

Information Structure, Focus, and Focus-Marking Hierarchies in Ryukyuan Languages

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Abstract: The present paper is a cross-dialectal survey of the relationship between various kinds of foci (e.g. argument focus vs. predicate focus, contrastive focus vs. WH focus, etc.) and their formal encodings in Ryukyuan languages. On the one hand, the present study is descriptive, dealing with a hitherto untouched issue of dialectal variation among Ryukyuan languages with regard to the usage of morphological focus-marking such as *du* and *ga*. By examining fifteen Ryukyuan languages which represent major dialectal areas (seven from Northern Ryukyuan and eight from Southern Ryukyuan), it will be shown that there is a considerable dialectal variation with regard to focus-marking and that the relevant factors are focus function (information vs. contrastive function of focus, etc.) and focus domain (argument vs. predicate, etc.). On the other hand, the present study is typological, giving a consistent model that explains the observed variation and makes predictions about the possible language patterns and impossible ones in the form of a pair of hierarchies, Focus Type Hierarchy (Contrastive Focus > WHA Focus (the focus of the answer to a WHQ) > WHQ Focus) and Focus Domain Hierarchy (Argument > Predicate).

Key words: information structure, focus, Ryukyuan, Japanese dialect, Japanese

1. Introduction

It is well known that Ryukyuan languages have morphological means to mark a focus (Uchima 1985, Sugahara 1996, Karimata 2011, Shimoji 2011).¹ All known Ryukyuan languages have a post-positional focus particle *du* (or its cognate form). But if we compare the usage of *du* in one language with that in another, we immediately notice that there is a considerable dialectal difference among them. For

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example, the answer phrase to a WH question may or may not be overtly focus-marked with *du* in different Ryukyuan languages.

- (1) Sateku dialect of Kikai (data by courtesy of Dr. Rihito Shirata)
- a. *hun isoo tʰan=ŋa yabuta=ka?*
 this chair.TOP who=NOM broke=Q
 ‘Who broke this chair?’
- b. *[uttuu]_F=ŋa=du yabutan=doo.*
 younger.brother=NOM=FOC broke=SFP
 ‘MY YOUNGER BROTHER broke (it).’
- (2) Ura dialect of Amami-Oshima (data from the present author’s field note)
- a. *tak=ka isI jabutI=jo?*
 who=NOM chair broke=Q
 ‘Who broke the chair?’
- b. *[ututu]_F=nu jabutat=too.*
 younger.brother=NOM broke=SFP
 ‘MY YOUNGER BROTHER broke (it).’

The above comparison might lead us to conclude that Ura does not use focus-marking at all, which is not the case. Compare the Ura example (2b) with (3), in which focus-marking with *du* becomes obligatory when the information-structural focus has a contrastive function.

- (3) *wa=ga=ja ananz, [ututu]_F=nu=du*
 1SG=NOM=TOP COP.NEG.CVB younger.brother=NOM=FOC
isI=ja jabutat=too.
 chair=TOP broke=SFP
 ‘It is not me but MY YOUNGER BROTHER who broke the chair.’ (contrastive focus)

Thus, the notion of *contrastiveness* seems to be relevant to analysing the dialectal variation in the usage of *du*, a fact which has never been discussed before in the literature.

Another fact that attracts our attention concerns examples like (4) from Sateku, where the predicate as opposed to the subject (cf. (1b)) corresponds to the answer phrase to a WH question. A comparison between (1b) and (4b) suggests that in Sateku, predicate focus cannot be morphologically marked by *du* while subject focus can, even if the focus type is identical, i.e. an answer to a WH question.

- (4) a. *ŋama da=ya nuu+sii=yo?*
 now 2SG=TOP what+do=Q
 ‘What are you doing?’
- b. *wanoo ŋama [see nudun]_F=doo.*
 1SG.TOP now sake drink.PROG.NPST=EMP
 ‘Now I am DRINKING SAKE.’ (Predicate focused)

Thus, the notion of *focus domain* also seems to be a relevant factor, which

should be dealt with independently of the type of focus when recognising the different usages of focus-marking.

Since no previous work has ever conducted a cross-dialectal research like this, the dialectal variation briefly noted above should be simply a surprise, especially given that previous works simply assume that *du* marks a focus in a sentence (see, for example, Uchima 1985), an assumption which would never explain, or even expect, the dialectal variation noted above. Describing different usages of focus particles in different dialects is worth a detailed research in its own right, but more crucially, it will aid us in identifying the function of focus particles in each individual Ryukyuan language: by comparing the Ura data with the Sateku data, for example, it becomes clear that the focus particle *du* in Ura is sensitive to contrastive foci rather than to mere new information, while *du* in Sateku must have a different range of focus functions.

By examining fifteen Ryukyuan dialects which cover major dialectal areas of Ryukyuan (seven languages from Northern Ryukyuan (NR) and eight from Southern Ryukyuan (SR)), the present study will aim to provide a detailed description of the dialectal variation of focus-marking. Special attention will be paid to the two major features of focus briefly noted above, i.e. (a) focus type and (b) focus domain. The present study will then suggest a cross-dialectal descriptive model of the complex form-function mapping patterns pertaining to focus-marking in Ryukyuan languages, which is summarized as follows.

- (5) Focus-marking hierarchies in Ryukyuan (Note: WHA: an answer to a WH question)
 - a. Focus Domain Hierarchy: Argument > Predicate
 - b. Focus Type Hierarchy: Contrastive Focus > WHA Focus > WHQ Focus

Thus, the prediction is made that the optimal condition for focus-marking in any given Ryukyuan language is a contrastively focused argument, as illustrated in (3). It also predicts that focus-marking is least likely in a non-contrastively focused predicate in a WH question. If a language turns out to allow focus-marking for a certain domain/type on the hierarchy, we predict that it must also allow focus-marking to its left. The model excludes such a language as one where a WH word in a WH question (WHQ Focus) is overtly focus-marked but a contrastively focused constituent in the declarative sentence may not.

The organization of the present paper is as follows. Section 2 defines the terms and concepts that pertain to the notion 'focus'. Section 3 briefly discusses issues related to focus-marking in Ryukyuan, such as *Kakari Musubi*. Sections 4 to 7 give a cross-dialectal survey of focus-marking in Ryukyuan languages, describing the observed dialectal variation and discussing typological characteristics, etc. Section 8 briefly notes the remaining issues which the present study did not touch on but will be important in future research. Section 9 concludes the whole discussion.

2. The notion of focus

This section introduces major categories of information-structural focus whose formal realization as morphological focus-marking will be discussed in the remainder of the paper.

2.1. Focus type

One way of characterising a focus is to note its semantic-pragmatic type (Chafe 1976, Lambrecht 1994, É. Kiss 1998, Vallduví and Vilkuna 1998, Zimmermann 2008, among many others). The present work distinguishes Contrastive Focus, WHA Focus (a focus instantiated by the answer element in response to a WH question) and WHQ Focus (a focus instantiated by the questioned element of a WH question). As shown schematically in Table 1, they are defined in terms of the presence or absence of three focus features, contrastiveness, exhaustiveness, and new information. By definition, a focus of any type carries new information, whereas it may not necessarily be contrastive or exhaustive.

Table 1. The classification of focus types in terms of focus features

	Contrastive Focus	WHA Focus	WHQ Focus
contrastive	+	-	-
exhaustive	+	+	-
new information	+	+	+

The feature-based account of different focus types is not new, but is common in the literature of information structure. Thus, É. Kiss (1998), in discussing the difference between identificational and information foci in various languages, argues that the former should be captured in terms of the presence or absence of the feature [exhaustive] and [contrastive]. Jacobs (1988) gives a similar argument where the two features are reflected in the formal realization of focus.

2.1.1. Contrastive Focus

Contrastive Focus evokes a closed set of alternatives (thus is contrastive) and identifies the exhaustive subset of the closed set of alternatives (thus is exhaustive). In the literature of focus, it is common to classify various kinds of foci into two broad categories, identificational vs. information focus. The former is alternatively called, among others, contrastive focus. Identificational (or contrastive) focus is characterised by the two semantic features, i.e. contrastiveness and exhaustiveness. Thus, É. Kiss (1998: 245) states that ‘an identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds’. The exhaustiveness is usually regarded as a characteristic property of contrastive foci as such (Zimmermann 2008, Vallduví and Vilkuna 1998). Following É. Kiss (1998: 267), the present author regards an instance of focus as [+contrastive] if it operates on a closed set of entities known to the participants of the discourse.

To elicit a sentence with an unambiguous Contrastive Focus, the present study will use an ‘overtly contrastive statement’ (Tomioka 2011), in which a closed set of alternatives is explicitly indicated in a sentence (X and Y) and the exclusion of a subset (Y) by identifying the correct subset (X) is also indicated.

(6) It is not Y but X who broke the chair.

Contrastive Foci are distinguished from mere exhaustive foci, such as a WHA Focus to be introduced below, and mere information foci, such as a WHQ Focus (Section 2.1.3).

2.1.2. WHA Focus

The answer element in response to a WH question bears a focus. It may be either exhaustive or non-exhaustive, but its default interpretation is an exhaustive identification of the correct subset (which is referred to by the answer phrase) of the set of alternatives evoked by the WH question (Schulz and Roeper 2011). Zimmermann (2007: 155) thus states that ‘the most likely speech act following on a wh-question is an answer that gives the requested information’. In Japanese, there is an atypical, non-exhaustive function of the answer sentence to a WH question, which may be marked by a morpheme which is not usually associated with a focus construction. Tomioka (2011) notes that in Japanese, the answer to a WH question like ‘Who passed (the exam)?’ may take the following two forms, one with the exhaustive and complete answer with the focused subject NP simply case-marked and the other with the non-exhaustive and incomplete answer with the underlying nominative of the focused subject NP replaced by the topic marker *wa*.

- (7) In response to a question: *dare=ga ukatta?* ‘Who passed?’
- a. *Ken=ga ukatta.* ‘Ken passed.’ (exhaustive)
 - b. *Ken=wa ukatta.* ‘(At least) Ken passed.’ (non-exhaustive)

The focused constituent Ken in (7b) is a focus in our classification, given that it conveys new information, while that in (7a) is a focus which is also marked for exhaustivity feature.² Very similar pairs are found elsewhere in world’s languages such as Hungarian (É. Kiss 1998: 249–250). In Hungarian, the answer phrase to a WH question is usually put at pre-verbal position, and this position is characteristic of [+exhaustive] feature. The focus at post-verbal position is also possible, but in this case the focused element is interpreted as [–exhaustive], just like the effect of (7b) in Japanese.

