POST-VERBAL -U 'HAVE' IN TAIWANESE: A FIRST LOOK*

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This study sheds light on the post-verbal -u 'have', which follows a verbal predicate, and proposes that the post-verbal -u projects a functional head, landing the head of LinkerP ([Linker, LinkerP]) (den Dikken 2006), against previous research of -u behaving like a resultative aspectual marker. Therefore, this study argues that -u links two clauses, and denotes intensification, i.e., it merely intensifies an existential and/or a happened event other than a resultative state. This study further explains why a nominal complement is movable while a verbal one is not. This study also renders a nodal-aspectual account to its semantic denotation.

1. Introduction

This study pays attention to the post-verbal -u 'have' in Taiwanese. Interestingly, the possessive verb u 'have' can follow a verbal predicate, i.e., it can occur postverbally (1a), in contrast to most other languages (1b) and (1c), and according to (Cheng, 1981, 1997; Yang, 1991; Khoo, 2000; Tsai, 2006), it triggers a resultative interpretation.

(1) a. Aldo be-u tsit-pun tsheh. (Taiwanese)
PRN buy-HAVE one-CL book
'Aldo certainly bought a book and (he owns the book now).'

b. *Aldo mai-you yi-ben shu. (Mandarin)
PRN buy-HAVE one-CL book

c. *Aldo bought-had a book.

Additionally, previous research claims that the post-verbal -u 'have' is derived from the possessive verb u, as seen in (2a), where the pre-verbal u serves as a modal (auxiliary) verb, as shown in (2b) and (2c). U 'have' in (2a) serves syntactically as a light verb (Lin, 2001) and triggers a possessive construal. Conversely, u 'have' in (2b) and (2c) projects a functional head, e.g., the head of Emphatic Phrase (Zheng, 2015; Cheng, 2022), and denotes an intensifying interpretation.

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- (2) a. Aldo u tsit-pun shu.

 PRN have one-CL book
 'Aldo has one book.'
 - b. Aldo u khi-kue Canada.

 PRN HAVE go-EXP Canada

 'Tom certainly has been to Canada.'
 - c. Aldo u sui¹.

 PRN HAVE beauty/beautiful

 'Aldo certainly is very beautiful.'

Moreover, from the perspective of semantic account, it can address the construals of 'realization', 'distinction', 'satisfaction', 'achievement', etc. These construals all refer to a resultative interpretation. From the morphosyntactic standpoint, there are two major claims. On one hand, the post-verbal -u 'have' is viewed as a resultative aspectual marker (see Cheng, 1981, 1997; Yang, 1991; Khoo, 2000; Tsai, 2006), as exemplified in (3a), in that it functions as a resultative marker², for instance -tioh in (3b)³.

- (3) a. Aldo be-u sann-pun tsheh.

 PRN buy-HAVE three-CL book

 'Aldo certainly bought three book and he owns them now.'
 - b. Aldo be-tioh sann-pun tsheh.

 PRN buy-RESULT three-CL book

 'Aldo bought three books and he owns them now.'

On the other hand, Cheng (1981, 1997) further argues that the post-verbal -u should be analyzed morphosyntactically as an infix, in that it can insert a verb-complement predicate, as shown in (4), and it also indicates a resultative construal.

¹ Previous studies treat the situational predicates like *sui* as an adjectival predicate whereas the latest study argues that *sui* should be analyzed as a nominalized element. This study does not discuss which one is the appropriate claim.

² The resultative marker, such as *-tioh*, *-uan*, *-liau*, derives from a verb of achievement/accomplishment. For examples, *-tioh* derives from *tioh*, meaning 'getting', *-uan* derives from *uan*, meaning 'finishing', and *-liau* also derives from *uan*, meaning 'finishing'.

³ It indicates that there are more than three books, but Tom only bought three in the end. It might imply that other book sold out. However, (3a) does not denote this interpretation. It emphasizes a happened action/event.

(4) Aldo tsau-u tsukhi.

PRN run-HAVE out

'He certainly escaped (from) here.'

However, based on the above claims, previous work does not offer a unified morphosyntactic analysis on the post-verbal -u 'have' and does not explain why the examples without the post-verbal -u still can address the resultative construals, as shown in (5), respectively.

- (5) a. Aldo be-tioh sann-pun tsheh⁴.

 PRN buy-RESULT three-CL book
 'Aldo bought three books.'
 - b. Aldo tsau tsukhi.

 PRN run out

 'Aldo escaped (from) here.'

The difference between (3a), (4) and (5) has revealed that (5) do not trigger intensification; therefore, this study proposes that the post-verbal -u 'have' actually hosts functional head, i.e., [Linker, LinkerP] (den Dikken, 2006), and semantically signals intensification by rendering a modal-aspectual account.

This study is organized as follows. Section 2 offers the alternative syntactic analysis on the post-verbal -u 'have' following the framework of Linker Theory (den Dikken, 2006), and section 3 sheds light on the semantic denotation according to Wu and Zheng's (2018) modal-aspectual account. Section 4 wraps up this analysis.

