A Very Long-Distance Dependency:
On the Evaluative Verb Reduplicative Construction

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ABSTRACT

This study aims to provide an analysis of the VVT,N construction in Taiwanese, which is obligatorily accompanied by a negative evaluative reading on the post-verbal noun. Based on observations including the citation tone on the final syllable of the reduplicative verb form and the form’s relative positions with modals and manner adverbs, we suggest that the verb has moved to a higher position without leaving the vP. Also based on the indispensability of the post-verbal noun and the fact that the post-verbal noun cannot be preposed, we propose that an uninterpretable evaluative feature moves from the NP to the edge of the DP phase and then to that of the vP phase, in order to value the head of the Eval(uative)P (based on Pesetsky & Torrego (2007)). Ostensibly, this construction with a very long-distance dependency poses a problem for phase theory (Chomsky 2001, 2008), but the problem can be solved by Move-F in a relaying-style scheme to accomplish the Agree.

Key words: long-distance dependency, evaluativity, verb reduplication, Taiwanese
1. Introduction

This study aims to provide an analysis of the V₁V₂N construction in Taiwanese, which is obligatorily accompanied by a negative evaluative reading on the post-verbal noun, as exemplified in (1).

(1) Kóng₅⁵-kóng₅¹ he.¹  
say-say DEM  
‘You mentioned that thing. (And I think the thing is not worth mentioning.)’

The above sentence is composed of a reduplicated verb form followed by a noun, a construction which, unlike other verb reduplication forms, always carries a negative evaluative reading on the post-verbal noun. In other words, the negative evaluation on the noun in this construction is obligatory, in contrast to sentences comprising a plain non-reduplicative verb and the DP:

(2) Lí tsiāh he.  
you eat DEM  
‘You ate that.’  
‘Eat that.’  
(With a suitable intonation) ‘I can’t believe you ate that.’

The sentence above can be indicative and denote a fact like ‘you ate that’, or it can be an imperative that urges someone to eat something. When the context is appropriate and the sentence is pronounced with a suitable intonation, we can also get a negative evaluative reading on the post-verbal DP. Nonetheless, the negative evaluation on the post-verbal DP in (1) is not optional as in (2).²

¹ The superscripted numbers indicate the pronouncing tones of the syllables in all examples. As shown, in this construction, tone sandhi does not occur on the second syllable of the reduplication form.
² He, as a demonstrative, needs clear reference in the context to help the listener identify it with the
The lack of tone sandhi on the final syllable of this verb form, though preceding a noun, deviates from the common tone sandhi rules of this language. This abnormal feature provides a cue to the syntactic structure of this construction, which is also evidenced by the relative positions between this verb form, modals, and manner adverbs.

Contrary to other verb reduplicative forms in Taiwanese, this construction, henceforth EVRC (evaluative verb reduplicative construction), cannot do without a post-verbal DP. This study will demonstrate that its evaluative reading is derived from a long-distance dependency built by Move-feature to the phase edges.

Before looking into the construction in question, a review of previous studies on verb reduplication will be provided in section 2. In section 3, we will see empirical data that illustrate the characteristics of this construction. An analysis is proposed in section 4, followed by a discussion of theoretical implications in section 5. Section 6 concludes this paper.

2. Previous Studies

2.1 An Overall Picture

Reduplicative processes are well attested cross-linguistically (e.g., Moravcsik 1978; Regier 1998; Zhang 1999; Conradie 2003; Tai 1993; among many others). Reiterated verbs can signal, for example, repeated action (e.g., -pikpik ‘touch it lightly repeatedly’ vs. -pik ‘touch it lightly’ in Tzeltal), duration of action or extension of an action or state (e.g., khāw dəən dəən paj naan ‘he walked and walked for a long time’ vs. dəən ‘walk’ in Thai) (from Moravcsik (1978), cited in Lai (2006)). Regier (1998) claims that all the apparently dissimilar senses of reduplicative forms can be iconically grounded in the same form related to three sound-symbolic types: baby, repetition, and plurality, as illustrated in the diagram below.
The literature shows that across languages it is the denotation of the verb that the reduplication alters. Interestingly, in the targeted construction, it is not the denotation of the reduplicated verb that is changed but an additional derogative sense attached to the post-verbal nominal constituent.

Not only the abnormality distinguishes this construction from other verb reduplicative constructions, the source of the derogative sense added to the nominal element also makes it exceptional when compared with the observations in the literature of evaluative morphology. We will turn to this after the review of verb reduplication in Sinitic languages.

2.2 Verb Reduplication in Sinitic Languages

Since early days, verb reduplication in Sinitic languages has drawn attention from researchers such as Tsao (2001), Lai (2006), and Lu (2003); among others. Since the construction in question is a Taiwanese one, I will only briefly review Tsao (2001) and Lai’s (2006) studies on Mandarin Chinese (MC) and Hakka, respectively, before turning to previous studies on verb reduplication in Taiwanese.

Tsao (2001) compares verbal and adjectival reduplication in both MC and Taiwanese and maintains that all senses, including ‘delimitativeness’, ‘metalinguistic use’,...
‘short duration’, ‘rapid completion’, and ‘trying action out’, are derived from tentativeness that carries the shared core meaning.

As for verb reduplication in Hakka, Lai (2006) argues that it is the iconicity principle that works across the board. All strategies basically line up on a scale, strengthening their intensification along the scale as the form gets longer and larger. According to Lai, a reduplicative construction is employed flexibly to denote attenuation or intensification and the two cannot be interpreted absolutely but only relatively, depending on the speaker’s conceptualization of the world.

At least seven forms of verb reduplication in Taiwanese are mentioned/reported in the literature (ref. Lu 2003; cf. Chuang & Tai 2009; Tang 1992; Cheng 1988). According to these studies, the verb reduplication in Taiwanese is used to denote attenuation, the sense of trying to do something, the comprehensiveness of a state or action, the speediness of an action or repetition, depending on the form. EVRC, the construction to be investigated here, is however not among them. It is therefore not clear how EVRC differs from other previously observed forms.

Below are the seven forms of verb reduplication in Taiwanese compiled by Lu (2003: 65-67).

<table>
<thead>
<tr>
<th>Form</th>
<th>Function</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>VV: Monosyllabic verb reduplication; only limited to some specific verbs</td>
<td>Attenuation</td>
<td>sàu/嗽 ‘cough’ → sàu-sàu/嗽嗽 ‘get a bit of cough’</td>
</tr>
<tr>
<td>VV–leh: Monosyllabic verb reduplication followed by the tone-neutralized particle leh</td>
<td>denoting the sense of trying to carry out an action</td>
<td>kiânn/行 ‘walk’ → kiânn-kiânn--leh/行行--咧 ‘try to take a walk’</td>
</tr>
<tr>
<td>V₁V₂: occurring in resultative verbal compound in which V₁ has tone sandhi and V₂ is pronounced with its citation tone; the second verb reduplicated (cf. Tsao 1997)</td>
<td>denoting the comprehensiveness of a resultative state</td>
<td>tsia̍h liâu/食了 ‘eat all’ → tsia̍h liâu-liâu/食了了 ‘eat all and leave nothing’ hian khui/掀開 ‘open by removing the cover’ → hian khui-khui/掀開開 ‘make it completely open by removing the cover’</td>
</tr>
</tbody>
</table>
In section 3 and 4, we will argue that EVRC, unlike abovementioned reduplicative forms that are of morphological operation, is but syntactic.

### 2.3 Mismatch in Evaluative Morphology

Since Scalise’s (1984) seminal study, evaluative morphology has drawn attention from researchers for more than 30 years. Evaluative morphology focuses on how natural languages express evaluation on a specific lexical item by morphological means. The evaluation, in most cases, is an additional augmentative, diminutive, appreciative, or depreciative meaning. And cross-linguistically the targeted lexical items belong to different parts of speech. For example:

(5) a. carro > carrão (Portuguese)
   ‘car’    ‘big car’
b. lume > lumino (Italian; Toyoshima 2018: 99 (5a))
   ‘lamp’    ‘little lamp’
c. sucer > sucette (French)
   ‘suck’    ‘lollipop’
d. vetero > veteraĉo (Esperanto)
   ‘weather’ ‘bad weather’

This kind of affixation is also found in Taiwanese. For instance: tshia ‘car’ vs. tshia-á ‘small car’; siānn ‘what’ vs. siānn-siâu ‘(derogative) what’. Based on these observations, we might think this language is not exceptional and there is nothing new to look into.

