morphologically-derived

(8)

a. san-affixation: san + N ([artifact]) ‘to build/construct N’
san-uma ‘to build house’
san-takit ‘to make knife’
san-vava ‘to make wine’
*san-zaljum ‘to produce water’
b. sa-affixation: sa + N ([location]) ‘to go to N’
sa-gaku ‘to go to school’
sa-gade ‘to go to the mountain’
*sa-vatu ‘to go to the dog’

→The meanings of resulting verbs are predictable.
→The verbal prefixes are selective to the noun stems.

(9)

a. uru=s<em>an-takit=aken
   IRR=make<AF>-knife=1S.NOM
   ‘I will make a knife.’

b. ku-s<in>an-takit a su-takit
   1S.GEN-make<PERF.PF>-knife NOM 2S.GEN-knife
   ‘I have made you knife well-done.’

c. *uru-san-takit=aken

d. *ku-san-takit a su-takit
→The verbal prefixes do not have grammatical functions. The resulting verbs cannot be syntactically represented without Focus markers.

2.3 Single Focus Marking
AF Affixation
(10)
a. na-ma-vali=aken
   PERF-AF-wind=1S.NOM
   ‘I had a cold.’

b. ma-ipu a ku-uma?
   AF-dust NOM 1S.GEN-house
   ‘My house is covered by dust.’

c. na-?<em>erepus=anga a zua a gade
   PERF-cloud<AF>=COS NOM that LNK mountain
   ‘It is cloudy in that mountain.’
   ‘That mountain becomes cloudy.’

d. na-tj<em>aljum=anga ( tua tjara?)
   water<AF>=COS
   ‘The water floods.’

e. uru=s<em>iaw=aken
   IRR-soup<AF>=1S.NOM
   ‘I will drink a soup.’
PF Affixation

(11)

a. v<in>ali=aken nua vali
   wind<PERF.PF>=1S.NOM GEN wind
   ‘I was blown by the wind.’

b. ?utjal-en=aken nua icu a utjal
   Rain-PF=1S.NOM GEN this LNK rain
   ‘The rain poured down on me.’

c. ?.<in>erepus a gade nua ?erepus
   Cloud<PERF.PF> NOM mountain GEN cloud
   ‘The mountain is covered by the cloud.’

d. ku-?.<in>acilay a uma? ni kina
   1S.GEN-stone<PERF.PF> NOM house GEN mother
   ‘I use stones to build Mother’s house.’

B/IF Affixation

(12)

a. si-vali=aken nua vali
   BF-wind=1S.NOM GEN wind
   ‘I was blown away by the wind.’

b. ku-si-cemel a icu a cemel tua ku-uma?
   1S.NOM-BF-grass/trash NOM this LNK trash OBL 1S.GEN-house
   ‘I drop the trash in my house.’

c. ku-s<in>i-tjara?-anga a zua a tjara?
   1S.GEN-BF<PERF>-ring-COS NOM that LNK ring
   ‘I have put on that ring.’

d. uru=ku-si-cukui a icu a cukui
   IRR=1S.GEN-B V-desk NOM this LNK desk
   ‘I will use the desk to feast.’
e. uru=ku-si?-acilay a ?acilay a s<em>an-uma?
   IRR=1S.GEN-BF-stone NOM stone LNK make<AF>-house
   ‘I use the stone to build the house.’

LF Affixation
LF
(13)
a. ?utjal-an=anga
   rain-LF=COS
   ‘It has already rained.’

b. ?erepus-an-anga a icu a gade
   Cloud-LF=COS NOM this LNK mountain
   ‘It is cloudy in this mountain.’

c. ku-tjara?-an Di a icu a tjara?
   1S.GEN-ring-LF Q NOM this LNK ring
   ‘Could I put on this ring?’

d. Avakaw, ku-cukui-an a a icu a cukui Di
   Avalaw 1S.GEN-desk-LF NOM this NOM desk Q
   ‘Avakaw, let me use the desk! OK!’

e. ku?-acilay-an a acilay a s<em>an-uma?
   1S.GEN-stone-LF NOM stone LNK make<AF>-house
   ‘I used the stone to build the house.’

