# *WH*-INTERROGATIVES IN SAISIYAT AND LEXICAL MERGER PARAMETER*

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This short study proposes that under the Lexical Merger Parameter hypothesis (Tsai 1999), northern Saisiyat is justified as a language that resorts to a mixed parameter setting. Evidence for this claim comes firstly from the formation of indefinite *wh* construals, which can be established either at the morphological domain through (partial) reduplication, or at the clausal domain via unselective binding by a group of clausal operators. Furthermore, the lack of island effects also conforms to this speculation. Such finding enriches the theory of *wh*-dependency from a typological point of view.

## 1. Introduction

Whether a *wh*-word moves to the CP Spec or not is subject to parametric variation across languages. As Tsai (1999:41) has put forward, the principle of the formations of *wh*-dependencies can be captured by the following parameter (1), exemplified in (2)-(4):

(1) Lexical Merger Parameter (LMP)
- a. Chinese-type: Merging an operator into CP or IP
- b. Japanese-type: Merging an operator into PP or DP
- c. English-type: Merging an operator into $D^0$

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(2) Chinese (Tsai 1994:42)
Akiu kan-bu-qi [$_{DP}$ [$_{CP}$ Op$_i$ [$_{IP}$ e$_i$ zuo **shenme**]] de ren$_i$]?
Akiu look-not-up do **what** PNM person
'What is the thing/job x such that Akiu despises [people [who do x]]?'

(3) Japanese (Tsai 1994:59)
[[[ John-wa [[[[ t$_k$ **dare(x)-o** aisiteiru $_{IP}$] Op$_k$ $_{CP}$] onna$_k$ $_{NP}$]
John-TOP **who-ACC** loves woman
t$_i$ $_{DP}$] -o nagutta $_{IP}$] no $_{c'}$] Op$_x$ $_{[Q]\ CP}$]?
-ACC hit Q
'Who is the person x such that John hit the woman who loves x?'

(4) [$_{CP}$ [**OP$_x$-Who(x)**]$_i$ [$_C$ do [$_{IP}$ you like t$_i$ ]]]?

What (1) suggests is that regarding the operator-variable pair in *wh*-dependency, Chinese and English stand on the two ends of the spectrum. For C(hinese)-type languages, operator features are weak so that in narrow syntax *wh*-elements can be bound by a sentential unselective binder *in situ*, exempt from overt movement, and therefore observe neither complex NP effects nor *wh*-island effects, as in (2). On the other hand, operator features in E(nglish)-type languages are strong, hence overt movements of *wh*-words to check off [+wh] are obligatory, as shown in (4). J(apanese)-type languages are somewhere in between: their *wh*-elements undergo "half-way" *wh*-movement, exhibiting *wh*-island effects but escaping from complex NP effects (Watanabe 1992), as indicated in (3).

However, languages are irregular; they do not always stay in consistency with the clear-cut distinctions we make on them. It is proposed at least by Tsai (1997, 2003) and Chen & Sung (2005) that several Austronesian languages spoken in Taiwan display "mixed" patterns, concerning LMP. In Particular, Tsai (1997, 2003) argues that Kavalan bears both characteristics of E-type and J-type languages, whereas Seediq reveals those of J-type and C-type ones, based on investigations of indefinite *wh* construals in these two languages. Chen & Sung (2005) and Wei (2008) further claim that Kucapungan Rukai and Amis hold all three, i.e. it resorts to all the strategies defined by LMP to form *wh*-questions. Their findings are summarized as in (5):

(5)

| | E-type | J-type | C-type | |
|---|---|---|---|---|
| Kavalan | √ | √ | | (Tsai 1997, 2003) |
| Seediq | | √ | √ | (Tsai 1997, 2003) |
| Rukai | √ | √ | √ | (Chen & Sung 2005) |
| Amis | √ | √ | √ | (Wei 2008) |

Now, a question instantly comes to our mind: is there a language that combines E-type and C-type characteristics? If yes, we will be able to complete the above typological picture by filling the "E+C gap".