2. Syntactic Analysis

2.1 Linker Theory

One of the research questions focuses on what the syntactic role of post-verbal -u 'have' play in Taiwanese; therefore, this study proposes that the post-verbal -u 'have' hosts the functional head, i.e., Linker of LinkerP. Under den Dikken's (2006) Linker Theory, what Linker selects is RelatorP (hereafter RP). Additionally, the head of RP can be realized by any head element; in other words, RP can be any category. Moreover, RP can be the complement of a functional head (F), e.g., TP, PredP, ν P, etc, and F could be a Linker. The schema is sketched in (6). The predicate under RP can move, landing at the Specifier of FP, i.e., the Specifier of TopicP.

(6) $[FP1 DP_{SBJ}][F1, F1_{Pred1}][FP2 [F2, F2_{Linker}][RP DP_{SBJ}][R, R < XP_{Pred2} >]]]]$

⁴ If *-tioh* is omitted, the meaning of (5) has changed and becomes incomplete, i.e., it denotes a situation that Aldo buys/bought three books, and someone buys/bought the other quantities of books.

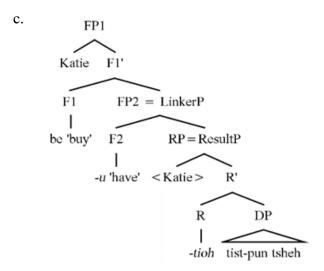
2.2 The post-verb -u as Linker (F)

In spirit of den Dikken (2006), and Zhang (2015: 30 on the post-verbal degree word *hen* 'very'), I propose that the post-verbal -u hosts the head of LinkerP (i.e., the head of FP), and it selects either a nominal complement or a verbal complement, where either can be treated as RP. The example and the preliminary analysis are yielded in (7), respectively.

- (7) a. Katie be-u-tioh hit-tai tshia.

 PRN buy-HAVE-RESULT that-CL car

 'Katie certainly bought that car and owns it now.'
 - b. [FP1 Katie_{SBJ} [F1', bepred1 [FP2 [F2', -uLinker [RP=RESULTP/SC] < Katie> [R', -tioh [DP hit-tai tshia]]]]]]]



One more piece of evidence which I argue against previous claims results from that two resultative aspectual markers cannot coexist within a sentence, as demonstrated in (8).

- (8) a. Aldo be-u-tioh tsit-tai tshia.

 PRN buy-HAVE-RESULT one-CL car

 'Aldo certainly bought a car, and he owns it now.'
 - b. *Aldo be-{tioh-uan/uan-tioh} tsit-tai tsiah.

 PRN buy-{RESULT-RESULT/RESULT-RESULT} one-CL car

 Int: 'Aldo bought a car, and he owns it now.'

To be brief, the post-verbal -u should be analyzed syntactically as Linker and selects a RP, for instance either a nominal complement or a verbal complement. This analysis also supports that the post-verbal -u does not function like a resultative aspectual marker since two resultatives cannot coexist within a sentence and their syntactic are distinct as well. The following subsection offers the analysis on the movement of nominal complements.

2.3 Movement

Very intriguingly, this study has found that the nominal complement of the post-verbal -u is movable whereas the verbal complement is non-moveable. The contrastive examples are exemplified in (9) and (10), respectively.