LF Imperative
(14)
a. tjara-an ti upin
   Ring-LF.IMP NOM Upin
   ‘Put the ring on Upin’s hand!’

b. kava-an ti avakaw
   clothes-LF.IMP NOM Avakaw
   ‘Help Avakaw put on the clothes!’
c. kupu-an ti avakaw tua zaljum
   Cup-LF.IMP NOM Avakaw OBL water
   ‘Please (use a cup to) fill the water for Avakaw!’

d. calis-an tiaken
   Rope-LF.IMP 1S.NOM
   ‘Connect the ropes for me!’

2.4 Double Focus Marking

Ma–an Affixation

(15)
a. ma-tjimur-an-aravac a ku-lingaw
   AF-Tjimur-LF-very NOM 1S.GEN-accent
   ‘My accent is similar to Tjimur’s accent.’

<em>–an Affixation

(16)
a. ka-v<en>ali-an=angata Di
   KA-wind<AV>-LF-really Q
   ‘How come the wind is so strong?’

b. ka-?<em>utjal-an=angata Di
   KA-rain<AF>-LF=really Q
   ‘How come the rain is so strong?’

c. na-g<em>ade-an=aken
   PERF-Mountain<AF>-LF=1S.NOM
   ‘I walked along the mountain ridge.’

d. uru-p<en>ana?-an=aken tua icu a pana?
   IRR-river<AF>-LF=1S.NOM OBL this LNK river
   ‘I will walk along the riverside.’

e. na-tj<em>imur-an=aken
   PERF-Tjimur<AF>-LF=1S.NOM
   ‘I spoke in Tjimur accent.’
   Lit. ‘I followed Tjimur accent to speak.’
<in>--an Affixation

(17)
a. v<in>ali-an a icu a ku-va?u? nua vali
   wind<PERF.PF>-LF NOM this LNK 1S.GEN-millet GEN wind
   ‘All the millets are destroyed by the wind.’

b. ?<in>utjal-an a icu a tjalan
   Rain<PERF>-LF NOM this LNK road
   ‘The road becomes wet because it has just rained here.’

c. ku-tj<in>imur-an a lingaw
   1S.GEN-Tjimur<PERF.PF>-LF NOM accent
   ‘I spoke in Tjimur accent.’

Compare: si--an affixation (a nominalization process)

(18)
a. a si-vali-an i-ka=tjen a k<em>enag
   TOP BF-wind-LF NEG-INCHO=1PL.NOM LNK know<AF>
   ‘We don’t know when the wind blows.’

b. a ku-si-tjimur-an, pasalju
   TOP 1S.GEN-BF-Timur-LF wrong (AF)
   ‘My Tjimur accent is not right.’
3. Denominalization, Human Thoughts and Language Use

3.1 Noun Classification and Denominalization

Table 1. Noun Classification and Denominalization in Paiwan

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<th>Denominal Processes</th>
<th>Classification of nouns (see more details in appendix 1)</th>
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<td>Natural kinds</td>
</tr>
<tr>
<td></td>
<td>Ls</td>
</tr>
<tr>
<td>A: ma-affixation</td>
<td>(✓)</td>
</tr>
<tr>
<td>B: &lt;em&gt; affiliation</td>
<td>(✓) (✓)</td>
</tr>
<tr>
<td>C: &lt;in&gt;/-in/-en</td>
<td>(✓)</td>
</tr>
<tr>
<td>D: -an affixation</td>
<td>(✓)</td>
</tr>
<tr>
<td>E: si- affixation</td>
<td>(✓)</td>
</tr>
<tr>
<td>F: Ma--an Affixation</td>
<td></td>
</tr>
<tr>
<td>G: &lt;em&gt;--an Affixation</td>
<td>(✓) (✓)</td>
</tr>
<tr>
<td>H: &lt;in&gt;--an Affixation</td>
<td>(✓)</td>
</tr>
</tbody>
</table>

Note: (✓) not fully applied for all the nominal members in the category

3.2 Denominalization and human thoughts
• Why do a majority of denominal verbs come from the class of [artifact]?
  a. In human cognition ‘function’ and ‘predication’ are closely related (Miller 1996):

  Function and Predication
  “It is true that for many human-made artifacts known directly through manipulation—spoon, ball, comb, hammer, food—the function is an intrinsic part of the relevant action system.” “From a lexical point of view, to characterize the function of some category of objects is to indicate the class of verbs that can be predicated of that object (Miller 1996: 169)”

  b. Spoon (n)
     ↓
  The function of spoon:
  ‘to use the spoon to get the soup’
     ↓
  Spoon (v)
  ‘to spoon the soup’
  →That is why we see a large number of denominal verbs from this nominal class.

