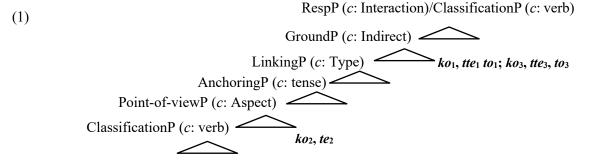
MORPHOSYNTACTIC MULTIFUNCTIONALITY OF KOREAN KO AND JAPANESE TO/TTE/TE: A COMPARATIVE STUDY^{*}

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A multifunctional morphosyntactic element is a functional item that behaves as different functional markers sharing an identical morphophonological form in specific syntactic environments (Lefebvre 1998, Travis 2005, Wiltschko 2014). Multifunctional elements are ubiquitous across languages such as Fongbe and Haitian (Lefebvre 1998), Japanese (Okamoto and Ono 2008, Hirose and Nawata 2016), and Spanish (Bruhn de Garavito 2000, Corr 2016). For instance, the Ibero-Romance marker que has four functions: finite complementizer, quotative, exclamative, and conjunctive (Corr 2016). The English function word *that* is also multifunctional: it can appear as a demonstrative, a relativizer, an adverb, or a complementizer. The Korean and Japanese functional suffixes—ko in Korean and to (or tte) in Japanese¹ —which are referred to as complementizers in the literature (Sells 1995, Uchibori 2000, Yeon 2008, Saito 2015, Yoshida 2019), among numerous other terms (Bhatt and Yoon 1991, Fukui 1995, Munakata 2007, Sohn 2011, Shimamura 2018), are also multifunctional markers but show their multifunctionality differently from the English complementizer that.² In this paper I assume that ko and to/tte/te can perform different kinds of functions in different morphosyntactic contexts, and I compare their multifunctional properties for the first time.

The functional markers ko and to/tte/te in (1) demonstrate morphological instances of formatives that appear to be correlated but do not show identical distributions.



^{*}Primary data reported in this paper is drawn from my own native speaker's knowledge of Korean and advanced speaker's knowledge of Japanese; secondary data is from sources in the literature.

¹ *Tte* (*te* before [n]) is phonologically quite unique, in that it is the only functional marker in Japanese with a geminate in the onset position (R. Suzuki 2008). *tte* has been considered as the allomorph of *to* in informal speech in the Japanese literature (Okamoto 1996, Hayashi 1997, Shibasaki 2007; R. Suzuki 2008, Hirose and Nawata 2016). However, Hirose and Nawata (2016) disagree with this view based on their observation that the distribution of *to* and *tte* do not unconditionally overlap.

 $^{^{2}}$ I do not present a survey of how *ko* and *to/tte* have been described in the literature here. Munakata (2007) presents a survey of the various approaches to the Japanese *to*: i) a quotative (Fukui 1995); ii) a complementizer (Uchibori 2000); and iii) an inherent case marker (Motomura 2002).

The multiple spell-outs of *ko* and *to/tte/te* in the structure seem to be neither copied elements nor traces of the movement; rather, they are 'recycled' formatives in the structure. The three instances of both *ko* and *to/tte/te* in the tree in (1) are situated in different syntactic contexts: i) the Point-of-viewP(\approx Asp); ii) the GroundP, as the complement of ClassificationP (\approx vP); and iii) the GroundP, as the complement of the RespP (\approx SAP), within the framework of the Universal Spine Hypothesis (Wiltschko 2014, 2017; Ceong 2019). I propose that *ko* and *to/tte/te* construct language-specific categories through their associations with the universal syntactic categories; the ubiquitous *ko* and *to/tte/te* as demonstrated in (1) are the results of the manifestations of their morpho-syntactic properties in various contexts. The multiple appearances of *ko* and *to/tte/te* in the structure call for a theoretical investigation of how the language is equipped with formatives systematically in its 'recycling' system. The survey of the distribution of *ko* and *to/tte/te* in this paper will be an informative guide for linguists of linguistic typology and linguistic theory.

