

Cartographic Syntax Approach on Taiwanese U ‘HAVE’*

Adæmrys Chihjen Cheng
University of Ottawa, Canada

Abstract

This study sheds light on the functional projection of Taiwanese *u* ‘have,’ and proposes a unified account for the syntactic function, i.e., it is argued that functional head *u* ‘have’ hosts the head of Intensification, as [Inten⁰, IntenP], denoting an intensifying interpretation according to the core spirit of cartographic syntax (Huang 1988, Rizzi 1997, 2004a, 2004b, Cinque 1999). In addition, this study argues that the diverse temporal construals result from the semantic interactions, in the sense of (Cheng 2021, Wu and Zheng 2018), rather than from its multiple syntactic features. This study also demonstrates the syntactic position of *u* ‘have’ when it interacts with the other functional heads, i.e., the study specifies the actual position in the fixed hierarchical structure.

Key words

u ‘have’, intensification, functional projection, cartographic syntax, Taiwanese

* The earlier version is one part of my master thesis. I would like to thank Dr. Niina Ning Zhang and Dr. Hunter Wu at the National Chung Cheng University for their questions and insightful comments. I also thank Dr. Shu-Ing Shy, one of my committee members, and Dr. Chinfu Lien and Miaoling Hsieh at NCL 2014. I would also like to extend my appreciation to the organizers of Buckeye East Asian Linguistics Forum 5 for the opportunity to present this work and the audience there, for their judgments and helpful comments.

1. Introduction

Previous literature on Taiwanese possessive verbs *u* ‘have’ is rich, as respectively shown in (1), whereas very few studies provide a unified account for the syntactic function of (1). The possessive verb *u* ‘have’ in (1) serves as a lexical head; on the other hand, the one in (1) functions like a functional head (Li 1986, Tsao and Cheng 1995, R. Cheng, 1997), in that it can go with situations, i.e., situational predicates (dynamic and stative predicates)¹.

- (1) a. Aldo *u* sann-pun tsheh.
 Aldo have three-CL book
 ‘Aldo has three books.’
 b. Aldo *u* khi Canada.
 Aldo HAVE go Canada
 ‘Aldo certainly went to Canada.’²

This study sheds light on the functional head *u* ‘have,’ and contends that *u* projects the head of Intensification, labeled as [Inten⁰, IntenP], and argues that the diverse temporal construals result from the semantic realization rather than the multiple syntactic features per se. This study is organized as follows.

Section 2 briefly introduces the syntactic behavior of *u* ‘have,’ along with the different situational predicates and previous analyses on the functional head *u*. Section 3 proposes a unified account for what *u* ‘have’ indeed plays in syntactic structure and offers the syntactic interaction of *u* with the other functional heads in order to specify in which *u* lands. Section 4 adopts Cheng’s (2021) and Wu and Zheng’s (2018) semantic accounts in support for the present alternative syntactic analysis. Finally, section 5 concludes this study.

2. Previous literature

According to previous research (A. Cheng 2021, Wu and Zheng 2018, Zheng 2015, Zheng 2014, Lien 2009, R. Cheng 1997, Li 1986, Tsao 1998, Tsao and Y. Cheng 1995), the functional head *u* presents events and state, as seen in (2), respectively.

- (2) a. Laura *u* sia kongkho.
 Laura HAVE write assignment
 ‘Laura certainly wrote the assignment.’
 b. Laura *u* leh sia kongkho.
 Laura HAVE PROG write assignment
 ‘Laura certainly is/was writing the assignment.’
 c. Laura *u* tsiah-hun.
 Laura HAVE smoke
 ‘Laura certainly smokes/smoked.’
 d. Laura *u* sui.
 Laura HAVE beauty
 ‘Laura certainly is beautiful.’

¹ In the gloss, small case HAVE represents the functional use, and non-small case one have the lexical use.

² In the English translation, this study utilizes ‘certainly’ to indicate the intensifying reading of *u*, contra to ‘emphatic do’ in A. Cheng (2021) and Zheng (2015, 2014), and ‘indeed’ in Wu and Zheng (2018).

