*Proceedings of the Eighteenth Meeting of the Austronesian Formal Linguistics Association (AFLA)*

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# A PROBE-- BASED ACCOUNT OF VOICE AGREEMENT IN FORMOSAN LANGUAGES

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# PREFACE

The 18th annual meeting of the Austronesian Formal Linguistics Association (AFLA 18) was held March 4-6, 2011, at Harvard University. A total of 30 presentations representing the work of 43 researchers were given, including three plenary talks by Robert Blust, Marc Brunelle, and Manfred Krifka. In addition to work on the syntax of Austronesian languages, the original focus of AFLA, researchers presented analyses of phenomena from a variety of core linguistics subfields including phonetics, phonology, and semantics, as well as their interfaces. In order to personalize the meeting and highlight the strong historical component of Harvard's Department of Linguistics, we also encouraged the presentation of work dealing with diachronic analyses of language phenomena. The culmination of these efforts appears here in these Conference Proceedings, which include twelve papers presented during the conference.

Throughout this process we have received generous support from a variety of sources within the Harvard Community. Financial support came from the Office of the Dean of the Faculty of Arts of Sciences, the Office of the Provost, Linguistics Circle: A Workshop of Linguistic Interfaces, the GSAS Research Workshop in Indo-European and Historical Linguistics, the GSAS Research Workshop in Language Universals and Linguistic Fieldwork, and the Harvard GSAS Graduate Student Council. Student participants in the volunteer effort include Michael Erlewine, Ruthe Foushee, Laura Grestenberger, Christopher Hopper, Julie Li Jiang, Caitlin Keenan, Louis Liu, Andreea Nicolae, Hazel Pearson, and Cheng-Yu Edwin Tsai. We also gratefully acknowledge the encouragement, endorsement, and assistance of the Harvard Department of Linguistics.

Finally, we would like to thank our reviewers for providing thoughtful commentary on abstracts submitted to the conference: Edith Aldridge, Michael Becker, Loren A. Billings, Marc Brunelle, Sandra Chung, Abby Cohn, Peter Cole, Jessica Coon, Amy Rose Deal, Marcel den Dikken, Mark Donohue, Dan Finer, Edward Flemming, Catherine Fortin, Randall Hendrick, Gabriella Hermon, Arthur Holmer, Hui-chuan Huang, Jay Jasanoff, Peter Jenks, Edward Keenan, Hilda Koopman, Paul Law, Jonathan MacDonald, Diane Massam, Ileana Paul, Hazel Pearson, Matt Pearson, Maria Polinsky, Eric Potsdam, Omer Preminger, Nina Radkevich, Norvin Richards, Joseph Sabbagh, Peter Sells, Lisa Travis, Wei-Tien Dylan Tsai and Elizabeth Zeitoun. Thank you also to the University of Western Ontario for hosting the website where AFLA proceedings are published.

To the groups and individuals who made this conference possible, and to the many researchers who made the event as enriching and stimulating as it was, we offer our sincerest thanks.

Lauren Eby Clemens, Gregory Scontras and Maria Polinsky, Harvard University

# A PROBE-BASED ACCOUNT OF VOICE AGREEMENT IN FORMOSAN LANGUAGES[*]

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This paper proposes a new theory for the voice agreement in three Formosan languages: Atayal, Paiwan and Bunun. The analysis includes the following proposals. (A) VoiceP is a phase. (B) Voice probes a relevant thematic feature (actor/agent, theme, instrument, beneficiary, etc.) and has its own feature valued; the Case of the goal is also determined (nominative). (C) The need for probing and feature valuation of Voice triggers the merger of an applicative head into the structure, which introduces the relevant oblique argument. This theory is superior to other proposals in the following respects. First, it does not sacrifice any argument in the derivation. Second, it provides a far more straightforward way than previous proposals in linking the nominative argument (i.e., the subject) and the value of Voice.

## 1. Introduction

This paper proposes a probe-based analysis for the voice agreement and the selection of subject in three Formosan languages: Squliq Atayal, Central Paiwan and Isbukun Bunun. These languages, like many other Austronesian languages, exhibit four types of voice agreement: Agent Voice (AV), Patient Voice (PV), Locative Voice (LV), and Instrument Voice (IV):

(1)    Central Paiwan: (Tai 2011)
    a.  q<**em**>aljup  **ti    pali**  ta  vavuy.  (AV)
        hunt<AV>  NOM Pali  OBL  boar
        'Pali hunted a boar'
    b.  qaljup-**en**  ni  pali  **a    vavuy**.  (PV)
        hunt-PV  GEN  Pali  NOM  boar
        'Pali hunted the boar.'
    c.  qa-qaljup-**an** ni  pali  ta  vavuya  **a  'icu  a  gadu**. (LV)
        RED-hunt-LV GEN  Pali  OBL boar  NOM  this  LNK  mountain
        'Pali usually hunts boars in this mountain.'

