**Interrogative Verbs in Kavalan: Implications for Syntactic Categories**[*]

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## 1. Introduction
- Previous studies on interrogatives in Formosan languages classify wh-words into three categories: nominal interrogatives, adverbial interrogatives, and verbal interrogatives (Huang, et al. 1999).

**Interrogative Verbs**
- Interrogative words or phrases in some languages behave syntactically as verbal predicates (Cysouw 2004; Hagège 2003, 2008; L. Huang, et al. 1999; Idiatov and van der Auwera 2004).
- Hagège (2008: 3) defines an interrogative verb as "a kind of word which both functions as predicates and questions the semantic content of this predicate". Interrogative verbs denote both an interrogative meaning and a verbal meaning.

- This paper analyzes syntactic and semantic restrictions on interrogative verbs in Kavalan, an Austronesian language spoken in Taiwan, and argues that the data support the view that roots themselves do not have inherent syntactic categories, as in Distributed Morphology (Marantz 1997).

## 2. Interrogative Verbs in Kavalan
- Interrogative verbs in Kavalan can appear in three types of verbal constructions: intransitive construction, transitive construction, and Serial Verb Construction (SVC).
- What verbal construction an interrogative verb can occur in is correlated with the voice markers that it is allowed to take.
  - If an interrogative verb takes the agent voice marker, it is used as an intransitive predicate.
  - If it takes the patient voice marker, it shows up as a transitive predicate, a ditransitive predicate, or as the main predicate of a Serial Verb Construction.

**Grammatical Properties of Interrogative Verbs in Kavalan**
## 2.1 Intransitive Interrogative Verbs
- Interrogative verbs in Kavalan show up as intransitive verbal predicates when they are affixed with the agent voice marker, *<um>* or ø.

(1) a. **q\<um>uni**=isu               tangi
      \<AV>do.what=2SG.ABS          just.now
      'What were you doing just now?'
   b. **quni**=pa=isu
      go.where=FUT=2SG.ABS
      'Where are you going?'


## 2.2 Transitive Interrogative Verbs

- Interrogative verbs in Kavalan can also be used as transitive or ditransitive verbal predicates when they take the patient voice marker *-an*.


(2) a. **sa-pa-quni-an**-na               sapaR
      SA-PA-do.what-PV-3PL.ERG      wooden.plank
      'What did they (we Kavalan people) want wooden boards for?'
      (KavCon-earthquake_abas_Haciang, NTU corpus)
   b. **naquni-an**      na      wasu   ya      saku    'nay
      do.how-PV      ERG     dog    ABS     cat      that
      'What did the dog do to the cat?'
   c. **tanian-an**-su            ya      kelisiw-su
      V.where-PV-2SG.ERG    ABS     money-2SG.GEN
      'Where did you put your money?'
   d. **pasani-an**-su            ya      kelisiw-su
      V.to.where-PV-2SG.ERG      ABS     money-2SG.GEN
      'Where did you take your money?'


- A comparison between intransitive and transitive interrogative verbs suggests that the transitivity of interrogative verbs in Kavalan is correlated with their voice markers.
- Agent-voice-marked interrogative verbs are interpreted as intransitive predicates while non-agent-voice-marked interrogative verbs express transitive or ditransitive meanings.
- This finding is consistent with the result of previous studies on the transitivity in Kavalan. It has been argued that the crucial distinction between agent voice and patient voice (or non-agent voice in general) lies in their transitivity (Liao 2002, 2004).

- What renders an interrogative word a verb in Kavalan is the voice markers, the choice among which could further induce differences in transitivity.


## 2.3 Interrogative Serial Verb Construction

- Some interrogative verbs in Kavalan can also appear in a Serial Verb Construction (SVC), where they are followed by a lexical verb.
- This particular Serial Verb Construction with an interrogative verb is termed Interrogative Serial Verb Construction (ISVC) in this paper.

(3) a. **<u>naquni-an</u>**-su         m-kala        ya     sunis   a      yau
       do.how-PV-2SG.ERG    AV-find     ABS    child   LNK    that
       'How did you find that child?'

    b. **<u>tanian-an</u>**-su        pizi    ya     kelisiw-ta
       V.where-PV-2SG.ERG    AV.put ABS    money-1IPL.GEN
       'Where did you put our money?'

    c. **<u>pasani-an</u>**-su       m-azas      ya     kelisiw-ta
       V.to.where-PV-2SG.ERG AV-take     ABS   money-1IPL.GEN
       'Where did you take our money?'

- The lexical verb in the ISVC should not be analyzed as the main verb of the sentence syntactically. This is because the case marking pattern of the nominal arguments is conditioned by the voice marker on the wh-word, i.e., the patient voice marker –*an*, instead of the voice marker on the lexical verb, i.e., the agent voice market *m-*.
- The lexical verb in the ISVC can only take the agent voice marker, but not the patient voice marker, as illustrated below. This is a strong piece of evidence for the analysis of (3) as an SVC.

(4) a. *naquni-an-su          **<u>pakala-an</u>**    ya     sunis   a      yau
       do.how-PV-2SG.ERG    find-PV     ABS    child   LNK    that
       'How did you find that child?'

    b. *tanian-an-su         **<u>nubi-an</u>**     ya     kelisiw-ta
       where-PV-2SG.ERG      hide-PV    ABS    money-1PL.GEN
       'Where did you hide our money?'

    c. *pasani-an-su        **<u>azas-an</u>**     ya     kelisiw-ta
       V.to.where-PV-2SG.ERG take-PV    ABS    money-1IPL.GEN
       'Where do/did you take our money?'