However, the EVRC in question gives us a different view into the evaluative morphology. Although EVRC does contain a nominal element with an additional depreciative meaning, we cannot find any morphological transformation in the element itself. Instead, it is the verb preceding the nominal element that undergoes morphological operation, that is reduplication. In other words, EVRC is an evaluative construction which separates the locus where evaluation aims at from the locus where the morphology works. To the author’s knowledge, no other such case has been reported in the literature of evaluative morphology. The examples of EVRC are shown below for the readers’ convenience.

(6) a. Kông⁵⁵-kông⁵¹ he. (=(1))
   say-say DEM
   ‘You mentioned that thing. (And I think the thing is not worth mentioning.)’

b. Li kö⁵¹-kê⁵² hit-ê ang --honnh.
   you marry-marry DEM-CL husband PRT
   ‘You married that man. (And I think that man is lousy.)’

Attentive readers may raise the question about where the evaluation aims at. Is it really the post-verbal nominal, or is it the whole proposition? The test below can help to dispel the doubt:
In the felicitous example above, a positive comment goes before the sentence of EVRC. This proves that the negative evaluation does not take the whole proposition, including marrying, as its scope. What is deemed depreciative is only the nominal that follows the reduplicated verb.

To sum up, in contrast to typical cases of evaluative morphology, EVRC demonstrates scopal mismatch. Therefore, investigating this construction will help us to push the boundaries of evaluative morphology.

3. Data and Observations

In order to illustrate the negative evaluative connotation of this construction, we accompany each of the two examples of EVRC in (8) with a preceding sentence which has a positive evaluative reading. Unless being used ironically, both sentences in (8) are infelicitous.\(^3\)

\[(8)\] a. #Lí ū-kàu hó-miā --ê, tsiā̂h\(^2\) tsiā̂h\(^5\) tsît-hō mih.
   (Intended) ‘You’re so lucky that you can eat something like that.’

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\(^3\) The data and the judgments are from the author and consultants whose primary language is Taiwanese. One of the consultants, who was born in Tainan, is in her sixties and has lived in Kaohsiung for more than 30 years. Another consultant who is in his sixties was born in Keelung and moved to Taipei about 40 years ago. Both of them confirmed the usage and the tone features of this construction. Therefore, it suggests that this construction is not limited to only few people or places, although the possibility cannot be entirely ruled out that it occurs only in some dialects.
b. #Lí tsin hó-miā --neh, tshuā₁²-tshuā₃³ tsit-ê bóo.
   you really blessed PRT marry-marry DEM-CL wife
   (Intended) ‘You’re so fortunate that you married such a wife.’

For instance, in (8b), with the form ‘marry-marry this wife’, the speaker has attached a negative sense to the addressee’s wife. Therefore, the addressee or the husband is actually not considered as being blessed as the speaker is just being sarcastic.

Unlike the reduplicative forms for contempt in other languages, EVRC requires a noun to follow the verb reduplication. To my knowledge, this is not observed in the evaluative verb reduplication in other languages. The requirement of a post-verbal noun is demonstrated below.

   Tsuisun all read-read DEM-kind have-mortise-no-tenon LK
   ‘Tsuisun always reads that kind of useless materials (that I disapprove).’

b. Tsuí-sūn lóng thák²-thák⁵ he.
   Tsuisun all read-read DEM
   ‘Tsuisun always reads those things (that I disapprove).’

   Tsuisun all DEM-kind have-mortise-no-tenon LK read-read
   (Intended) ‘Tsuisun always reads that kind of useless materials (that I disapprove).’

d. *Tsuí-sūn lóng thák²-thák⁵.
   Tsuisun all read-read
   (Intended) ‘Tsuisun always reads. (And I disapprove what he reads.)’

In (9), we have two sentences with verb reduplication followed by a noun, and both are grammatical (see (9a, b)). It is possible to make the noun as simple as a monosyllabic demonstrative, as shown in (9b). However, preposing the nominal in (9a) makes the

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4 Some examples of this kind: Dutch mik-mak ‘worthless collection’; English claptrap and hillbilly; German Pille-palle ‘insignificant things’; and Yiddish layfen-shmayfen ‘running is beside the point’. (Examples are from Regier (1998: 889).)
The obligatory post-verbal noun in EVRC is peculiar if we compare it with other verb reduplicative constructions in Taiwanese. The sentences in (10) demonstrate that no post-verbal object is possible in Taiwanese verb reduplicative constructions, except for EVRC.

(10) a. *Lí kín tsiáh\(^2\)-tsiáh\(^5\) püg --leh.
    you quick eat-eat rice PRT
    (Intended) ‘Finish your meal as soon as possible.’

b. Lí (kā) püg kín tsiáh\(^2\)-tsiáh\(^5\) --leh.
    you DISPOSAL rice quick eat-eat PRT
    ‘Finish your meal as soon as possible.’

c. Lí kín (kā) püg tsiáh\(^2\)-tsiáh\(^5\) --leh.
    you quick DISPOSAL rice eat-eat PRT
    ‘Finish your meal as soon as possible.’

As shown by the contrast between (10b), (10c) and (10a), the object can occur only pre-verbally when the verb is reduplicated, contrary to the obligatory post-verbal noun observed in EVRC.

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5 The reduplicative form can also be indirectly followed by a noun phrase.

(i) Lí kóng\(^5\)-kóng\(^5\) tui hia khi.
    you say-say to there go
    ‘You talked about these things.’

At first glance, (i) seems to suggest the reduplicative form can also be followed by a PP, in additional to DP, whereas it is easy to find counter-examples as the following:

(ii) *Lí tsé\(^2\)-tsé\(^3\) tí hia.
    you sit-sit PREP there
    (Intended) ‘You are sitting there. (And I disapprove the location where you are sitting.)’

The contrast between (i) and (ii) suggests that what follows the reduplicative form in (i) is not a general PP that stands for some optional argument like a location. Moreover, the analysis proposed in this study (refer to section 4) can also account for the derivation of the sentence in (i) without a problem (Note hia in (i) is a definite DP). In order not to make things too complicated, I will not include cases of this kind in the following discussion.
Unlike the obligatory object preposing in (10), in EVRC, as has been shown above, preposing the noun is not even possible.

(11) a. Tsuí-sūn tsia-ê beh tsiāh^2^-tsiāh^5 --leh, hia-ê bó āi.
    Tsuisun these want eat-eat PRT those NEG want
    ‘Tsuisun will eat these up, but not those.’

b. Tsia-ê Tsuí-sūn beh tsiāh^2^-tsiāh^5 --leh.
    these Tsuisun want eat-eat PRT
    ‘These things, Tsuisun will eat.’

(12) Tsuí-sūn hia-ê suah beh lóng tsiāh^2^-tsiāh^5 --leh.
    Tsuisun those unexpectedly want all eat-eat PRT
    ‘Unexpectedly, Tsuisun is willing to eat all those things. (No evaluation ascribed to the things.)’

As illustrated above, so long as the noun is preposed to a pre-verbal position, the evaluative sense disappears. That is to say, at any rate EVRC cannot do without a noun in its post-verbal position.\(^{6}\)

In sum, the post-verbal noun is not only a must but exactly the target of evaluation. Now let’s turn to the selection of the post-verbal nouns in EVRC.

### 3.1 The Selection of the Post-Verbal Nouns

The noun following the reduplicated verb has two characteristics. First, the post-verbal elements have to be DPs. Even a bare generic noun is not acceptable. EVRC must take a DP with an overt D, a demonstrative in this language. See the examples below.

(13) a. Bé^{55}-bé^{51} hit-tāi tshia / *tsit túi tshia / *tshia!
    buy-buy DEM-CL car one CL car car
    ‘You bought that car/*one car/*cars! (And I disapprove it.)’

\(^{6}\) In section 4, we will see why it is so based on the analysis proposed.
b. Tshī²¹-tshī³³ hit-tsiāh kāu / hia-ē kāu / *tsit tsiāh kāu / feed-feed Dem-cl dog those dog one cl dog *kāu-á!
dog
‘You foster that dog/those dogs/*one dog/*dogs (that I disapprove)!’