In terms of temporal interpretations, the examples in (2) show a wide variety: (2) receives a past tense reading, (2) a present/past progressive reading, (2) either a characterizing reading or a past tense construal, (2) a present tense reading. R. Cheng (1997) refers to (2) as emphatic when it receives a characterizing reading, (2) as aspectual-assertive. (2) and (2) are not taken into consideration. Tsao and Y. Cheng (1995) classify (2) and (2) as aspectual-existential, and (2) as emphatic marking.

From the syntactic point of view, on the other hand, it has been controversial for the syntactic analysis of function projection *u*. For instance, R. Cheng (1997) defies the idea that *u* is a past tense marker and suggests that *u* serve as modal which asserts the actual happening of an event.

Li (1986) suggests the following. As an auxiliary verb, *u* confirms realization of an event or a state. As an adverb, *u* is placed before a verb to express quantity or quality.

Tsao and Y. Cheng (1995) propose that *u* has five usages: (i) existential, (ii) possessive, (iii) presentational, (iv) existential-aspectual, and (iv) emphatic. They propose that the existential-aspectual reading and emphatic reading of *u* come from the sense ‘existence’. *U* confirms the existence of an event. Because it is not possible to confirm an event that does not exist, *u* naturally goes with a past event. Emphatic *u* is semantically equal to existential-aspectual *u* because in both usages *u* confirms an eventuality that has happened. This eventuality can be an event, a state, or an abstract property.

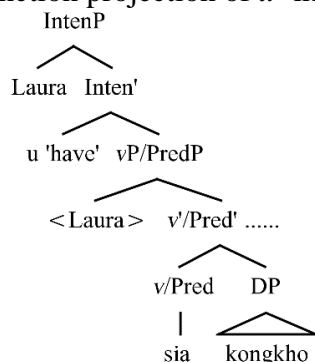
Lin (2001) proposes an analysis light verb and argues that *u* hosts the multiple syntactic features so that it can triggers various interpretations. The syntactic features are suggested as follows: (i) [BECOME], (ii) [EXIST], (iii) [BE], (iv) [OCCUR], and (v) [DO], etc.

However, no unified account is provided for how a functional head can address intensification and the various temporal construals. Besides, the multiple functional features seem contractionary with the core idea of cartographic syntax: one functional head merely hosts one syntactic feature. In the following section, I propose that the functional head *u* merely hosts [INTENSIFICATION], and it merely denotes intensification. The diverse temporal interpretations actually result from the semantic mechanism, other than the syntactic features.

3. Functional projection: *Inten*⁰

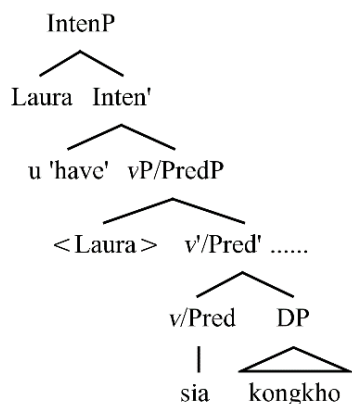
In the spirit of cartographic syntax (Huang 1988, Rizzi 1997, 2004a, 2004b, Cinque 1999), a functional head merely holds one feature, i.e., there is a one-to-one relationship between a syntactic feature and a functional head within a fixed order in the hierarchy. This study thus proposes that *u* projects *Inten*⁰ under *IntenP*, as sketched in **Error! Reference source not found.**, in order to intensifies an event and/or a state, and it hosts the feature of [INTENSIFICATION].

(3) Function projection of *u* ‘have’ (=2)



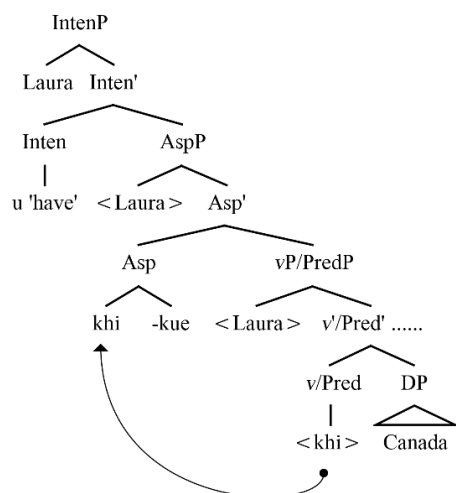
Intriguingly, a question strongly arises: where does $\text{Inten}^0 u$ exactly land within a hierarchy of functional heads? Accordingly, this study offers the interactions of u with the other functional heads and/or predicates in the following section, step by step. First of all, it is observed that it lands above a $v\text{P}/\text{PredP}$, as seen in (4), repeated from 0.