In this study, I aim to provide empirical evidence for the proposal that (northern) Saisiyat appears to be such language. It will be shown that, by way of various syntactic inspections, sentential binding of indefinite *wh*-words by operators like '*ana* 'no matter', *So* 'if', or a covert necessity operator (Heim 1982) is allowed in Saisiyat, while morphological reduplication is also an option

to implement these indefinite *wh* construals. In addition, the absence of island effects lends further support to this proposal. These phenomena found in Saisiyat not only contribute to the syntactic typology on the basis of LMP, but also advance our understanding of the linguistic facts of how Ā-dependencies are realized cross-linguistically.

## 2. *Wh*-in-situ in Saisiyat

According to the data collected from my own fieldwork, there are at least 18 *wh*-words attested in northern Saisiyat, many of which contain *'ino'*, as shown in Table 1 below:[1]

**Table 1**: *Wh*-words in northern Saisiyat

| **I. Adverbial Interrogatives** | | 'inay'ino' | 'from where' |
|---|---|---|---|
| | | 'ila'ino' | 'to where' |
| *Wh*-word | Gloss | **II. Nominal Interrogatives** | |
| nak'ino' | 'how' | | |
| 'inoan' | 'when (irrealis)' | *Wh*-word | Gloss |
| ka'inoan | 'when (realis)' | hiae' | 'who' |
| powa' | 'why (no tense)' | kano' | 'what' |
| 'ampowa' | 'why (irrealis)' | hayno' | 'which' |
| mampowa' | 'why (realis)' | piza' | 'how many' |
| nompowa' | 'for what (purpose)' | koza' | 'how much' |
| haw'ino' | 'where (far)' | Say'ino' | 'person from where' |
| rayno' | 'where (near)' | 'inak'ino'an | 'what kind' |

It is suggested by the literature that *wh*-words in *wh*-questions among western Austronesian languages appear in at least three patterns: clefting, *wh*-in-situ, and adjunct fronting (Guilfoyle, Hung & Travis 1992, Kroeger 1993, Huang et al. 1999, Potsdom 2006, among others). In contrast, northern Saisiyat has all its *wh*-words in situ, be they arguments or adverbials. Various examples are listed in (6)-(11):[2]

(6) *Wh*-Argument: *kano'* 'what'

niSo aSkan<en> **kano'** ay talka: babaw
GEN.2SG put<PV> **what** PRT table above
'What did you put on the table?'

[1] Here the adverbial/nominal/verbal classification of *wh*-words follows Huang et al. (1999).

[2] Abbreviations in the glossary are listed as follows: ASP: aspect marker, NOM: nominative case, ACC: accusative case, GEN: genitive case, TOP: topic marker, LV: locative voice, AV: agent voice, PV: patient voice, IV: instrumental voice, PERF: perfect marker, IRR: irrealis tense, 1SG: first person singular, 2SG: second person singular, 3SG: third person singular, PRT: particle, NEG: negation, PNM: pronominal modifier marker, EMP: emphatic marker, and REL: relativizer.

(7) *Wh*-Argument: *hi:ae'* 'who'
'oebay S<om>bet hi **hiae'**
Oebay hit<AV> ACC **who**
'Who did Oebay hit?'

(8) *Wh*-Argument: *hayno'* 'which'
So'o Sarara' ka **hayno'** kapina:o'
NOM.2SG like ACC **which** lady
'Which lady do you like?'

(9) *Wh*-Adverbial: *nak'ino'* 'how'[3]
'oebay **nak'ino'** rima' kilapa:
Oebay **how** go Kilapa:
'How did Oebay go to Kilapa:?'

(10) *Wh*-Adverbial: *'inoan'* 'when (irrealis)'[4]
ka kawaS **'inoan** 'am kayzaeh
NOM sky **when.IRR** will good
'When will the whether be good?'

(11) *Wh*-Adverbial: *nompowa'* 'for what (purpose)'
So'o rim'an **nompowa'** rima' kilapa:
NOM.2SG tomorrow **for.what** go Kilapa:
'What do you go to Kilapa: for tomorrow?'