The speaker’s negative attitude towards the noun alone does not explain the contrast demonstrated in (13). It becomes clear in sentences with bare nouns. See (14):

(14) a. Guá thó-ià kāu-á.
    I dislike dog
    ‘I dislike dogs.’
b. Guá bō kah-ì lâng tshī kāu-á.
    I NEG like person feed dog
    ‘I don’t like people who have dogs.’

In (14) we have two sentences in which the speaker expresses a negative attitude towards the object, which is a bare noun. Since there is no obvious reason linking the specific types of nouns with evaluativity, the contrast in (13) can only be accounted for syntactically.

The second characteristic is that the required post-verbal noun does not have to be the grammatical object of the verb phrase. This is exemplified in (15).

(15) a. Tsiāh²-tsiāh⁵ hit-hō kē-lōo ê tshan-thiann.
    eat-eat Dem-kind low-class lk restaurant
    ‘You ate in that kind of low-class restaurant. (And I disapprove it.)’
b. Sái⁵⁵-sái⁵¹ hit-khuán bō lâng beh kiānn ê lōo.
    drive-drive Dem-kind no person want go lk road
    ‘You chose to drive on that kind of roads which no one wants to go through. (And I disapprove it.)’
c.  Sè\textsuperscript{55} -sè\textsuperscript{51} he bē khi-pho ê tē-khoo.
  wash-wash DEM NEG rise-bubble LK soap

  ‘You washed with a soap that didn’t lather at all. (And I disapprove it.)’

In (15a, b), the post-verbal nouns are locations, and in (15c), the post-verbal noun is an instrument. Usually this kind of sentences are analyzed by verb movement to a covert head, a light verbal element, such as a covert preposition AT in (15a, b), or a covert preposition WITH in (15c) (ref. Lin 2001).

Based on the light verb analysis, a natural question is: Does the verb reduplicative form move in EVRC? If it does, where does it land? Thanks to the tone sandhi in this language, we can see that it does move and that it moves to somewhere higher than VP.

Unlike common VO sequence in which tone sandhi is observed on the final syllable of the verb, the final syllable of V, V, in EVRC maintains its citation tone. Compare (15) with (16): the pairs of superscripted numbers linked by an arrow are annotated on the syllables that are observed with tone sandhi. (16b) and (17b) demonstrate that tone sandhi also occurs when a light verb is involved.

(16) a. Tsuí-sūn [\textsubscript{VP} kóng\textsuperscript{51--55} [\textsubscript{DP} hia-ê uē]] --lah.
Tsuisun say those words PRT

  ‘Tsuisun said those words.’

b. Tsuí-sūn ū [\textsubscript{VP} tsiāh\textsuperscript{5--2} [\textsubscript{DP} hit-king tshan-thiann]].
Tsuisun have eat DEM-CL restaurant

  ‘Tsuisun ate in that restaurant.’

(17) a. Tsuí-sūn [\textsubscript{VP} kóng\textsuperscript{51--55-kóng\textsuperscript{51}} [\textsubscript{DP} hia-ê uē]] --lah.
Tsuisun say-say those words PRT

  ‘Tsuisun said those words (that I disapprove).’

b. Tsuí-sūn [\textsubscript{VP} tsiāh\textsuperscript{5--2-tsiāh\textsuperscript{5}} [\textsubscript{DP} hit-king tshan-thiann]].
Tsuisun eat-eat DEM-CL restaurant

  ‘Tsuisun ate in that restaurant. (And I disapprove it.)’

(18) a. Tiong-tāu Tsuí-sūn ti\textsuperscript{33--21} A-tang-lô tsiāh.
noon Tsuisun PREP McDonald’s eat

  ‘Tsuisun ate at McDonald’s at noon.’
In ordinary VO sequences, we see tone sandhi on the verb syllable that precedes the noun as demonstrated in (16). For example, in (16a), the falling tone turns into a high level tone. On the contrary, the final syllable of a verb sequence in EVRC maintains its citation tone, as we can see in (17). In order to show that the pattern of tone sandhi does not distinguish real VO from those involving a light verb, we have (18), which demonstrates that tone sandhi occurs when a light verb is realized. That is to say: both the ordinary verb-object sequence and the inner-light-verb-noun sequence involve tone sandhi, contrary to EVRC (see (17)). In an EVRC, the post-verbal nominal does not trigger tone sandhi on the final syllable of the reduplicative verbal form.

It is widely accepted that tone sandhi in Taiwanese reveals the underlying syntactic structure. For example, Simpson & Wu (2002) points out that a head and its complement occur in the same tone sandhi domain. The absence of tone sandhi in EVRC should be an indication that the verb reduplicative form and the post-verbal DP has a different relation from the typical VO sequence. That is to say, we have to distinguish EVRC from other VO forms, including those with verb reduplication (remember (9) and (10)). All these suggest that there is some additional ingredient in EVRC, for even inner light verb has tone sandhi (see (18b)), but in EVRC tone sandhi on the final syllable of the verb form is not detected (see (17b)).

Before we proceed to the next subsection, let’s consider an intriguing question from an anonymous reviewer. The question is:

Is the negative evaluative reading on the post-verbal noun assigned by the whole construction? Is there any restriction on the type of the post-verbal DP in terms of its meaning? That is, hia-ê ū--è bô--è ‘those trivial things’ carries a negative meaning, and hia-ê mîh-kiâm ‘those things’ or he ‘that’ seems to be neutral. They can all serve as the post-verbal DP in EVRC. Can a DP denoting something positive such as delicious food also serve as the post-verbal DP in EVRC?
According to a survey on the author’s consultants, without specific interpretations on the positive terms, having a DP denoting something positive in this construction will arouse either a sense of infelicity or verbal irony. For example:

(19) Bé́55-bé́51 hit-khuán siōng-hó-tsiāh ê mì-h-kìānn.

   buy-buy DEM-kind most-delicious LK thing

   (Intended) ‘You bought that kind of things that are most delicious. (I despise those things.)’

   ‘You bought that kind of things that are most delicious. (I think those things are bad because you’ll eat too much and gain weight.)’

(20) Tshuā́21-tshuā́33 hit-é sui koh gāu huānn-ke ê bóó.

   marry-marry DEM-CL beautiful also good.at manage-house LK wife

   ‘You married that wife, who is beautiful and a good housewife. (I think this kind of wives are not good wives.)’

   ‘You married that wife, who IS beautiful and a GOOD housewife. (I know she is not a good wife and I am making a backhanded remark.)’

The sentence in (19) can be either infelicitous or not, depending on the interpretation of the post-verbal DP. When there’s no additional information, it sounds just contradictory in the ears of my consultants. However, if I tell them the addressee is on a diet and hopes to stay fit, the sentence begins to make sense, because the literally positive modifier now gets a negative construal in this context.

Take (20) for another example. It remains contradictory and unacceptable before the addressee can get a negative connotation. For instance, if the speaker believes a beautiful and capable wife brings her husband into trouble, the sentence becomes acceptable (the first interpretation under (20)). Another possibility is verbal irony, as shown in the second interpretation under (20). With verbal irony, the speaker makes sarcastic comment on the wife of the addressee.

In any case, this construction, when used and perceived properly, always conveys additional negative evaluation on the post-verbal DP, regardless of its literal meaning. Based on this, the analysis in section 4 depicts EVRC as a product of the collaboration between the post-verbal DP and an evaluative phrase head. The former, whether it
literally reads positive, neutral, or negative, is evaluated negatively when merged and its evaluative feature is uninterpretable (as its literal meaning is not necessarily negative). With the presence of the evaluative phrase head, the uninterpretable feature achieves Agree with it in a feature sharing fashion (see Pesetsky & Torrego (2007)) and the derivation converges. We will see the detail later in section 4.

Next, let’s try to pinpoint the syntactic position of the reduplicative form.

3.2 Pinpointing the Reduplicative Verb Form

By comparing its relative position with other elements, we will delimit the position of the reduplicative VV form in EVRC.

First of all, the landing site of this VV form is lower than the deontic modals. We can see this in (21) and (22). The order of deontic modal preceding EVRC verb sequence is fixed. The position exchange of the two will rule out an EVRC sentence.