In Section 1, I will show that the Korean functional marker *ko* and the Japanese *to/tte/te* share comparable distributions. In Section 2, I will present the details of the three shared distributions of *ko* and *to/tte/te*. Finally, in Section 3, I offer conclusions and suggestions for further research.

1. Comparable parallel patterns of Korean ko and Japanese to/tte/te

In Korean and Japanese, there are undiscussed comparable patterns in which functional markers with an identical morphophonological form appear in heterogeneous syntactic contexts. The examples in (2) show three comparable, parallel distributions of Korean ko (a) and Japanese *to/tte/te* (b).³.

(2)	a.	phihay-ka	taytanha-ta- ko	malha -ko	iss-ess-ta-ko	(Korean)
		damage-NOM	be terrible-DEC-KO	say-KO	exist-PST-DEC-KO	
		'(Did you say th	hey) were saying tha	t the dama	ge was terrible?'	

b. sugoi-tte it-te (i-)ta-tte (Japanese) be terrible-TTE say-TTE exist-PST-TTE '(I heard they) were saying that it was terrible.' (cf. Okamoto and Ono 2008)

While multiple studies of the appearances of Japanese *tte* in heterogeneous syntactic contexts have been carried out, providing us with a comprehensive picture of its distribution (Okamoto 1996, Okamoto and Ono 2008, R. Suzuki 2008, Hirose and Nawata 2016), analysis of the multiple distributions of Korean *ko* and the similarities and contrasts between *tte* and *ko* have not been carried out. Assuming the contrasts in the systems of two languages may have an influence on second language learning and performance (Ryu et al.

³The following abbreviations are used: acc: accusative; asp: aspect; comp: complementizer; dec: declarative; fi: falling intonation; imp: imperative; int: interrogative; irr: irrealis; m: masculine; nom: nominative; pst: past tense; pres: present tense; *pro*: null pronoun; pro: pronoun; resp: response; ri: rising intonation; sap: speech act projection.

2015), this study compares the morphosyntactic functions of Korean *ko* and Japanese *tte*. As we will see below, the Japanese *tte* shows a slightly different distribution from *ko*.

2. The distributional properties of Korean ko and Japanese to/tte/te

This section is concerned with the three comparable distributions of Korean ko and Japanese to/tte/te. The three syntactic contexts are identified: i) dependent clausal complements (Section 2.1); ii) matrix clauses in second-hand speech (Section 2.2); and imperfective and serial verb (V–V) constructions (Section 2.3).

2.1 Dependent clausal complements

Korean *ko* and Japanese *to/tte* in dependent clausal complements have been categorized as complementizers (Yeon 2008, Yoshida 2019), quotatives (Fukui 1995, Munakata 2007, Sohn 2011), or quotative complementizers (R. Suzuki 2007; Saito 2012, 2015; Hirose and Nawata 2016). They are obligatory in a dependent clause, as indicated in (3), but neither *ko* (3a) nor *to/tte* (3b) occurs in matrix declarative clauses.⁴

(3)	a.		-	koyngcangha-ta]-*(ko) be terrible -DEC-KO at it was terrible.' (intend	say-PST-DEC	(Korean)
	b.	[_{CP} pro	[CP	sugoi-Ø]-*(tte/to) be terrible-DEC-TTE/TO	i -ta-Ø]-(*tte/*to) say-PST-DEC	(Japanese)

'pro said that it was terrible.' (intended)

Superficially, the distribution of *ko* and *to/tte* is similar to the English complementizer *that*. Their selectional properties, however, are quite different: unlike *that*, which selects a TP/IP as a complement (Bošković and Lasnik 2003), *ko* and *to/tte* select CP as a complement, as shown in (3). At first glance, the Japanese *to/tte* in (3b) seems to take TP rather than CP as a complement. However, under the assumption that the CP structure of declarative and interrogative clauses is identical (except that a FORCE/MOOD feature on either the head or the operator is different), and on the basis of different morphological encoding of elements in T-C domains in various types of clauses in Japanese, I argue that *to/tte* takes CP as its complement, and a null declarative morpheme C_{DEC}, indicated by Ø, is presented in (3b).⁵ As shown in (4), interrogative *ka* (4a) and propositional/finite complementizer *no* with a *wh*-word (4b) can occupy the head of CP with a FORCE/MOOD feature; these interrogative clausal complements are embedded by *to/tte*.