Obviously, (6)-(11) suggest that all Saisiyat *wh*-words stay in situ. As we will see later, this does not change when they are inside embedded clauses. In addition, some *wh*-adverbials are found to be rather free in syntax, being able to occupy the sentence-initial, sentence-medial or sentence-final position, without semantic distinctions:

(12) **(nompowa')** rim'an So'o **(nompowa')** rima'
**(for.what)** tomorrow NOM.2SG **(for.what)** go
kilapa: **(nompowa')** ?
kilapa: **(for.what)**
'What do you go to Kilapa: for tomorrow?'

Two other causal *wh*-adverbials *'ampowa'* and *mampowa'* also exhibit similar syntactic patterns. For now, it is not immediately clear to me whether there is a grammatical principle governing their distributions, and I leave this open here as an issue for future research.

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[3] Interestingly, *nak'ino'* exhibits a similar syntactic-semantic manner to its Chinese counterpart in that both of them can deliver a "causal" reading (i.e. like *why*) in proper syntactic conditions. Relevant examples are offered in Tsai (2008).

[4] Sometimes '*inoan'* can precede the subject, but it is not clear to me whether it can be clause-final or not.

## 3. Indefinite *wh* construals in Saisiyat

Tsai (2007) points out that two syntactic constructions can be taken as diagnoses of the characteristics of *wh*-dependencies: (i) the presence/absence of island and intervention effects of argumental/nominal *wh*'s, and (ii) the licensing conditions for indefinite *wh* construals (IWCs). In this section, I will show that considering the IWCs, Saisiyat practices two approaches, one of the E-type, of which morphological reduplication plays important roles, and the other of the C-type, of which long-distance binding by sentential operators constitute the licensing of indefinite *wh*'s.

### 3.1 Morphologically licensed IWCs/quantifier formation

Morphological reduplication is quite productive in Saisiyat, contributing to various syntactic/semantic functions (Yeh 2000). As (13)-(16) indicate, morphological-level processes in Saisiyat can also turn interrogative *wh*-words into indefinite *wh*'s, which in a sense resembles English *what-ever* or *some-what*, only differing in whether they are reduplication forms or not:

*kano'* 'what' → *kanokano'* 'anything/whatever'
(13) hizae' mae'y:aeh **kano~kano'** si'ael<en>
that person **anything** eat<PV>
'He is a person who eats anything.'

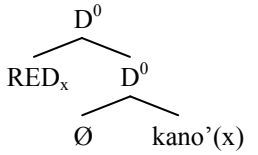
*ila'ino'* 'to where' → *ila'ino'ino'* 'to anywhere'
(14) 'oebay rima' **ila'ino'~ino'** ma' kayzaeh
Oebay go **to.anywhere** also good
'It is okay for Oebay to go anywhere.'

*rayno'* '(at) where' → *rayno'ino'* '(at) anythere'
(15) **rayno'~ino'** ma' '<in>aSkan<an> ila
**at.anywhere** also <PERF>put<LV> ASP
'(It) has been placed anywhere.'

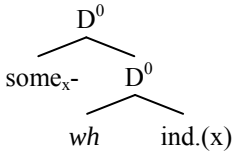
*piza'* 'how many' → *pizpiza'* 'few'
(16) hini' **piz~piza'** raromaeh
here **few** bamboo
'There are few bamboos here.'

As these examples show, interrogative meanings of *wh*-words are replaced by indefinite reading, more specifically universal quantificational readings. What they imply, as I argue, is that the reduplicated part should be treated as the realization of morphological operators, which license the indefinite readings of the original *wh* forms. Such hypothesis can be schematized in (17a), which is largely in parallel with the morphological structures of *wh-ever* or *some-wh* forms in English advocated in Tsai (1999:45-46), represented in (17b):

(17a) Saisiyat morphological IWCs




(17b) English morphological IWCs




In (17a), *kano'* is nothing more than a variable, and its (partial) reduplication form, $RED_x$, functions to be the operator/licenser for the indefinite reading, the binding occurring at the $D^0$ (morphological) domain. Thus $RED_x$ corresponds to the existential operator "-$some_x$", and "kano'(x)" is the counterpart of "ind.(x)" such as *–at* or *–ere* in English. The only difference between Saisiyat and English, then, is the way their lexicons take to overtly realize the operators: Saisiyat uses reduplication, presumably due to its own syntactic nature, whereas English has certain "specialized" elements (*–ever*/*some–*) for them.