(21) a. Lí ŋ-thang tsiáh²-tsiáh⁵ hia-ē mih-kiānn --lah.
   you NEG-can eat-eat those thing PRT
   ‘Don’t you eat those things (that I disapprove).’
   b. *Lí tsiáh⁵ tsiáh² ŋ-thang hia-ē mih-kiānn --lah.
   you eat-eat NEG-can those thing PRT

(22) a. Tsuí-sūn bō-ing-kai tsiáh²-tsiáh⁵ hia-ē mih-kiānn.
   Tsuisun NEG-should eat-eat those thing
   ‘Tsuisun should not eat those things (that I disapprove).’
   b. *Tsuí-sūn tsiáh⁵ bō-ing-kai hia-ē mih-kiānn.
   Tsuisun eat-eat NEG-should those thing

Secondly, The EVRC VV form is lower than the volitional/dynamic modals. This is shown in (23) and (24), in which both volitional modals, khíng, meaning ‘be willing to’, and kánn, meaning ‘dare’, must go before the EVRC verb sequence.

(23) a. Lâng kā kōo-bú, Tsuí-sūn tō khíng tsiáh²-tsiáh⁵ hia-ē
   person DISPOSAL encourage Tsuisun then willing eat-eat those
   ū--ē bō--ē, tsin gōng.
   have--LK no--LK really stupid
‘After being encouraged, Tsuisun was willing to eat those things (that I disapprove). He’s so stupid.’

b. *Lâng kā kóo-bú, Tsuí-sūn tō tsiâh²-tsiâh⁵ khíng hia-ê person DISPOSAL encourage Tsuisun then eat-eat willing those ū--ê bô--ê, tsin gōng.

have--LK no--LK really stupid

Tsuisun enough bold dare say-say those words

‘Tsuisun is so bold. He dares to say those things (that I disapprove).’

Tsuisun enough bold say-say dare those words

Thirdly, the verb reduplication of EVRC cannot precede manner adverbs, either. This is illustrated in (25).

Tsuisun PREP paper-LOC continuously write-write those useless LK

‘Tsuisun wrote some trivial things (that I disapprove) on paper continuously.’

Tsuisun PREP paper-LOC write-write continuously those useless LK

A possible context for the example above is as follows. Imagine Tsuisun is idle in the office. He’s sitting there with no work to do, and you find that he is scribbling on paper. Take note that, in (25), the manner adverb it-tit, which means ‘continuously’, precedes EVRC verb reduplication, not the other way around.

Moreover, the fact that the verb reduplicative form of EVRC is not syntactically high in TP or CP can also be illustrated by the incompatibility between EVRC and an outer light verb. According to Tsai (2015),⁷ the outer light verb cause is higher than TP. From (26c), in which the outer light verb CAUSE fails to form EVRC, we learn that the

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⁷ Also see Huang (1994), Cheng et al. (1997), and Tsai (2007).
verb reduplicative sequence in EVRC is lower than TP.

(26) a. Kông\textsuperscript{55}\textsuperscript{-tiôh} tse, guá tō khi.
   speak-ASP DEM I then angry
   ‘Speaking of this thing, I’m really angry about it.’

b. Tsuí-sūn thiau-kang beh \([v [\textit{khì} + \text{CAUSE}] [\textit{TP} \textit{i} \textit{t}_i]] \--ê.
   Tsuisun intentionally want angry he PRT
   ‘Tsuisun wanted to make him angry on purpose.’

c. *Tsui-sûn thiau-kang beh khi\textsuperscript{51}-khì\textsuperscript{21} i \--ê.
   Tsuisun intentionally want angry-angry he PRT
   (Intended) ‘Tsuisun wanted to make him angry on purpose. (And I disapprove him.)’

Bearing in mind that the VV\textsuperscript{EVRC} form can apply to inner light verbs (illustrated in (15) and (17b)), we find in the following examples that an inner light verb (with no reduplication) also follows the volitional/dynamic modals.

(27) a. Tsuí-sūn \textit{kánn/khíng} [\textit{v sái} + \textit{AT} ko-sok-kong-lōo \textit{t}_i].
   Tsuisun dare/willing drive highway
   ‘Tsuisun dares/is willing to drive on the highway.’

   Tsuisun drive dare/willing highway

The relative positions between modals and the outer/inner light verbs further approve the locus of the VV\textsuperscript{EVRC} form.

If we are on the right track, we will have to also delineate the behavior of the VV\textsuperscript{EVRC} form when an inner light verb is either present or absent. Let’s assume the VV\textsuperscript{EVRC} form is merged lower and that it can either further raise to the covert inner light verb when there is one or remain lower when there is none (see Lin (2001) for relevant discussion of verb raising).
In conclusion we come up with the hierarchical order in (28), in which the VV sequence of EVRC is pinpointed below dynamic modal, a position roughly at the edge of little vP (ref. Tsai 2015, 2010).

\[
\text{vP}_{\text{outer}} > \text{TP} > \text{ModP}^{\text{deontic}} > \text{vP}_{\text{outer,subject}} > \text{ModP}^{\text{dynamic}} > \text{vP}_{\text{inner}} \text{USE/AT/FROM} > \text{VV}^{\text{EVRC}}
\]

In 3.3, we will examine whether EVRC respects locality constraints and where EVRC can and cannot occur.

### 3.3 Embedding, Locality, and Questions

Empirically, EVRC can be embedded in a subordinate clause (see (29)) and even a complex NP island (see (30)). This indicates that there is no movement either across the clausal boundaries or out of the complex NP.

(29) Tsuí-sūn liâh-tsún [Gîn-khuân lóng tsiah\(^2\)-tsiah\(^5\) hia-ê ū--ê bô--ê].
Tsuisun think Ginkhuan all eat-eat those have--LK no--LK
‘Tsuisun thinks that Ginkhuan eats those trivial things (that are disapproved).’

(30) Tsuí-sūn thó-ià [tsiah\(^2\)-tsiah\(^5\) hia-ê ū--ê bô--ê ê lâng].
Tsuisun dislike eat-eat those have--LK no--LK LK person
‘Tsuisun dislikes people who eat those trivial things (that are disapproved).’

Although EVRC is not sensitive to islands, it reveals subject-object asymmetry when it occurs in a question.

(31) a. Siânn-lâng tsiah\(^2\)-tsiah\(^5\) hia-ê ū--ê bô--ê?
 who eat-eat those have--LK no--LK
‘Who ate those things (that are disapproved)?’

b. *Tsui-sūn tsiah\(^2\)-tsiah\(^5\) (hia-ê) siânn --ah?
Tsuisun eat-eat those what PRT
(Intended) ‘What did Tsuisun eat? (And I disapprove that.)’
Intuitively, the ungrammaticality of (31b) indicates that the noun following the reduplicative verb form must be amenable to be evaluated. If the speaker herself has no idea of what it is, evaluation simply becomes impossible. Additionally, we will also account for this asymmetry from the syntactic perspective in section 4 where we present an analysis.

Aside from what, the following examples illustrate that the introduction of how or why into an EVRC can have different consequences, depending on the interpretation of the wh-element.

(32) a. Tsuí-sūn sī-án-tsuánn tsiáh²-tsiáh⁵ hia-ê ū--ê bō--ê --ah?
Tsuisun why eat-eat those have--LK no--LK PRT
(reason why) ‘Why did Tsuisun eat those things (that are disapproved)?’
b. Tsuí-sūn án-tsuánn⁵¹ tsiáh²-tsiáh⁵ hia-ê ū--ê bō--ê --ah?
Tsuisun how eat-eat those have--LK no--LK PRT
(causal how) ‘What causes Tsuisun to eat those things (that are disapproved)?’
c. *Tsuí-sūn tsa-hng án-tsuánn⁵¹→⁵⁵ tsiáh²-tsiáh⁵ hia-ê ū--ê
Tsuisun yesterday how eat-eat those have--LK bō--ê --ah?
no--LK PRT
(instrumental/manner how) (Intended) ‘How did Tsuisun eat those things (that are disapproved)?’
d. Tsuí-sūn sī ū-tiôh siánn beh tsiáh²-tsiáh⁵ hia-ê ū--ê
Tsuisun is for what want eat-eat those have--LK bō--ê --ah?
no--LK PRT

---

8 Following this line of thought, (31b) should become felicitous when used rhetorically. This prediction is borne out. Imagine Tsuisun ate something disapproved and the fact was discovered. A rhetorical question like (i) can be used later to remind Tsuisun what he did earlier.