    Abbreviations used in the glosses are: 1PE/I = 1 Person Exclusive/Inclusive, 1/2/3P = 1/2/3 person Plural, 1/2/3S = 1/2/3 person Singular, AV = Actor Voice, ACC = Accusative, CAUS = Causative, COMP = Complementizer, DEM = Demonstrative, DET = Determiner, FUT = Future tense, GEN = Genitive, INCH = Inchoative, IV = Instrumental Voice, IMP = Imperative, INCH = Inchoative, LNK= Linker, LOC = Locative, LV= Locative voice, NEG = Negator, NOM = Nominative, OBL = Oblique, P = Preposition, PRF = Perfect, PST = Past tense, PV= Patient Voice, RED = Reduplication, STAT = Stative, TOP = Topic marker, VCL = Verbal classifier.

d. **si**-qaljup     ni    pali    ta     vavuy       **a**        **'uwang**.      (IV)
    IV-hunt       GEN    Pali    OBL    boar         NOM      gun
    'Pali hunts boars with the gun.'

(2)      Squliq Atayal: (Liu 2004: 27)
   a. **m**-aniq       qulih   <u>qu'     tali'</u>.                                  (AV)
     AV-eat        fish     NOM   Tali
     'Tali eats fish.'
   b. niq-**un**   na'   tali   <u>qu'     qulih qasa</u>.                  (PV)
     eat-PV   GEN Tali NOM   fish   that
     'That fish is eaten by Tali.'
   c. niq-**an**   na'     tali'   qulih   <u>qu'     ngasal    qasa</u>.        (LV)
     eat-LV   GEN   Tali   fish     NOM   house     that
     'The house is the place where Tali eats fish.'
   d. **s**-qaniq   na'     tali'   qulih <u>qu'     qway</u>.               (IV)
     IV-eat   GEN Tali   fish   NOM   chopsticks
     'The chopsticks were used by Tali to eat fish.'

(3)      Bunun
   a. **ma**-ludah      <u>a       tama</u>         mas    'uvaaz.        (AV)
     AV-beat       NOM   father         ACC    child
     'The father is beating a child.'
   b. ludah-**un**      mas    tama-tia             <u>a       'uvaaz</u>.     (PV)
     beat-PV        GEN   father-DET.GEN      NOM   child
     'The child is being beaten by that father.'
   c.   ha&lt;in&gt;up-**an**     mas tama-tia             <u>a       ludun-a</u>.     (LV)
     hunt&lt;PST&gt;LV    GEN father-DET.GEN      NOM   mountain-DET.NOM
     'The father hunted at that mountain.'
   d.   na-**'is**-ludah   tama-tia       <u>lukis-a</u>         (mas    'uvaaz).     (IV)
     FUT-IV-beat   father-DET.GEN stick-DET.NOM     ACC     child
     'The father will beat a child with the stick.'

As shown in (1–3), the AV-marked verbs typically select Agent/Actor as the subject; the PV-marked verbs typically select Patient/Theme as the subject; the LV-marked verbs select Location as the subject; and the IV-marked verbs agree with Instrument or Beneficiary.

     Furthermore, following Chen (2007) and Chang (2008), a binary distinction for voice morphology is made: AV versus NAV. Moreover, NAV can be further divided into PV, LV and IV. NAV sentences, especially LV and IV, involve applicative constructions, headed by *-an* and *'-is*, respectively. See (1c–d), (2c–d), (3c–d) above. Besides, like many Western Austronesian languages, voice-sensitivity or "subject-only" restriction on A'-extraction is attested (Chang 1997, Pearson 2005); that is, only the nominative DP can undergo A'-extraction.

     As for the case-marking system, it is binary and straightforward in Bunun; *a* for subject DP and *mas* for non-subject DP. The case-marking systems in Atayal and Paiwan are more complicated; there are independent case markers for Actor/Possessor DP and/or Locative DP.

