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Conceptual Domain Transfer in the Grammaticalization of Demonstratives

The Case of Old Japanese/Old Okinawan Focus Particles

Abstract: Data from the world's languages illustrate that demonstratives grammaticalize as temporal auxiliaries/copulas, as focus markers, and as visual evidentials. However, these studies were done on the basis of individual languages or a specific grammaticalization path. In contrast, this paper argues that the various grammaticalization patterns of demonstratives reported in the world's languages are not totally isolated, but rather can be united by a single feature, *distance*: i.e., the spatial distance from the deictic center is conceptually transferred to temporal and evidential /epistemic (speaker's certainty associated with focus markers) domains. Moreover, since studies of this type of semantic extension are often concentrated on languages of Africa, the Americas, and Oceania, this paper adds cases from the Japonic languages to broaden the applicability of the proposed conceptual domain transfer, especially from space to epistemicity (focus). Specifically, this paper discusses the development of the cleft-like *kakari musubi* construction in Old Japanese and Old Okinawan, in which proximal, mesial, and distal demonstratives grammaticalized as focus markers are used in assertive, assertive/interrogative, and interrogative sentences respectively. It argues that such pathways represent a cognitively sound conceptual domain transfer from space to epistemicity and an embodied inverse relationship between spatial distance and epistemic certainty.

Keywords: distance; evidentials; focus markers; *kakari musubi*

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1 Introduction

Data from the world's languages illustrate that demonstratives grammaticalize as temporal auxiliaries/copulas (Schu 1983; Gildea 1993; Diessel 1999), as focus markers (Wilson 1980; and Heine and Kuteva 2002) and as visual evidentials (de Haan 2001, 2003, 2005). However, these studies were done more on the basis of individual languages and on a specific grammaticalization pathway, albeit with exceptions of Diessel (1999), Heine and Kuteva (2002), and Yap et al. (2010).

The purposes of this paper are twofold. First, this paper argues that the various grammaticalization patterns of demonstratives reported in the world's languages are not totally distinct, but rather are united by a single feature, *distance*, such that the spatial distance from the deictic center (Bühler 1982 [1934]) is conceptually transferred to the temporal and evidential / epistemic (speaker's certainty associated with focus markers) distances, which can also be measured from the deictic center. Second, since existing studies of this type of semantic extension(s) are often concentrated on languages of Africa, the Americas, and Oceania, this paper is meant to add cases from the Japonic languages to broaden the applicability of the conceptual mapping, especially of the space > focus pathway.

The organization of this paper is as follows. Based on previous studies, section 2 identifies three main grammaticalization pathways of demonstratives. Section 3 discusses how these pathways can be colligated by a single feature, namely, distance from the deictic center, and also argues for the cognitive basis of such mappings. Section 4 introduces grammaticalization pathways of Old Japanese and Old Okinawan in support of the proposed conceptual mappings. Section 5 concludes the paper.

2 Grammaticalization of Demonstratives

Previous studies on the grammaticalization of demonstratives into grammatical markers can be divided into three groups: (i) space to time; (ii) space to focus; and (iii) space to evidentials.¹ In these three semantic

¹ The extension from demonstratives to personal pronouns is also well known (Heine and Kuteva 2002: 112–113; Ri 2002). Similarly, as textual reference, the proximal vs. non-proximal distinction

extensions, the horizontal spatial contrasts of proximal/distal or proximal/mesial/distal constitute the starting point. In this section, the focus is on the first path, and data extracted from existing studies are presented.

2.1 From Space to Time

In the grammaticalization literature, space-time extension as described by a metaphor like TIME IS SPACE is well known (Heine, Claudi, and Hünemeyer 1991: 157–158). For instance, Gildea (1993: 60–61) reports the grammaticalization of demonstratives as tense auxiliaries in Panare, a Cariban language spoken in southern Venezuela, South America, as in (1).

- (1) a. maestro **kěj** měj
 teacher **ANIM_{PROX}** ANIM_{VISIB}
 ‘This guy **is** a teacher here.’ [He (PROX) is (PROX) a teacher.]
- b. maestro **něj** měj
 teacher **ANIM_{DIST}** ANIM_{VISIB}
 ‘This guy **was** a teacher here.’ [He (PROX) is (DIST) a teacher.]
- c. SPATIAL TEMPORAL
kěj proximal **present**
něj distal **past**

In Teotitlán del Valle Zapotec, an Oto-Manguean language spoken in Mexico, a comparable space-time extension is seen. According to Fenton (2010: 136), this language has the proximal demonstrative *rè* and the distal demonstrative *ki*, both of which have extended into temporal uses. In their temporal usages, the proximal-distal distinction is realized as the immediate vs. remote past. For instance, (2a) and (2b) represent this difference as ‘this

is often realized as the cataphor-anaphor contrast as in examples (a) and (b) respectively (Fillmore 1982: 53–54):

- (a) Here’s what I propose: let’s move in from the west.
 (b) We’ve got to move in from the west. That’s what I’ve been trying to tell you.

However, such semantic extensions are beyond the scope of this study.

past year' vs. 'that year' as shown in the English translation. These correspondences are illustrated in (2c).