(i) Lí ka-kī kóng, lí tsái-khí tsiáh-tsiáh hia-ê siánn --ah?
you self say you morning eat-eat those what PRT
‘Tell them. What disapproved things did you eat this morning?’
(purpose why) ‘For what purpose did Tsuisun eat those things (that are disapproved)?’

In contrast to reason why, causal how, purpose why, in (32a), (32b), and (32d), respectively, the presence of an instrumental/manner how makes EVRC sentences ungrammatical (see (32c)).

Our findings will be explained in section 4 alongside the proposed analysis.

3.4 An Additional Phonological Constraint

In addition to what we have seen in syntax, EVRC is also phonologically constrained: only monosyllabic verbs undergo reduplication. This is illustrated by the following two sets of examples.

(33) a. Tsuí-sūn ̄h2-̄h5 hit-kuá bô-lōo-iōng --ê.
   Tsuisun learn-learn DEM-some useless LK
   ‘Tsuisun learned those useless things (that I disapprove).’

   Tsuisun learn-learn DEM-some useless LK

   Tsuisun often think-think those have--LK no--LK
   ‘Tsuisun often thinks of those things (which are not worth thinking).’

   Tsuisun often consider-consider those have--LK no--LK
   (Intended) ‘Tsuisun often considers those things (which are not worth considering).’

9 The superscript numbers on án-tsuānn in (32b) and (32c) indicate the pitch pattern of the tone. Only the instrumental/manner how has tone sandhi on its final syllable, contrary to the citation tone found on the final syllable of causal how.
Among the two synonyms in (33), őh and hák-sîp, both of which mean ‘to learn’, only the monosyllabic former can be reduplicated to make an EVRC. For the sentence to be grammatical, the non-monosyllabic forms have to stay unchanged, as seen in (33c). Another example is shown in (34), in which we have two verbs with similar meanings. Again, only the monosyllabic verb is privileged for evaluative reduplication.

The factor that prohibited the non-monosyllabic verbs from participating in EVRC is still unknown to the author. We have to leave the question open in this study.

4. Proposal

Based on our observations so far, an adequate analysis of EVRC should at least address the following issues.

First of all, why cannot the VV form in EVRC, in contrast to other verb reduplicative forms in Taiwanese, do without a post-verbal noun which must be a DP?

Secondly, being evaluative in essence, why is the crucial part of EVRC low at the periphery of VP? Note that researchers have pinpointed the evaluative projection in the CP domain (see Cinque (1999); Ernst (2009); among others).

Last question: why are instrumental/manner how and post-verbal what incompatible with EVRC, contrary to other wh-elements?

In addition to the above, an adequate analysis also must be able to account for the delimitation of the reduplicative form. Remember that the VV form in EVRC is lower than deontic and dynamic modals and manner adverbs. If we pinpoint the reduplicative form based on Tsai (2008, 2010), the following hierarchy surfaces.

(35) EvalP > TPouter.subject > ModPdeontic > PredPinner.subject > ModPvolitional > Mod(ifi)Pmanner/purpose.why > VPinstrumental/location/manner/source > VVEVRC > VP
Remember the link between EvalP (Evaluative Phrase), $\text{VV}^\text{EVRC}$ and the post-verbal DP. In fact, it is possible to have an overtly realized Eval$^0$ in EVRC (that is $\text{suah}$ in (36)).

(36) Toh-ting ŭ pńg ŭ tshäi, Tsuí-sūn $\text{suah}$ beh tsiāh$^2$-tsiāh$^5$ he.

\begin{verbatim}
  table-LOC have rice have dish Tsuisun unexpectedly want eat-eat DEM
\end{verbatim}

‘There are rice and dishes on the table. Whereas, contrary to my expectations and approval, Tsuisun wants to eat that thing instead.’

The evaluative reading and the surface-wise low reduplicative verb form with a following indispensable DP point to some kind of long-distance syntactic dependency (ref. Polinsky & Potsdam 2001; Boeckx 2004; Bhatt 2005). Besides, the incompatibility between the verb form and a post-verbal what also indirectly indicates the involvement of a post-verbal noun in the derivation. In other words, EVRC is built upon the connection between EvalP and VV$^\text{EVRC}$, which is in turn linked to the following DP.

Since the post-verbal DP is the target of the evaluation and an indispensable ingredient of EVRC, it is reasonable to assume that it bears an uninterpretable evaluative feature $u^\text{Eval}$ which has to be in an Agree relation with Eval$^0$ (Chomsky (2001); also see Chou’s (2012) analysis of attitudinal $\text{dàodǐ}$ in MC).

To render this kind of long-distance dependency possible, we first have to solve a theoretical problem: this very long-distance dependency violates the Phase Impenetrability Condition (PIC) by crossing not only the vP phase but also the DP phase (ref. Svenonius 2004; Hiraiwa 2005; Chomsky 2008: 143). With the relevant lexical items in-situ, the obvious solution is to resort to feature movement to the edge of the DP phase and then to the vP phase edge in the fashion of head movement. Without the feature movement, the derivation would crash early because of the Spell-Out of the uninterpretable feature in the DP phase.

Our analysis is demonstrated in detail in (37).

(37) a. Tsuí-sūn tiānn-tiānn tsiāh$^2$-tsiāh$^5$ hia-ê ŭ--ê bō--ê.

\begin{verbatim}
  Tsuisun often eat-eat those have--LK no--LK
\end{verbatim}

‘Tsuisun often eats those trivial things (that are disapproved).’
In addition to assuming DO light verb for the transitive predicate following Lin (2001) (e.g., 2001: 158 (56)), we adopt Pesetsky & Torrego’s (2007) feature sharing version of Agree, in which a probe can be interpretable but unvalued and receives its value from an uninterpretable goal. As illustrated above, the uninterpretable evaluative feature \( uF^{Eval}[6] \), after moving to the edge of DP (\( D^0 \)) and thereafter to the edge of \( vP \) (\( v^0 \)), arrives at the c-commanded position reachable by the c-commanding evaluative head, as the probe. The \( uF^{Eval} \) then successfully values its probe and accomplishes feature sharing.
In this fashion, the head-movement (N to D to $v$) provides a way for keeping $uF^{Eval}[6]$ at the edge of a phase that prevents it from being spelled out prematurely.

In section 3.1, we have seen that EVRC is also observed when the derivation involves an inner light verb. To make the analysis comprehensive, let’s also see how these cases are derived from the analysis proposed above:

(38) a. Tsiāh^2-tsiāh^5 hit-hō kē-lōo ê tshan-thiann. (=15a)

‘You ate in that kind of low-class restaurant. (And I disapprove it.)’

b. [Diagram of the derivation process]
Once a location/time introducing light verb AT is adopted under v’, as indicated in Lin (2001: 230 (52)), the example in (38) actually shares the same derivation with (37). The only difference between the two is a distinct light verb AT under v⁰, which is furthered adjoined by the complex head moving from the V.

Here we propose that the obligatory insertion of D and the reduplication of the verb have the same function: to strengthen the feature so that it can be subject to [PF] rules (Chomsky 1995: 262-263). According to Chomsky, isolated features and other scattered parts of words may not be subject to [PF] rules, in which case the derivation would be cancelled. The moving feature uFEval[6], as an isolated feature and a scattered part of the evaluated noun, therefore, needs the insertion of D (for DP phase) and a reduplicated syllable of the verb (for vP phase) to be lexically realized, in order to prevent the derivation from crashing.

Before we move on, let’s consider two interesting questions raised by an anonymous reviewer. The first question: When the post-verbal DP is realized as he ‘that’, as seen in (1) and (2), is NP left empty? Also, does the uninterpretable evaluative feature uF Eval originate in NP or D⁰?

The short answer is: he is not so bare.

At first glance, the demonstrative stands alone without a noun that follows. Consequently, we doubt which element bears the uninterpretable feature in the beginning of the derivation. However, it is noteworthy that the legitimate form of the ‘bare’ demonstrative is different from the demonstrative preceding a noun. Compare the four phrases below:

(39) a. hit-ê lâng  b. hit-ê
    DEM-CL person     DEM-CL
    ‘that person’    ‘that one’

c. he        d. *hit
    DEM       DEM
    ‘that’    (Intended) ‘that’

As shown above, the demonstrative form in (39d) cannot be used bare unless it is followed by a classifier at least (see (39b)). That is to say, the demonstrative that stands
alone in (39c) is in a form different from the demonstrative hit. When there is nothing following the demonstrative hit ‘that’, the ‘bare’ demonstrative has to be realized in a distinct form he ‘that’. Obviously, he ‘that’ in (39c) is derived from contraction of (39b), although we do not have diachronic evidence.