Note that in these languages the non-subject external argument (EA) is not demoted, because it can serve as the controller in the NAV context, as in (4):

(4)   'asa-un   **tina-tia$_i$**       'uvaaz-a          [ ma-p-un-sia                    **PRO$_i$**
      want-PV  mother-DET.GEN      child-DET.NOM     AV-CAUS-toward-P
      pasnanavaan ].
      school
      'The mother wants to send her child to school.'

There has been much work on the voice agreement of Austronesian languages in the generative literature (Guilfoyle, Hung and Lisa 1992, Pearson 2005, inter alia). Here we briefly review the Case agreement approach of Rackowski (2002) and Rackowski & Richards (2005) and the Ergativity approach of Aldridge 2004, 2008. We look at these two approaches because of the following reasons: (i) both of them are based on the minimalist framework and phase theory proposed in Chomsky 2000, 2001; and (ii) Tagalog and Bunun share a lot of (morpho-)syntactic characteristics in common such as word order, rich voice morphology, voice-sensitive restriction on A'-extraction, and so forth.

      After reviewing these two approaches in Section 2, we presents the probe-based analysis for voice agreement in Section 3. Section 4 is the conclusion.

## 2.      Two Recent Proposals

In this section we review and compare the Case Agreement approach and the Ergativity approach, and further pose our research questions.
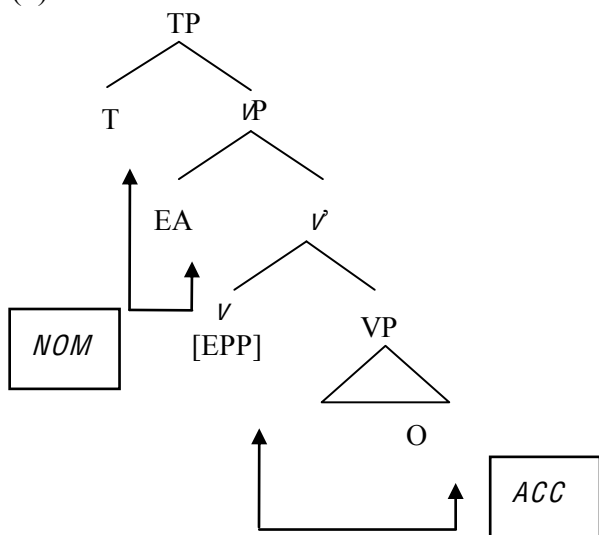
### 2.1.     Case Agreement Analysis

According to Rackowski (2002) and Rackowski & Richards (2005), voice morphology is the reflex of the Case of the subject DP. More specifically, in AV, the agent argument receives the Nominative Case (Nom) from T, and the patient argument receives the Accusative Case (Acc) from *v*. What is traditionally called the Voice is the nominative case morphology. See (5a). Thus, the AV construction is derived as follows: (i) the internal argument (O) agrees with *v* without [EPP] and remains within VP, receiving non-specific interpretation; (ii) T probes the closest DP, the external argument (EA), and the features of EA is copied into T and spelled out as voice morphology, as shown in (6a).

      On the other hand, in NAV, again the agent and the patient receive Nom and Acc, but the raised patient or applicative DP has its Acc or Dative case (Dat) realized on T, which is what is called Voice. See (5b–d). For example, the PV construction is derived as follows: (i) O agrees with *v* and is shifted to the edge of *v*P via [EPP] to receive a semantic interpretation (specificity); (ii) T probes the closest DP, the shifted object, and the feature of the object is copied into T and spelled out as voice morphology; (iii) T enters into a second Agree relation with EA to value its case feature as NOM, as shown in (6b).

(5)     Tagalog: (Rackowski & Richards 2005: 566)
   a.   B-**um**-ili          <u>ang   bata</u>   ng tela    sa     palengke para          sa     nanay.
        -**NOM**.ASP-buy  ANG child  CS cloth  DAT   market   for           DAT   Mother
        'The child bought cloth at the market for Mother.'
   b.   B-**in**-ili-Ø           ng      bata    <u>ang    tela</u>   sa     palengke para sa     nanay.
        -ASP-buy-**ACC**       CS      child   ANG  cloth  DAT   market   for DAT   Mother
        'The child bought the cloth at the market for Mother.'
   c.   B-in-ilh-**an**         ng bata    ng      tela    <u>ang    palengke</u>       para  sa     nanay.
        -ASP-buy-**DAT** CS child  CS      cloth   ANG  market            for   DAT   Mother
        'The child bought (the) cloth at the market for Mother.'
   d.   **I**-b-in-ili              ng      bata    ng      tela    sa     palengke       <u>**ang    nanay**</u>.
        **OBL**-ASP-buy       CS      child   CS      cloth   DAT   market          ANG  Mother
        'The child bought (the) cloth at the market for Mother.'