- This requirement, the AV-restriction on the lexical verb, indicates that the lexical verb in such sentences is defective and does not act like a full-fledged main verb. Instead, the lexical verb should be construed as the verbal complement of the main interrogative verb.
- This pattern is reminiscent of the Serial Verb Construction (SVC) in Kavalan, the V2 of which is restricted to the agent voice (Chang 2006).

(5) a. siangatu=pa=imi      q&lt;m&gt;al      tu     rasung
       begin=FUT=1IPL.ABS    &lt;AV&gt;dig     OBL    well
       'We will start to dig up a well.' (Chang 2006: 56)

    b. *siangatu=pa=imi     qal-an ya     rasung
       begin=FUT=1IPL.ABS    dig-PV ABS    well
       'We will start to dig up a well.' (Chang 2006: 56)

- Kavalan thus provides a counterexample against Hagège's (2008) generalization that interrogative verbs in serial constructions function as secondary predicates that are similar to adverbial modifiers.

## 3. Syntactic Categories of Interrogative Words
- It is not uncommon for a wh-word to belong to more than one syntactic category.

### Semantic Restrictions on the Interrogative Verb, *tanian*
- The use of *tanian* as a verb in Kavalan is restricted to questions about the location of the theme argument of a ditransitive event.
- Questions about the location where an event takes place cannot utilize *tanian* as a verb.
- In such questions, *tanian* cannot take the voice markers like –*an*.

(6) a. *tanian-an-su          q<m>an          satutu
       where-PV-2SG.ERG     <AV>eat          lunch
       'Where did you eat lunch?'
    b. *tanian-an-su          kelawkaway
       where-PV-2SG.ERG     work
       'Where do you work?'

(7) a. **tanian**   t<m>ayta      ti-buya          ti-imuy-an
       where     <AV>see        NCM-PN           NCM-PN-LOC
       'Where did Buya see Imuy?'
    b. ta-naung-an                t<m>ayta      ti-buya          ti-imuy-an
       LOC-mountain-LOC        <AV>see        NCM-PN           NCM-PN-LOC
       'Buya saw Imuy in the mountain.'

- There is an asymmetry between *tanian*'s use as an argument and its use as an adjunct. The former refers to the location argument of a ditransitive event while the latter refers to the location where an event takes place. While argument *tanian* can be used as a verbal interrogative (2c, 3b), adjunct *tanian* is restricted to the typical wh-in-situ construction (7a).

## 4. A Syntactic Analysis
- The transitivity of interrogative verbs and the difference between the argument and adjunct use of interrogatives can be derived with reference to the syntactic environment of the interrogatives themselves.
- Interrogatives serve as verbs when they are selected by a category-defining verbal head little v.

### The Case of *tanian*
- The little v is the causative operator CAUSE which entails an agent thematic role and defines transitive verbs. This head is spelled out as the patient voice marker -*an*.

- Together with the inherent locational and interrogative semantics of *tanian*, the result is a transitive construction in which the location of the theme is in question.
- Without a secondary lexical verb, the details of the action are left under-specified, leading to a meaning of something like 'X put Y where?' as seen in (2b).
- When a secondary lexical verb is present, it serves to further specify the action of the transitive event, as in (3b).
- In both cases, however, the basic semantic structure of the construction is the same.
- The adverbial, in-situ properties of the adjunct use of *tanian* as in (7a) follow from its adjunct status. Not being selected by little v, *tanian* cannot be a verb in these constructions and therefore lacks verbal properties. Rather, adjunct *tanian* takes scope over the entire verb or tense phrase.


- A lexicalist approach instead has to specify the multiple categoriality of *tanian* in the lexicon. This stipulation however cannot account for why verbal *tanian* is restricted to questions about the theme argument of a ditransitive event.
- Moreover, why verbal *tanian* must take the patient voice *–an* cannot be explained under the lexicalist account, which would predict that verbal *tanian* should be able to occur in the Agent Voice construction like other lexically specified verbs.

## Adverbial Expressions as Verbs
- The analysis proposed in this paper can generalize to non-interrogative cases such as locative deictics and manner/frequency adverbials, which are also realized as verbs in Kavalan.

(8) a. pizi-an-ku            kelisiw-ku            tazian
       put-PV-1SG.ERG         money-1SG.GEN         here
       'I put my money here.'
    b. **tazian**-an-ku       pizi    kelisiw-ku
       here-PV-1SG.ERG        put     money-1SG.GEN
       'I put my money here.'

(9) a. paqanas-an-ku          t<m>ayta      ya      sudad
       slow-PV-1SG.ERG        <AV>see       ABS     book
       'I read the book slowly.' (Chang 2006: 46)
    b. pataz-an-ku=ti         s<m>upas      ya      qRitun
       often-PV-1SG.ERG=PFV   <AV>wash      ABS     car
       'I washed my car often.' (Chang 2006: 50)

- In general, the overlap between adverbial and verbal expressions, both interrogative and non-interrogative, provides evidence for a non-lexicalist system (such as Distributed Morphology) in which roots are not identified with particular lexical categories.

## 5. Conclusion

- The transitivity of interrogative verbs in Kavalan is correlated with their voice markers. What renders an interrogative word a verb in Kavalan is the voice markers, the choice among which could further induce differences in transitivity.
- The grammatical properties and semantic restrictions of interrogative verbs follow from the syntactic environment of the interrogatives themselves.
- A non-lexicalist system (such as Distributed Morphology): Interrogative roots are not identified with particular lexical categories.

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