The reviewer asks how reduplication can be interpreted at LF, if it is implemented at PF. I am aware that this question in fact applies to all other reduplication forms that provide various functions (intensive, reciprocals, iterative events, moderative, plurality, etc.) in various languages, thus it is not easy to answer this question. One possible account would simply treat both English morphological IWCs and Saisiyat reduplicational IWCs as strictly "syntactic" in nature (and therefore *not* implemented at PF), following Halle & Marantz (1993), Marantz (1997), and Travis (1999), inter alia. A more articulated explanation is beyond the scope of this study, but this does not change my thesis of the morphological parallel between English and Saisiyat.

Note that morphological operator-variable pairs are not created solely for *wh*-words. As Tsai (1994) has noticed, in English *al-* (a reduced form of *all*) can also be regarded as some kind of prefix responsible for the quantificational forces of adverbs like *also*, *almost*, and *already*. This is in fact not surprising if we think of it as another case of (17a) and (17b), i.e. quantifiers in E-type languages should also comply with the same morphological mechanism, at least to certain extent. Again, this speculation gains support from (16), where the quantity adjective *pizpiza'* results from the quantity *wh*-word *piza'*. Although there is only one instance found so far, it is a hard fact that quantifiers in Saisiyat substantiate the claim that E-type characteristics exist in this language. We summarize the discussion in this section in Table 2 below:

**Table 2**: Morphological-level IWCs in Saisiyat (FCI = Free Choice Item)

| Simple *Wh*-form | (Partial) Reduplication | Ind. Reading | Status |
|---|---|---|---|
| *kano'* 'what' | *kanokano'* 'anything' | Universal | FCI |
| *'ila'ino'*<br>'to where' | *ila'ino'ino'*<br>'to anywhere' | Universal | FCI |
| *ray'ino'*<br>'at where' | *ray'ino'ino'*<br>'at anywhere' | Universal | FCI |
| *piza'* 'how many' | *pizpiza'* 'few' | | Quantifier |

Note further that since there is no overt licenser for ***kanokano', ila'ino'ino'*** and

*ray'ino'ino'*, it is more reasonable to treat them as free choice items (which can occur in affirmative sentences) in opposite to polarity items, their universal interpretations coming from some covert operators such as the maximality operator or the generic operator (Giannakidou 2001).

In next section we will see that beside the morphological-level operation, Saisiyat also seeks the licensing of IWCs at the sentential domain.

### 3.2 Long-distance licensing of indefinite *wh* construals

It is widely acknowledged that *wh*-phrases in Mandarin Chinese can be analyzed as existential polarity items which behave like variables that are licensed in such environments as yes-no questions, conditionals, *dou*-quantifications, negations or possibility-indicating expressions, and the licensing condition establishes on the c-command relation, i.e. variables must be c-commanded by their licensers (Huang 1982, Li 1992, Cheng 1994, Tsai 1994, Cheng and Huang 1996, Lin 1996, 1998, a.o.). One well known construction manifesting this property in Mandarin is the "bare-conditionals" (Cheng and Huang 1996), illustrated in (18) and the logical representation (19):

(18) shei xian lai, shei xian chi
who first come who first eat
'If X comes first, X eats first.'

(19) $\forall_x$ [ x is a person & x comes first ] ( x eats first )

*Universal conditional-concessive clauses*:

(20) a. **'ana** yao **nak'ino'** ma' kayzaeh
no.matter NOM.1SG how also good
'No matter how I do (it), it will be fine.'

b. **'ana** **kano'** kita'<en> niSo ma' panabaeh-ani yakin
no.matter **what** see<PV> GEN.2SG also tell-EMP CC.1SG
'Tell me whatever you see.'

c. 'oebay **'ana** rima' **'ila'ino'** ma' kayzaeh
Oebay **no.matter** go **to.where** also good
'It is fine for Oebay to go anywhere.'