To the best of my knowledge, the same argument holds true for Ryukyuan languages, where the additional topic marking as in (7b) always results in a non-exhaustive interpretation whereas a construction without it usually leads to an exhaustive interpretation. The present study will deal with a functionally

² (7b) has [+new information] feature and [+contrastive] feature but lacks [+exhaustive] feature, making it distinct from the three focus types we identify for our current typology. It is conventionally called contrastive topic (Tomioka 2011).

unmarked, exhaustive usage of the answer focus to a WH question like (7a) and not (7b). I will call a focus instantiated by an exhaustive answer to a WH question a WHA Focus henceforth. In Section 8.3, we will get back to the issue of potential non-exhaustivity exhibited by an answer element to a WH question and its implications for the findings of our typology.

2.1.3. WHQ Focus

The WH phrase in a WH question is considered by many to bear a focus (Rochemont 1978, Culicover and Rochemont 1983, Lambrecht 1994), given that it is clearly a non-presupposed part of the proposition. The information-structural focus which is borne by the WH phrase in a WH question can be associated with an open set or a contextually-delimited closed set (the distinction known as ‘D-linking’; Pesetsky 1987). Only the former type of focus will be called WHQ Focus in the present paper. Thus, a WHQ Focus does not evoke a closed set of alternatives (i.e. is non-contrastive) nor does it exclude the subset of a set of alternatives for which predication potentially holds (thus is non-exhaustive). With regard to the latter kind of ‘D-linked’ WH focus, there are certain WH words which lexically bears a contrastive meaning, as in:

(8) Which (of these) do you like?

where the WH word *which* lexically evokes a contextually relevant, closed set of alternatives, and is excluded from our typology as an instance of WHQ Focus. However, it is an important research topic how these D-linked WH foci (+contrastive) behave in the focus-marking in Ryukyuan languages.

A typical WHQ Focus lacks the exhaustive feature since it is simply a variable. That is, a WH word evokes a set of alternatives, but it cannot entail the exclusion of any subset of alternatives since the alternative is not yet specified by definition. In Japanese, for example, *dare=ga kita?* ‘who came?’ evokes a set of alternative propositions {Taro came, Jiro came, Hanako came, etc.}, and the corresponding answer sentence *Taroo=ga kita* ‘Taro came’ then identifies the correct subset {Taro came}, with the exclusion of the incorrect subset.

The analysis that a typical WHQ Focus lacks contrastiveness is supported by a cross-linguistically recurrent pattern where a WH question may have a structurally marked construction if the WHQ Focus additionally bears a [+contrastive] feature. Thus, Rochemont (1978) notes that the WH phrase in a WH question in English typically never bears a primary stress and that if it does, it ‘seems to suggest a contrastive context’ (Rochemont 1978: 36), as in *WHO came to the meeting?* (= Who was it who came to the meeting), as opposed to *Who came to the MEETING?* (Drubig and Shaffer 2001: 1087).

2.2. Focus domain

2.2.1. Overview

Another way of characterizing a focus is to ask which constituent of a sentence corresponds to the information-structural focus. The major division is between

argument (or term) focus and predicate focus. Argument focus further divides into subject focus, object focus, adjunct focus, etc., depending on the argument type of the focused constituent. In addition to argument focus and predicate focus, sentence-focus is often identified as a distinct focus domain (Lambrecht 2000). Here, the whole proposition is all-new to the hearer and is thus in focus. Unlike the argument focus and predicate focus, there is no bipartition between the background part and focus part in the proposition. Sentence-focus is usually elicited by asking an event-asking question like ‘what happened?’. The following examples are from the Irabu dialect of Miyako Ryukyuan.

- (9) *nau=nu=ga* *atar=ga?*
 what=NOM=FOC exist.PST=Q
 ‘What happened?’
- (10) [*ami=nu=du* *ffur*]_F.
 rain=NOM=FOC fall.PROG.NPST
 ‘It’s raining.’ (sentence-focus)

The present paper will deal with argument focus and predicate focus and largely leave aside the issue of sentence-focus, though it will be briefly taken up in Section 5.4. This is not because sentence-focus is irrelevant in discussing the dialectal variation of focus-marking in Ryukyuan; in fact, sentence-focus brings a number of difficulties to the typological generalisation of focus-marking in Ryukyuan languages. For example, sentence-focus does not seem to constitute a homogenous category. Irabu is a good example to illustrate this. In Irabu, sentence-focus is regularly marked with the focus particle *du*, which occurs on the left-most constituent of the sentence, as illustrated in (10) above, in accordance with the cross-dialectally common pattern where focus-marking occurs on the left periphery of the focus domain (see Section 3.3). However, in sentences that denote sudden cognition with unexpectedness on the part of the speaker, focus-marking is often absent. Compare (10) above and (11) below.

- (11) *agai*, [*ami=nu(=du)* *ffur*]_F.
 Oh rain=NOM(=FOC) fall.PROG.NPST
 ‘Gosh, it’s raining!’ (sentence-focus)

In order to integrate sentence-focus into the cross-dialectal survey of focus-marking, it is necessary to have a deeper understanding of the sentence-focus construction in each individual language of Ryukyuan, but there is little data available (with the exception of Davis 2013).

2.2.2. Predicate focus

The present paper defines predicate focus as a situation where the predicate phrase, i.e. the open proposition that excludes the subject, is focused, following Lambrecht (2000) and Van Valin (2005). In analysing the focus construction of Yaeyama Ryukyuan, Davis (2013) refers to what we call predicate focus as VP focus. Predicate focus thus corresponds to topic-comment structure, which is

information-structurally most unmarked (Lambrecht 2000, Zimmermann 2016; see Section 7 for the discussion on why Predicate focus is regarded as information-structurally most unmarked).

A sentence with predicate focus can be elicited by the question ‘What are you doing?’, ‘What did you do’, etc., which asks the action of the presupposed agent.

(12) What did you do? → I [called her]_F.

The above definition of predicate focus excludes ‘verb-only’ focus (13) and what Zimmermann (2016) calls TAM focus (14).

(13) What did you do to her? → I [called]_F her. (V Focused)

(14) Did you call her? → No, I [will]_F call her. (Tense component focused)

Even though ‘verb-only’ focus will not be examined in the present study, it will be briefly noted and compared with what can be said to predicate focus (of the type (12)).

2.2.3. Argument focus

In argument focus, an argument of a sentence is in focus and all the rest including the predicate is backgrounded. The present paper examines the core arguments of a transitive sentence, i.e. the subject and the direct object. An examination of other argument types such as indirect object and adjunct, and of the difference between the intransitive subject and the transitive subject, is an important future research topic.

3. A preliminary note on focus-marking in Ryukyuan

Before discussing focus-marking in Ryukyuan, there are four related issues that must be addressed in advance. First, it is necessary to give an overview of *Kakari Musubi* (KM), which is a broader grammatical context under which focus-marking occurs. Second, in some Ryukyuan languages, there is an interplay between focus-marking and case-marking when the subject is focused. A third issue is about the locus of focus-marking, i.e. which constituent within a focus domain serves as a landing site of the focus particle. Finally, there is a strong tendency for imperative sentences not to allow focus-marking in any known Ryukyuan language.

3.1. Kakari Musubi

Ryukyuan KM, as in the case of KM in Old Japanese, is often assumed to comprise two major components, i.e. (a) constituent marking and (b) predicate concord whereby the predicate must be or tends to be inflected for a special non-finite form in the presence of constituent focus-marking. The concern in our cross-dialectal survey in the following sections will be constituent marking.

KM in Old Japanese and Ryukyuan is generally believed to be like a cleft-like construction (Whitman 1997, Schaffer 2002, Shinzato and Serafim 2013, Shinzato 2015), a typologically recurrent strategy for focus-marking. For example, in the Irapu dialect of Miyako Ryukyuan, the focus particle *du* on a constituent

of a sentence usually co-occurs with the predicate form which is used for clause nominalization. Thus, in (15a), where there is a focused constituent in a clause, the predicate form is *numiutar*, rather than *numiutam*, the latter of which cannot co-occur with the focus-marking.

(15) Focus-marking and predicate concord in Irabu

- a. *ba=a saki=u=du num-i-u-tar.*
 1SG=TOP sake=ACC=FOC drink-STM-PROG-PST
 ‘I was drinking sake.’
- b. **ba=a saki=u=du num-i-u-tam.*
 1SG=TOP sake=ACC=FOC drink-STM-PROG-PST.RLS

Notice that the form used in (15a) is used when a clause is nominalized, as in (16).

- (16) [*saki=u num-i-u-tar*]_{NP}=*ru=ba ic=ga?*
 sake=ACC drink-STM-PROG-PST=ACC=TOP when=Q
 ‘When was it that you were drinking sake?’

However, what is happening in the Irabu KM is not a concord, where a specific predicate form is required, but what Shimoji (2011) calls a ‘negative concord’, whereby the realis form (e.g. *numiutam* in (15b)), which conveys new information to the hearer, is naturally *excluded* from the predicate of the focus-marked sentence. Thus, in Irabu the predicate form in the presence of the focus particle *du* is not necessarily the nominalizing form but may be, say, a converb, as illustrated in the following dialogue (17) and (18).

- (17) *vva=mai kuu-n=nu?*
 2SG=too come-NEG.NPST=Q
 ‘Don’t you come with us?’
- (18) *ba=a saki=u=du num-i-u-i-ba*
 1SG=TOP sake=ACC=FOC drink-STM-PROG-STM-CVB.CSL
zjaubu.
 alright
 ‘I am drinking sake, so it’s alright (i.e. I won’t go with you).’

In (18), the predicate of the clause in which the focus-marking occurs is a causal converb. Thus, it is impossible to state that there is a verbal concordance in Irabu. This holds true for SR languages in general (see Karimata 2011). That is, SR languages generally lack the concord strategy, having the constituent marking strategy only (Uchima 1985, Karimata 2011).

By contrast, in NR languages, constituent marking may require special verb inflection, and in Amami Ryukyuan in particular, the special verb form is a dedicated form for focus-marking (typically *-ru* or its cognate form) and is distinct from adnominal/nominalizing form (typically *-nu* or its cognate form). See Uchima (1985), for example, which compares NR and SR from a historical-comparative perspective, i.e. the presence or absence of the merger of the two forms. Thus, it is safe to say that KM in these languages may consist of two dedicated

structural devices: constituent focus-marking on the one hand and dedicated verb inflection on the other. However, concord is not obligatory in every NR language. In fact, in languages like Kunigami (Okinoerabu, Yokoyama 2017), concord is typically absent. Yokoyama (2017: 204) states that ‘the form with *-ru* (i.e. the form used for KM) ‘may be used in presence of *du*’, and that ‘it is only 10% of all the examples of *du* which co-occur with the *ru* form’. It will be argued in Section 6.1 that the presence or absence of concord may be related to focus type, and that it can be explained in terms of the parallelism between structural markedness (focus-marking and an additional occurrence of concord) and functional markedness of focus type.