- (2) a. iz gu-dεεð=**rè** ba-tʃiib-tè-uŋ zi'in bell-a'
 year COMPL-pass=**PROX** COMPL-scare-INT-1p son sister-1s²
 'El año recién pasado asutamos al hijo de mi hermana.'
 'This past year we really scared my sister's son.'
- b. iz gu-dεεð=**ki** ba-tʃiib-tè-uŋ zi'in bell-a'
 year COMPL-pass=**INVIS** COMPL-scare-INT-1p son sister-1s
 'El año pasado asutamos al hijo de mi hermana.'
 'That year we really scared my sister's son.'
- c. SPATIAL TEMPORAL
 rè proximal **immediate past**
 ki distal/invisible **distant past**

Yet another space-time extension of this sort is seen in the New Caledonia languages of Cèmuḥî and Ouvea Iaai, where the alignment of the proximal demonstratives to the present tense and the distal demonstratives to future/distant tense are observed (Ozanne-Rivierre 1997: 96–97):

- (3) Cèmuḥî
- | | | |
|------------|----------------------|----------------------|
| | <u>SPATIAL</u> > | <u>TEMPORAL</u> |
| <i>cè</i> | 'near speaker' | present tense |
| <i>ne</i> | 'distant, visible' | |
| <i>naa</i> | 'distant, invisible' | future tense |
- (4) Ouvea Iaai
- | | | |
|-------------|----------------------|----------------------|
| | <u>SPATIAL</u> > | <u>TEMPORAL</u> |
| <i>-ang</i> | 'near speaker' | near in time |
| <i>-e</i> | 'distant, visible' | near in time |
| <i>-lee</i> | 'distant, invisible' | distant tense |

A similar temporal display of spatial deixis is also observed in Kabiye, a Gur language of Togo, Western Africa. According to Lébikaza (2005: 236), the proximal particle *yó* marks an event near the coding time (utterance time), while the distal particle *lé* expresses remoteness on the time axis. Thus, as Lébikaza's English translations of Kabiye examples in (5) indicate, with the

² Abbreviations are as follows: COMPL=completive aspect; INT=intensifier; INVIS=distal/non-visible determiner; PROX=proximal determiner, 1p=1st person plural; 1s=1st person singular.

proximal *yó*, the event coincides with the speech time as in (5a), or with direct proximity of the coding time as in (5b) and (5c). In contrast, with the distal particle *lé*, the times of the events referred to are in the past as in (5d) or the future as in (5e).

- (5) a. Don't you hear your children crying?
(with the **proximal** *yó*)
- b. Now the chief has come, what should we do?
(with the **proximal** *yó*)
- c. As the seed-time is approaching, have you prepared your field?
(with the **proximal** *yó*)
- d. Why didn't you give the chief water when he arrived?
(with the **distal** *lé*)
- e. We will discuss the matter when he arrives?
(with the **distal** *lé*)

Thus, the following space-temporal correspondences can be obtained:

(6)	<u>SPATIAL</u>	>	<u>TEMPORAL</u>
<i>yó</i>	proximal		present
<i>lé</i>	distal		past/future

Yet another language exhibiting a parallel space-time extension comes from Kilba, a Chadic language of Gongola State, Nigeria (Schu 1983: 318). Examples (7a) and (7b) illustrate the proximal-distal contrast, and (7c) summarizes it.

- (7) a. àlí **nà** (proximal)
'It's Ali (e.g. referring to someone who **is talking** on the phone).'
- b. àlí **ndà** (distal)
'It was Ali (e.g. said **after speaking** to someone and hanging up).'
- c. SPATIAL > TEMPORAL
nà **proximal** **present**
ndà **distal** **past**

According to Jiang (2006), the proximal-distal opposition manifests in the motion predication and temporal contouring functions in Kavalan, an indigenous Formosan language of Taiwan (Austronesian Language Family).

For instance, the proximal near-hearer demonstrative *yau* indicates the referent subject coming into the speaker's proximity as in (8a), while the distal demonstrative *wiya* signifies the subject either located outside or going out of the speaker's domain as in (8b).

- (8) a. **yau**=ti sunis 'nay³
 DEM.PROX= PFV child that
 'Here **comes** the child.' (Jiang 2006: 118)
- b. **wiya**=ti sunis 'nay
 DEM.DIST= PFV child that
 'There **goes** the child.' (Jiang 2006: 118)

To sum up, the above data from geographically dispersed and genetically unrelated languages point to a strong cross-linguistic correlation between spatial and temporal distances as set out in (9). Examples (8a–b) support this tendency from the angle of the motion predication as 'towards the speaker (proximal)' or 'away from the speaker (distal)'.

(9) <u>SPATIAL</u>	<u>TEMPORAL</u>		
proximal	present	/immediate past	/near in time
distal	past	/distant past	/distant tense

What the above shows is that the grammaticalized tenses preserve an original spatial opposition: the tenses derived from the proximal demonstratives cluster around the speaker's present 'now', while those developed from the distal demonstratives position away from the 'now', either into the past or into the future. Interesting in this regard is the comment by Grady (1997, quoted in Tyler and Evans 2001: 81):

In experiential terms there is a tight correlation between the temporal concept of 'now' and the particular physical location, which is proximal to the human experiencer i.e. 'here'. In other words, we cannot help but experience the present moment in terms of our immediate physical surroundings and our sensory perceptions of them.