*Conditionals*:

(21) a. So'o **So** Sarara' **hayno'** kapinao:' payakai' yakin
NOM.2SG **if** like **which** lady tell ACC.1SG
'If you like any lady, tell me.'

b. **So** **hiae'** 'okay s<om>i'ael ka pazay payakai' yakin
**if** **who** NEG <AV>eat ACC rice tell ACC.1SG
'If there is anyone who doesn't eat rice, tell me.'

*Causal sentences*:

(22) a. sia s<om>i'ael **kano'** **ma'isa:'** 'ayaeh
NOM.3SG <AV>eat **what** **so** ill
'He has (probably) eaten something, so (he) is ill now.'

b. korkoring **nak'ino'** **ma'isa:'** h<om>angih ila
child **how** **so** <AV>laugh ASP
'Something has happened, so the child is crying.'

*Universal donkey sentences (bare conditionals)*:

(23) a. **hiae'** 'ima t<om><in>epeS **hiae'** Sebet<en> ma'an
**who** Rel <AV><PERF>spit **who** hit<PV> GEN.1SG
'I will hit whoever spits.'

b. So'o **nak'ino'** <m>ayakay, yao ma' **nak'ino**
NOM.2SG **how** <AV>say NOM.1SG also **how**
<m>atawaw
<AV>do
'I will do as you say.'

c. So'o **'ampowa'** <si>ba:iw yako **'ampowa'** <si>ba:iw
NOM.2SG **why** <IV>sell NOM.1SG **why** <IV>sell
'I will sell it for the same reason you sell it.'

*Negations*:

(24) a. **'okik** ra:m **hiae'** <m>wai:' rini' kano' ketesnenan
**Neg** know **who** <AV>come here so door
h<in>awaeh
<PERF>open
'(I) don't know if someone came here, so that the door is opened.'

b. hini' **'okik** **piza'** raromaeh
here **NEG** **how.many** bamboo
'There are not many bamboos here.'

In (20a)-(20c), the morpheme *'ana* behaves pretty much like *no matter* in English or *wulun* in Mandarin, occupying a high syntactic position in most cases. Although *'ana* seems to be attached to the *wh*-word in (20b), it is separated from the *wh*-word in (20a) by the subject 'I' and by the verb 'go' in (20c), hence a clausal-level operator. After the licensing of *'ana*, 'how', 'what' and 'to where' are no longer interrogative, but instead indefinite (universal).

However, as the reviewer has correctly pointed out, the distribution of *'ana* here seems to resemble *ani* in Seediq discussed in Tsai (1997), who nevertheless groups it into the J-type hallmark:

(25) a. **ani**-su m-usa inu, maha-ku smnegun isu.
any-2SG AV-go where go-1SG follow 2SG
'Wherever you go, I will follow you.' (Tsai 1997, ex 80)

b. **ani** ima snkuxun gakac nii, bege-mu heya.
any who want-AV table this give.pv-1SG.GEN NOM.3SG
'I will give to table to whoever wants it.' (Tsai 1997, ex 87a)

In (25b), *ani* immediately precedes the *wh*-word *ima*, yet in (25a) *inu* is

disjoined from *ani*. Such variability leads Tsai (1997) to conclude that Seediq bears the J-type feature. But if this is the whole story, *'ana* in (20) should manifest itself as a J-type feature as well, contra my account. In other words, the gray area in determining the existence of the J-type feature in Austronesian (and other) languages poses an analytical problem. The key, I propose, to why Seediq *ani*—but not Saisiyat *'ana*—is more likely a J-type trait, is that *ani* is still a bound morpheme in (25a), being attached to the pronoun *su*. Thus, a more accurate analysis for (25a) is (26a), in which *ani* is a parallel with *mo* in (26b):

(26) a. **ani-** [ su m-usa nu ], maha-ku smnegun isu.
any- 2SG AV-go where go-1SG follow 2SG
'Wherever you go, I will follow you.'

b. [dare-ga ki-te]-**mo**, boku-wa aw-a-nai.
who-NOM come all I-TOP meet-not
'For all x, if x comes, I will not meet (x).' (Tsai 1999, ex 38a)