- (4) a. Laura u sia kongkho.
 Laura HAVE write assignment
 ‘Laura certainly wrote the assignment.’
 b. Above $v\text{P}/\text{PredP}$



Secondly, it can land above AspP , as sketched in (5), in which Asp is also a functional head and it is above a $v\text{P}/\text{PredP}$. Then, the v/Pred under $v\text{P}/\text{PredP}$ undergoes head movement to adjoin the aspect marking *-kue* to trigger an experiential construal. (5) thus intensifies a happened event and triggers an experiential reading.

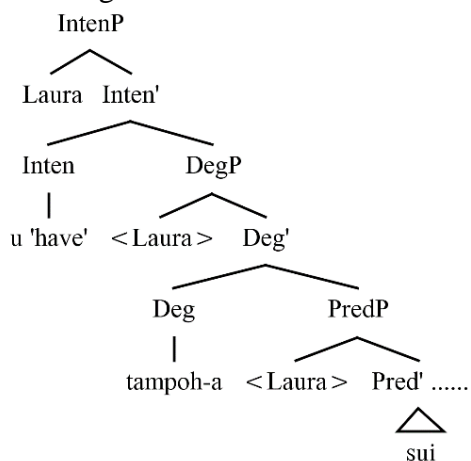
- (5) a. Aldo u khi-kue Canada.
 Aldo HAVE go-EXP PRN
 ‘Aldo certainly has been to Canada.’
 b. Above AspP



This study also discovers that it lands above DegP , as sketched in (6), where it is compatible

with a weakening degree word in (6), whereas it is incompatible with an intensifying one in (6) (see also Cheng 2021, Zheng 2015, 2014).

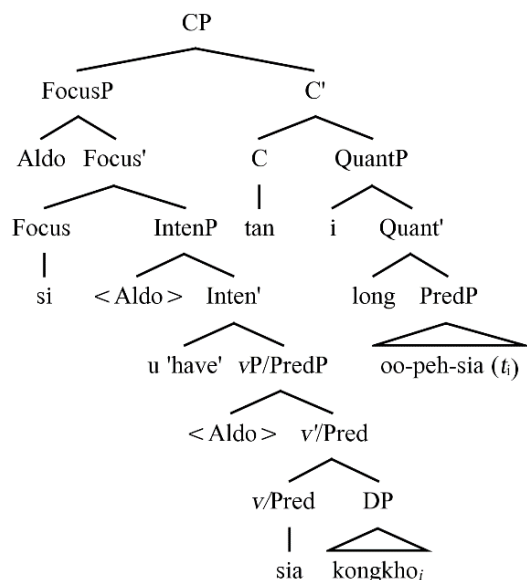
- (6) a. Laura u tampoh-a sui.
 Laura HAVE somewhat beautiful
 ‘Laura certainly is somewhat beautiful.’
 b. *Laura u huisiong sui.
 Laura HAVE extremely beautiful
 Int: ‘Laura certainly is beautiful.’
 c. Above DegP



On the contrary, it is found that the functional head *u* lands under FocusP, which means that the Focus⁰ *si* is higher than Inten⁰ *u*, as demonstrated in (7), which it is implied that Inten⁰ *u* probably stays within FinP (i.e., FiniteP) domain, reaches the CP layer instead. Besides, when it is focused, a context should be given in (7); otherwise, it is semantically unaccepted in (7).