(6) a.   AV = NOM                          b.  PV = ACC
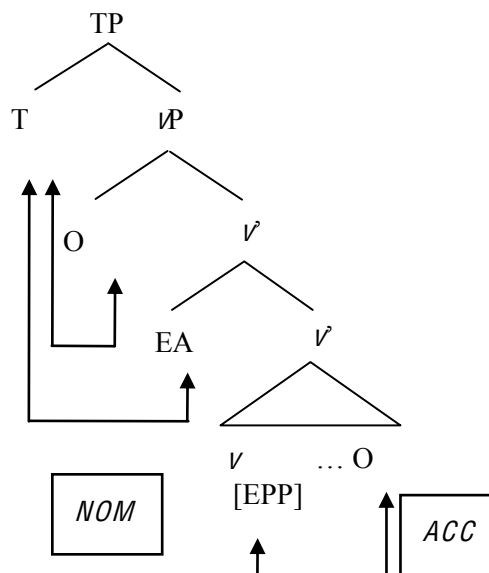


However, there are problems with the Case agreement analysis.  First, Aldridge (2006) argues against the assumption that T always enters into Agree relation with the *ang*-marked DPs in Tagalog by showing that a verb can agree with a plural *ang*-marked DP in AV context, as shown in (7a–b) and (8a–b):

(7) a.   Nag-**si**-basa             <u>**ang    mga    bata**</u>  ng      liham.
         Nom.Asp-Pl-read        ANG  Pl      child   CS      letter
         'The children read a letter.'
   b.   Nag-**(*si-)**basa                        ang            bata       <u>**ng      mga    liham**</u>.
         Nom.Asp-Pl-read                      ANG          child      CS      Pl      letter
         'The child read some letters.'

(8) a. **Si**-ni-basa      **ng**   **mga**   **bata**   ang      liham.
     Pl-Acc.Asp-read      CS     Pl     child   ANG      letter
     'The children read the letter.'

   b. **Si**-ni-basa          ng     bata   **ang**          **mga**   **liham**.
     Pl-Acc.Asp-read          CS     child   ANG          Pl     letter
     'The child read the letters.'

Besides, according to the Case agreement analysis, a NAV subject receives Case from *v* (Acc) or the applicative head (Dat). Furthermore, according to R&R, what is traditionally called the voice, in T in R&R's system, is a reflex of Case of the subject. Then the NAV subject enters into two Case relations, with *v* and with T. This seems dubious in view of the current theoretical assumptions on Case.

       Third, in Formosan languages, Nom is directly associated with the voice agreement; e.g., the Nom *a* (or *ti* in some specific cases) in Central Paiwan goes to whatever element agrees with the voice. According to the Case agreement analysis, however, the element that takes *a* could in fact receive different Cases, such as Nom, Acc, and Dat. This seems to be counterintuitive.

       R&R contend that the voice agreement in fact does not really show theta-role affiliation; namely the same voice morphology could be associated with different theta-roles. Such mismatch is also attested in Formosan languages. Take Bunun, for example:

(9)      Voice markers and θ-roles on subject

|  | Voice Markers | | | Theta-roles of Nominative Subject NP | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Pref- | Inf- | Suf- | Act | Pat | Them | Exp | Loc | Time | Ben | Inst | Rec |
| AV | m(a)/ø |  |  | + |  | + | + |  |  |  |  |  |
| PV |  | in | Un |  | + |  |  |  |  |  |  |  |
| LV |  |  | An |  |  | + |  | + | (+) |  |  | + |
| RV | 'is |  |  |  |  | + |  |  |  | + | + |  |

(10)a. **m**-a-zima          a     dahu      mas    tina.          (Experiencer)
     AV-STAT-like        NOM   Dahu       ACC   mother
     'Dahu loves his mother.'

   b. **m**-a-davus       a          bunbun-in.        (Theme)
     AV-STAT-sweet    NOM         banana-DET.NOM
     'This banana is sweet.'