3.2. Interplay between focus-marking and case-marking

Most Ryukyuan languages have two nominative case forms for the subject case-marking: *ga* and *nu*, exhibiting the differential subject marking pattern, where the subject case-marking is determined by the referential status of the subject NP, especially the animacy of the NP (Shimoji 2010, Shigeno and Shirata 2016, etc.). Roughly speaking, subject NPs on the higher end of the Animacy Hierarchy (Silverstein 1976) opt for *ga*, while those which come at the lower end opt for *nu*, with the possible overlap in the intermediate region (especially kinship terms and human lexical nouns). In some languages such as Sateku (see Section 5.3.1) and Yonaguni the differential subject marking is absent and either form is generalized for all referential types (e.g. *nga* for all NPs in Yonaguni; Shimoji 2015). Yaeyama languages have lost *ga* as a result of phonological reduction, with the result that the NPs at the higher end is zero-marked.

(19) Differential Subject Marking in Ryukyuan: a typical pattern

ga-taking NPs

nu-taking NPs

Pronouns > Proper names > Elder kin > Younger kin > Human > Animal > Inanimate

Generally speaking, in SR languages focus-marking and the differential subject marking are independent of each other, with a simple juxtaposition of the nominative and the focus particle in this order, and focus-marking never affects the choice of the case marker. The following set of examples from Irabu (Miyako Ryukyuan, SR; data from my own fieldwork) illustrates the typical SR pattern, where the subject (here WHA Focus) is case-marked by *ga* or *nu*, which is then followed by the focus particle.

(20) Subject focused (Irabu dialect, Miyako Ryukyuan, SR)

- a. [*taru*]_F=*nu=ga* *is=su* *jav-tar=ga?*
 who=NOM=FOC chair=ACC break-PST=Q
 ‘WHO broke the chair?’ (WHQ Focus)
- b. [*akira*]_F=*ga=du* *is=su* *jav-tar.*
 Akira=NOM=FOC chair=ACC break-PST
 ‘AKIRA broke a/the chair.’ (WHA Focus; *ga + du*)

marking for subjects in NR languages (especially Amami Ryukyuan), it is crucial to pay attention to what happens to the case-marking pattern of the focused subject NP. If we encounter a situation where focus-marking with *du* is absent for *ga*-taking NPs, it is necessary to ask whether focus-marking is impossible for *nu*-taking NPs, and it often turns out to be the case that focus-marking for *nu*-taking NPs is possible. In such a case, it is possible to analyse that the subject can be focus-marked, a situation which should be distinguished from those cases where focus-marking is simply optional or impermissible.

3.3. Locus of focus-marking

When describing focus domains which consist of more than two constituents (such as predicate focus and sentence-focus), it is not a straightforward matter which constituent is a phonological host (i.e. landing site) of focus-marking, given that the focus particle is attached to one particular constituent in a clause. In discussing the focus-marking patterns in the Miyara dialect of Yaeyama Ryukyuan, Davis (2013) suggests the generalisation that it is the left-most constituent of a focus domain that serves as a landing site of a focus marker.

This generalisation also holds true for other Ryukyuan languages as well. Thus, in all languages surveyed in Section 4, the focus particle is put on the left-most constituent of the focus domain.⁴ This is relevant when examining predicate focus, where the focus particle is cliticised to the direct object NP in all languages (as actually noted by Davis 2013 for Yaeyama), as will be demonstrated in sections below. This means that the distinction between a direct object focus sentence (23a) and a predicate focus sentence (23b) is neutralized in terms of the landing site of the focus particle.

(23) Irabu dialect of Miyako Ryukyuan (SR)

- a. *ba=a* [*saki=u*]_F=*du* *num-i-u-tar*.
 1SG=TOP sake=ACC=FOC drink-STM-PROG-PST
 'I was drinking SAKE.' (Direct object focused)
- b. *ba=a* [*saki=u=du* *num-i-u-tar*]_F.
 1SG=TOP sake=ACC=FOC drink-STM-PROG-PST
 'I was DRINKING SAKE.' (Predicate focused)

3.4. Imperatives

Generally speaking, imperative mood blocks the occurrence of a focus particle in the clause. Karimata (2011), Shimoji (2011), Hayashi (2017) and many others

intermediate pattern, where *nu* cannot co-occur with *du* (i.e. **=nu=du*) and must be replaced by *ga* before it is marked by *du* (*=ga=du*). The fact that the focus-marking function of *ga* over *nu* is particularly conspicuous in NR (especially Amami) languages might indicate that it is due to an intense language contact between the two linguistic areas after NR and SR were branched off.

⁴ See also the Irabu data in Section 5.4.1 where the sentence-focus construction in Irabu regularly puts the focus particle on the left-most constituent of the whole sentence.

note that imperative mood causes focus-marking to be absent. The following data comes from Irabu (Shimoji 2017b: 327). As will be demonstrated in later sections, SR languages including Irabu have virtually no restriction with regard to focus-marking, but (24) clearly shows that even in SR languages imperative mood is an important factor that blocks focus-marking.

- (24) *kui arada uri=u(*=du) misi-ru.*
 this COP.NEG.CVB that=ACC show-IMP
 ‘(Do) not (show) this; show THAT.’

A very few languages such as Ohama (Yaeyama, SR; Yuko Urabe, p.c.) diverge from this very common pattern in Ryukyuan, allowing *du* marking in imperative sentences.

4. Focus-marking in Ryukyuan languages: a cross-dialectal survey

4.1. Sample languages

The data used in this section are from fifteen Ryukyuan languages, seven from NR and eight from SR. In Figure 1, the box indicates (a) language name, (b) the island where it is spoken, and (c) its genetic affiliation ((a)/(b) at upper column and (c) in brackets at lower column (if (a)/(b) is identical, only (a) is indicated in the box)).

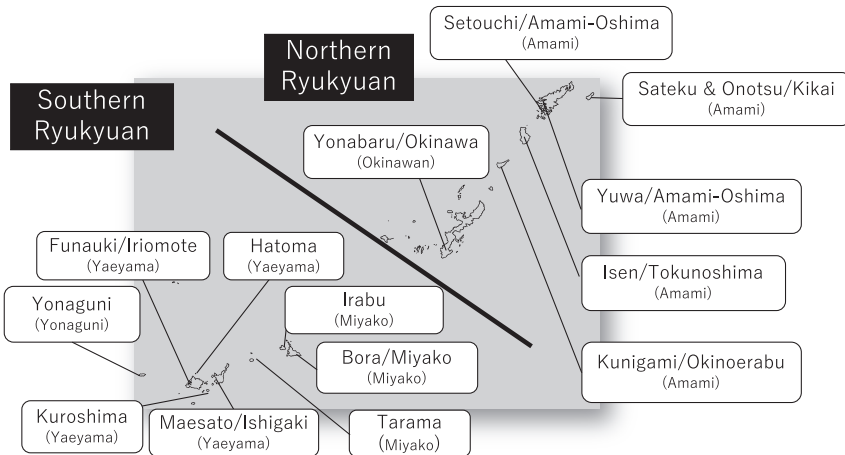


Figure 1. Sample languages in the present study

These languages represent geographic and genetic diversity, covering nearly all major islands (with the exception of Yoron, which lies between Okinoerabu and Okinawa Mainland) and all major genetic subgroups, i.e. Amami and Okinawan for NR, Miyako, and Macro-Yaeyama (which comprises Yaeyama and Yonaguni). The data are from two research projects of mine which aim at a typological survey of focus-marking in Ryukyuan languages: *A basic survey on focus-marking in Ryukyuan dialects* (Kaken Wakate B, 16K16843) and *A basic survey on language*

contact in the Ryukyu archipelago (granted by Institute for International Okinawan Studies, University of the Ryukyus). The data for four languages, Irabu (Miyako, SR), Yonaguni (Yonaguni, SR), Yonabaru (Okinawa, NR), and Yuwan (Amami, NR) are from my own field data, although the Yuwan data is due to the help of Dr. Yuto Niinaga. For the other data, I asked the collaborative or joint researchers for the above-mentioned research projects to collect the relevant data using the same sets of stimulus sentences (see below) which the present author designed for the research projects. The researchers who collected the data and shared them with the present author are: Dr. Rihito Shirata, Dr. Yuto Niinaga, Dr. Shigehisa Karimata, Dr. Akiko Yokoyama, Ms. Alyn Kim, Dr. Nana Tohyama, Dr. Kayoko Shimoji, Dr. Hayato Aoi, Dr. Christopher Davis, Ms. Yuko Urabe, and Dr. Soichiro Harada.

4.2. Stimulus sentences

For each language, the following three sets of stimulus sentences (translated in Japanese) were used to elicit the corresponding sets of Ryukyuan sentences.

- (25) Subject focused
- [Who]_F broke a/the chair? (WHQ Focus)
 - [X]_F broke a/the chair. (In response to (a); WHA Focus)
 - It is not Y but [X]_F who broke a/the chair. (Contrastive Focus)
- (26) Direct object focused
- [What]_F is X drinking? (WHQ Focus)
 - X is drinking [sake]_F (In response to (a); WHA Focus)
 - It is not water but [sake]_F which X is drinking (Contrastive Focus)
- (27) Predicate focused
- [What (are you) doing]_F? (WHQ Focus)
 - (I) am [drinking sake]_F (In response to (a); WHA Focus)
 - I am not working but [drinking sake]_F (Contrastive Focus)

Each sentence is transitive and is specified for one value for each of the two variables, i.e. (a) focus domain and (b) focus type. For the subject focus sentence, the NP 'X' is filled by one of two kinds of NPs, 'Akira' (proper name, *ga*-taking NP) and 'younger brother' (lower kinship term, usually a *nu*-taking NP), to see if there is interplay between nominative case and focus-marking (Section 3.2). It is admitted that (25) differs from (26) and (27) in that (25) denotes a different event. However, it is still argued that (25) is comparable with (26) and (27) for our immediate purpose of examining dialectal variation of focus-marking, since they all share the relevant features for our survey: transitivity (transitive), focus type (Contrastive Focus, WHA Focus, WHQ Focus) and focus domain (subject, direct object and predicate).

Since the present work aims to examine whether there is a dialectal variation with regard to focus-marking and whether any typological generalisation is possible, and since the above set suffices for these immediate purposes, our discussion will be on the above set of verbal transitive sentences only, leaving aside, say, intransitive sentences and non-verbal predicates (see Section 8.1 for notes on non-

verbal sentences and their potential impact on our typology).