(4)	a. [CP pro [CP sugoi-ka]-tte/to	tazune-ta-Ø]	(Japanese)
	be terrible-INT-TTE/TO	say-PST-DEC	
	<i>'pro</i> asked if it was terrible; <i>pro</i> asked	ed, was it terrible?'	

⁴ The subject of a clause, as a discourse topic, can often be dropped in interactive communication in Korean and Japanese, so the sentences with covert subjects in (3) are grammatical.

⁵ This micro difference between two languages in the CP domain is also noted in Yeon (2008).

b. [CP Hideki-ga [CP boku-ga dare-	to atta- no]-to	itta-Ø]	(Japanese)
Hideki-NOM I- NOM who-	with met-COMP-TO	said-DEC	
'Hideki said, 'Who did I meet?'	(cf. Munakata 200	7:176)	
c. [CP <i>pro</i> [CP koyngcangha- nya]-ko be terrible-INT-KO ' <i>pro</i> asked if it was terrible.'	mwul-ess-ta] ask-PST-DEC		(Korean)

Like *ka*, the Korean interrogative clausal complement is headed by interrogative *nya*-, as shown in (4c). As the head *-nya* is replaced with *-ta* in the declarative complement in Korean, and under the assumption of Universal Grammar that declaratives in Korean and in Japanese must have the same structure, it follows that a null declarative morpheme C_{DEC} must occupy the same position as the interrogative *ka* in Japanese.

The assumption of a null C_{DEC} in Japanese is further supported by the fact that the Korean and Japanese verb stems interact with C_{IMP} even in embedded clauses. The Korean imperative marker *la* in *o-la* 'come' (5a) occupies the position where the declarative *ta* and interrogative *-nya* occur (Han and Lee 2007). Similarly, the verb stem *ko-i* 'Come!' in the embedded imperative clause in Japanese, as in (5b), contrasts with the verb stems of the declarative *ku-ru* '(he) comes' in the present and *ki-ta* '(he) came' in the past tense.

- (5) a. [CP Taroo-ga ne-poko [CP ppalli o-la]-ko kulay-ss-ta-y] (Korean) Taroo-NOM you-DAT quickly come-IMP-KO say so-PST-DEC-HEARSAY *'pro* said that Taroo ordered you to come quickly.'
 - b. [CP Taroo-ga kimi-ni [CP hayaku koi-]-tte i-ta-Ø-tte] (Japanese) Taroo-NOM you-DAT quickly come.IMP-TTE say-PST-DEC-HEARSAY 'pro said that Taroo ordered you to come quickly.'

The alternating verb stems and tense forms in different types of clauses in Japanese and the overt different clause-typing markers in Korean support the existence of a null C_{DEC} in declarative clauses in Japanese. Consequently, CP with a FORCE/MOOD feature must be presented in both embedded and matrix CPs. Therefore, *ko* and *to/tte*, taking a CP with a FORCE/MOOD feature as a complement in the CP domain, must be subordinating complementizers.

The subordinating nature of ko and to/tte and their dissimilarity with the English complementizer *that* are further confirmed by the fact that they do not occur in non-subordinating contexts, as shown in (6).