(11)a. sadu-**an**=ku       'a     dahu-a.           (Theme)
     see-LV=1S.GEN     NOM   Dahu-DET.NOM
     'I saw Dahu.'

   b. 'is-hanimulmul-**an=ik**tu        m-a-laspus      nas-tina.    (Experiencer)
     IA-sad-LV=1S.NOM   COMP       AV-STAT-miss    late-mother
     'I feel sad whenever I think of my late mother.'

(12) na-**'is**-saiv=ku           Subali-tia         a_____'ahil-a.           (Theme)
     FUT-IV-give=1S.GEN     Subali-DET.OBL   NOM     book.DET.NOM
     'I will give Subali the book.'

However, if we take a closer look at the table in (9), we find that the divergence is not unpredictable and, in fact, several analyses from syntactic, cognitive or semantic perspective can be adopted to account for such thematic mismatch. For example, Newman (1996) points out that a transferred theme and an instrument share certain common elements in their interpretation – both are the entity which the agent handles in carrying out an act; Huang (2005) proposes that in Formosan languages, the nominative NP of LV clauses actually encodes an abstract location, while that of IV encodes a transported theme; also see Chang and Yeh 2008. Landau (2010) argues that experiencers are "mental locatives" by showing that experiencers and locatives share many similarities: semantically both the experiencer and the locative denote a location (in the mental space or in the physical world), morphologically they both take oblique case, and syntactically they all undergo locative inversion. Similar phenomenon is also observed in Mandarin Chinese by Lin (2009).
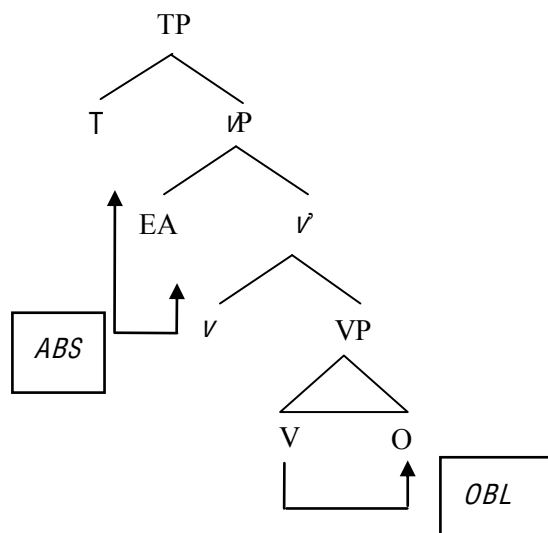
2.2.     Ergativity Analysis

According to Aldridge (2004, 2008), the voice morphology reflects the transitivity of the predicate. Under this analysis, Tagalog is an ergative language. More specifically, AV sentences are intransitive and anti-passive; NAV sentences are transitive. See (13a–b).

(13)     Tagalog: (Aldridge 2008)
     a. D-**um**-ating          **ang     babae**.
        -**Intr.**Perf-arrive         Abs     woman
        'The woman arrived.'
     b. B-**in**-ili          ng     babae     **ang   isda**.
        -**Tr**.Perf-buy     Erg     woman   Abs   fish
        'The woman bought the fish.'

The intransitive *v* lacks [EPP] and cannot assign and value cases on the EA and the object; T enters into Agree relation with EA and values Absolutive Case (Abs) on the EA. Therefore, the AV construction is derived as follows: (i) the intransitive *v* lacks [EPP] and cannot assign and value cases on the EA and the object; (ii) T enters into Agree relation with EA and values Abs on the EA; (iii) the O receives inherent Oblique Case (Obl) from the lexical verb and remains within VP until LF, receiving non-specific reading. See (14a).
       On the other hand, the transitive *v* values Abs on the internal argument and assigns inherent Ergative Case to EA in its Spec. Therefore, the PV construction is derived as follows: (i) the transitive *v* values Abs on the O and assigns inherent Ergative case to EA in its Spec; (ii) the Absolutive object raises to *v*P phase edge to check [EPP] on *v* and receives a presuppositional interpretation at LF. See (14b).