4.3. Results

The results of the elicitation conducted for each dialect are summarised in Table 2. The symbol ‘F’ indicates that focus-marking with a focus particle is obligatory. Note that F represents different focus particles: *du* for most Ryukyuan languages but *ga* for WHQ Focus in many Miyako Ryukyuan (See Section 5.4.1). The symbol ‘(F)’ indicates that focus-marking is possible but may be omitted depending on speakers. The symbol ‘F!’ indicates that focus-marking for the subject NP varies for the reason we discussed in Section 3.2. The blank cell indicates that focus-marking turned out to be impossible for that cell.

Table 2. Focus-marking with special attention to focus domain and focus type

Language	Pattern	Exhaustive					Non-exhaustive			
		Contrastive			Non-contrastive					
		Contrastive Focus			WHA Focus		WHQ Focus			
Onotsu (Kikai, NR)	CF-sensitive	F	F	F						
Yonabaru (Okinawan, NR)		F	F	F						
Isen (Tokunoshima, NR)		(F)	F	F						
Sateku (Kikai, NR)	EF-sensitive	F	F	F	F!					
Setouchi (Amami, NR)		F	F	F	F!	F	F			
Yuwan (Amami, NR)		F	F	(F)	F!	F	(F)			
Kunigami (Okinoerabu, NR)		F	F	F	F	F	F			
Yonaguni (Yaeyama, SR)		F	F	F	F	F	F			
Irabu (Miyako, SR)		F	F	F	F	F	F	F	F (F)	
Bora (Miyako, SR)	Non-restrictive	F	F	F	F	F	F	F	F (F)	
Tarama (Miyako, SR)		F	F	F	F	F	F	F	F (F)	
Kuroshima (Yaeyama, SR)		F	F	F	F	F	F	F	F (F)	
Hatoma (Yaeyama, SR)		F	F	F	F	F	F	F	F F	
Funauki (Yaeyama, SR)		F	F	F	F	F	F	F	F F	
Maesato (Yaeyama, SR)		F	F	F	F	F	F	F	F F	
Constituent focused		Arg		Prd	Arg		Prd	Arg		Prd
		Subj	Obj		Sub	Obj		Subj	Obj	

5. Dialectal variation

5.1. Major patterns

It is possible to divide various distributional characteristics of focus-marking exhibited by the fifteen languages into three major patterns: (a) CF-sensitive pattern, where focus-marking is only possible for the Contrastive Focus type but not for the Non-CF types; (b) EF-sensitive pattern, where focus-marking is only possible for the Exhaustive Focus (Contrastive Focus and WHA Focus) types but not for the Non-EF types; and (c) Non-restrictive pattern, which allows focus-marking without respect to focus types.

It is now clear that all SR languages, except for Yonaguni, are Non-restrictive languages and all NR languages are either CF-sensitive or EF-sensitive languages which restrict focus-marking to foci with the contrastive and/or exhaustive features. That is, a clear border can be drawn between NR and SR languages to the

effect that NR languages have severer restrictions on the use of focus-marking whereas SR languages have virtually no restriction. Hirayama and Nakamoto (1964: 164) is an early work that mentioned the different usages of the focus particle *du*, pointing out that *du* marking is more ‘frequently’ observed in SR languages than NR languages. This impressionistic observation is now explicitly restated as follows.

(28) Dialectal difference between NR and SR

SR languages are mostly Non-restrictive languages, where focus-marking is possible or obligatory for all types of foci, while NR languages have more restrictions on focus-marking, the most restrictive languages being CF-sensitive languages.

Thus, the dialectal difference between NR and SR in the usage of focus-marking is not a matter of *frequency* with which focus-marking occurs but a matter of *sensitivity* with which focus-marking is employed to different types of focus. The conspicuous lower frequency in NR as noted by Hirayama and Nakamoto is a result of the stronger restriction on focus-marking in NR languages.

5.2. CF-sensitive languages

Three NR languages in our sample exhibit the CF-sensitive pattern, allowing for focus-marking only for the Contrastive Focus type. The following examples are from the Onotsu dialect of Kikai (Amami Ryukyuan, NR; data courtesy of Dr. Rihito Shirata). Note that in each example of (29) the focused constituent is the subject and that the contrastively-focused subject alone receives focus-marking with *du* (29c).

(29) Argument focus (Subject focused)

- a. [*tʰaru*]_F = ηa isu k^bwwačasu = yo?
 who=NOM chair broke=Q
 ‘WHO broke the chair?’ (WHQ Focus)
- b. [*akira*]_F = ηa k^bwwačasu = do.
 Akira=NOM broke=EMP
 ‘AKIRA broke (it).’ (in response to (a); WHA Focus)
- c. wanoo araa [*akira*]_F = ηa = du isoo
 1SG.TOP COP.NEG.CVB Akira=NOM=FOC chair.TOP
 k^bwwačan = doo.
 broke=EMP
 ‘It is not me but AKIRA who broke the chair.’ (Contrastive Focus: *du* marking)

The CF-sensitive pattern is found across all focus domains.

(30) Argument focus (Direct object focused)

- a. ñama [*nuu*]_F nudusu = yo??
 now what drink.PROG.NPST=Q
 ‘WHAT are (you) drinking now?’ (WHQ Focus)

- b. *ñama wanoo [see]_F nudusu=doo.*
 now 1SG.TOP sake drink.PROG.NPST=EMP
 ‘(I) am now drinking SAKE.’ (in response to (a); WHA Focus)
- c. *wanoo mizoo araa [see]_F=du*
 1SG.TOP water.TOP COP.NEG.CVB sake=FOC
nudun=doo.
 drink.PROG.NPST=EMP
 ‘It is not water but SAKE which I am drinking.’ (Contrastive Focus: *du* marking)
- (31) Predicate focus
- a. *da=ya ñama [nuu susu]_F=yo?*
 2SG=TOP now what do.PROG.NPST=Q
 ‘WHAT are you DOING now?’ (WHQ Focus)
- b. *ñama [see nudusu]_F=doo.*
 now sake drink.PROG.NPST=EMP
 ‘Now (I) am DRINKING SAKE.’ (in response to (a); WHA Focus)
- c. *wanoo ñama sigutu susoo araa*
 1SG.TOP now work do.TOP COP.NEG.CVB
[see=du nudun]_F=doo.
 sake=FOC drink.PROG.NPST=EMP
 ‘I am now not working but DRINKING SAKE.’ (Contrastive Focus: *du* marking)

Another CF-sensitive language, Yonabaru (South-Central Okinawan, NR), shows exactly the same pattern that we examined above, and I leave out the examples from Yonabaru here simply due to space limitations. The data from other languages which I did not examine in the current cross-dialectal survey, such as the Ura dialect of Amami-Oshima (see Section 1), the Shitoke dialect of Kikai (data by courtesy of Dr. Rihito Shirata), the Shuri dialect of Okinawan, and Yoron (data by courtesy of Dr. Nana Tohyama) indicate that many other NR languages show the same pattern that is exhibited by Onotsu.

The Isen dialect of Tokunoshima (data by courtesy of Ms. Alyn Kim) is distinct from the other CF-sensitive languages in its optional focus-marking for argument focus (subject) but obligatory marking for direct object and predicate.

- (32) Contrastive Focus
- a. *wan arango [akira]_F=ga(=du) isu 'kundzatsan=do=ja.*
 1SG COP.NEG.CVB Akira=NOM(=FOC) chair broke=EMP=SFP
 ‘It is not me but AKIRA who broke a/the chair.’ (Contrastive Focus; optional *du* marking)
- b. *wan=ja midzi arango [saki]_F=du*
 1SG=TOP water COP.NEG.CVB sake=FOC
nuudun=do=ja.
 drink.PROG.NPST=EMP=SFP
 ‘I am not drinking water; (I) am drinking SAKE.’ (Contrastive Focus; *du* marking)

- c. *wan=ja nja sigjutu=ja arango*
 1SG=TOP now work=TOP COP.NEG.CVB
[saki=du nuudun]_F=do=ja.
 sake=FOC drink.PROG.NPST=EMP=SFP
 'I am not working but am DRINKING SAKE.' (Contrastive Focus; *du* marking)

5.3. EF-sensitive languages

5.3.1. Sateku (Kikai, Amami Ryukyuan, NR)

EF-sensitive languages allow focus-marking for exhaustive foci, i.e. the WHA type in addition to the Contrastive Focus type. The Sateku dialect of Kikai (data by courtesy of Dr. Rihito Shirata) has the severest restriction with regard to focus-marking among all EF-sensitive languages, restricting the focus-marking in the WHA Focus type to the subject NP alone. Furthermore, the focus-marking on subject is not without restriction. As illustrated below, whereas WHQ Focus in Sateku never induces focus-marking (33) for the subject NP, WHA Focus may or may not induce focus-marking (34a, b).

- (33) Argument focus (Subject focused): WHQ Focus
hun isoo [tʰan]_F=ŋa yabuta=ka?
 this chair.TOP who=NOM broke=Q
 'WHO broke the chair?' (no focus-marking)
- (34) Argument focus (Subject focused): WHA Focus (in response to (33))
- a. *un isoo [akira]_F=ŋa yattasu=yo.*
 that chair.TOP Akira=NOM broke=SFP
 'AKIRA broke the chair.'
- b. *[uttuu]_F=ŋa=du yabutan=doo.*
 younger.brother=NOM=FOC broke=EMP
 'MY YOUNGER BROTHER broke (it).' (*du* marking)

The asymmetry in the subject focus marking between *akira* 'Akira' in (34a) and *uttuu* 'younger brother' in (34b) is explained by the Animacy-Focus Interplay Hierarchy in Section 3.2, which is listed again below.

- (35) Animacy-Focus Interplay Hierarchy
 Focus-marking for the subject NP is more likely to occur in the order of:
Lower in animacy > **Higher in animacy**
 (*nu*-taking NP) (ga-taking NP)

Note here that Sateku is different from typical Amami languages in that there is no differential subject marking in this language. However, the animacy-based distinction, i.e. between *uttuu* 'younger brother' (lower in animacy) and *akira* 'Akira' (higher in animacy) still affects *du* marking in this language.

When we compare the WHA Focus (34) with the Contrastive Focus type (36) below, it becomes clear that the focus-marking spreads to the NP *akira*, i.e. from a lower to a higher NP, in conformity with Animacy-Focus Interplay Hierarchy.