- (6) a. [CP [CP **That** the fans' attitude towards the umpire is frosty] applies to any sport]
 - b. [CP [CP simphan-ul hyangha-n phayn-uy nwun-i kop-ci anh-un-**kes/*ta-ko**]-un, referee-ACC toward-PST fan-GEN eye-NOM soft-COMP not-PST-COMP-TOP

enu suphochu-na machankaci-i-ta] (Korean) which sport-also same-be-DEC 'That the fan's attitude towards the umpire is frosty applies to any sport.' c. [CP [CP referī-ni mukerareru fan-no me-ga hiyahiyakana-no/*-to/*-tte]-wa, referee-LOC towards fan-GEN eye-NOM be frosty.PRES-COMP-TOP
dono supōtsu de mo issho-da-Ø] (Japanese) which sport be also same-be.PST-DEC
'That the fan's attitude towards the umpire is frosty applies to any sport.' (Kaiser et al. 2013: 526)

In (6a), *that* sits in CP in the subject position. In the similar syntactic contexts of Korean and Japanese, the complementizers *-kes* (6b) and *-no* (6c) appear as the head of the clause corresponding to (6a). In this context, the complex complementizers *ta-ko* and Ø*-to* are disallowed. Thus, CP-*ko* and CP-*to* only occur as a clausal complement of attitude and communicative verbs in the structure (cf. Motomura 2002). The properties of CP-*ko* and CP-*to* complements are syntactically marked differently from DP complements of the same kinds of verbs: CP complements cannot be marked by an accusative case marker in either Korean or Japanese, as in (7). The DP complements of the verbs of saying such as *malha-* 'say' are marked by the accusative case marker *ul/lul* in Korean (e.g., *cinsil-ul malha-la* 'Say the truth') and *o*- in Japanese (e.g., *hone-o i-e* 'Say the real intention').

(7)	a. [_{CP} <i>pro</i> [_{CP} koyngcangha-ta]-ko-(* be terrible -DEC-KO ' <i>pro</i> said that it was terrible.'	lul) malha-yess-ta] say-PST-DEC	(Korean)
	b. [CP pro [CP sugoi-Ø]-tte/to-(*0) be terrible-DEC-TTE/TC 'pro said that it was terrible.'	it-ta-Ø] say-PST-DEC	(Japanese)

The overt double-layered morphosyntactic encoding of embedded CPs in Korean and Japanese suggests that *ko* and *to/tte* are a kind of complementizers that differs from complementizers with a FORCE/MOOD feature. It is CP with a FORCE/MOOD feature, not *ko* or *to/tte*, that selects a TP/IP in Korean and Japanese.

So far, I have discussed that *ko*-clauses in Korean and *to/tte*-clauses in Japanese have a similar non-nominal/clausal nature: they are incompatible with an accusative case marker and are restricted in the subject position. These traits confirm the subordinating nature of *ko* and *to/tte*. Comparing the distribution of complementizers in three typologically distinct languages shows that the nature of the complementizer category is heterogeneous.⁶ At least, based on the distribution of overt complementizers in Korean and Japanese, three different kinds of complementizers are identified: CFORCE/TYPE/MOOD: {KOREAN *ta, nya, la*}; {JAPANESE *ka*}, CDEPENDENT/SUBORDINATION: {KOREAN *ko*};{JAPANESE *to/tte*}, and C THETA:{KOREAN *kes*};{JAPANESE *no*}.

Now I turn our attention to another micro difference between Korean and Japanese morphosyntax. This might be related to *ko* and *to/tte* having different grammaticalization paths, but I do not consider that possibility here. Instead, by showing the different

⁶ Bhatt and Yoon (1991) and Fukui (1995) also address their different distributions.

morphosyntactic systems of Korean and Japanese, I show where the differences in the morphosyntactic properties of *ko* and *to/tte* reside in the CP domain.