At any rate, the distinct form in (39c) suggests that the demonstrative he ‘that’ is not a true bare demonstrative but a composition of D and N. Therefore, in cases like (1) and (2), when the post-verbal position is occupied by an ostensibly bare demonstrative, the uninterpretable feature is still born on the noun part (the classifier). No matter we analyze he ‘that’ as a single word under D, a chimera of the demonstrative and the nominal, or as hit ‘that’ and ê (CL) under D and N respectively before phonologically compressed into one, its derivation is essentially the same as those typical cases.

With the analysis proposed above, we are now in a position to answer another important question raised by the same reviewer: why cannot the post-verbal DP in EVRC be preposed? With the analysis proposed above, now we are in a position to answer it.

Firstly, the short answer: if the post-verbal DP is preposed, the motivation of verb reduplication will disappear and the sentence will not be an EVRC anymore.

Here is a sentence in which a DP precedes the verb:

(40) Hit-khuán mih-kìān n li beh tsiāh.
DEM-kind thing you want eat
‘Regarding that kind of thing, you want to eat it.’

(With a specific intonation) ‘That kind of thing, I can’t believe you eat it!’

Unlike EVRC, (40) does not necessarily have a negative evaluation on the DP, hit-khuán mih-kìān ‘that kind of thing’. To add a negative evaluation on the DP, we have to resort to a specific intonation (e.g., an interrogating one) or an extra adverbial as below:

(41) Hit-khuán mih-kìān n li āh tsiāh.
DEM-kind thing you EMP eat
‘That kind of thing, you eat THAT KIND OF THING!’
With the emphatic particle "ah", the speaker then sounds unbelieving and the sentence implies the thing is not good for the addressee to eat.

The point is: contrary to (40) and (41), EVRC has the default negative evaluation on the post-verbal DP, without further ado. Based on the analysis proposed in this section, it is this default negative evaluation on the POST-VERBAL DP that triggers the reduplication of the verb, in order to circumvent the PIC. Therefore, if the post-verbal DP is preposed instead of being embedded deeply in spelled out phases, we will have no visible sign of the verb whether the DP is negatively evaluated for, be it so, the verb no longer has to be reduplicated to bolster the moved uninterpretable evaluative feature.\(^{10}\)

Now back to the question: Can we prepose the post-verbal DP? Surely we can prepose the DP, just like what we have seen in (40) and (41). However, once it’s done, the default negative evaluation vanishes and the verb reduplication will not be triggered. As a result, the sentence doesn’t count as an EVRC anymore.

Now let’s turn to our observation in 3.3. Remember neither an object-what nor an instrumental/manner how can occur in EVRC. With this proposal, we can also account for the incompatibility between EVRC and some wh-elements.

First of all, none of what and instrumental/manner how is island-sensitive in Taiwanese, as shown in the examples below.

(42) a. Lí khah kah-i án-tsuánn kái-kuat tsit-ê bûn-tê ê lâng?
   you more like how solve DEM-CL problem LK person
   ‘In what way the person x solved the problem such that you like x more?’

b. Lí kám-kak án-tsuánn khi hâk-hâu siông-khô ê lâng khah
   you feel how go school attend-class LK person more
   khuân-pô?
   environmentally.friendly
   ‘By what way the person x goes to school such that you think the person x is more environmentally friendly?’

\(^{10}\) Of course the verb can be reduplicated for another purpose that has nothing to do with EVRC.
(43) Lí thó-ià tshīng siânn-mih ê lâng?
   you dislike wear what LK person
   ‘What is worn by the person x such that you dislike the person x?’

In (42) and (43), we have three sentences in which a manner how, an instrumental how, and what are embedded in a complex NP respectively, and all these sentences are good. The grammaticality indicates that the instrumental/manner how should be analyzed in a parallel way as what is.

Following Li (1992), Cheng (1991), and Tsai (1994), we suggest that nominal wh-phrases, which are not island-sensitive, are licensed in-situ via unselective binding by an operator. By doing so, the discrepancy found in the co-occurrence between EVRC and wh-elements can be explained away on the basis of Rizzi’s (2004) relativized minimality and Tsai’s (2015) observations of the bearing of relativized minimality on unselective binding.

As one of the cases demonstrated in Tsai (from Li (2013), cited in Tsai (2015)), in MC, in the presence of the evaluative adverb, jiānzhī ‘simply’, which expresses completeness or straightforwardness, the external argument must topicalize, as shown in (44a), otherwise the sentence would become ungrammatical, as shown in (44b):

(44) a. Ākiū jiānzhī méi bâ wô fàng zài yânli!
    Akiu simply have.not BA me put in eye
    ‘Akiu simply thinks nothing of me!’

b. *Jiānzhī Ākiū méi bâ wô fàng zài yânli!
   simply Akiu have.not BA me put in eye (Tsai 2015: 91 (30))

The contrast above, according to Tsai, suggests that unselective binding observes relativized minimality, as shown in the following.
Tsai analyzes the adverb *jiǎnzhí* ‘simply’ in (44) as an evaluative operator, which is valued as exclamatory. The position of this evaluative operator blocks D-operator from binding the subject noun *Ākiū* in accordance with Rizzi’s (2004) formulation of relativized minimality. Consequently, the sentence would become ungrammatical if the subject noun remains in Spec.TP, as shown in (44b). The topicalization sketched in the diagram above, therefore, is employed in order to prevent the derivation from crashing.

With this in mind, now we return to the unselectively bound *siánn* ‘what’, *siánn-lâng* ‘who’, and instrumental/manner *án-tsuánn* ‘how’ in EVRC. Let’s consider *siánn* first. Recall that there’s a subject-object asymmetry when *siánn* occurs in EVRC: the question word can only be the subject but not the object. The critical point here is that, just like what Tsai points out in MC, the subject, too, always precedes the evaluative in Taiwanese.

(45) ForceP
    Force
     TopP
      Top’
        Akiu
         Top
          jianzhi
            Eva
              Eva’
                TP
                  <Akiu>

(Tsai 2015: 97 (41))

(46) a. Tsuí-sūn kin-pún bô tsiong guá khîg tî gân-lâi!
    Tsuisun simply NEG DISPOSAL me put PREP eye-LOC
    ‘Tsuisun simply thinks nothing of me!’

b. *Kin-pún Tsuí-sūn bô tsiong guá khîg tî gân-lâi!
   simply Tsuisun NEG DISPOSAL me put PREP eye-LOC

(47) a. Tsuí-sūn suah tsáu-khi Tâi-pak!
    Tsuisun unexpectedly run-to Taipei
    ‘Unexpectedly Tsuisun went to Taipei!’
b. *Suah Tsuí-sūn tsáu-khì Tâi-pak!
unexpectedly Tsuisun run-to Taipei

The contrast in (46) and (47) evidences that the subject must be preposed to precede the evaluative. Moreover, the following sets of examples further show that the obligatory fronting also applies to the question word as the subject.

(48) a. Siánn-lâng kin-pún bô tsiong lí không tī gán-lāi?
who simply NEG DISPOSAL you put PREP eye-LOC
‘Who simply thinks nothing of you?’

b. *Kin-pún siánn-lâng bô tsiong lí không tī gán-lāi?
simply who NEG DISPOSAL you put PREP eye-LOC

(49) a. Siánn-lâng suah tsáu-khì Tâi-pak?
who unexpectedly run-to Taipei
‘Unexpectedly who went to Taipei?’

b. *Suah siánn-lâng tsáu-khì Tâi-pak?
unexpectedly who run-to Taipei

In the second pair, albeit (49a) can only be used as a confirming question, the contrast is still clear for there is no context in which (49b) can become felicitous.