3 The abbreviations used here are as follows: DEM=demonstrative; DIST=distal; PFV=perfective; PROX=proximal.

2.2 From Space to Focus

The second semantic extension concerns the space > focus (i.e. epistemic certainty) pathway. This pathway has also been well documented and recognized as a common path of grammaticalization, as noted in Heine and Kuteva (2002: 111) as in (10).

(10) DEMONSTRATIVE > PERSONAL-PRONOUN > COPULA > FOCUS ...

They state, “There is a cross-linguistic grammaticalization chain — DEMONSTRATIVE > PERS-PRON > COPULA > FOCUS ... — that can be held responsible, with or without an intermediate PERS-PRON stage, for the fact that focus markers can ultimately be traced back to, and may be polysemous with, demonstratives”.

There are several languages where one demonstrative grammaticalized as a focus marker, but it is difficult to find a language where both proximal and distal demonstratives have developed into focus markers. One such rare example, which allows us to see how the spatial contrast develops into different focus markings, is Ambulas, one of the Ndu languages, a subset of the Sepik languages spoken in northern Papua New Guinea. Wilson (1980) reports the case where two demonstratives *ken* ‘proximal’ and *wan* ‘distal’ have grammaticalized as focus markers. Although no explicit account is given as to the difference between these two focus markers, available data can lead to an observation that *wan* can appear in a question, while *ken* is reserved for a strong assertion, as in (11a) and (11b).^{4,5}

- (11) a. **ken** wunat kaperedi waasa kaperedi waasa naadaka (< **ken**
 ‘this’)
 focus to.me very.bad dog very.bad dog they.say.and
 ‘It is to me that they say, “very bad dog, very bad dog”, and...’
 (Wilson 1980: 334–5)
- b. **wan** samu bene y-o (< **wan** ‘that’)
 focus what you(d) do-pr
 ‘What is it that you two are doing?’ (Wilson 1980: 172–3)

4 Wilson (1980: 56–57) notes that their adjectival forms, *kéni* and *wani* are used as discourse introducer and closer respectively. This may recall Fillmore’s cataphor vs. anaphor distinction (cf. footnote 1).

5 The abbreviations used here are as follows: (d)=dual; pr=present.

As elaborated in connection with Old Japanese and Old Okinawan in section 4, the difference in the sentence types is suggestive of the strength of certainty that the speaker feels about the content. It is reasonable to think that the content in questions is something that the speaker is not sure of, therefore (s)he asks the addressee of the validity of it. In contrast, the information contained in statements is what the speaker is certain of, thus paving the way to a strong assertion. To put the certainty contrast together with the space deictic opposition, the following correlation can be obtained.

(12)	SPATIAL	>	FOCUS/COMMITMENT
	ken proximal		high certainty (statement)
	wan distal		low certainty (question)

The above correlation is corroborated by Tyler and Evans' statement (2001: 85):

We are cognitively committed to what is proximal and physically verifiable and we conceptualize these entities and events as constituting our actuality; we are much less committed to the actuality of that which is distant and not physically verifiable. In view of the foregoing we suggest that actuality is elaborated at the conceptual level in terms of content pertaining to that which is physically proximal to the experienter.

2.3 From Space to Evidentiality

The third extension is from space > evidentiality. Traditionally, evidentials have been defined as markers of source of information (Willet 1988): witnessed events, inference, and hearsay. It has also been common to bring in a modal view as the association between information sources and the speaker's commitment to the truth of its content (Akatsuka 1979): the speaker commitment is highest with the witnessed events, the lowest with hearsay information. She (ibid: 78) considers Japanese and English proverbs to be reflective of this epistemic hierarchy: (Japanese) *Ron yori shōko* 'visual evidence is superior to logical explanation; (English) *Seeing is believing*. Departing from the traditional account, de Haan (2005: 379) offers an alternative view as follows:

Evidentiality is a deictic category, not a modal one, despite many current assumptions in the literature...[whose] basic meaning is to mark the relation between the speaker and the action s/he is describing. Evidentiality thus fulfills the same function for

marking relationships between speaker and actions/events that, say, demonstratives do for marking relationship between speakers and objects.

De Haan (2003: 16) goes on to say that both evidentiality and deixis view “their respective domain from the point of view of the speaker” and in terms of their origin. He further states that visual evidentials are typically “a secondary development and arise from deictic morphemes (de Haan 2003: 16).

More specifically, de Haan proposes the following developmental paths from demonstratives to evidentials.

(13)	<u>SPATIAL</u>	>	<u>EVIDENTIAL</u>
	proximal	>	direct evidential
(de Haan's 'Speaker's deictic sphere')			(visual/auditory)
	distal	>	indirect evidential
(not in the 'Speaker's deictic sphere')			(inference/hearsay)

(de Haan 2005: 379)

For instance, de Haan (2005: 393) claims that a visible/invisible distinction like the one in Yidinʷ, an Australian language family of North Queensland, as in (14) “can be mapped without problem onto the direct/indirect evidential distinction”.