One of the controversies over the properties of to/tte in the Japanese literature is whether the clause embedded by to/tte is direct or indirect speech (Munakata 2007). According to Munakata, to/tte can embed both.⁷

(8) a. [Hideki-ga [boku-ga Norito-to atta-Ø]-to/tte itta-Ø] (Japanese) Hideki-NOM I.m-NOM Norito-with met-DEC-TO said
'Hidiki said that I (=the male speaker) met Norito.'
'Hideki said, 'I (= Hideki) met Norito/Hideki said that he met Norito' (cf. Munakata 2007:176)

This ambiguity is less controversial in Korean, where the difference between direct and indirect speech is marked overtly in morphosyntax. A separate direct quotative marker *lako* or *hako* (King 1994) links a parenthetical matrix clause and a quoted clause, as in (9a). The underspecified clause-typing complementizer -*e* is allowed in direct speech (9a) but disallowed in indirect speech (9b-e).⁸

(9)	a.	[CP H-ka [CP nay-ka N-hako H-NOM I-NOM N-with 'H said, 'I (=H) met N.'	mannass-ta/e] hako/lako malhayss-ta] met-COMP QUOT said-DEC
	b.	[_{CP} H-ka [_{CP} nay-ka N-hako 'H said that I (=the speaker) me	mannass-ta/(*e)] -ko malhayss-ta] et N.'
	c.	[_{CP} H-ka [_{CP} caki-ka N-hako 'H said that self (=H) met N.'	mannass-ta/(*e)]-ko malhayss-ta]
	d.	[_{CP} H-ka [_{CP} PRO N-hako 'H said that he (=H) met N.'	mannass-ta/(*e)]-ko malhayss-ta]
	e.	[CP H-ka [CP ku-ka N-hako 'H said that he (\neq H) met N.'	mannass-ta/(*e)]-ko malhayss-ta]

In (9a) the first pronoun *nay*- refers to H, who said the simple declarative marked by the direct quotation marker *hako* or *lako*, while in (9b) the first pronoun *nay*-refers to the speaker who uttered the whole complex sentence, a person other than H. In (9c), the anaphoric third-person pronoun *caki* 'self' refers to H. In (9d), a null pronoun in a control clause, i.e. *PRO*, refers to H, who is also the subject of the matrix clause. In (9e), the third-person pronoun *ku* 'he' is neither H nor the speaker, so it must be a referent identified as third person by the speech participants. Therefore, the distinction between direct and

⁷ It seems that Munakata (2007) assumes that *tte* and *to* are quotative if they embed direct speech and complementizers if they embed indirect speech.

⁸ Ceong (2019) analyzes the so-called sentence final particle -e in intimate speech as an underspecified clause-tying complementizer, as it can fill the C of declarative, interrogative, and imperative in matrix clauses.

indirect speech is explicit in Korean, unlike Japanese. As observed by Yeon (2008), Korean shows less structural ambiguity than Japanese.

In sum, *ko* and *to/tte* show distinct but comparable distributions. In Korean, the clausal subordinator *ko* embeds a clausal complement, while the quotative *hako* or *lako* links a quoted constituent and a parenthetical clause '*pro said*'. In Japanese, *to/tte* performs both functions. The declarative marker is morphophonologically overtly encoded in Korean but is covert in Japanese. These morphophonological differences in functional markers between the two languages sketch out the superficial difference in the linear order. However, I argue that the syntactic structure of CP in Korean and Japanese is identical, as assumed in Universal Grammar.

(10) The morphosyntax of dependent declarative clauses

a.	[VP [CP:DEPEND [CP:DEC -ta]	-ko] v ⁰]	(Korean)
1	гг г <u>м</u> л		(1)

b. $\left[v_{P} \left[c_{P:DEPEND} \left[c_{P:DEC} - \phi \right] - to/tte \right] v^{0} \right]$ (Japanese)

The two discrete markers found in the CP domains in Korean and Japanese support the split CPs (Saito 2012, 2015; Ceong 2019). In what follows, I discuss the distribution of *ko* and *to/tte* in matrix/independent clauses, as indicated in bold in (11c) and (11d).