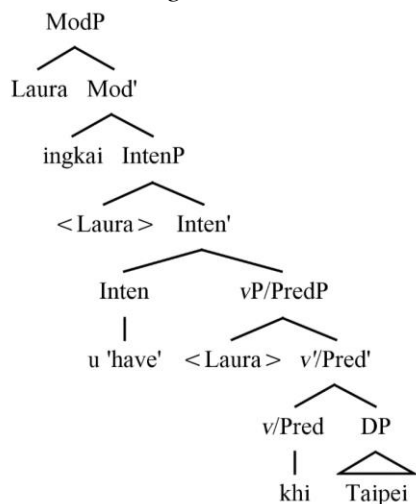
- (7) a. #Aldo si u sia kongkho.
 Aldo BE HAVE write assignment
 ‘Aldo certainly did write the assignment.’
 b. Aldo si u sia kongkho, tan i long oo-peh-sia.
 Aldo BE HAVE write assignment, but 3.SG QUANT scribble
 ‘Aldo certainly did write the assignment, but he scribbled it.’

c. Under FocusP



Last but not least, it is detected that the syntactic position of $\text{Inten}^0 u$ is lower than the modal verbs. Three modal verbs, such as *ing kai* ‘should, ought to,’ *koling* ‘can, could,’ and *e* ‘will, would,’ are respectively offered as follows. To begin with, the modal verb *ing kai* is higher than the $\text{Inten}^0 u$, as shown in (8), in contrast to (8). The syntactic hierarchy is illustrated in (8).

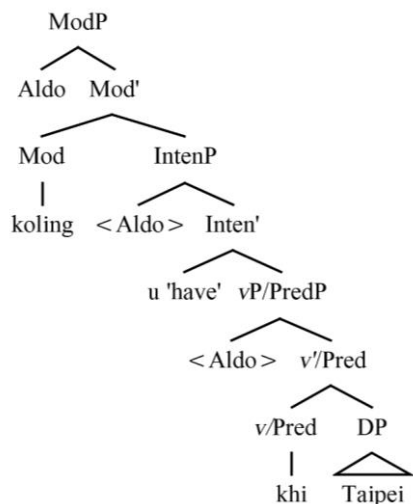
- (8) a. Laura *ing kai* u khi Taipei.
 Laura should HAVE go PRN
 ‘Laura should certainly go to Taipei.’
 b. *Laura u *ing kai* khi Taipei.
 Laura HAVE should go PRN
 Int: ‘Laura should certainly go to Taipei.’
 c. Above ModP *ing kai*



Additionally, the modal⁰ *koling* is higher than the $\text{Inten}^0 u$, as seen in (9), contra to (9), in which

it is argued that *koling* serves as an abstract property rather than a modality, i.e., *u koling* trigger ‘has possibility of’ interpretation. This hierarchy is illustrated in (9).

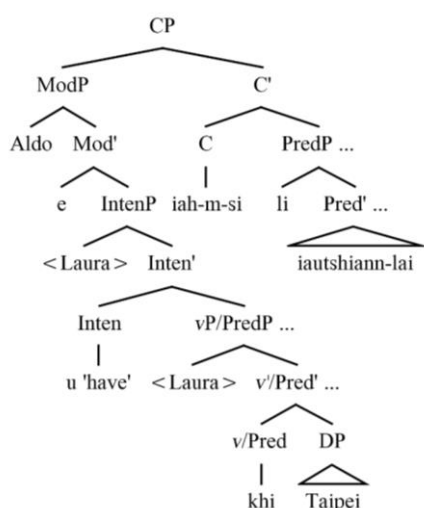
- (9) a. Aldo koling u khi Taipei.
 Aldo could HAVE go PRN
 ‘Aldo could certainly go to Taipei.’
 b. Aldo u koling khi Taipei.
 Aldo HAVE could go PRN
 ‘It is the possibility that Aldo went to Taipei.’
 c. Under ModP *koling*



Moreover, it is noted that $\text{Inten}^0 u$ is lower than the modal⁰ *e*, as seen in (10), when a context is provided, and the syntactic hierarchy is also demonstrated in (10).