(14)	Human	Inanimate
'this'	yɪndu-	yɪngu-
'that'	ɲɪndu-	nungu-
'far, invisible'	yupdu-	yungu-

An example of a proximal demonstrative that developed into a visual evidential is provided from Wintu, a Penutian language spoken in Northern California, as below (de Haan 2003: 17):⁶

(15)	nor-hara:	ʔele:
	south-go	vis
	'Someone is going south (visibly).'	

Vidal and Klein (1998) report a case from Guaykuruan languages of South America, where the distal markers *ga'* in Pilagá and *ka* in Toba pragmatically

6 De Haan clarifies that the historical analysis of the -ʔe of the -ʔel is a proximal demonstrative (“See here, it is visibly true and actual” comes from Pitkin (1984: 176)).

code irrealis by signaling an unrealized, hypothetical, or projected status of an event. For instance, in (16b) from Pilagá, “the referent (the bread) is conceptualized as potentially existent” and “the action is expected to be completed after the speech event takes place” (183).

- (16) a. am-sa-nem so' paan
 2SG-1SG-give CL.absent/going.away bread
 ‘I **gave** you bread.’ (The bread is not there, but both the speaker and hearer know that it was.)
- b. am-sa-nem **ga'** paan
 2SG-1SG-give CL.**distal** bread
 ‘I’ll **give** you bread.’ (The bread is not there, but both the speaker and hearer imply that there will be some, and then the speaker will give it to the hearer.)

Perhaps the most complete system of the development from demonstratives to evidentials comes from Abui, a Papuan language of Eastern Indonesia. Kratochvil (2011) views the following development in (17) to be based on the metaphor SPACE → SOURCE DISTANCE. The PROXIMAL-DISTAL opposition grammaticalized as witnessed vs. second-hand information is reminiscent of de Haan’s proposal of demonstrative > evidential path as illustrated in (13). Example (17) evinces the gradation of information source from more direct to more indirect along the spatial axis of near to far.

- | | | | |
|------|--|---|--|
| (17) | SPATIAL
proximal
medial
distal | > | EVIDENTIAL
immediately witnessed events
events witnessed or experienced in the past
events that are remembered, handed down and
believed in, coming from a reliable source |
|------|--|---|--|

The corresponding Abui examples, which substantiate (17) are provided below from Kratochvil (2011: 773). The demonstrative *nu* in (18d) is explained as ‘distal demonstrative’ in the text.⁷

7 The abbreviations used here are as follows: 3II=3rd ps. non-controlling U; AL=alienable; CL=classifier; CPL=completive; DST=distal; DUR=durative; MD.AD=addressee-based medial; PAT=patient-type U; PE=plural exclusive; PI=plural inclusive; PFV=perfective; PHSLC=phrasal completive; PRX=proximal; PRX.AD.=addressee-based proximal; S=singular; SPC=specific.

- (18) a. na nala nee=ti bee-a **do**
 1S something eat=PHSL.C bad-DUR **PRX**
 'I couldn't eat up (swallow) anything.'
- b. ni-ya ha-rik **to!**
 1PE-mother 3II.PAT-hurt **PRX.AD**
 'My mother is sick (as you could see).'
- c. pi yaar-i ni-ya do nabuk **yo**
 1PI go.CPL-PFV 1PE.AL-mother PRX bury **MD.AD**
 'We went to bury our mother (as you could have seen).'
- d. nuku oro Mali do=ng we-i **nu**
 one DST place PRX=look leave- PFV **SPC**
 'One (ancestor) went to Mali over there.'

3 Mapping of Space, Time and Epistemic/Evidential Domains

The previous section discussed the developments from demonstratives (space) into temporal, epistemic (with focus markers), and evidential markers. This section explores whether there are any regularities in such diverse semantic extensions, and if so, if they are based on certain cognitive principles. To this end, this section brings in Gildea's (1993) formulation of the space-time relationship and Fleischman's (1989) schematization of temporal distance and the speaker's certainty, both of which place the starting point on the deictic center, I-Here-Now (Bühler 1982 [1934] 13–14). Also incorporated here is the cognitive account of vision.

3.1 The Deictic Center, Here-Now-I

Bühler (1982) sees the deictic field to be defined as coordinates starting from O(rigo), the origin or the Ground 0 for the coordinates, which is defined by the location, the time and the person speaking, that is HERE-NOW-I. Bühler (1982: 13–14) states:

I maintain that three deictic words must be put at the place of O, if this scheme is to represent the deictic field of human language, namely the deictic words *here*, *now*, and *I*...

the ‘setting-up’ of a coordinate system always has a specific function, as the logicians know. In our case, it is just the coordinate system of ‘subjective orientation’, to which all parties in verbal exchange are and remain attached.

In addition to laying the foundation for the studies of deixis, Bühler also engaged in the field of grammaticalization. He and his predecessors had already recognized demonstratives to be the sources of many grammatical morphemes (cf. Diessel 2012). As commented by Diessel, demonstratives are not content words themselves, and thus such paths of demonstratives > grammatical morphemes present problems to the strong hypothesis of the current grammaticalization theory, which states grammatical words come only from content words. In this context, demonstratives as source items assume a unique status in grammaticalization. Further, it may be due to this uniqueness that their developmental pathways involve multi-domain and multi-level parallel extensions, as seen in section 2.