(14)a.   AV = Intranstive *v* / Antipassive          b.  PV = Transitive *v*
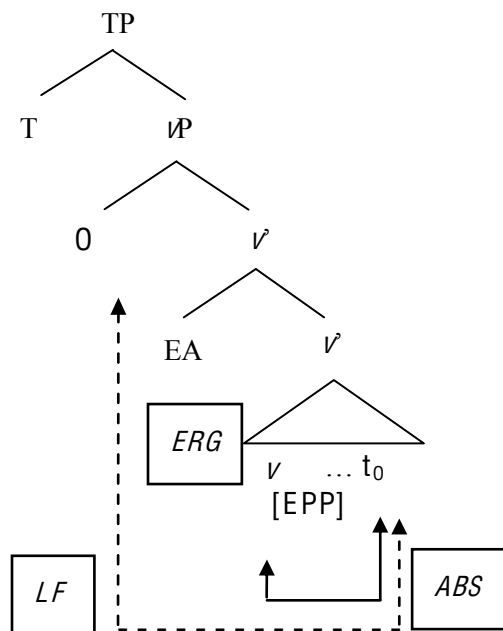


However, Richards (2001) and Kroeger (1993) argue that the AV clauses in Tagalog can be transitive.  They show that the object DP can control the PRO subject of an adjunct clause, as in (15):

(15)   Tagalog: (Kroeger 1993: 47)
       **Nang**huli        **ng=magnanakaw$_i$**  ang=polis    [ nang  pumapasok              **PRO$_i$**
       AV.PERF-catch  GEN=thief              NOM=police  ADV   AV.IMPERF-enter
       sa=bangko].
       DAT=bank
       'The police caught a/the thief when entering the bank.'

The AV clauses in Formosan languages can be transitive, too.  The theme DP in the following AV sentences can serve as the controller:

(16)   Bunun
   a. masnanava hai,  **Ø**-tupa       **subali-tia$_i$**        [ tu       **ma**-sipul-a         **PRO$_i$ ].**
      teacher              TOP AV-say  Subali-DET.ACC    COMP  AV-read-IMP.AV
      'The teacher asked Subali to read it out.'
   b. **ma**<i>saiv       saikin      ma=saitia       **mas**   **sui$_i$**   [ **'is**-baliv **PRO$_i$**  mas   'ahil ].
      AV<PST>give  1S.NOM  OBL=3S.OBL  ACC    money   IA-buy           ACC    book
      'I gave him money to buy a book.'

Moreover, in Paiwan, the AV markers *<en>* and *ma-* mark transitive and intransitive predicates respectively, as in (17a–b):

(17)a. dj**<em>**ameq   ti      pali   ta     vavuy
     shoot<AV>      NOM  Pali  ACC  boar
     'Pali shot a boar.'
   b. **ma**-djameq a        vavuy ta     uwang
     AV-shoot  NOM  boar   OBL  gun
     'The boar was shot with the gun.'

Aldridge (to appear) contends that under her analysis the object is not demoted in the anti-passives and still serves as the internal argument of the verb. Remember, however, that under the Ergativity analysis the object in the anti-passives receives Obl. According to Landau (2010), oblique bare DPs pattern with PP adjuncts rather than the object argument, as shown in (18a–c):

(18)  (Landau 2010: 29)
    a. ??Who did you agree with the sister of?          (Prepositional object)
    b. ??Who did your behavior bother the sister of?     (Oblique experiencer)
    c. Who did you tease the sister of?                  (Object)

The same phenomenon is attested in Formosan languages. For example, in Bunun, quantifier floating is licit within arguments but not in oblique adjuncts and oblique bare DPs, as shown in (19a–b):

(19)a. ma<i>baliv   a       tahai **[mas tau tu   'ahil]** / **[tu      tau  mas 'ahil]**.
     AV<PST>buy  NOM  Tahai ACC three LNK book   TU       three ACC book
     'Tahai bought three books.'
   b. ma<i>baliv   a       tahai   mas   'ahil **sia [dusa     tu      babalivan]** /
     AV<PST>buy  NOM  Tahai  ACC   book P    two       LNK store
     **\*[tu   dusa   mas     babalivan]**.
      TU two   OBL    store
    'Tahai bought books at two stores.'