(36) Argument focus (Subject focused): Contrastive Focus

- a. *wanoo aradu [akiira]_F =ηa=du yattan=doo.*
 1SG.TOP COP.NEG.CVB Akira=NOM=FOC broke=EMP
 'It is not me but AKIRA who broke the chair.' (Contrastive Focus: *du* marking)
- b. *wanoo aran=doo. [uttuu]_F =ηa=du*
 1SG.TOP COP.NEG.NPST=EMP younger.brother=NOM=FOC
yabutan=doo.
 broke=EMP
 'It's not me; (it's) MY YOUNGER BROTHER (who) broke (it).' (Contrastive Focus: *du* marking)

5.3.2. Setouchi (Amami-Oshima, Amami Ryukyuan, NR)

The Setouchi dialect of Amami Ryukyuan (data by courtesy of Dr. Shigehisa Karimata) also exhibits the interplay between nominative-marking and focus-marking. Here again, only the *nu*-taking subject NP takes *du* in WHA Focus whereas all subject NPs take *du* in the Contrastive Focus type.⁵ This can be explained in the same vein as the Sateku case.

(37) Argument focus (Subject focused): WHQ Focus

- [tar]_F =ga ?issa k'jo:tfi:*
 who=NOM chair.TOP broke
 'WHO broke the chair?' (no focus-marking)

(38) Argument focus (Subject focused): WHA Focus (in response to (37))

- a. *[?aki.ra]_F =ga k'jo:tfi:*
 Akira=NOM broke
 'AKIRA broke (it).' (*ga*-taking NP: no focus-marking)
- b. *[?utu:tu]_F =du k'jo:tfi: ga-taking NP: no focus-marking*
 younger.brother=FOC broke *ga* taking NP:
 'MY YOUNGER BROTHER broke (it).' (*nu*-taking NP: *nu* replaced by *du*)

(39) Argument focus (Subject focused): Contrastive Focus

- a. *wanna ?arangunēnsi: [?aki.ra]_F =du k'jo:tsan.*
 1SG.TOP COP.NEG.CVB Akira=FOC broke
 'It is not me but AKIRA who broke the chair.' (*ga*-taking NP: *ga* replaced by *du*)
- b. *wanna ?arangunēnsi: [?utu:tu]_F =du k'jo:tsan.*
 1SG.TOP COP.NEG.CVB younger.brother=FOC broke
 'It's not me; (it's) MY YOUNGER BROTHER (who) broke (it).' (*nu*-taking NP: *nu* replaced by *du*)

⁵ An anonymous reviewer pointed out the potential importance to our typology of the difference between languages that allow co-occurrence of nominative and focus marking (i.e. NP=*nu=du*) and those where focus marking causes the nominative marker to be deleted (NP=*nu=du* → NP=*du*). As far as the current data is concerned, however, the two patterns are found not only in EF-sensitive languages such as Yuwan and Setouchi but in CF-sensitive languages such as Isen, indicating that the difference is independent of the type of focus sensitivity.

5.3.3. Yuwan (Amami-Oshima, Amami Ryukyuan, NR)

Yuwan (Amami-Oshima, Amami Ryukyuan, NR, data by courtesy of Dr. Yuto Niinaga) exhibits a similar animacy-focus interplay to that we discussed for Sateku and Setouchi. As illustrated in (41), the *ga*-taking NP is not focus-marked in the WHA Focus type whereas the *nu*-taking NP is focus-marked by *du* which replaces the nominative *nu*.

- (40) Argument focus (Subject focused): WHQ Focus
 [taru]_F=*ga* *kosikake=ba* *kjoosi?*
 who=NOM chair=ACC broke
 'WHO broke a/the chair?' (no focus-marking)
- (41) Argument focus (Subject focused): WHA Focus (in response to (40))
- a. [akira]_F=*ga* *kjoosjat=too*.
 Akira=NOM broke=EMP
 'AKIRA broke (it).' (*ga*-taking NP: no focus-marking)
- b. [*waa* *ututuu*]_F=*du* *kjoosjat=too*.
 1SG.GEN younger.brother=FOC broke=EMP
 'MY YOUNGER BROTHER broke (it).' (*nu*-taking NP: *nu* replaced by *du*)

In the Contrastive Focus type, the *ga*-taking NP may also be focus-marked by *du*, but the focus-marking is optional. By contrast, the *nu*-taking NP is obligatorily focus-marked as in the WHA Focus type. The difference between the *ga*-taking NP and the *nu*-taking NP in the optionality of focus-marking is in conformity with Animacy-Focus Interplay Hierarchy.

- (42) Argument focus (Subject focused): Contrastive Focus
- a. *wan=na* *arannEnsi*, [akira]_F{=*du*/*ga*} *isu*
 1SG=TOP COP.NEG.CVB Akira={FOC/=NOM} chair
kjoosjat=too.
 broke=SFP
 'It's not me but AKIRA who broke a/the chair.' (*ga*-taking NP: *nu* optionally replaced by *du*)
- b. *wan=na* *aran=doo*. [ututuu]_F=*du* *kjoosjat=too*.
 1SG=TOP COP.NEG=EMP younger.brother=FOC broke=EMP
 It's not me; (it's) MY YOUNGER BROTHER who broke (it).' (*nu*-taking NP: *nu* replaced by *du*)

Our concern now shifts to a feature in Yuwan which is unique among EF-sensitive languages. That is, in Yuwan focus-marking is optional when the whole predicate is focused. This is consistent without respect to the focus type. This supports the validity of the Focus Domain Hierarchy, which predicts that the predicate is never more likely to be focus-marked than the argument.

- (43) Argument focus (Direct object focused)
- a. *namoo* [nuu]_F *nudui?*
 now.TOP what drink.PROG.NPST
 'WHAT are (you) drinking now?' (WHQ Focus)

- b. *namoo* [sEE]_F=*du* *nudui*.
now.TOP sake=FOC drink.PROG.NPST
'(I) am drinking SAKE now.' (in response to (a); WHA Focus; *du* marking)
- c. *wan=na* *namoo* *mIzI=ja* *arannEnsi* [sEE]_F=*du*
1SG=TOP now.TOP water=TOP COP.NEG.CVB sake=FOC
nudut=too.
drink.PROG.NPST=EMP
'I am not drinking water; (I) am drinking SAKE.' (Contrastive Focus; *du* marking)
- (44) Predicate focus: WHQ Focus
namoo [nuu *sii*]_F?
now.TOP what do.PROG.NPST
'What are (you) DOING now?' (no focus-marking)
- (45) Predicate focus: WHA Focus (in response to (44))
a. *namoo* [sEE=*du* *nudui*]_F. (*du* marking)
now.TOP sake=FOC drink.PROG.NPST
b. *namoo* [sEE *nudunturoo*]_F.
now.TOP sake drink.PROG.NPST
'(I) am DRINKING SAKE now.' (no focus marking)
- (46) Predicate focus: Contrastive Focus
a. *wan=na* *namoo* *sigutu=ja* *arannEnsi* [sEE
1SG=TOP now.TOP work=TOP COP.NEG.CVB sake
numii]_F=*doo*
drink.PROG=EMP
'I am not working now; (I) am DRINKING SAKE.' (no focus-marking)
b. *wan=na* *namoo* *sigutu=ja* *arannEnsi* [sEE=*du*
1SG=TOP now.TOP work=TOP COP.NEG.CVB sake=FOC
nudut]_F=*too*
drink.PROG=EMP
'I am not working now; (I) am DRINKING SAKE.' (*du* marking)

5.3.4. Kunigami (Okinoerabu, Amami Ryukyuan, NR) and Yonaguni (Yaeyama, SR)

The Kunigami dialect of Okinoerabu (data by courtesy of Dr. Akiko Yokoyama) and Yonaguni allow focus-marking across all focus domains as long as the focus type is [+exhaustive]. I illustrate the pattern of Kunigami, and I do not list examples from Yonaguni due to space limitations.

- (47) Argument focus (Subject focused)
a. [taN]_F=*ga* *isu* *jabuti=joo*?
who=NOM chair broke=Q
'WHO broke a/the chair?' (WHQ Focus)
b. [akira]_F=*ga=du* *jabutaN*.
Akira=NOM=FOC broke
'AKIRA broke (it).' (in response to (a); WHA Focus; *du* marking)

- c. *waN=wa arazji [akira]_F=ga=du isu jabutaN=djaa.*
 1SG=TOP COP.NEG.CVB Akira=NOM=FOC chair broke=SFP
 ‘It is not me but AKIRA who broke a/the chair.’ (Contrastive Focus; *du* marking)
- (48) Argument focus (Direct object focused)
- a. *nama [nuu]_F nudui=joo?*
 now what drink.PROG.NPST=Q
 ‘WHAT are (you) drinking now?’ (WHQ Focus)
- b. *nama [jaa]_F=du nuduN.*
 now tea=FOC drink.PROG.NPST
 ‘(I) am drinking TEA now.’ (in response to (a); WHA Focus; *du* marking)
- c. *wana mizji=wa nuduraN=djaa. [saki]_F=du*
 1SG.TOP water=TOP drink.PROG.NEG=SFP sake=FOC
nuduNdjaa.
 drink.PROG.NPST=SFP
 ‘I am not drinking water; (I) am drinking SAKE.’ (Contrastive Focus; *du* marking)
- (49) Predicate focus
- a. *nama [nuu sjui]_F=joo?*
 now what do.PROG.NPST=Q
 ‘WHAT are (you) DOING now?’ (WHQ Focus)
- b. *nama [saki=du nuduN]_F=djaa.*
 now sake=FOC drink.PROG.NPST=SFP
 ‘(I) am DRINKING SAKE now.’ (in response to (a); WHA Focus; *du* marking)
- c. *wana nama=wa sjigitu=wa sjuuraN=djaa*
 1SG.TOP now=TOP work=TOP do.PROG.NEG=SFP
[saki=du nuduN]_F=doo.
 sake=FOC drink.PROG.NPST=EMP
 ‘I am not working now; (I) am DRINKING SAKE.’ (Contrastive Focus; *du* marking)

5.4. Non-restrictive languages

Non-restrictive languages are distinct from CF-sensitive and EF-sensitive languages in that the former allow focus-marking in all focus types including the WHQ Focus type. Focus-marking in Non-restrictive languages are thus motivated by the presence of a mere new information part of the proposition, which is commonly called information focus in the literature of information structure. The fact that focus-marking in Non-restrictive languages are motivated by new information leads us to suspect that an all-new, sentence-focus construction regularly induces focus-marking in these languages, since in sentence-focus the whole proposition carries new information (Section 2.2.1). And this is true. SR languages almost obligatorily require focus-marking on the left-most constituent (typically the subject) of the sentence when the whole sentence is focused (Davis 2013, Hayashi 2017, Shimoji 2011, 2017a, b). See Section 2.2.1 for the relevant

examples from Irabu. Unlike the other SR languages, Yonaguni usually disallows focus-marking to occur in sentence-focus constructions (Shimoji 2016). This is expected, as Yonaguni is an EF-sensitive language and thus needs [+exhaustive] feature for focus-marking to occur.