On the Saisiyat side, *'ana* in my data never shows the similar behavior. Even though *'ana* often occurs adjacent to the *wh*-word it licenses, this does guarantee a phrasal operator (i.e. J-type) solution for *'ana* because such adjacency may just be apparent, i.e., it does not rule out the clausal operator role. On the contrary, the possibility for *'ana* to be parted from its licensee by other elements, as in (20a) and (20c), constitutes support for a C-type trait. As a result, with the absence of independent evidence of the (25a)-kind in Saisiyat, I do not regard (20) as a manifestation of J-type character.[5]

Let us turn back to (21). The conditional marker *So* in (21) plays the same licenser role in licensing the IWCs. Things are a little bit different in (22), where there is a consequence marker *ma'isa:'* in the consequence clause which does *not* c-command the *wh*-words. One tentative account is to argue for an LF-movement of the consequence clause. After the movement, *ma'isa:'* c-commands and thus licenses the *wh*-phrases. An alternative is to regard sentences in (22) as involving a covert modal that implements the IWCs.[6] Either way, the *wh*-variables are bound by sentential operators, a typical feature in C-type languages. Furthermore, it is existential (not universal) readings that are assigned to the *wh*-words. Bare conditionals (23a)-(23c) resemble (18) in permitting the necessity operator (∀) to bind multiple *wh*-phrases, no matter they are arguments or not. Finally, negation serves to be the licenser as well in (24), where *wh*-phrases are interpreted as existential.

On the empirical ground, Saisiyat IWCs undoubtedly can take place in the clausal domain. That is, clausal operators can license indefinite *wh*-words in this language. I summarize the above discussion in Table 3 below:

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[5] There is, however, one construction involving *'ana* that complicates the story here. I postpone the discussion to the final section.

[6] Unfortunately, I have no independent evidence for the LF-raising or covert modal hypothesis. However, given that (22) is correctly interpreted, it is hard to see how the indefinite *wh*'s can be licensed without these two (or similar) assumptions, as polarity items (at least in Mandarin) are generally acknowledged to occur only in the c-commanding scope of proper licensers.

**Table 3**: Clausal-level IWCs in Saisiyat

| Licensing Environment | Indefinite-*wh* Licensor | Ind. Reading |
|---|---|---|
| Universal conditional-concessive clauses | *'ana* 'no matter' | Universal |
| Conditionals | *So* 'if' | Universal |
| Causal sentences | *ma'isa:'* 'so' | Existential |
| Bare conditionals | ∀ (necessity operator) | Universal |
| Negations | *'okik* 'not' | Existential |

All the indefinite readings of *wh*-words above are licensed by clausal operators including conditional operator, necessity operator, or negation operator. Since these licensers constitute pairs with *wh*-variables neither at a morphological scale nor at a phrasal scale, we conclude that Saisiyat is featured as a C-type language, allowing long-distance licensed *wh*-indefinites. If the licensers are not present, the Q(uestion)-operator comes into play, functioning to bind the *wh*-variable, and thus the interrogative reading. The comparison is schematized in (27) below:

(27) a. Indefinite *wh*'s: $[_{CP}\ Op_x\ [_{IP}\ \ldots wh(x)\ldots]]$

b. Interrogative *wh*'s: $[_{CP}\ Q_x\ [_{IP}\ \ldots wh(x)\ldots]]$

### 3.3 Supporting evidence: the absence of island effects

We show in this subsection that no island effects are observed in sentences containing a *wh*-word inside a complex NP island. This fact further signals the C-type "in situ" feature carried by Saisiyat *wh*-words that *wh*-interrogatives are directly bound by sentential Q-operator, immune to the required movement to satisfy feature checking (Chomsky 1995). This is shown in (28)-(31):

(28) So'o Sarara' ka-[$_{NP}$ kayba'en pinaskayzaeh ni **hiae'** ]
NOM.2SG like ACC clothes being.made GEN **who**
'What is x, x a person, such that you like the clothes made by x?'

(29) yao hinoa' s<om>i'ael ka -[$_{NP}$ t<in>alek ni **hiae'** tatimaeh]
NOM.1SG like <AV>eat ACC <PERF>cook GEN **who** vegetable
'What is x, x a person, such that you like to eat vegetables cooked by x?'