- (10) a. #Aldo e u khi Taipei.
 Aldo would HAVE go PRN
 Lit: ‘Aldo will certainly go to Taipei.’
 b. Aldo e u khi Taipei iah-m-si li iautshiann-lai
 Aldo would have go PRN but.for 2.SG invite-come
 ‘Aldo should not have certainly gone to Taipei because of your invitation.’
 c. *Aldo u e khi Taipei.
 Aldo HAVE would go PRN
 Int: ‘Aldo certainly will go to Taipei.’

d. Under ModP e



Therefore, the fixed order of functional heads in hierarchy is illustrated in (11). It also manifests that $\text{Inten}^0 u$ stays within FinP domain rather than lands in CP layer.

(11) ... (ModP) > (FocusP) > (ModP) > IntenP_u 'HAVE' > (DegP) > vP/PredP_u 'have' ...

4. Event realization

Most of previous literature claims that the various temporal construals arise from the syntactic functions of u or from its multiple syntactic features. However, it is plausible to claim that a functional head u can host various syntactic feature and address various temporal construals; in other words, it would be too powerful for a functional head. Therefore, this study follows Cheng's (2021) and Wu and Zheng's (2018) modal-aspectual semantics to account for how the various temporal construals are triggered.

It has an epistemic modal base, necessity as its modal force and an affirmative ordering source, which orders the worlds in modal base according to the number of propositions affirmed to be true, as sketched in 0, in which u performs event realization, i.e., u specifies that the proposition p must undergo event realization, and R represents the event realization operator (see Wu and Zheng 2018 in more details).

(12) a. $\|\bar{u}\|$:

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.

$\|\bar{u}(p)\| = 1$ 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 $z \in R(p)$.

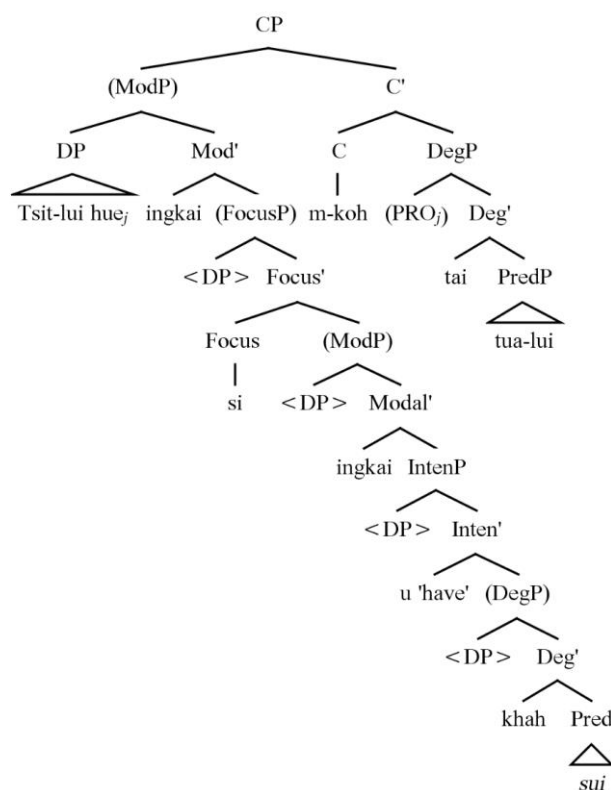
Moreover, Bohnemeyer & Swift (2001) figure out that the aspectual properties of clauses rely on the telicity of the propositions described by clauses. Basically, a telic event is preferably correlated with the perfective aspect, while an atelic situation with the imperfective aspect. They

refer to this correlation as event realization: For a telic event to be realized, the perfective aspect is required, whereas for an atelic situation to be realized, the imperfective aspect is necessary. Therefore, it is obvious to reveal that since the functional head u performs event realization, it can trigger various temporal construal from the semantic point of view.

5. Conclusion

This study proposes a unified account for the functional head u ‘have’ in Taiwanese, and argues that it serves as Inten^0 under IntenP , which means that it merely holds one syntactic feature of $[\text{INTENSIFICATION}]$, to address intensification. It is also found that $\text{Inten}^0 u$ could still stay within FinP domain. The entire hierarchical structure could be illustrated in 0, respectively.