In describing Non-restrictive languages, it is useful to divide them into two subtypes, the Miyako type and the Yaeyama type. The former makes use of a distinct focus particle *ga* for WHQ Focus, whereas the latter generalises *du* for the WHQ and other focus types.⁶

5.4.1. Miyako Ryukyuan (SR)

In this section, the Irabu dialect is used to illustrate the pattern of Miyako Ryukyuan.

(50) Argument focus (Subject focused)

a. *[taru]_F = nu = ga* *is = su = baa* *javtar = ga?*

who=NOM=FOC chair=ACC=TOP broke=Q

‘WHO broke a/the chair?’ (WHQ Focus; *ga* marking)

b. *[akira]_F = ga = du* *javtar.*

Akira=NOM=FOC broke

‘AKIRA broke (it).’ (in response to (a); WHA Focus; *du* marking)

c. *ba = a* *arada* *[akira]_F = ga = du*

1SG=TOP COP.NEG.CVB Akira=NOM=FOC

is = su = baa *javtar.*

chair=ACC=TOP broke

‘It is not me but AKIRA who broke a/the chair.’ (Contrastive Focus; *du* marking)

(51) Argument focus (Direct object focused)

a. *nnama = a* *[nau]_F = ju = ga* *numiur?*

now=TOP what=ACC=FOC drink.PROG.NPST

‘WHAT are (you) drinking now?’ (WHQ Focus; *ga* marking)

b. *nnama = a* *[saki]_F = u = du* *numiur.*

now=TOP sake=ACC=FOC drink.PROG.NPST

‘(I) am drinking SAKE now.’ (in response to (a); WHA Focus; *du* marking)

c. *ba = a* *miz = za* *arada* *[saki]_F = du*

1SG=TOP water=TOP COP.NEG.CVB sake=FOC

numiur.

drink.PROG.NPST

‘I am not drinking water; (I) am drinking SAKE.’ (Contrastive Focus; *du* marking)

⁶ In addition to *ga*, Miyako languages like Irabu have *ru/nu*, which is a focus marker only used in polar questions. In effect, *du* only occurs in declaratives, so we can claim that it is a declarative sentence indicator, just as *ga* and *ru/nu* can be analyzed as a WH and polar question indicators respectively. Thus, focus particles in Miyako should be considered to be ones that simultaneously indicate sentence types.

(52) Predicate focus

- a. *nnama=a* [*nau=ju(=ga)* *asiur*]_{F?}
 now=TOP what=ACC(=FOC) do.PROG.NPST
 ‘WHAT are (you) DOING now?’ (WHQ Focus; *ga* marking is optional)
- b. *nnama=a* [*saki=u=du* *numiur*]_F.
 now=TOP sake=ACC=FOC drink.PROG.NPST
 ‘(I) am drinking sake now.’ (in response to (a); WHA Focus; *du* marking)
- c. *ba=a* *nnama=a* *sgutu=u=baa* *abun*.
 1SG=TOP now=TOP work=ACC=TOP do.NEG
 [*saki=u=du* *numiur*]_F.
 sake=ACC=FOC drink.PROG.NPST
 ‘I am not working now; (I) am DRINKING SAKE.’ (Contrastive Focus; *du* marking)

The optionality of focus-marking only for predicate focus of the WHQ Focus type is consistent with other Miyako Ryukyuan languages including Bora (Central Miyako, Miyako Ryukyuan, SR) and Tarama (Tarama, Miyako Ryukyuan, SR; data by courtesy of Dr. Hayato Aoi and Dr. Kayoko Shimoji). The following examples are from Bora (data by courtesy of Dr. Shigehisa Karimata).

(53) Predicate focus (Bora, Miyako Ryukyuan, SR)

- a. *nnama=a* [*nau=ju(=ga)* *siiurjaa*]_{F?}
 now=TOP what=ACC(=FOC) do.PROG.NPST
 ‘WHAT are (you) DOING now?’ (WHQ Focus; *ga* marking is optional)
- b. *nnama=a* [*sakju:=du* *numiuz*]_F.
 now=TOP sake.ACC=FOC drink.PROG.NPST
 ‘(I) am DRINKING SAKE now.’ (in response to (a); WHA Focus; *du* marking)
- c. *ba=ja:* *nnama:* *sugutu:=ba:* *su:n*
 1SG=TOP now.TOP work=ACC=TOP do.NEG
 [*sakju:=du* *numju:z*]_F.
 sake.ACC=FOC drink.PROG.NPST
 ‘I am not working now; (I) am DRINKING SAKE.’ (Contrastive Focus; *du* marking)

5.4.2. General pattern of Yaeyama Ryukyuan (SR)

The Yaeyama Ryukyuan languages use the focus particle *du* (or its cognate form, such as *ru*) for the WHQ Focus type as well as for other declarative focus types. In most of the sample Yaeyama languages that exhibit the Non-restrictive pattern, the focus-marking on predicates in the WHQ Focus type is obligatory, in contrast to Miyako Ryukyuan, but Kuroshima (data by courtesy of Dr. Soichiro Harada) is like Miyako, allowing the focus-marking for predicate focus in the WHQ Focus type to be optional. Thus, compare (54), in which the predicate is focused in the WHQ Focus type, with (55), in which the direct object is focused in the same focus type.

- (54) *manuma* [*nuu*(=*du*) *sii* *buura*]_F?
 now what(=FOC) do.CVB PROG.NPST
 ‘WHAT are (you) DOING now?’ (predicate/WHQ Focus; *du* marking is optional)
- (55) *manuma* [*nuu*]_F=*du* *numi* *buura*?
 now what=FOC drink.CVB PROG.NPST
 ‘WHAT are (you) drinking now?’ (direct object/WHQ Focus; *du* marking is obligatory)

The Maesato dialect of Ishigaki (data by courtesy of Ms. Yuko Urabe) represents the typical Yaeyama pattern, where all focus domains across all focus types induce focus-marking.⁷ Thus, focus-marking is now obligatorily for predicate focus, unlike the cases in Miyako and Kuroshima as noted above.

- (56) Predicate focus
- a. *manama* [*nu*:=*du* *si*: *uru*]_F=*ja*.
 now what=FOC do.CVB PROG.NPST=Q
 ‘WHAT are (you) DOING now?’ (WHQ Focus; *du* marking)
- b. *manama* [*gusi*=*du* *numi* *uru*]_F.
 now sake=ACC=FOC drink.CVB PROG.NPST
 ‘(I) am DRINKING SAKE now.’ (in response to (a); WHA Focus; *du* marking)
- c. *bana*: *manama* *sigoto*: *sa:nkune*
 1SG.TOP now work=TOP do.NEG.CVB
 [*gusi*=*du* *numi* *uru*]_F=*dara*
 sake=FOC drink.CVB PROG.NPST=SFP
 ‘I am not working now; (I) am DRINKING SAKE.’ (Contrastive Focus; *du* marking)

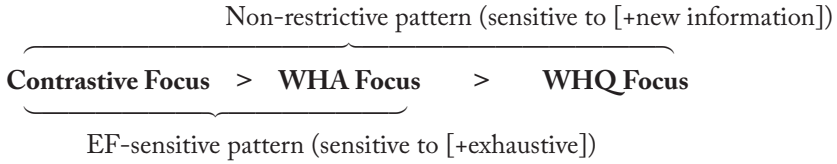
6. Focus type and focus-marking

6.1. Focus Type Hierarchy

The identification of the three major patterns, CF-sensitive, EF-sensitive and Non-restrictive patterns, suggests the identification of a hierarchical organization of the relationship between focus types and focus-marking, which is presented as Focus Type Hierarchy, as shown schematically in (57).

- (57) Focus Type Hierarchy: if a language allows focus-marking on a certain point on the hierarchy, then it must also allow focus-marking for the focus types to its left.

⁷ The data for Maesato is by courtesy of Ms. Yuko Urabe. She conducted two sessions of elicitation, and the first session revealed some irregular pattern (irregular in our current typology), with the direct object focus in the WHA Focus type impermissible and the predicate focus in the same type optional. However, in her second and more careful session, Urabe reports that all these focus domains/types including the above two are judged to be regularly and obligatorily focus-marked by the same speaker.



As will be discussed in detail in Section 6.2, the Focus Type Hierarchy argues for a more fine-grained hierarchy as compared with the existing typological claims such as one suggested by Skopeteas and Fanselow's (2010), as is shown in (58).

- (58) Asymmetry of focus type
 Identificational (Contrastive in our terms) > Non-identificational (Non-contrastive)

Skopeteas and Fanselow's model claims that Identificational focus (which corresponds to Contrastive Focus in our terms) is more likely to induce focus-marking than Non-identificational focus (which corresponds to WHA Focus and WHQ Focus in our terms). Thus, the two claims, (57) and (58), differ with respect to whether the two subclasses of non-identificational foci (i.e. WHA and WHQ Foci) should be recognized as distinct classes in cross-linguistic typology of focus-marking (see Section 6.2 in more detail).

The Focus Type Hierarchy may be interpreted as integrating the difference in focus domain: under a given focus domain (e.g. predicate), if a language allows focus-marking for a particular focus type (e.g. WHQ Focus), then it must also allow focus-marking for the type(s) to its left which belongs to the same focus domain.

What is crucial about the Focus Type Hierarchy is that it is functionally motivated and explainable. As we noted earlier in Section 2, Contrastive Focus is marked for all the three focus features, i.e. [+contrastive][+exhaustive][+new information]. WHQ Focus is analysed as [+new information] only. WHA Focus comes in between, as it is analysed as [+exhaustive][+new information] but is unmarked for the contrastiveness feature.⁸

The Focus-marking with a focus particle is clearly a structurally marked focus realisation strategy. Assuming that there is a parallelism between structural markedness (focus-marking) and functional markedness (which is defined in terms of the feature combinations noted above), it is predicted that Contrastive Focus

⁸ As an anonymous reviewer suggests, there are two possible ways to look at the hierarchy. On the one hand, as the present author describes it, there is actually an implicational relation in the features, in such a way that [+contrastive] entails [+exhaustive], which then entails [+new information]. On the other, the anonymous reviewer suggests another possible interpretation, whereby focus-marking might "spell out" any of these three features, depending on the language. If it spells out [+contrastive], one will get the CF-sensitive system, while if it spells out [+exhaustive] one will get the EF-sensitive system. As the reviewer correctly points out, under this latter view, the implicational hierarchy would derive from an implicational relationship between the features themselves.

is more likely to induce focus-marking than WHA Focus, which is in turn more likely to induce focus-marking than WHQ Focus.⁹

Focus Type Hierarchy is also relevant in the description of the structural pattern of KM in some dialects. As noted in Section 3.1, Yokoyama (2017) reports that in the Kunigami dialect of Okinoerabu, verbal concord is usually absent when the focus particle *du* occurs in a sentence. She makes a very important observation that if verbal concord does occur, it tends to occur in what we call the Contrastive Focus type. With the Focus Type Hierarchy, her observation is now interpreted as a striking parallelism between structural markedness and functional markedness in this language.