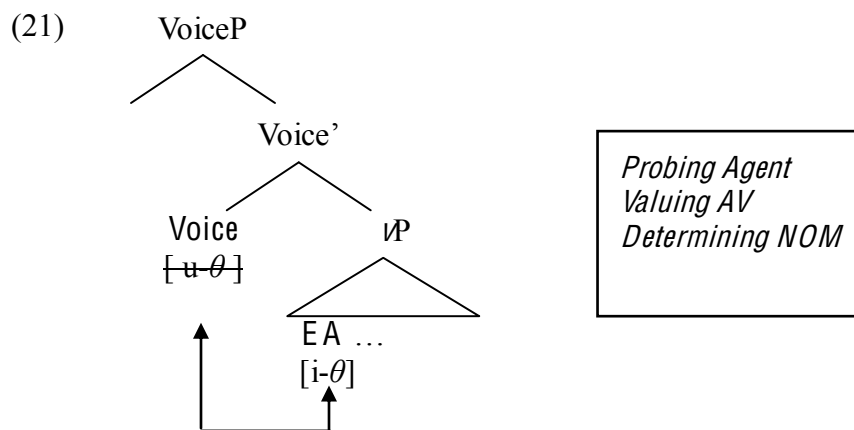Therefore, the voice morphology does not reflect the transitivity of the predicate.
    According to Legate (2008), in typical ergative languages absolute case is realized as a morphological default and thus can appear on more than one DP per clause, as shown in (20):

(20)  Niuean (Massam 2006: 33, cited in Legate 2008: 67)
    Ne    tohitohi  **a     Sione** [aki   **e     pene**].
    PST  writing   ABS Sione  with  ABS pen
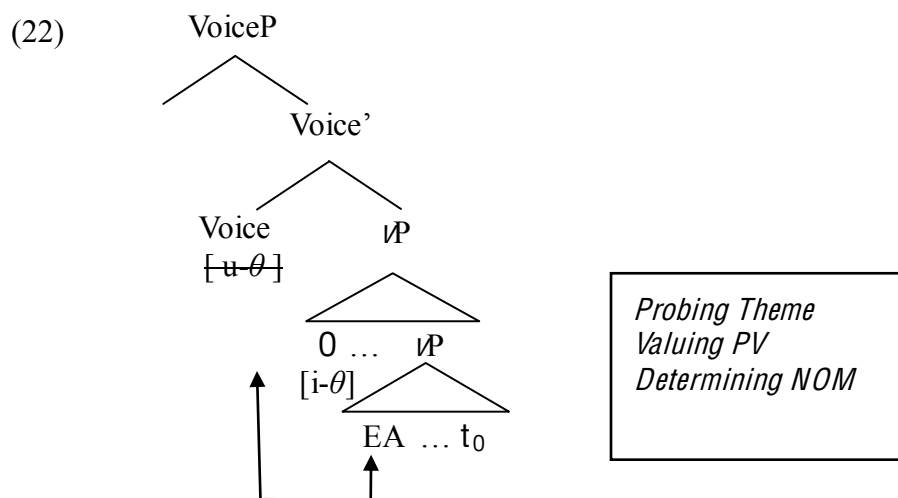    'Sione was writing with a pen.'

However, Nominative case in Formosan languages, or the so-called Absolutive Case in Tagalog, is limited to one DP per clause. Therefore, Tagalog and Formosan languages are not ergative languages.
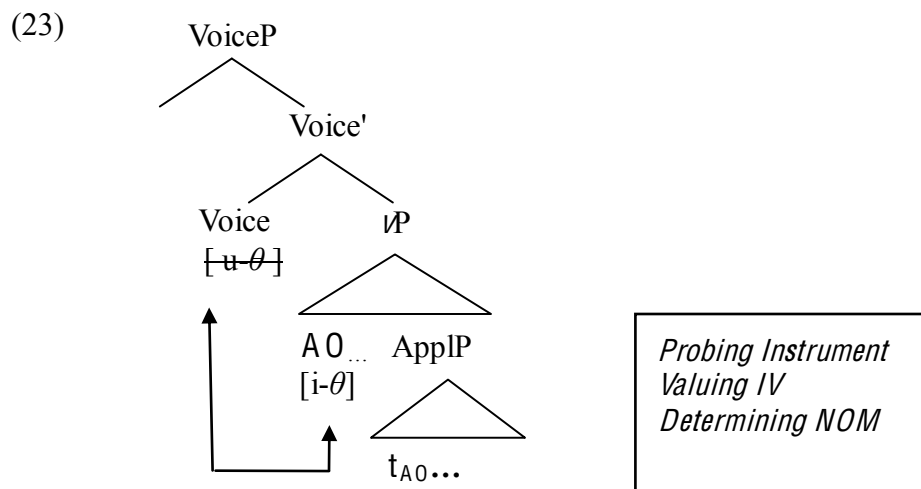
## 3. The Proposed Analysis