- (11) The morphosyntax of independent clauses in first-and second-hand speech
 - a. [CP: DIRECT [CP:DEC [VP [CP:DEPEND [CP:DEC ta] ko] v^0] ta] ϕ] (Korean)
 - b. [CP: DIRECT [CP:DEC [VP [CP:DEPEND [CP:DEC \emptyset] to/tte] v^0] \emptyset] \emptyset] (Japanese)
 - c. [CP: INDIRECT [CP:DEC [VP [CP:DEPEND [CP:DEC ta] ko] v^0] ta] ko] (Korean)
 - d. [CP: INDIRECT [CP:DEC [VP [CP:DEPEND [CP:DEC \emptyset] to/tte] v^0] \emptyset] to/tte] (Japanese)

2.2 Matrix clauses in second-hand speech: Echo and hearsay constructions

The syntactic properties of *ko* and *to/tte* in complex sentences where they occur as a complement of attitude or communicative matrix verbs, as discussed above, has prompted a number of syntactic analyses in the literature. Most analyses in generative grammar (Bhatt and Yoon 1991, Fukui 1995, Saito 2012, 2015, Yoshida 2019) limit their discussion to the distribution of *ko* and *to/tte* in embedded clauses and leave out their distribution in matrix clauses, where they are equipped with pragmatic functions. This is probably because simple clauses marked by *ko* and *to/tte* are ungrammatical, as illustrated in (12).

(12)	U	taytanha-ta- ko be terrible-DEC-KO vas terrible.' (Intended)	(Korean)
	b. *sugoi-Ø- to/tte be terrible-DEC 'It was terrible	-TO/TTE	(Japanese)

However, the same clause can be interpreted legitimately with a correct intonation in interactional communication with its pragmatic meaning (R. Suzuki 2007, Ceong 2019). If the ungrammatical sentences in (12) are presented as echo questions with a rising intonation, as shown in (13), they become grammatical.

(13)	a.	phihay-ka	taytanha-ta- ko -↑	(Korean)
		damage-NON	M be terrible-DEC-KO-RI	
		'The damage	e was terrible?/ *The damage was terrible.'	
	b.	sugoi-Ø-to/t	te-↑	(Japanese)

b. sugo1-Ø-t0/tte-ĵ
be terrible-DEC-TO/TTE- RI
'It was terrible?/*It was terrible.'

Thus, the clauses in (12) are ungrammatical in first-hand direct speech but they are grammatical in second-hand speech with a rising intonation (13). This contrasts with the English complementizer *that*, which does not occur in echo questions, as illustrated in (14).

(14) *That the damage was terrible?

In everyday conversations, speakers of Korean may insert *ko* and speakers of Japanese may insert *to/tte* in independent clauses as a discourse device to interact with the speech participant. When an independent clause is marked by *ko* or *to/tte*, they are understood as a second-hand speech marker. I use *second-hand speech* as a superordinate term describing a speech act where the speaker is repeating or citing an utterance made by either a remote third party or an immediate speech participant (which can include the speaker themselves). Consider the simple declarative in a matrix clause in Korean (15a). (15a) is an example of first-hand speech, and (15b) and (15c) are second-hand speech.

- (15) a. caymiesp-e. not.interesting-COMP 'It's boring.'
 - b. caymiesp-ta-ko-↑
 not.interesting-DEC-KO-RI
 'It's boring?'/Are you saying it is boring?
 - c. kulay. caymiesp-ta-ko-↓
 Yes. not.interesting-DEC-KO-FI
 'Yes. (I SAID) it is boring!' (*didn't you hear what I said*?)

Ko with rising intonation (15b) embeds an utterance of one of the speech participants in the immediate presence of the speaker, while *ko* with a falling intonation (15c) embeds an utterance of the speaker themselves (Ceong 2019 and references cited there). The Japanese *to/tte* also exhibits quite similar properties in matrix clauses. When *to/tte* appears at the right peripheral position in those clauses, it carries pragmatic-related functions (Okamoto 1995, Hayashi 1997, S. Suzuki 1999, Shibasaki 2007, R. Suzuki 2008,), as in (16).