Table 3. Focus Type Hierarchy and KM in Kunigami

	Contrastive Focus	WHA Focus	WHQ Focus
contrastive	+	-	-
exhaustive	+	+	-
new information	+	+	+
KM components	Constituent marking	Constituent	
	(Verbal concord)		

A number of scholars point out that verbal concord is often absent or is being lost in the KM of NR languages, a situation which Uchima (1985) calls ‘weakening of concord’. Thus, this phenomenon has been exclusively discussed in terms of historical change of KM. However, as Yokoyama (2017) notes, the presence or absence of verbal concord in a language’s KM may be motivated by its synchronic grammatical constraint, or more broadly, a cross-dialectal constraint like the Focus Type Hierarchy. Even though there are few descriptive works which mention the relationship between verbal concord and focus type as noted by Yokoyama, it is worth suggesting the following hypothesis about the constraint on the presence of

⁹ Another way of approaching the relationship between structural markedness (focus-marking) and functional markedness is to refer to discourse organization, and such an argument is particularly common in discussing (absence of) focus-marking of question-answer pairs (Zimmermann and Onea 2011: 1658). That is, the existence of a focus in a WH question is explicitly marked by a WH word *per se*, leading the use of focus-marking superfluous. Likewise, in the presence of a WH question, the explicit marking of a focus in the corresponding answer sentence is superfluous. However, there are reasons to argue against such an argument. First, this argument cannot explain the observed descriptive fact of Ryukyuan, where WHA Focus is more likely to be focus-marked than WHQ-Focus. Second, a WH word may be used in sentence types other than WH questions in Ryukyuan (and in Japanese), such as existential/universal quantification, where the WH word is not necessarily a focus. So, the explicit marking on a WH word with the focus marker is not superfluous. Third, the structural correspondence in a WH-question-answer pair is not always guaranteed (e.g. in cases where a WH question is asked in the form of a quasi-cleft sentence and the answer takes the form of a simple sentence, or vice versa), so there is a motivation for the use of focus-marking to indicate which constituent of a sentence is focused.

verbal concord in a language's KM, based on the Focus Type Hierarchy.

- (59) If verbal concord of KM occurs at a certain point in the Focus Type Hierarchy, then it must also be found to its left.

This hypothetical prediction excludes cases where concord occurs in other focus types, such as dubitative sentences, in which a WH phrase is focus-marked and the verb takes the special inflection (e.g. *-(r)a* in Okinawan; Uchima 1985). It is a matter of debate whether this should be included as a type of WHQ Focus, as it is not really a question in its true sense of asking a verbal response from the addressee.

6.2. Focus Type Hierarchy and its implications for linguistic typology

Skopeteas and Fanselow's (2010) model (58) predicts the differences in the likelihood of focus-marking between what they call identificational focus (which corresponds to Contrastive Focus in our classification) and non-identificational focus (which corresponds to the rest, i.e. WHA Focus and WHQ Focus). Thus, the hierarchy suggested by Skopeteas and Fanselow does not make predictions about whether a WHA Focus is more likely to be focus-marked than a WHQ Focus or vice versa. It is on this point which the two models differ significantly.

Skopeteas and Fanselow argue that these types (WHA Focus and WHQ Focus) are collectively in contrast to what they call an identificational focus (i.e. Contrastive Focus in our terms) since the former are contextually predictable and thus do not have to make use of grammatical devices to mark a focus. That is, 'Wh-questions introduce a variable and a presupposition', and 'answers that only assert the referent that instantiates the variable are highly expected, i.e. their information structure is fully predictable by the context, even if it is not signalled by grammatical means.' The upshot is that both types of foci in a WH-question-answer pair are equally unlikely to attract focus-marking as compared with Contrastive Focus. A similar claim that a WH-question-answer pair does not have to be information-structurally distinct is found in Drubig and Shaffer (2001: 189), who explicitly state that 'the information structure of the answer must correspond to that of the question'.

However, the Ryukyuan data suggest that there may be a difference between a WHA Focus and a WHQ Focus in the likelihood of focus realisation. This view is supported by the existence of EF-sensitive languages, where the major division comes between WHA Focus and WHQ Focus, cross-cutting what would be a single category (i.e. non-identificational focus) in Skopeteas and Fanselow's 2010 model. Note that the existence of EF-sensitive languages is naturally explained by defining these focus types as [+exhaustive]: EF-sensitive languages are sensitive to the [+exhaustive] feature which is lacking in WHQ Focus.

Even in Non-restrictive languages where WHA Focus and WHQ Focus are equally focus-marked and are thus not serious counter-examples to Skopeteas and Fanselow's model, the distinction between the two focus types is still evident. In Miyako Ryukyuan, there is a special focus particle *ga*, which is only used

for a WHQ Focus, instead of *du*, which is only used for a WHA Focus and a Contrastive Focus, indicating that the two types of focus may be categorically distinguished by distinct morphological marking. Here, *ga* is sensitive to the [-exhaustive] feature, whereas *du* is sensitive to the [+exhaustive] feature.

7. Focus domains and focus-marking

The results suggest that seven sample languages treat both focus domains (argument and predicate) in the same way, either allowing or disallowing focus-marking for the two. However, the data from four languages, i.e. Yuwan, Bora, Irabu, and Kuroshima, allow us to delineate the hierarchical relationship between the two, in such a way that argument focus (whether it be subject or direct object) is more likely to be focus-marked than predicate focus.

Based on this observed fact, the present study suggests the following Focus Domain Hierarchy.

(60) Focus Domain Hierarchy: Argument Focus > Predicate Focus

There are two competing hypotheses which have bearings on the Focus Domain Hierarchy. Skopeteas and Fanselow (2010) and Zimmermann (2016) suggest the following hypotheses about asymmetry of focus-marking on different focus domains.

- (61) Two hypothetical generalisations of asymmetry of focusable elements
- a. Subject > Non-subject (Skopeteas and Fanselow 2010)
 - b. Argument > Predicate (Zimmermann 2016)

The two are different in the treatment of the subject: Skopeteas and Fanselow's model singles out the subject focus and predicts that it is the most likely to be focus-marked, whereas Zimmermann's model treat arguments ('terms' in Zimmermann's terms) collectively in contrast to predicate. The Focus Domain Hierarchy is identical to Zimmermann's (2016) claim, treating subject and object as a single category 'argument' in the hierarchical organization of focus domains.

Our data thus supports Zimmermann's generalisation. However, looking back at the data for the present study (Table 2), one might argue for a more elaborate configuration of Focus Domain Hierarchy, in such a way that the subject is more likely to be focus-marked within the argument category in favour of Skopeteas and Fanselow's model. Sateku nicely instantiates this elaborate hierarchy. But most other languages treat both subject and direct object equally likely to be focus-marked and we cannot argue for or against the elaborate hierarchy. Furthermore, this elaboration results in picking out Isen as exceptions to this: in Isen, the subject is not focus-marked even when the direct object is focus-marked. The relevant examples, (32a-c), are listed again below.

(62) Contrastive Focus

- a. *wan arango [akira]_F=ga(=du) isu 'kundz.atsan=do=ja.*
 1SG COP.NEG.CVB Akira=NOM(=FOC) chair broke=EMP=SFP
 'It is not me but AKIRA who broke a/the chair.' (Contrastive Focus; optional *du* marking)
- b. *wan=ja midzi arango [saki]_F=du*
 1SG=TOP water COP.NEG.CVB sake=FOC
nuudun=do=ja.
 drink.PROG.NPST=EMP=SFP
 'I am not drinking water; (I) am drinking SAKE.' (Contrastive Focus; *du* marking)
- c. *wan=ja nja sigjutu=ja arango*
 1SG=TOP now work=TOP COP.NEG.CVB
[saki=du nuudun]_F=do=ja.
 sake=FOC drink.PROG.NPST=EMP=SFP
 'I am not working but am DRINKING SAKE.' (Contrastive Focus; *du* marking)

We cannot attribute the optionality of focus-marking to the subject NP to the focus-marking function of the nominative *ga* (See Section 3.2). In Isen, it is possible to keep the *nu*-taking NP like *uttu* 'younger brother' intact when it is contrastively focused. So, in (62a), if the subject NP *akira* is replaced by *uttu* 'younger brother', the latter may escape from focus-marking with *du*. Thus, Isen seems to be a language where subject focus-marking is simply optional. I therefore conclude that the current data supports Focus Domain Hierarchy in its current version (60), with no specific reference to the difference between the subject and direct object NPs. Hence, we argue for Zimmermann's model of generalisation.

Zimmermann (2016) argues that the division is motivated by functional markedness: the unmarked information-structural function of the predicate is to serve as a focus of the sentence, and therefore no need to mark the expected function. Drawing on the natural discourse data of Irabu (15 mins, 88 clauses of which 45 are transitive clauses), Shimoji (2016) demonstrates that the most frequent information-structural pattern in transitive clauses is one where the subject is a (unexpressed) topic and the rest is the comment (i.e. the whole predicate is focused), accounting for 64% (29/45) of the total occurrences of transitive clauses. By contrast, a focused subject with a backgrounded predicate accounted for 0.8% (4/45), showing a clear functional bias toward the focus-predicate mapping. A similar account may be made for other Ryukyuan languages: in Ura (Amami Ryukyuan, NR; Shigeno 2016) and Hateruma (Yaeyama Ryukyuan, SR; Aso 2016), the most frequent sentence pattern is one where the subject is unexpressed and the predicate (O+V) is expressed. Given that an unexpressed subject is in most cases a topic in Ryukyuan (and in Japanese), we can make a reasonable guess that the same argument that Shimoji (2016) made for Irabu holds true for these languages.

8. Remaining issues

8.1. Transitivity and predicate type

The findings and discussions so far are exclusively based on transitive verbal sentences. Intransitive verbal sentences and non-verbal sentences must also be examined to fully understand the underpinnings of the focus-marking systems of Ryukyuan languages. Also, it is necessary to examine various kinds of adverbial and adjunct-like expressions.