(30) So'o Sarara' -[$_{NP}$ **'inak'ino'an** nineme kayba'en ]
NOM.2SG like **what.kind** dye clothes
'What is x, x a kind of dye, such that you like the clothes made with x?'

(31) So'o 'iya s<in>i'ael -[$_{NP}$ **'inay'ino'** ka waliSan ]
NOM.2SG want eat<PERF> from.where ACC boar
'What is x, x a place, such that you feel like eating the boars from x?'

As we can see, *wh*-phrases (at least arguments) inside complex NP islands are grammatical.[7] Once again, we are led by the raw data to maintain that northern Saisiyat, to a great extent, exhibits C-type characteristics, regarding the LMP.

## 4. Concluding remarks

Through preceding discussions, we have seen that northern Saisiyat happily embraces two approaches to build up its Ā-dependencies: one is morphological reduplication, the other unselective binding. By means of investigating IWCs, we know that morphological reduplication in Saisiyat patterns with *wh-ever* or *some-wh* forms in English which can be analyzed as operator-variable pairs. On the other hand, long-distance licensing is also possible for indefinite *wh*'s, which links sentential operators with *wh*-variables at a clausal scale. The big picture is presented as in Table 4 and 5, where cross-linguistic comparisons with several other Formosan languages are made (Kavalan, Seediq and Tsou from Tsai 1997, 2003; Rukai from Chen & Sung 2005; Amis from Wei 2008):

**Table 4**: Licensing conditions for IWCs in Saisiyat and several other Formosan languages

| IWCs | ∀, ∃, polarity markers & reduplication | (clausal) universal conditional-concessive clauses | conditionals, causal & modality sentences | bare conditionals |
|---|---|---|---|---|
| Kavalan | √ | √ | √ | |
| Seediq | √ | √ | √ | √ |
| Tsou | | ? | √ | √ |
| Rukai | √ | ? | √ | √ |
| Amis | √ | | √ | √ |
| **Saisiyat** | √ | √ | √ | √ |

[7] The reviewer notes that in (28), the relative head is at the initial position in (28), but at the final position in (29)-(31). I have no independent study on the syntax of relative clauses in Saisiyat, hence unable to explain this phenomenon systematically. As a first approximation, such unconstrained positioning between the relative clause and the head noun it modifies may simply be free variation in Saisiyat, as observed in Yeh (2000:142):

(i) a. yako Sarara' ka hiza' [$_{RC}$ 'ima kayzeah kita'<en>] **kapina:o'**
NOM.1SG like ACC that REL good see<PV> lady
'I like that lady who is good looking.' [head noun final]

b. yako Sarara' ka hiza' **kapina:o'** [$_{RC}$ 'ima kayzeah kita'<en>]
NOM.1SG like ACC that lady REL good see<PV>
'I like that lady who is good looking.' [head noun initial]

**Table 5**: Parameter setting in Saisiyat and several other Formosan languages

| | English-type | Japanese-type | Chinese-type |
|---|---|---|---|
| Kavalan | √ | √ | |
| Seediq | | √ | √ |
| Tsou | | | √ |
| Rukai | √ | √ | √ |
| Amis | √ | √ | √ |
| **Saisiyat** | √ | (?) | √ |

To have an even more explicit and direct bearing on the significance in syntactic theory brought by Saisiyat, the two parameters of Ā-dependency, C-type and E-type, are visualized in diagram (32) and (33), as well as the syntactic structure in (34) below (cf. Tsai 1997, 2003):

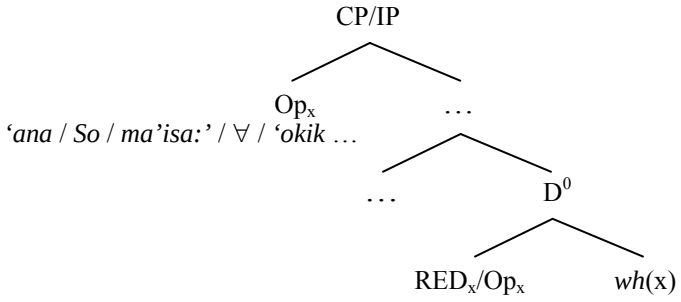
(32)

| **Chinese-type** | |
|---|---|
| binding *wh's* at CP/IP domain<br>→ no movement at all<br>→ No CNPC effects | $[_{CP/IP}\ Op_x\ [\ldots wh(x)\ldots]]$<br>unselective binding, no movement |