In what follows, it is argued that all three semantic extensions, that is, space > time, space > focus (epistemic certainty) and space > evidentiality, can be tied in in terms of spatial/temporal/epistemic distances from the deictic center, I-Here-Now. The term ‘epistemic distance’ basically indicates the subjective distance, which reflects the speaker’s assessment of the likelihood of a situation to be true, in other words, the speaker’s certainty: The longer the epistemic distance, the less certain the speaker becomes (more on this below).

3.2 Mapping the Three Grammaticalization Pathways

The three semantic extensions, namely (9), (12), and (17) can be put together as in (19):

(19) Three semantic extensions

SPATIAL	TEMPORAL	FOCUS /EPISTEMIC CERTAINTY	EVIDENTIAL
proximal	present /immediate past /near in time	high certainty (statement)	direct evidential (visual/auditory)

distal	past /distant past /distant tense	low certainty (question)	indirect evidential (inference/hearsay)
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The correspondences of the first two items (SPATIAL-TEMPORAL) recall Gildea’s (1993: 63) schematization given in Figure 1 of the development of Panare tense markers from the demonstratives. In his figure, X marks the location of the speaker, and the circle encompasses the sphere of the speaker’s perception. The proximal demonstrative *kěj* is positioned near the speaker, while the distal demonstrative *něj* goes away from the speaker in either direction on the time axis. Thus, the correlation of spatial and temporal distances as in (1c) is captured visually, evincing the apparent overlap of the spatial and temporal domains.

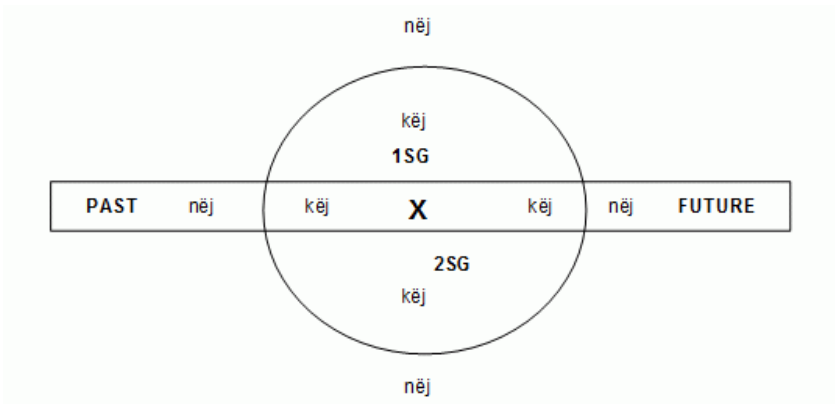


Figure 1: Tense markers from demonstrative pronouns (Gildea 1993: 63)

The TIME-FOCUS (epistemic certainty) correlation summarized in (12) and (19) is reminiscent of Fleischman’s (1989: 5–6) portrayal of the relationship between temporal distance and epistemic certainty. She argues that a set of conditional utterances in (20) from English, French, and Spanish exhibit consistent patterns as to the use of different tenses (present > past > and pluperfect) and the decreasing likelihood (probable > improbable > impossible) of the proposition in the protasis: the correspondences of the present tense to ‘probable’ in (20a), the past tense to ‘improbable’ in (20b), and the pluperfect to ‘impossible’ in (20c).⁸

⁸ All examples are just as in the original including some typographical errors.

- (20) a. If I have time, I'll write to you. (**present :: 'probable'**)
 Si j'ai [pr] le temps, je t'écirai [fut] (French)
 Si tengo [pr] tiempo, te escribo [pr] (Spanish)
- b. If I had time, I would write to you. (**past :: 'improbable'**)
 Si j'avais [past/imp] le temps, je t'écirais [fut-of-past/cond]
 Si tuviera [imp subj] tiempo, te escribiría [fut-of-past/cond]
- c. If I had had time, I would have written to you. (**pluperfect :: 'impossible'**)
 Si j'avais eu [plup] le temps, je t'aurais écrit [fut-perf-of-past/cond perf]
 Si huviera tenido [plup subj] tiempo, te habría escrito [fut-perf-of-past/cond perf]

Representing the above correlations in Figure 2 (Fleishman 1989: 3) visually (1989: 6), she claims that the further the temporal distance in either direction, the harder it is for the speaker to vouch for the truth of the proposition. Thus, what we see in front of our eyes right at this moment of speech is undoubtedly true. In contrast, what awaits in the future is impossible to vouch for. Likewise, even what happened in the past is less easily vouched for compared to the events in the present time frame. That is, the greater the temporal distance from the deictic center, the less certain the speaker feels about the encoded events.



Figure 2: Conceptual/cognitive extensions of temporal distance (Fleischman 1989: 3)

Endorsing Fleischman's account as presenting a common conceptual transfer of what they call "time to actuality metaphor", Heine, Claudi, and Hünemeyer (1991: 178) state:

Through this metaphor, distance from 'now' within the temporal domain, for example, translates more subjective kind of distance...the greater the distance from reality, the more remote the past tense, which is likely to be used to represent epistemic distance.