The obligatory preposing of the subject when an evaluative is present, therefore, explains the asymmetry between using a wh-nominal as a subject and as an object, which we have seen in 3.3. The sentences are repeated in the following:

(50) a. Siánn-lâng tsiā-h2-tsiā-h5 hia-ê ū--ê bô--ê?
who eat-eat those have--LK no--LK
‘Who ate those things (that are disapproved)?’

b. *Tsuí-sūn tsiā-h2-tsiā-h5 (hia-ê) siánn --ah?
Tsuisun eat-eat those what PRT
(Intended) ‘What did Tsuisun eat? (And I disapprove that.)’
As shown above, question words in EVRC can only occur as the subject but not the object.

To account for this asymmetry, we follow Yang (2008) and suggest that in Chinese-type languages the wh-construal of what requires its Q-Op (i.e. Op^Q) to directly merge to the head of FocP in the CP domain in order to check the relevant focus feature.

(51) [FocP [wh,Op^Q [[...Eval^0 [...TP t...VV...]]]]] (subject-who)

(52) [FocP Op^0 [[...Eval^0 [...TP ...VV...[DP...what]]]]]] (object-what)

Unlike the subject-who in (50a) which can move to adjoin the operator Op^0, the object-what in (50b) is deeply embedded in DP and vP, both of which are phases that inhibit it from moving to Op^0 to circumvent the intervening of Eval^0. Based on the explanation in Tsai (2015), object-what is then ruled out by violation of relativized minimality.

Now let’s move on to other kinds of wh-questions. Those examples in (32) are reproduced in the following:

(53) a. Tsuí-sūn sī-án-tsuánn tsiāh^2-tsiāh^5 hia-ê ū--ê bô--ê --ah?

(Tsuísun why eat-eat those have--LK no--LK PRT)

(reason why) ‘Why did Tsuisun eat those things (that are disapproved)?’

b. Tsuí-sūn án-tsuánn^51 tsiāh^2-tsiāh^5 hia-ê ū--ê bô--ê --ah?

(Tsuísun how eat-eat those have--LK no--LK PRT)

(causal how) ‘What causes Tsuisun to eat those things (that are disapproved)?’

c. *Tsuí-sūn tsa-hng án-tsuánn^51--55 tsiāh^2-tsiāh^5 hia-ê ū--ê bô--ê

(Tsuísun yesterday how eat-eat those have--LK no--LK PRT)

--ah?
(instrumental/manner how) (intended) ‘How did Tsuisun eat those things (that are disapproved)?’

d. Tsuí-sún sī uī-tiöh siánn beh tsíāh⁴-tsiāh⁵ hia-ê ū--ê bô--ê
Tsuisun is for what want eat-eat those have--LK no--LK--ah?
PRT

(purpose why) ‘For what purpose did Tsuisun eat those things (that are disapproved)?’

In the same line of reasoning, the unacceptability of instrumental/manner how in EVRC can also be accounted for, based on the delimitation of how and why in Tsai (summarized from Tsai (2008: 107 (93))):

(54)  
<table>
<thead>
<tr>
<th>Force</th>
<th>Top*</th>
<th>Int</th>
<th>Top*</th>
<th>Focus</th>
<th>Mod*</th>
<th>Top*</th>
<th>Fin</th>
</tr>
</thead>
<tbody>
<tr>
<td>denial-how</td>
<td>reason-why</td>
<td>reason-why</td>
<td>causal-how</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| [TP Tense | Mod* | [vP |
| purpose-why | manner-how |

Assume EvalP is higher than TP but lower than TopP. Following Yang (2008) once again, we postulate that instrumental/manner how requires its Op⁰ under FocP to bind it unselectively.

Based on (54) we then come up with the following diagram that illustrates why instrumental/manner how is barred from occurring in EVRC:

(55)  
[\text{[FocP Op⁰ ...[EvalP Eval⁰ ...[TP ...how [vP VV ...]]]]]} (instrumental/manner-how)

As shown above, the binding relation between the question operator and the instrumental/manner how is blocked by the Eval⁰, parallel to (52), a breach of relativized...
minimality. With this scheme, we also explain away the ungrammaticality of the instrumental/manner how in EVRC.

Unlike what and instrumental/manner how, reason why and causal how are operators merged higher than the evaluative operator. They therefore cause no problem in the derivation process. So far, there is one remaining question presented by (53d): why does purpose why, a wh-nominal without island sensitivity (see (56)) merged in TP domain (see (54)), not run into the same problem as object-what and instrumental/manner how do? The answer seems to lie in its relative position with the evaluative. See (57) and (58):

(56) Lí khah thó-ìá uī-tìòh siánn ī-hun ê lâng?
you more dislike for what divorce LK person

‘For what purpose x divorced such that you dislike x more?’

(57) a. Tsuí-sūn uī-tìòh siánn kin-pún bō tsiong lí khâg tī gân-lāi?
Tsuisun for what simply NEG DISPOSAL you put PREP eye-LOC

‘For what reason does Tsuisun simply think nothing of you?’

b. *Tsuí-sūn kin-pún uī-tìòh siánn bō tsiong lí khâg tī gân-lāi?
Tsuisun simply for what NEG DISPOSAL you put PREP eye-LOC

(58) a. Tsuí-sūn uī-tìòh siánn suah tsáu-khì Tâi-pak?
Tsuisun for what unexpectedly run-to Taipei

‘For what purpose does Tsuisun unexpectedly go to Taipei?’

b. *Tsuí-sūn suah uī-tìòh siánn tsáu-khì Tâi-pak?
Tsuisun unexpectedly for what run-to Taipei

The contrast above shows that nominal purpose why, just like a subject, also obligatorily topicalizes to precede the Eval⁰ and consequently it can be used in EVRC.

Attentive readers may have noticed that purpose why and manner how are assumed to occupy the same position under Tsai’s (2008) framework. Why can purpose why be topicalized to circumvent an intervention effect while manner how cannot in an EVRC construction? We believe this is what we can contribute to improve the order in (54). Interestingly enough, empirical data support us to pinpoint these two wh-elements separately. See the following examples:
(59) a. Tsuí-sūn uï-tiôh siánn beh lī-khui Tâi-uân?
Tsuisun for what want leave Taiwan
(purpose why) ‘For what reason does Tsuisun want to leave Taiwan?’
b. *Tsuí-sūn beh uï-tiôh siánn lī-khui Tâi-uân?
Tsuisun want for what leave Taiwan
(purpose why) (Intended) ‘For what reason does Tsuisun want to leave Taiwan?’

(60) a. *Tsuí-sūn án-tsuánn55 beh lī-khui Tâi-uân?
Tsuisun how want leave Taiwan
(manner how) (Intended) ‘In what way does Tsuisun want to leave Taiwan?’
b. Tsuí-sūn beh án-tsuánn55 lī-khui Tâi-uân?
Tsuisun want how leave Taiwan
(manner how) ‘In what way does Tsuisun want to leave Taiwan?’

From the examples above, we see beh ‘want’ serve as the demarcater. Contrary to the manner how, which must follow the demarcater, as shown in (60), the purpose why can only precede it. Based on this demarcater, we suggest that the purpose why does not occupy the same position as manner how. Instead, the former is syntactically higher than the latter.

Our answer to the question, therefore, is that the manner how is structurally low and embedded in vP phase (ref. Cinque 1999). According to the phase theory, in which the derivation is carried out in a piecemeal fashion, only the purpose why can be topicalized to circumvent an intervention effect, but not the manner how, which is spelled out and frozen in the vP phase.

Readers should pay attention to the high level tone conveyed on the second syllable of the manner how (marked by superscripted 55) and prevent themselves from confusing the manner how with the isomorphic causal how, which has a falling tone on the second syllable.
5. Theoretical Implications

In this section, we will discuss two issues that center on the post-verbal DP: the long-distance dependency and the reason why the post-verbal nominal in EVRC has to be a DP.

5.1 The Long-Distance Dependency

EVRC’s crucial component, the DP, is deeply embedded despite their speaker-oriented semantic contribution. Cross-linguistically speaking, EVRC is not the only phenomenon that demonstrates this kind of long-distance dependency.

In German, there is a group of discourse particles usually referred to as *Modalpartikeln*. *Modalpartikeln*, such as *denn, doch, ja, schon, wohlg*, etc., have more abstract functions and meanings, in contrast to the traditional class of adverbs. They function to introduce the speaker’s point of view into the discourse (Coniglio & Zegrean 2012), similar to what EVRC does in bringing in the evaluation from the speaker towards a specific object. An interesting point about German *Modalpartikeln* is that they are argued to occur only in the *Mittelfeld* ‘middle field’ of a clause. That is to say, these particles sitting in the main clause are delimited by the finite verb on the left and by its non-finite part on the right (Coniglio & Zegrean 2012: 232). Their confinement in the *Mittelfeld* is illustrated as follows.