(Korean)

(Japanese)

- (16) a. tumaranai. boring.PRES.DEC 'It's boring.'
 - b. tumaranai-Ø-to/tte-↑
 boring.PRES-DEC-TO/TTE-RI
 'It was boring?' (cf. Okamoto and Ono, 2008)

The markers *to/tte* in (16b) with a rising intonation indicates that the speaker is repeating a remark made by the addressee. Thus, the presence of *ko* and *to/tte* implies the second-hand speech nature of these clauses. The same markers with a falling intonation would also express a second-hand speech nature, but a different type: repeating a remark made by the speaker (i.e., affirming or emphasizing the speaker's own utterance). With a falling intonation, *ko* and *to/tte* mark a speaker's stance (Okamoto 1996, Sohn 2015).

(17)	a.	cengmal-i-la-ko.	nay-ka an hay-ss-ta-ko	1	(Korean)
		true-be-DEC-KO	I-NOM not do-PST-DEC	-KO	
		'(I said) it is true! (I	I said <i>that</i>) I didn't do tha	at!'	
	b.	hontoo-da- tte .	ore puroppozu nanka	sitenai-tte	(Japanese)

b. hontoo-da-tte. ore puroppozu nanka sitenai-tte (Japanese) true-be.DEC-TTE I propose-such a thing do.not.PRES.DEC-TTE 'It's true, really. I didn't propose marriage to her, really.' (Okamoto 1996: 228)

I do not present the details of their pragmatic contexts here. One can refer to other studies for the discourse analysis of spoken Korean and Japanese, including various contexts for the distribution of the so-called sentence final particles *ko* and *to/tte* at the right peripheral position (Okamoto 1996, Okamoto and Ono 2008, Shibasaki 2007, R. Suzuki 2008, Sohn 2015, Hirose and Nawata 2016). Overall though, what these functional markers do in this domain is encode the nature of the clause in second-hand speech. Moreover, *ko* and *to* in this domain indicate that the speech participants in echo and reinforcement constructions must share common ground (cf. Clark & Brennan, 1991). The covert performative predicate marked by *ko* and *to* must be interpreted as *I said* or *did you say* (i.e., *a speech participant said*) and cannot be s/*he or they said* (i.e., *a non-speech participant said*). If the clause in second-hand speech is originally uttered by a non-speech participant (in other words, if the speech participants do not share the common ground of the speech event reported), then the Korean hearsay *y* (Ceong 2016) and the Japanese *tte* are required.⁹

- (18) a. cengmal-i-la-y/*ko. kyay-ka an hay-ss-ta-y/*ko (Korean) true-be-DEC-HEARSAY 3sg-NOM not do-PST-DEC- HEARSAY 'He/she said it is true! (He/she said *that*) he didn't do that!' (intended)
 - b. hontoo-da-**tte**/***to** kare-wa puroppozu sitenainda-**tte**/***to** (Japanese) true-be.DEC-HEARSAY 3sg-TOP propose do.not.PRES.DEC-HEARSAY '(He/she said) it is true! (He/she said *that*) he didn't do that!' (intended)

⁹ According to Hayashi (1997), *to* might be used in this hearsay context by older speakers and/or speakers of some dialects of Japanese.

Given the descriptive level of two similar but not identical distributions and interpretations of *ko* and *to/tte*, now I turn to a very different kind of distribution of *ko* and *to/tte/te*, where they occur in a CP dissociated with speech acts.

2.3 Imperfective and serial verb (V–V) constructions

The syntactic domain of TENSE-ASPECT-MODAL is situated lower than CP in the structure. The distribution of *ko* and *te* discussed in this section is syntactically and semantically related to this lower domain, as in (19). The Japanese *to* is disallowed in this position.