In our analysis, Voice morphology reflects the agreement relation between the probe Voice, which bears an un-value morphological feature, and the closest DP, which bears an interpretable thematic feature. VoiceP is a phase and the head Voice probes the thematic features. For example, in the AV context Voice probes the closest active goal, i.e., EA with the actor/agent feature, and values its own morphological feature. The Case of the goal NP is also determined, namely Nominative, as shown in (21):

(21)

```
                VoiceP
               /      \
                    Voice'
                   /      \
              Voice         vP
              [u-θ]        /  \
                ↑      EA ...
                │      [i-θ]
                └─────┘
```

> *Probing Agent*
> *Valuing AV*
> *Determining NOM*

In the NAV context, on the other hand, Voice probes the relevant thematic features (Theme, Instrument, etc.), and has its own feature valued. Again, Case is determined along the way, and Nom is assigned to the direct object (O) or the applied object (AO), which has been raised by [EPP] to *v*P. It is the need for probing and feature valuation of Voice that triggers the raising of a NAV DP to *v*P and the merger of an applicative head into the structure, which introduces the relevant oblique argument, as shown in (22)–(23):

(22)

```
                VoiceP
               /      \
                    Voice'
                   /      \
              Voice         vP
              [u-θ]        /  \
                ↑      O ...   vP
                │      [i-θ]  /  \
                │          EA ... t_0
                └──────────┘
```

> *Probing Theme*
> *Valuing PV*
> *Determining NOM*

(23)



In our analysis, Voice heads an independent functional projection, and this can be supported by the following evidence. Morphosyntactically, the voice marker and the light verb are realized distinctly in Formosan languages, as shown in (24–26):

(24) Bunun
  a. **m-is**-busuk
    AV-INCH-drunk
    'get drunk'
  b. **ma-p-is**-busuk
    AV-CAUS-INCH-drunk
    'to cause (someone) to be drunk'
  c. **p-is**-busuk-**un**
    CAUS-INCH-drunk-PV
    'to cause (someone) to be drunk'

(25)  Bunun
  a. **m-a**-naskal
    AV-STAT-happy
    'to be happy'
  b. **s**<in>**p-i**-naskal
    IV<PST>CAUS-INCH-happy
    'to have caused someone to be happy'
  c. **'is-ka**-naskal
    IV-STAT-happy
    'to be happy for (someone/something)'

(26)  Paiwan
 a. **pa-a-ma-**zeli
   CAUS-INCH-AV-tired
  'make someone become tired'
 b. **p<in>a-a-**pelju'
   CAUS<PRF.PV>-INCH-full
  'filled something with'

Moreover, our proposal that the Nominative Case, which subject bears, comes from neither T nor *v* is supported in the Saisiyat example in (27):

(27)  Saisiyat: (Cheng 2011)
  **sia      si-**bahay ma'an   ***ka    kapapama'an***.
  1S.ABS  IV-wash 3S.ERG  ACC  car
  'I washed the car for him.'

(28)  Cheng (2011)
      EA    AO    O
  a.   ERG   ABS   ACC
  b.   *ERG  ABS   ABS
  c.   *ERG  ACC   ABS
  d.   *ERG  ACC   ACC

There are four possible analyses for the valuation of the Abs and the Acc in (27). The first possibility is that both Abs and Acc are valued by the light verb. However, this analysis cannot account for the ungrammaticality of (28b–c). The second possibility is that Acc comes from the applicative head. However, the applicative head is not a structural case assigner and thus can only assign inherent case to the argument it selects, i.e., AO rather than O. The third possibility is that O receives Acc from V whereas AO receives Abs from *v*. However, there is no sufficient evidence for Acc to be inherent, such as the A-movement test (Woolford 2006). The last possibility is that Acc is licensed by *v* whereas Abs is licensed by another functional head. This possibility fares better than the other three. Therefore, the above discussion shows that another functional head must be available that independently assigns Abs in Saisiyat. In our analysis, it is Voice. This renders support to our proposal that Voice is a head that probes and values features and determines Case.

## 4.    Conclusion

The proposed probe-goal analysis for the voice agreement is superior to other proposals in the following respects. First, there is no sacrifice of any argument (esp. the object) in the derivation, unlike the Ergative approach. All the core arguments (subject and object) are preserved; in NAV an additional oblique argument is added. Second, unlike the Case agreement approach, it provides a straightforward account for the syntax-semantics link between the nominative argument and the voice morphology.

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