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(9)
        a. Aldo be-u
                               hit-tai tshia.
          PRN buy-have
                               that-CL car
          'Aldo certainly bought that car and owns it now.'
        b. Hit-tai tshia<sub>i</sub>,
                               Aldo
                                       be-u
                                                       ti.
          that-CL car
                               PRN
                                       buy-HAVE
          'As for that car, Aldo certainly bought it and owns it now.'
(10)
        a. Aldo tsau-u tsukhi.
          PRN run-HAVE
                               out
          'Aldo certainly escaped (from) here.'
        b. *tsukhi<sub>i</sub>.
                       Aldo tsau-u
                                               ti.
                       PRN
                               run-HAVE
            out
            Int: 'Aldo certainly escaped (from) here.'
```

The sole difference results from their distinct syntactic positions that they both occupy. According to Linker Theory, a nominal complement, such as *hit-tai tshia* 'that car' in (9), occupies the DP, which refers to XP under RP, and the DP can be topicalized, and move out to the Specifier of TopicP. On the other hand, a verbal complement, for instance *tsukhi* 'out', occupies the head of RP so that it cannot move out, as topicalization. The evidence that *tsukhi* hosts the head of RP arises from that it cannot cooccur with a resultative aspectual marker, such as *-tioh*, as seen in (11).

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(11) *Aldo tsau-u {tioh tsukhi/tsukhi tioh}.

PRN run-HAVE {RESULT out/out RESULT}.
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This analysis further supports that the post-verbal -u projects the head of LinkerP, and a resultative aspectual marker and a verbal complement occupy the head of RP, and the a nominal complement lands XP (=DP) under RP. Section 3 offers a semantic account for the post-verbal -u.

3. Semantic Analysis

3.1 What does the post-verbal -u indeed denotes?

Recall that it is argued that the post-verbal -u should convey intensification rather than resultativity since the functional head u 'have' can trigger intensification per se as long as it goes with a situational predicate (see Zheng, 2015; Wu & Zheng, 2018; Cheng, 2021). Therefore, this mechanism can be applied to the condition in which the functional head u follows a situational predicate. In other words, on the other side, the resultativity comes from the resultative aspectual marker, such as -tioh.

It is of interest to figure out the way that the post-verbal -u denotes an intensifying interpretation, and this study hence follows Wu and Zheng's (2018) modal-aspectual account for how this intensification is activated. In compliance with Wu and Zheng, the post-verbal -u has an epistemic modal base, necessity as its modal force and an affirmative ordering source, ordering the possible worlds based on the number of propositions affirmed to be true. The denotation is sketched in (12a), and the construal is depicted in (12b).

(12) a. ||-u||:

Modal base: epistemic Ordering source: affirmative Modal force: necessity

b. Suppose that f(w) is an epistemic modal base and g(w) is an affirmative ordering source.

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\|-\mathbf{u}(p)\| = 1 iff \forall u \in \Omega f(w), \exists v \in \Omega f(w) such that v \leq_{g(w)} u and \forall z \in \Omega f(w): if z \leq_{g(w)} v, then z \in \mathcal{R}(p) \prec E_t(p).
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An epistemic necessity modal expresses a high degree of confidence toward a stipulation, while a possibility one denotes a low degree, such as degree word. Videlicet, for instance u is incompatible with a degree word, as exemplified in (13).

- (13) a. *Aldo u huisiong sui.

 PRN HAVE extremely beauty
 - b. *Aldo tsau-u huisiong kin.
 PRN run-HAVE extremely fast

Moreover, \mathcal{R} represents event realization, which means that u triggers event realization when it goes with diverse situational predicates and further triggers diverse temporal construals, corresponding to their own events. However, the post-verbal -u behaves differently from the pre-verbal one on the intensification of event realization. The distinction is discussed as follows.

3.2 Restriction

According to Wu and Zheng (2018) and Cheng (2021), the pre-verbal u can go with the diverse situational predicates, and it can trigger the corresponding temporal construals, respectively. The examples are depicted in (14).

```
(14)
       a. Aldo u
                     be
                            hit-pun tsheh.
         PRN HAVE buy
                            that-CL book
         'Aldo certainly {bought/*buys/*will buy} that book.'
       b. Aldo u
                     leh
                                   kongkho.
                            sia
         PRN HAVE PROG write assignment
          'Aldo certainly {is/*was/*will be} writing the assignment.'
       c. Aldo u
                     tsiahhun.
         PRN HAVE smoke
         'Aldo certainly smoked.'
         'Aldo certainly smokes (He is in the habit of smoking).'
       d. Aldo u
                     lo.
         PRN HAVE tallness
         'Aldo certainly {is/*was} very tall.'
       e. Aldo u
                     khi-kue
                                   Canada.
         PRN HAVE go-EXP
                                   Canada
         'Aldo certainly {has/*had} been to Canada.'
```

On the other hand, the post-verb -u only occurs in an existential or a happened event/situation, for example neither a future temporal adverbial bin'a 'tomorrow' nor a present temporal adverbial tsitma 'currently' is compatible with the situational predicate with the post-verbal -u, as demonstrated in (15), respectively.

- (15) a. Aldo tsahng tshue-u hit-pun tsheh.

 PRN yesterday find-HAVE that-CL book

 'Aldo certainly found that book yesterday and remains it now.'
 - b. *Aldo tsitma leh tshue-u hit-pun tsheh.

 PRN currently PROG find-HAVE that-CL book
 - c. *Aldo bin'a tshue-u hit-pun tsheh.

 PRN tomorrow find-HAVE that-CL book

Intriguingly, the present temporal adverbial *tsitma* 'currently' can occur in (16) whereas it merely signals the interpretation that the speaker intensifies the event of Aldo

finding out that book for now/at the moment, but the speaker cannot promise whether Aldo can always keep it next moment/later.

(16) Aldo tsitma tshue-u hit-pun tsheh.

PRN currently find-HAVE that-CL book

'Aldo currently found that book (but he may probably keep it or lose it next moment.)'

4. Concluding remarks

This study proposes that the post-verbal -u serves syntactically as the head of Linker under LinkerP, and the complements which it selects occupy either XP (e.g., DP) or R (e.g., Resultative aspectual marker) under RP. Additionally, DPs are moveable whereas verbal complements are non-moveable. From the semantic standpoint, this study also argues that the post-verbal -u conveys intensification other than resultativity. Moreover, the post-verbal -u merely intensifies a happened or an existential event/situation.

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