Among these remaining issues, the distinction between verbal and non-verbal sentences must be crucial in considering focus-marking, as the two are radically different in information-structure. That is, non-verbal sentences inherently opt for topic-comment structure, since the assignment of a certain property to an entity, which is characteristic of non-verbal predication, presupposes the prior identification of the entity in discourse. Non-verbal sentences may have the argument focus structure (subject focus structure) on the condition that the subject is not discourse-new. However, non-verbal predication cannot have an all-new, i.e. sentence-focus, structure due to its inherent nature of the information-structural bipartition between background and focus, which canonically corresponds to the discourse-old topic and the commenting predicate respectively. Kuroda (1972) argues that non-verbal predication always involves ‘categorical judgment’ (where the bipartition between a focus and a background exists) while verbal predication may be either categorical judgment or ‘thetic judgment’ (where the proposition is all-new), the latter of which corresponds to the sentence-focus structure. In effect, the subject NP of a non-verbal sentence is either a topic (functionally unmarked) or a focus (functionally marked), excluding the possibility that it is part of the sentence-focus structure. Given that in Ryukyuan (and in Japanese) nominative case-marking indicates that the NP so-marked is not a topic (Shimoji 2018), the nominative case-marking for the subject will suffice to indicate that the subject is non-topical, i.e. is focused.

This deductive reasoning leads us to make a prediction that there is no need to use a focus particle in non-verbal sentences to mark the subject NP as a focus, or that focus-marking is at least less likely to occur than in verbal sentences. Likewise, it is also predicted that marking a predicate focus in non-verbal sentences is equally superfluous, as non-verbal sentences strongly opt for topic-comment structure (where the commenting predicate is focused) by default. This series of predictions is partially supported in Shimoji’s (2015) preliminary survey on focus-marking in four Ryukyuan languages (Ura, Yuwan, Yonaguni, and Irabu), in which it was shown that constituents in verbal sentences are more likely to be focus-marked than those in non-verbal sentences. If this generalisation is correct, we might be able to put forward another hierarchy which concerns the type of predicate, i.e. Verbal predicate > Non-verbal predicate. It is thus an important future research topic to examine the validity of the hypothesis.

8.2. Phrasal predicate focus vs. ‘verb-only’ predicate focus

The present paper dealt with the predicate focus of the type defined as ‘a compo-

ment minus the subject' following Lambrecht (2000) and Van Valin (2005). It is still unclear what will happen to 'verb-only' predicates and how verb-only focus is situated in Focus Domain Hierarchy.

At this stage, it is highly probable that a simplex, verb-only predicate is less likely to be focus-marked than an internally complex predicate like O + V (which we examined in the present paper), based on the facts that Ryukyuan languages generally put the verb sentence-finally and that the focus-marking with *du* on a sentence-final constituent element is strictly prohibited in all Ryukyuan languages, as illustrated in the Irapu example in (63).

- (63) *ba=a* [*cmudi-tar*]_F (*=*du*).
 1SG=TOP get.angry-PST(*=FOC)
 'I GOT ANGRY.' (WHA Focus; in response to 'What did you do then?')

Note that we are not dealing with cases where a non-finite (sequential-converbal) inflection ends a sentence, or what Pellard (2012) calls de-subordination (see also Hayashi and Celik 2018). Here, the sentence-final non-finite verb may take the focus-marker (see, for example, Davis 2013). The above restriction only holds for cases where a finite verb serves as the single verb element that ends a sentence.

There is a special strategy in Ryukyuan, predicate cleft, whereby a single verb element can be focus-marked. For example, the focused verb in (63) is split into an infinitive form of the verb and the light verb auxiliary, which constitute a phrasal predicate. The focus particle can be docked to the left-most constituent, i.e. the infinitive, of the phrasal predicate.

- (64) *ba=a* [*cmudi =du* *s-tar*]_F.
 1SG=TOP get.angry.INF=FOC do-PST
 'I GOT ANGRY.'

However, in Irapu at least, predicate cleft is not a regular means to mark a verb-only focus, and a verb-only focus is usually simply left unmarked, as in (63). Furthermore, focusing on a verb may be blocked by the availability of its rival strategy. Ikema (Miyako Ryukyuan, SR) has what Hayashi (2017) calls the 'special focus form', a non-finite verb form which never co-occurs with *du* but functions to indicate the verb itself to be within the focus domain (Hayashi 2017). Recall that in Irapu the realis form (15b) exhibits a similar distributional constraint, indicating that it is a kind of predicate focus marker. Thus, there seems to be a severer restriction with respect to the focus-marking with *du* on the verb than on the other constituents in Ryukyuan languages. I do not know a Ryukyuan language where verb-only focus is obligatorily marked with *du* via a predicate cleft whereas predicate focus (i.e. phrasal predicate focus) is only optional. It is thus worth examining a hypothesis whereby the prediction is made that if a language regularly allows focus-marking with *du* for verb-only focus, then it must also allow focus-marking for predicate focus. That is, the hypothesis puts verb-only focus at the right edge of Focus Domain Hierarchy, as in:

- (65) Extended Focus Domain Hierarchy (hypothetical)
 Argument Focus > (phrasal) Predicate Focus > (verb-only) Predicate Focus

8.3. WHA Focus revisited

As mentioned in Section 2.1.2, the present study defines WHA Focus as a focus that corresponds to the answer element to a WH question and that denotes an exhaustive identification of the subset of a set of alternatives evoked by its corresponding WH question. The exhaustive entailment may come from a pragmatic implicature, on the assumption that a WH question conventionally requests the answer to be exhaustive and not incomplete (Groenendijk and Stokhof 1984). Or, it may result from semantics, whereby a certain form has an impact on the semantic calculation of exhaustivity.

In Non-restrictive languages, *du* marking does not help for this purpose of indicating exhaustivity, as it is a mere new information marker. In these languages, WHA Foci and Contrastive Foci attract *du* marking simply because they carry new information. By contrast, in EF- and CF- sensitive languages the overt focus-marking with *du* clearly has an impact on the exhaustive (as well as contrastive, in the case of CF-sensitive languages) interpretation on the focused element. The prediction is thus made that in EF-sensitive languages, an atypical, non-exhaustive answer to a WH question (like (7b)) may lead to a lack of *du* marking. Recall that in Japanese, the same effect may be brought by topic-marking (Section 2.1.2). With the dedicated focus marker which indicates exhaustivity, Ryukyuan languages (with an EF-sensitive or CF-sensitive pattern) make use of *du* marking for the positive identification of exhaustivity while Japanese use topic-marking for non-exhaustivity and case-marking for exhaustivity. For CF-sensitive languages, it is also predicted that *du* marking may be possible if the answer element to a WH question is non-canonically contrastive, as in ‘Which do you like?’, where the WH word evokes a closed set of alternatives and thus its answer must be contrastive (Section 2.1.3).

As a first step of the cross-dialectal typology of focus-marking, the present study only dealt with typical question-answer pairs where the question never evokes a closed set of alternatives (thus non-contrastive) and its answer is, following the convention, complete (thus exhaustive). The next step to be taken in future research is to go on to examine atypical situations so that the predictions noted above can be tested. Hayashi and Shirata’s (2017) discussion is illuminating in this regard. They have shown that in the two dialects of Kikai (NR), Shitoke and Kamikatetsu, WHA Focus may be either focus-marked or left unmarked, and the contributing factor is exhaustivity and contrastiveness. In our current terms, these languages can be interpreted as instantiating a CF-sensitive pattern, where the [+exhaustive][+contrastive] feature combination is a necessary condition for focus-marking. These languages can accommodate *du* marking for the answer to a WH question as long as it involves a closed set ([+contrastive] in our terms). Importantly, their data shows that in these languages, when the answer to a WH

question is non-exhaustive, *du* marking may be crucially absent.

Given the above discussion, it is now clear that a more precise way of approaching the focus type in examining Ryukyuan focus-marking is to define them strictly in terms of features and not link them to particular sentence types such as WHA and WHQ. Rather, we should define (as we actually did in Table 1) three focus types as Contrastive Focus (+contrastive, +exhaustive), Exhaustive Focus (+exhaustive) and Information Focus (+new information), and state that in EF-sensitive languages, *du* marking is sensitive to exhaustivity and thus is usually (but not by no means obligatorily) present in an answer element to a WH question as long as it has a [+exhaustive] feature. Likewise, in CF-sensitive languages, *du* marking is sensitive to the feature combination [+exhaustive][+contrastive] and is thus obligatorily present in an overtly contrastive statement ('it is not X but Y that...'), but it may occur in an answer to a WH question if it is exhaustive and contrastive, as Hayashi and Shirata (2017) demonstrate.

9. Conclusion

The present paper has provided a consistent descriptive model which captures a considerable dialectal variation among Ryukyuan languages with regard to the usage of morphological focus-marking such as *du* and *ga*. The model takes the form of a pair of hierarchies: Focus Type Hierarchy (Contrastive Focus > WHA Focus > WHQ Focus) and Focus Domain Hierarchy (Argument > Predicate). Thus, the prediction is made that the optimal condition for focus-marking in any given Ryukyuan language is a contrastively focused argument. It also predicts that focus-marking is least likely in a non-contrastively focused predicate in a WH question.

Abbreviations

ACC (accusative); COP (copula); CSL (causal); CVB (converb); EMP (emphatic); FOC (focus); INF (infinitive); NEG (negative); NOM (nominative); NPST (non-past); PROG (progressive); PST (past); RLS (realis); SFP (sentence-final particle); SG (singular); STM (stem extension); TOP (topic); Q (question)

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【要 旨】

琉球諸語における情報構造, 焦点および焦点階層について

下地 理則

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本稿の目的は、琉球諸語における焦点助詞 (*du, ga*) による焦点標示の方言差 (バリエーション) を記述するとともに、そのバリエーションに関して、可能なパターンを記述でき、不可能なパターンを予測できるモデルを提示することである。扱った方言は15方言であり、北琉球語から喜界島方言 (佐手久, 小野津), 奄美大島方言 (瀬戸内, 湯湾), 徳之島方言 (伊仙), 沖永良部島方言 (国頭), 沖縄本島方言 (与那原) の7方言, 南琉球語から宮古方言 (伊良部島長浜, 宮古島保良, 多良間島), 八重山方言 (石垣島真栄里, 黒島, 鳩間島, 西表島船浮), 与那国方言の8方言である。本稿では、焦点タイプ (WH 焦点 vs. WH 応答焦点 vs. 対比焦点) と焦点ドメイン (項焦点 vs. 述語焦点) の2つの変数で方言差を記述し、琉球諸語の焦点標示に関して、通方言的に以下の2つの階層を提案する。

(1) 焦点タイプの階層: 対比 > WH 応答 > WH

(2) 焦点ドメインの階層: 項 > 述語

琉球諸語の焦点標示に関して、この焦点階層 (Focus-Marking Hierarchies) を用いることで、「階層のある地点で焦点標示が可能なら、その左側でも焦点標示可能である」と一般化できることを論じる。