• Why can’t nouns surface as verbs?
  “For natural objects, some have been assigned familiar functions—apple are eaten, horses are ridden, tree provide shade—but others—atoms, clouds, mountains—have not (Miller 1996: 169)”.

3.3 Denominalization and Language Use
(19) Innovative Denominal Verbs in Paiwan

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. kupu ‘cup’</td>
<td>k-em-upu ‘to use the cup’</td>
</tr>
<tr>
<td>b. pinskiang ‘refrigerator’</td>
<td>p-en-instang ‘to use the refrigerator to freeze’</td>
</tr>
<tr>
<td>c. tinnav ‘computer’</td>
<td>t-em-innav ‘to use the computer’</td>
</tr>
</tbody>
</table>

4. Nominalization vs. Denominalization
Table 2.

<table>
<thead>
<tr>
<th>Category Shift</th>
<th>Nominalization (Tang 2002, see Appendix II)</th>
<th>Denominalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphological Marking</td>
<td>R1 R2 R3 R4 R5 R6 R7</td>
<td>RA RB RC RD RE RF RG RH</td>
</tr>
</tbody>
</table>
| AF marking | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
| PF marking | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
| BF marking | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
| LF marking | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
| Reduplication | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
| Aspect marking | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Both involve single or double focus marking.

5. Conclusion

Table 3.

<table>
<thead>
<tr>
<th>Languages</th>
<th>English</th>
<th>Chinese</th>
<th>Paiwan</th>
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<tbody>
<tr>
<td>Category shift</td>
<td>Verbalization</td>
<td>Nominalization</td>
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<tr>
<td></td>
<td>Productive/unmarked</td>
<td>Productive/unmarked</td>
<td></td>
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<tr>
<td></td>
<td>water→ (to) water</td>
<td>建議 (v)→建議 (n)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skin→ (to) skin</td>
<td>命令 (v)→命令 (n)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>vali ‘wind’ → v-en-ali</td>
<td>meLava ‘wide’</td>
<td></td>
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<tr>
<td></td>
<td>kava ‘clothes’ → si-kava</td>
<td>→k-in-a-meLava-an</td>
<td></td>
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<tr>
<td></td>
<td>Tjimur ‘place name’ →</td>
<td>k-em-an ‘eat’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tj&lt;em&gt;imur-an</td>
<td>→si-kan-an</td>
<td></td>
</tr>
</tbody>
</table>

References:


Appendix I


  **Natural kinds:**
  Nominal terms denoting a variety of natural objects or organisms on earth

  **Artifact:**
  Nominal terms denoting all kinds of man-made objects such as instruments, tools
and food, etc

**Nominal kinds**

Terms that are perceived only by definition or proper names, like ‘history’, ‘iconicity’, ‘Taiwan’, ‘Tom’, etc.

**Kinship terms**

Nominal terms describing kinship relationships

- Nominal terms in Paiwan

  (a) **Natural kinds**

  **Landscapes:**

  gade ‘mountain’, pana ‘river’, ceva ‘cliff’, etc.

  **Natural phenomena/objects:**


  **Plants:**


  **Animal:**

  vatu ‘dog’, acang ‘pig’, etc.

  (b) **Artifact (man-made)**

  **Food**


  **Man-made tools**


  **Clothes/Decoration**

  lakaraw ‘flower loop’, kava ‘clothes’ kucu ‘shoes’, laljang ‘traditional clothes’

  (c) **Nominal kinds**

  milimilivan ‘history’, Suimun ‘location name’, Palang ‘person name’

  (d) **Kinship terms**

Appendix II

Nominalization in Paiwan (Tang 2002)

- Lexically-derived nominalization
  a. The degree of X-ness:
     R1: the affixation of X–an (X=state verb [-vision])
     R2: the affixation of k-in-a-X-(an) (X=state verb [+vision])
  b. The gesture/shape/result of X-ness
     R3: the affixation of –in-X-an (X=action verb)
  a. X-er/X-ee
     R4: Ca Red-X-an (X=state verb)
  d. X-place
     R4: Ca Red-X-an (X=action verb)

- Syntactically-derived nominalization
  a. The X part:
     R5: reduplication of verb X (AF) (X=state verb [+individual level])
     R6: na-X (AF) (X=state verb [+stage level])
  b. The sound of X/The manner of X:
     R7: the affixation of si-X-an (X=action verb)