This paper follows the conceptualization of epistemic distance presented in the above quote. That is, the epistemic distance is the subjective distance through which the speaker expresses his/her commitment to the actuality of the event described. Since temporal distance correlates (or translates into) epistemic distance as the quote notes, there is a positive correlation between temporal and epistemic distances, but an inverse relationship is observed between temporal distance and epistemic certainty as noted in Fleischman (cf. Figure 2): the greater the epistemic distance ('away from reality'), the less certain the speaker becomes. To go one step further, as spatial and temporal distances can map conceptually, there exists another inverse relationship between spatial distance and epistemic certainty. What this leads to is, on the one hand, the alignment of 'here', 'now' and 'certainty/strong commitment', and on the other hand, 'there', 'past/future' and 'uncertainty/weak commitment'. The interrelatedness of these three types of distances, space, time, and epistemicity, is in a way not surprising, since they are all measured from the same deictic center, 'here', 'now', and 'I' (Büler 1982 [1934]).

What is missing in these two figures is the SPATIAL-EVIDENTIAL relationship. A question arises as to how the correlation of the proximal-distal opposition and the direct-indirect evidential contrast can be explained cohesively with the temporal and epistemic dichotomies. For de Haan (2005: 380), the parallel between spatial/temporal and evidential dichotomies is obvious, as he views evidentiality to be a deictic category: "A speaker will use an indirect evidential to state that the action takes/took place outside the speaker's deictic sphere, whereas the use of a direct evidential shows that the action takes or took place within that deictic sphere". Traditionally, for many researchers (e.g., Willet 1988), evidentiality is part of epistemic modality, indicating the speaker's commitment to the truth of the proposition. The speaker's commitment is strongest with the directly experienced events, less strong with inferentially acquired information, and the weakest with hearsay. De Haan (2005: 380) does not deny a general tendency of such modal characterization, but he regards it to be not primary, but secondary to what he describes in terms of the deictic distance.

It seems that de Haan's account and the traditional account are not totally contradictory, but rather complementary to each other if the controversy over the primacy issue of the epistemic/modal aspect of evidentiality is set aside. This is because de Haan's dichotomy of direct vs. indirect evidentials is part and parcel with our visionary apparatus, which also forms the basis of our belief system (i.e. modal aspect). From the point of view of vision, Tyler and Evans (2001: 84) offer the following insight:

Due to the nature of our sense organs, particularly our eyes, that which is physically closer to us is more salient, that which is at a distance less salient. That which is closer tends to be that which is in foveal vision and more clearly observable, while that which is physically distant tends to be in peripheral vision and less clearly observable.

Similarly, according to Givón's (1982: 44) proximity hierarchy, what is near the scene is considered subjectively more certain than what is away from the scene. Consonant with Givón, Wu (2004: 179–181) argues that the shorter the distance is (e.g. an event in the speaker's sphere), the stronger the speaker feels about the truth of the event. Givón's and Wu's claims on subjective certainty are cognitively sound and are corroborated by the indisputable fact that the accuracy of our vision decreases as the distance from the object increases (as quoted in Tyler and Evans 2001: 84).

Given all this, the alignments shown in (19), that is, the alignment of 'here', 'now', 'high certainty/strong commitment' and "direct evidential" on one hand, and that of 'there', 'past/future', 'uncertainty/weak commitment' and "indirect evidential" on the other, are cognitively quite reasonable. What these alignments imply is the naturalness of the metaphorical domain transfer from space to time, and space to epistemicity (evidentiality).

4 Old Japanese and Old Okinawan Demonstratives

Old Japanese and Old Okinawan are sister languages, which are hypothesized to have split from their ancestral language around 300A.D. (Hattori 1959). According to Shinzato and Serafim (2013), both languages had a three-way demonstrative system, and the three demonstratives (proximal, mesial, and distal) grammaticalized as focus particles in a parallel fashion. This section first summarizes that study and then analyzes the grammaticalization pathways of demonstrative > focus in light of the metaphorical transfer from the spatial domain to the epistemic domain, as discussed in the previous section.

4.1 Old Japanese

Old Japanese had a cleft-like focus construction called *kakari musubi* (lit. ‘governing-binding’), in which a closed set of focus particles called *kakari joshi* (*kakari* lit. ‘governing’ particle) trigger a certain conjugational form called *musubi* (lit. ‘binding’) to end the sentence. These conjugational forms (such as *rt* and *iz* in example (21)) are different from the regular sentence ending forms, as they are nominal-like in their syntactic character (Shinzato and Serafim 2013). Of the five Old Japanese *kakari* particles, three are demonstratives in origin. These three particles include *kōsō*, *sō/zō*, and *ka*, which are generally believed to have derived from the proximal (= *kō*), mesial (= *sō/zō*), and distal (= *ka*) demonstratives respectively (Ōno 1993, *inter alia*).⁹ Examples below are from *Manyōshū* (hence forth MYS), Japan’s oldest collection of poems compiled around the seventh and eighth centuries.

