Nominal Temporal Operator *Mina* in Yami

SYNOPSIS. This study sheds light on the semantics of nominal temporal operator *mina* in Yami, a Batanic language of Taiwan, predominantly spoken by the Tao people on Orchid Island. Recent work has shown that temporal markers are productive with nominal categories across many genetically related languages (Nordlinger & Sadler 2004, 2008, Arka 2013, a.o.). This study demonstrates the semantic properties, which can denote both [DISCONTINUOUS] and [PAST] properties. This study proposes a unified semantic account for *mina*.

NOMINAL DOMAIN. As in other Austronesian languages, every argument is normally preceded by a case marker in Yami, as in (1), indicating their grammatical alignment with voice morphology. Additionally, a demonstrative pronoun *ito* immediately follows the noun phrase (NP) it refers to.

(1) ya=k<om>an o koza ito so sosoli.
3S.ABS=<AV>eat ABS cat that OBL taro
'The cat is eating taros.'

In contrast, a numeral/adjective precedes the head noun, as in (2), with the linker *a* intervening between the numeral/adjective and the head noun.

(2) a. ya=k<om>an o rako a koza so sosoli.
3S.ABS=<AV>eat ABS big LK cat OBL taro
'The cat is eating taros.'

b. ya=k<om>an o koza so atlo a sosoli.
3S.ABS=<AV>eat ABS cat OBL three LK taro
'The cat is eating three taros.'

SEMANTIC PROPERTIES OF *MINA*. This illustrates that the nominal temporal operator mina has five semantic properties according to Chang (2015 for Tsou). First, the nominal temporal operator *mina* can encode an entity that used to exist prior to the utterance time, as in (3), where this property serves as *discontinuous existence*, like the English temporal adjective *late*.

(3) na=i-kakey ni mina akes o among.
3S.ERG=IV-like ERG MINA grandmother ABS fish
'My deceased grandmother liked (to eat) fish.'

Secondly, *mina* can encode an entity that holds an identity but has lost it prior to the utterance time, as in (4), referred to as *discontinuous identity*, similar to the English prefix *ex-*.

(4) a. ya=ma-tava o mina mavakes=na
3S.ABS=AV-fat ABS MINA woman=3S.GEN
'His ex-wife was fat.'

b. mina sensi o mehakay ito.
MINA teacher ABS man that
'That man was an (ex-)teacher.'

Third, *mina* can also encode an entity that belongs to the speaker in the past but has lost before the speech time, as in (5), like the English adjective *former*. This is referred to as *discontinuous possession*.

(5) a. ya=arako o mina vahay=ko
3S.ABS=big ABS MINA house=1S.GEN
'My former/old house was big.'

b. o ya am, mina ino=ko.
ABS this TOP MINA dog=1S.GEN
'The dog used to belong to me.'

Fourth, in Yami, *mina* can encode an entity that used to be in good appearance but broken down prior to the speech time, as in (6), which cannot find a lexical equivalence in English. This is seen as *discontinuous appearance*.

(6) i-walit=ko o mina tokap=mo.
IV-throw.out=1S.ERG ABS MINA shoe=2S.GEN
'I threw out your broken shoes.'

Lastly, it is also observed that *mina* can encode an entity that has lost its function, as in (7), in which *zamit* 'rag' itself denotes that the table cloth was broken, and *mina* is not used to express *discontinuous appearance*. Instead, it denotes that the cloth has lost its function to make things clean. Thus, it can be regarded as *discontinuous function*.

(7) ni-walit=ko o mina zamit=mo.
PFV.PV-throw.out=1S.ERG ABS MINA rag=2S.GEN
'I already threw out your rag that used to clean up anything.'

PROPOSAL AND ANALYSIS. Given its semantic properties, the nominal temporal operator *mina* contributes both a [DISCONTINUOUS] and a [PAST] interpretation. It can apply to predicates denoting humans, animates, artifacts, and natural kinds. I propose that the semantics of *mina* is as in (8): *mina* takes a temporally sensitive nominal predicate *P* and returns a property of individuals *x* such that there exists a past time t_1 prior to the speech time t_0 where x satisfied *P*, and *x* does not satisfy *P* at the evaluation time.

(8) $[\![\text{mina}]\!]^c$: <<i, <e, t>>, <e, t>> = $\lambda P_{<i, <e, t>>} \lambda x_e \exists t_1 < t_0 [P(t_1)(x) \wedge \neg P(t_0)(x)]$

The nominal argument is a temporal variable, as shown in (9).

(9) $[\![\text{vahay}]\!]^c$: <<i, <e, t>> = $\lambda t \lambda x.\text{HOUSE}(x,t)$

Thus, the denotation of *mina vahay* 'former/old house' can be computed as in (10). The predicate *vahay* 'house' composes with *mina*, yielding the meaning that the individual was a house relevant to the speaker at some time in the past but no longer is at the evaluation time.

(10) $[\![\text{mina vahay}]\!]^c$: <et> = $\lambda P_{<i, <e, t>>} \lambda x_e \exists t_1 < t_0 [P(t_1)(x) \wedge \neg P(t_0)(x)] (\lambda t \lambda x.\text{HOUSE}(x,t))$
= $\lambda x_e \exists t_1 < t_0 [\text{HOUSE}(t_1)(x) \wedge \neg \text{HOUSE}(t_0)(x)]$

This unified semantics also accounts for the ambiguity found in (4a) and (5b): both expressions can denote either *discontinuous existence* or *discontinuous identity*, depending on the discourse context, as illustrated in (11).

(11) a. o mina mavakes
ABS MINA woman
'deceased/ex-wife'
b. o mina ino
ABS MINA dog
'the dog that has passed away/used to belong to'

AGAINST ADJECTIVE ANALYSIS. Syntactically, I propose that *mina* functions as a functional head, I, IP, that c-selects an *n*P/NP complement. Unlike English adjectives such as *former* or *old*, the operator *mina* and *n*P/NP cannot be intervened by the linker *a*, as in (12) (cf. (2a)).

(12) *o mina a vahay
ABS MINA LK house
intended. 'the former/old house'

Therefore, the DP structure for (11a) can be represented as in (13).

(13) [DP o [IP mina [*n*P/NP mavakes]]]

Overall, although nominal tense/aspect operators have been reported cross-linguistically, this study provides the first evidence for such a system in Yami.

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