(61) *Er kann schon schwimmen (,) ja.*  (Coniglio & Zegrean 2012: 232 (4))  
(62) *Ja kann er schon schwimmen.*  (Coniglio & Zegrean 2012: 232 (5))

As shown above, putting the particle *ja* either before the finite verb or after the non-finite verb renders the sentences ungrammatical.

In order to establish the long-distance dependency between the discourse-oriented projection in CP and these particles in TP, Coniglio & Zegrean (2012) resorts to a feature valuation mechanism to derive the interaction between illocutionary force, clause type, and *Modalpartikeln*. *Modalpartikeln* are, at any rate, not planted in a phase although they
are embedded in TP. Therefore, Coniglio & Zegrean’s analysis is tenable because the data do not pose a problem under the PIC.

EVRC appears to be a radical counterpart of the German Modalpartikeln, radical in the sense that the DP in EVRC, more than being embedded in the Mittelfeld, is deeply locked behind two hatches of phases. If we believe that syntactic derivation occurs by piecemeal and that there are functional projections relevant to the syntax-pragmatics interface, we have no choice but to acknowledge that this kind of very long-distance dependency can only be built up in a relaying fashion.

5.2 Why DP

In addition to our explanation of the obligatory D, the indispensable D in EVRC can also be accounted for in the following way.

Based on the concept that MC is a language that has relatively high analyticity, Tsai (2015) suggests that the rather peculiar definite reading of MC bare NPs can be explained away by the licensing of a D-operator that encodes topicality in terms of uniqueness quantification plus discourse-linking or a generic operator, as illustrated as follows:

(63) a. \([D_{-}\text{Top}] [\text{TP } \text{huā}(x) \text{ kāi } \text{le}]!\)

flower blossom INC

‘The flower is blossoming!’

b. \([\text{Gen}_x [\text{TP } \text{huā}(x) \text{ xūyào zhàogù}]!\)

flower need care

‘Flowers need care!’

(Tsai 2015: 93 (34))

According to Tsai, the topicality of Chinese bare nominal is taken as an instantiation of the discrete definiteness. The same can be observed in the case of bare nominal in object position, as in (64).
(64) Wǒ gānggāng zhǎo-dào rén le! Tā kěyǐ bāng wǒ.
   I just find-reach person INC he can help me

a. ‘I just found the person! He can help me.’ (definite)
b. ‘I just found a person/some people! He/They can help me.’ (indefinite)

(Tsai 2015: 94 (36))

In (64a), we have a definite reading contributed by the D-operator, in contrast to the reading in (64b), which is presumably due to the existential quantification associated with aspectual licensing.

As it is often observed that bare nouns in Taiwanese can also have a definite reading, we may assume the same mechanism in Taiwanese.

It is conceivable that the post-verbal nominal, an entity under evaluation, cannot be indefinite. With all these in mind, we then return to the question: why does the post-verbal nominal in EVRC have to be a DP? In other words, why cannot the aforementioned mechanism license a bare nominal to prevent it from being indefinite?

We suggest an answer parallel to our discussion of the compatibility between different types of *wh*-questions and EVRC. That is to say, the licensing from a D-operator or generic operator is disallowed due to the evaluative head, which stands in midway and which induces relativized minimality as observed in Tsai (2015). The situation cannot be improved even when the operator is between the evaluative head and the noun, for the operator would become an intervener of the Agree between the evaluative head and the noun. This is illustrated below:

(65) a. …[D\textsubscript{x}-Top]…[Eval\textsubscript{p} Eval\textsuperscript{b}]…[TP…NP(x)]
   binding Agree

b. …[Eval\textsubscript{p} Eval\textsuperscript{b}]…Gen\textsubscript{x}…[TP…NP(x)]
   Agree binding
Put it in another way, the failure of licensing a bare noun in EVRC is just another example that evidences Tsai’s observation that binding can be intervened.

Since the licensing from D-operator and generic operator is not possible, the post-verbal nominal in EVRC can only resort to other ways to be interpreted as definite or generic. One of the solutions is to \textit{wh}-move the nominal to the operator, as can be seen in the examples provided in Tsai (2015). Obviously, EVRC does not adopt this way, for it will derail the Agree between the evaluative head and the post-verbal noun. As the last resort to prevent the noun from being indefinite, a demonstrative becomes indispensable in EVRC, at the expense of a simple valuing process because DP is a phase. Consequently, we have feature movement and verb reduplication that enforce the isolated feature (Chomsky (1995: 262-263); refer to section 4).

\textbf{6. Conclusions}

In this study, we have seen that evaluativity motivates verb reduplication in Taiwanese with phonological subtlety, including the absence of tone sandhi and the requirement of reduplication. Phonological traits help us to syntactically pinpoint the reduplicative form in Taiwanese and come up with an analysis involving long-distance dependency. If this proposal is on the right track, we can say that EVRC evidences not only the involvement of relativized minimality in unselective binding but also a very long-distance dependency in syntax which can only be established in a relaying fashion, given the piecemeal derivation in syntax.

(Proofreader: Wu Ke-yi)
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極長距依存關係：論評價性動詞重疊式

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摘 要

本文以臺語的 \( V_iV_iN \) 結構為研究對象，此一構式在動詞重疊後加上一個名詞成分，且說話者對該動後名詞成分必然帶有負面評價。根據動詞重疊的末音節不變調，以及動詞重疊成分與模態詞及情狀副詞的相對位置，本文主張該動詞重疊成分並未離開輕動詞組。此外，由於此一結構中的動後名詞成分不能省略，也不能移到動前位置，本文主張該成分帶有無法詮釋的評價性質，透過特徵的階段性移位，分別到達 DP 語段及 \( vP \) 語段的邊緣，以進行性質分享並達成與評價性詞組的對協（參 Pesetsky & Torrego 2007）。此一結構的極長距依存關係，表面上對語段理論（Chomsky 2001, 2008）帶來挑戰，但透過特徵的階位性移位，我們仍可以在語段理論的架構下為實際的語言現象提出解釋。

關鍵詞：長距依存關係，評價性，動詞重疊，臺語（臺灣話）
A Very Long-Distance Dependency: On the Evaluative Verb Reduplicative Construction

Une dépendance de très longue-distance :
Essai sur la construction réduplicative
des verbes évaluatives

Cette étude vise à analyser la construction V₁V₂N de la langue taïwanaise, dans laquelle le nom suivant le verbe a obligatoirement une lecture évaluative négative. D’après une observation incluant le ton sur la syllabe finale de la forme verbale réduplicative, ainsi que les positions relatives des modaux et adverbes de manière, nous suggérons que le verbe ne quitte jamais le vP, même s’il a été déplacé et mis dans une position plus élevée. Visiblement, la construction avec une dépendance de très longue-distance pose un problème au niveau de la théorie des phases (Chomsky 2001, 2008), mais qui peut être résolu par un déplacement caractéristique dans un schéma de style relais pour accomplir l’accord.

Mots clés : dépendance de longue-distance, évaluative, verbe réduplicatice, taïwanaise

遠距離依存関係
——評価性動詞の畳語構造について

本論では、台湾語の V₁V₂N 構造を研究目的とし、前述動詞が移動しても軽動詞群と関係を保つことを主張する。このような構造での動詞後の名詞は、省略することができず、動詞の前にも移動できない。このため、名詞は説明不可能な評価性を保ち、二段階の特徴的な移動を経て、それぞれ DP フレーズおよび vP フレーズの末端に至る。これによって性質を分担し、さらに評価性句群の主要語と対立、もしくは協力関係となるのである。このような特徴のある段階的な移動は、かなり距離を隔てた依存関係をもつが、実際の言語現象としてフレーズ理論の枠組みのかかで解釈を行うことが可能である。

キーワード：長距離依存関係、評価性、動詞の畳語、台湾語
Ein Dependenz auf sehr weite Distanz: Reduplizierende evaluative Verbalkonstruktionen


Key Wörter: Ferndependenz, evaluativ, Verb Reduplikation, Taiwanesisch

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