- (21) a. ware-**kōsō** mak-am-ey^{10,11}
 I-KP use.as.a.pillow-IA-IZ
 ‘It is I who will use (it) as a pillow.’ (MYS 5: 857)
 [Shinzato and Serafim 2013: 92]
- b. ware nōmiy-**sō** kyimiyi-ni-pa kwopur-**u**
 I only-KP lord-IO-TOP long.for-RT
 ‘It is only I that long for you.’ (MYS 4: 656) [ibid: 91]
- c. ... yamabukyi tare-**ka** ta-wor-i-**si**
 ... globeflowers who-KP hand-break-RY-PSTRT
 ‘Who is it that snapped off the ... globeflowers?’ (MYS 19: 4197) [ibid: 5]

9 The origin of *kō* of *kōsō* is unanimously agreed upon as having originated in the proximal deictic, while *sō* in *kōsō* remains controversial. Some researchers in Japanese scholarship (e.g. Ōno 1993) propose its origin to be the mesial deictic *sō/zō*, like the *kakari* particle *sō/zō* in (21b), but Serafim and Shinzato (2013: 158–163) dispute that hypothesis based on their comparative analysis with its counterpart in Okinawan, and also on cognitive grounds. They hypothesize its origin to be a nominal meaning ‘thing, person, etc.’. Thus, according to them, Old Japanese *kōsō* consists of *kō* ‘proximal’ + *sō* (nominal ‘thing’).

10 For this and the next two examples, the abbreviations used are as follows: EX=exalting suffix/auxiliary; IA=inferential auxiliary; IO=indirect object; IZ=*izen* ‘realis’ conjugational form; KP=*kakari* particle; PST=past; RT=*rentai* ‘adnominal’ conjugational form; RY=*renyō* ‘continuative’ conjugational form; SE=semantic extension; TOP=topic.

11 The graphic information (phonograms vs. semantograms), which was specified in the original text is omitted herein for the sake of simplicity as it is not relevant for the current discussion.

- d. nabari-nō yama-wo kyepu-**ka** kwoy-ur-**am-u**.
 hidden-gen mountains-through today-**KP** cross-SE-**IA-RT**
 'I wonder if it is today that he will cross over the hidden
 mountains.' (MYS 1: 43) [ibid: 17]

The focus kakari particle *kōsō* (the proximal demonstrative *kō* embedded) always appears in statements (assertions), while the focus particle *ka* from the distal demonstrative unfailingly marks a focus in questions. The *sō* from the mesial demonstrative can be used either in statements or questions (cf. Ōno 1993). Shinzato and Serafim (2013: 258) took this distributional difference to be indicative of the speaker's certainty, as set out in (22). As noted earlier with the Ambulas case, the content in questions is something that the speaker is not sure of, therefore (s)he wonders or asks the addressee of the validity of it. In contrast, the information in the statement is what the speaker asserts.

(22) Proximal deictics	::	<i>kō(sō)</i> =focus in Assertion (=A)	::	strong certainty
Mesial deictics	::	<i>sō/zō</i> =focus in A & Q	::	neutral
Distal deictics	::	<i>ka</i> =focus in Question (=Q)	::	uncertainty

As shown in (22), decreasing certainty from the proximal-based focus marker to the distal-based focus marker correlates with the conjugational forms with which they are combined. Shinzato and Serafim (2013) claim that the IZ 'realis' form (combined with the proximal deictic, example (21a)) expresses higher epistemic certainty and is a stronger assertion than the RT form (combined with the mesial deictic, example (21b)). In addition, they consider that the high co-occurrence of the inferential auxiliary (=IA) with the distal focus marker *ka* (cf. (21d)) is natural, as the inferential auxiliary denotes uncertainty.

4.2 Old Okinawan

Similar to Old Japanese, Old Okinawan also had a cleft-like focus construction called *kakari musubi*. The three Old Okinawan *kakari* particles *sī*, *du*, and *ga* are hypothesized by Shinzato and Serafim (2013) as cognates of Old Japanese *kōsō*, *sō/zō*, and *ka* for their phonological, syntactic (the same conjugational

forms) and semantic parallels.¹² It is true that the end conjugational form of the distal focus particle is *IA*, not the expected *RT* as in (21d). However, this seeming mismatch is explained as the result of the original inferential auxiliary (*IA*), *-(a)m-wo* in its *RT* form losing its ending *m-wo* and leaving behind only *-a* (*IA*). This hypothesis is supported not only phonologically, but also by the collocational parallel with Old Japanese, which also had a high occurrence rate of the inferential auxiliary in the distal *kakari musubi* construction (cf. example (21d)). Like Old Japanese, Old Okinawan *sī*, *du*, and *ga* are purported to have stemmed from proximal (see footnote 12), mesial, and distal demonstratives (Shinzato and Serafim 2013) respectively. Examples below are from *Omoro Sōshi* (hence forth *OS*), compiled around the sixteenth and seventeenth centuries, in Old Okinawan.