(33)

| | |
|---|---|
| a. **English-type (i): *wh*-ever/some-*wh*** <br> binding *wh's* at $D^0$-domain<br>→ obligatory *wh*-movement<br>→ CNPC effects observed | $[_{CP}\ [_D\ Op_x\text{-}wh(x)]_i\ [_{IP}\ldots t_i\ldots]]]$<br>*wh*-movement |
| b. **English-type (ii): Reduplication** <br> binding *wh's* at $D^0$-domain,<br>but may need some proper licenser | $[_{CP/IP}\ Op_z\ [\ldots[_D\ Op_x\text{-}wh(x)]\ldots]]$<br>licensing, no movement |

(34)



Recapitulating, Saisiyat adopts unselective binding in (32) and morphological reduplication in (33b) to practice *wh*-dependency. One may wonder how this is motivated. As Tsai (1997) has recognized, language evolution and language contact may both result in the change of parameter settings of Universal Grammar. It is therefore not groundless to say that the C-type parameter in Saisiyat possibly comes from the influence from Mandarin Chinese and/or Hakka, which are typical *wh*-in-situ languages. In another word, the mixed setting of LMP in this case might be a consequence of language contact, which triggered the C-type parameter in Saisiyat. The E-type parameter, on the other hand, should mirror the very original appearance of this language.

## 5. Residual problem: the Japanese-type?

Before I end up this paper, an issue should be addressed. While most instances of the operator *'ana* 'no matter' are found to be at a clausal domain, as discussed in section 3.2, there is (at least) one construction in which it looks like a phrasal-level operator, as shown in (35):

(35) yao Sarara' ka -[$_{NP1}$ **'ana$_x$**
NOM.1SG like ACC **no.matter**
'ima -[$_{relative\ clause}$ soba:oeh ka -[$_{NP2}$ kano'(x) kakrangi'an]]]
REL big ACC what thing
'I like anything that is big.'

(35) is a sentence involving a relative clause, which is headed by the relativizer *'ima*. Since *'ana* follows the accusative case marker *ka* in the main clause, it is included in NP1. But what follows it is the *'ima*-relative clause, where the *wh*-variable *kano'* in NP2 is bound by *'ana* in NP1. The crucial point here is that *'ana* does not occupy a clausal position, nor does it form a morphological unit with the *wh*-word. This construction seems to be a J-type feature that merges the operator on the phrasal level. More interesting is the sentence (36), which differs from (35) minimally in the lack of *'ana*:

(36) $Q_x$ yao Sarara' ka -[$_{NP1}$ 'ima -[$_{relative\ clause}$
NOM.1SG like ACC REL
soba:oeh ka -[$_{NP2}$ kano'(x) kakrangi'an ]]]
big ACC what thing
'What big things do you like?'

Without the presence of *'ana*, (35) becomes a *wh*-question (36), where *kano'* 'what' is bound by the sentential Q-operator. What (36) reveals is that *'ana*, as a phrasal operator, is indeed the licenser for the universal reading in (35).

At this stage, I have no account for such possibility that Saisiyat may also bear the J-type parameter, like Rukai and Amis, due to the lack of sufficient data. Furthermore, although we are now quite sure that Saisiyat is free from complex NP island effects, the (non)existence of *wh*-island effects in this language is still a black box, which would nonetheless be crucial for defining the status of

Saisiyat under the LMP framework if figured out. On the other hand, given that the syntax of relative clauses in Saisiyat is not well understood either, my analysis for (35)-(36) may be problematic after all. Yet, if (35) turns out to be a true J-type structure, the conclusion reached earlier should be modified accordingly. This question remains for future investigations.

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