- (13) a. Tsit-lui hue (ingkai) si (ingjkai) u khah sui, m-koh tai tua lui.
 this-CL flower should BE should HAVE COMP beautiful, but too big-CL
 ‘The flower should certainly be much more beautiful, but (it is) too big.’
 b. The hierarchical structure



On the other hand, the diverse temporal construals arise from the semantic denotation rather than its syntactic features in the sense of Wu and Zheng (2018). The future study attempts to investigate the interactions of u with the multiple modal verbs (see Tsai 2010) and the interaction between syntactic-level and the discourse-level.

References

- Bohnenmeyer, Jürgen and Mary Swift. (2001) Default Aspect: The Semantic Interaction of Aspectual Viewpoint and Telicity. In Henk Verkuyl, Angeliek van Hout and Henriette de

- Swart (eds.), *Proceedings of Perspectives on Aspect*. Utrecht: Institute of Linguistics.
- Cheng, Adæmrys Chihjen. (2021) The Property Concepts and the Possessive Verb \bar{U} ‘Have’ in Taiwan Southern Min. *Asian Languages and Linguistics* 2.2, 217–248. <https://doi.org/10.1075/alal.21013.che>
- Cheng, Robert. (1997) Taiwanese *u* and Mandarin *you*. In Robert Cheng (ed.), *Temporal and Spatial Relations, Questions and Negatives in Taiwanese and Mandarin*. 191-230. Taiwan Taipei: Yuan-Liu Publishing.
- Cinque, Guglielmo. (1999) *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford: Oxford University Press.
- Huang, Cheng-Teh James. (1988) On *be* and *have* in Chinese. *Bulletin of the Institute of History and Philology, Academia Sinica* 59, 43-64.
- Li, Rulong (李如龍). (1986) *U* and *bo* in Southern Min. *Journal of Fujian Normal University* 1986.2, 76-83.
- Lin, Tzong-Hong. (2001) Light Verb Syntax and the Theory of Phrase Structure. Doctoral dissertation. University of California, Irvine.
- Pan, Victor Junnan. (2019) *Architecture of the Periphery in Chinese: Cartography and Minimalism*. London and New York: Routledge.
- Rizzi, Luigi. (1997) The Fine Structure of the Left Periphery. In Liliane Haegeman (ed.), *Elements of Grammar*. 281–337. Dordrecht: Kluwer.
- Rizzi, Luigi. (2004a). Locality and left periphery. In Adriana Belletti (ed.), *The cartography of syntactic structures: Structures and beyond*. 223-251. Oxford: Oxford University Press.
- Rizzi, Luigi. (2004b) *The Cartography of Syntactic Structures: The Structure of IP and CP*. Oxford: Oxford University Press.
- Tsai, Dylan Wei-Tian (蔡維天). (2010) On Mandarin Modality: Its Distribution and Explanation [Lun hanyu motaici de funbu yu quanshi zhi duiying guanxi]. *Zhongguo Yuwen* 3, 208-221.
- Tsao, Feng-Fun and Ying Cheng. (1995) On the Five Usages of *u* in Southern Min. *Studies on Chinese Languages* 11, 155-167.
- Wu, Jiun-Shiung and Zhiren Zheng. (2018) Toward a Unified Semantics for \bar{U} in \bar{U} + Situation in Taiwan Southern Min: A Modal-aspectual Account. In Jia Fei Hong, Qi Su and Jiun-Shiung Wu (eds.), *Chinese Lexical Semantics Workshop, CLSW 2018*. 408-422. Switzerland: Springer, Cham. https://doi.org/10.1007/978-3-030-04015-4_34
- Zheng, Zhiren. (2014) Restructuring Taiwan Southern Min \bar{U} “HAVE” in Adjectival Predicate Constructions. *Open Journal of Modern Linguistics* 4, 687-700. <http://dx.doi.org/10.4236/ojml.2014.45059>
- Zheng, Zhiren. (2015) Revisiting Taiwan Southern Min HAVE and its Stative Complement. Master thesis. Taiwan: National Chung Cheng University. <https://hdl.handle.net/11296/fhpk72>