- (23) a. *faci-nyisya-sī* *mac-y[i-y]u-tar-i* *?ukyituba-sī* *mac-y[i-y]u-tar-i*
 first-north.wind-**KP** await-SE-PST-**IŽ** north.wind-**KP** await-RY-SE-PST-**IŽ**
 ‘It was the first north wind itself that we awaited. It was the north wind
 itself that we awaited.’ (*OS* 13: 899) [Shinzato and Serafim 2013: 93]
- b. *syiyuryi fur-u* *?ami-ya* *sidi-myizi-du* *fur-y[i-y]u-ru* [ibid: 93]
 Shuri fall-RT rain-TOP purified-water-**KP** fall-RY-SE-**RT**
 ‘The rain falling on Shuri: it is pure / water that falls.’ (*OS* 7: 386)
- c. *taa-ga* *tur-y[i-y]ur-a* *taa-ga* *?uc-y[i-y]ur-a* [ibid: 19]
 who-**KP** hold-RY-SE-**IA** who-**KP** beat-RY-SE-**IA**
 ‘I wonder who could be holding [the drum]. I wonder who could be beating
 it.’ (*OS* 12: 1157)

To further advance the parallelism with Old Japanese, Old Okinawan had another focus particle *i* hypothesized to have derived from the proximal demonstrative *i*, as in *i-ma* ‘now’ (Ifa Fuyu cited in Shinzato and Serafim 2013: 268). This focus particle is seen to be interchangeable with the more common *sī* in so-called *chōfuku omoro* (the same or near-identical song contents with different song numbers) below.

12 One point of contention is that the Okinawan lineage lost the initial *kō*, but it can reasonably be restored based on the phonological, syntactic, and semantic parallels to the Old Japanese *kōsō* (cf. Shinzato and Serafim 2013).

- (24) a. katana ʔuc-yi-**yi** dya-kunyi tuyum-y[-i-y]uwar-i (OS 1: 5)
 b. katana ʔuc-yi-**si** dya-kunyi tuyum-y[-i-y]uwar-i (OS 3: 123)
 sword strike-RY-**KP** great-land resound-RY-EX-IZ
 'It is with sword at his side that he is renowned in the great land.'

Consistent with Old Japanese, Old Okinawan focus particles are also associated with distinct sentence types and *musubi* conjugational forms. Like the Old Japanese case in (22), these sentence types and conjugational forms are indicative of different levels of epistemic certainty. The associations predictably reflect the inverse relationship of spatial distance and epistemic certainty: epistemic certainty decreases from the particle of proximal origin to that of distal origin as shown below (Shinzato and Serafim 2013).

- | | | | | |
|------------------------|----|--|----|-------------------------|
| (25) Proximal deictics | :: | (<i>kō</i>) <i>si</i> =focus in Assertion (=A) | :: | strong certainty |
| Mesial deictics | :: | <i>du</i> =focus in A & Q | :: | neutral |
| Distal deictics | :: | <i>ga</i> =focus in Question (=Q) | :: | uncertainty |

It should be stressed that the correlation shown in (25) is unambiguously identical to that shown in (22). Furthermore, the Old Japanese and Old Okinawan cases also resemble the demonstrative > focus pathway in Ambulas in (12).

4.3 Mapping of Space to Epistemic Domains

In mapping the spatial domain to the epistemic domain in section 3, it is argued that there is a positive correlation between spatial distance and epistemic distance, but a negative correlation between spatial distance and epistemic certainty: the closer the spatial distance to the deictic center, the stronger the epistemic certainty the speaker develops. The two cases here of the demonstrative > focus grammaticalization pathways in the Japonic languages are congruous with the Ambulas case.

With the addition of these two languages exhibiting the same SPACE-EPISTEMIC correlation, it becomes even more evident that the development of multiple demonstratives (proximal vs. distal demonstratives) as focus markers (high vs. low epistemic certainty) was not random, but rather iconic. The distal demonstratives *ka/ga* represent 'there', and thus are suited for expressing uncertainty (i.e. greater epistemic distance). The co-occurrence of the distal focus particles *ka/ga* with the inferential auxiliary is natural as they

have semantic affinity with epistemic uncertainty. The same is true with the proximal demonstratives. The proximal demonstratives embody the short spatial distance from the deictic center, which translates as short epistemic distance and subsequently strong epistemic certainty. The liaison of proximal-based focus particles with the IZ 'realis' conjugational form and subsequently the assertive tone this type of *kakari musubi* exerts is also expected and straightforward. Thus, in this context, the correspondences presented in (22) and (25) come as no surprise.

5 Conclusion

Demonstratives are (i) essential and prime lexemes in the world languages (Wierzbicka 1972), (ii) assume unique status in grammaticalization (Diessel 1999) as they may not derive from lexical items, and (iii) are associated with the first cognitive function that children acquire called the *where*-function (vis-à-vis the *what* function in Ungerleider and Mishkin 1982).¹³ Moreover, they are also studied widely in the grammaticalization literature of the languages of the Americas, Africa, and Oceania.

Such grammaticalization studies, however, are centered mostly on an individual language or language family, and are path-specific (Space > Time only, for instance). Grammaticalization pathways of the demonstratives in the Japonic family, especially the demonstrative > focus pathway, have rarely been mentioned (with the exception of a very brief description of Old Japanese *kakari* particles in Heine and Kuteva 2002: 95). This study was meant to fill a lacuna in grammaticalization studies.

Specifically, surveying typologically and geographically diverse languages, this paper argued that the seemingly distinct and independent pathways of Space > Time, Space > Focus (Epistemicity), and Space > Evidentiality, can be treated cohesively by a single feature, distance from the deictic center of I-Here-Now. It also argued that such a conceptual domain transfer from space to time, and to the speaker's stance is indeed cognitively sound.

¹³ Also, "... a group of age-adjusted 3.5-month-old infants (i.e., the *postterms*) were capable of forming categorical representations for spatial relations, but not objects" (Quinn 1998).

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