(19)	a.	Ken-i Ken-NOM 'Ken was sing	nolayha- ko sing-KO ging.'	iss-ess-ta exist-PST-DEC	(Korean)
	b.	Ken-ga Ken-NOM 'Ken was sing	uta t-te/*to sing-TE sing.' (cf. Shira	(i-)ta-Ø exist-PST-DEC ai 1998)	(Japanese)

The geminate form *tte* in *utatte* in (19b) is derived from the verb stem *uta-i-te* in the premodern Japanese (Nishiyama 2016) in a manner similar to the quotative *tte*'s historical derivation, from *to i-i-te* > *to i-tte* > *tte* (R. Suzuki 2008, Hirose and Nawata 2016).¹⁰ The Korean and Japanese clauses in (19) are simple declarative clauses. The markers *ko* and *tte* in this domain do not take a clause-typing marker as their complement, nor do they express second-hand speech. Instead, they behave as part of an aspectual construction expressing the imperfective progressive; they select vP as a complement and are selected by an auxiliary verb (*iss-* 'exist; be' in Korean and *i-* 'exist; be' in Japanese), as shown in (19). The distribution of *te* in imperfective and of *tte* in low and high CPs (discussed in the previous two sections) in Japanese mirror the distributions of the Korean *ko*; this seems unlikely to be a coincidence, and this phenomenon bears further investigation.¹¹ The distribution of *ko* and *te* in the aspect domain can be expanded into other V–V constructions, although the properties of *ko* and *te* in this domain obviously differ from their properties in low and high CPs.¹²

¹⁰ The phonological change from *to iite* to *to itte* happened before the 19th century. *tte* can be interchangeable with an alternative form *toyuu* in modern Japanese. For instance, the head of a noun modification clauses can be headed by *tte* or *to yuu* (i.e., *to iu* 'say'), as in (1).

⁽Japanese) a. Taroo-ga bengosi-da-tte hanasi (1)Taroo-NOM lawyer-be.DEC-TTE story 'the story that Taro is a lawyer.' (Hirose and Nawata 2016: 5) (Japanese) b. Taroo-ga bengosi-da-toyuu hanasi lawyer-be.DEC-TOYUU Taroo-NOM story 'the story that Taro is a lawyer.' (Hirose and Nawata 2016: 6)

¹¹ The Korean conjunction *kuliko* 'and' (lit. *and do so*) and the Japanese conjunction *soshite* 'and' (lit. *and do so*) also contain *ko* and *te*, respectively.

¹² Korean and Japanese imperfect constructions have been compared in the literature (Shirai 1998, Ryu et al. 2015).

It is well documented that Japanese and Korean have extensive and varied kinds of V-V constructions (Jung 2003); the shared distributions of *ko* and *te* are also found in those constructions, such as desiderative constructions, as in (20), and chronological event constructions expressing two or more consecutive events without a conjunction, as in (21).

(20)	a.	Ken-i meke-po- ko sip-ta- ko malhayss-ta Ken-NOM eat-see-KO want-DEC-KO said-DEC 'Ken said he wanted to try eating it.'	(Korean)
	b.	Ken-ga tabe- te mi-tai- to itta-Ø Ken-NOM eat-TE see-want.PRES.DEC-TO said-DEC 'Ken said he wanted to try eating it.'	(Japanese)
(21)	a.	ssis- ko o-l-key wash-KO come-IRR-COMP 'I will wash up and come.'	(Korean)
	b.	ara t-te kuru wash-TE come 'I will wash up and come.'	(Japanese)

In (20), similar to control clauses, the non-finite clause marked by *ko* or *te* is conjoined with the finite clause. The event expressed by the non-finite clause always occurs prior to the event in the finite clause. What are the universal properties of *ko* and *te* in this domain? Syntactically they behave like non-finite complementizers, although their semantic properties vary depending on local elements: i) expressing aspect with an auxiliary verb BE; ii) expressing desiderative events with an auxiliary verb WANT; and iii) expressing chronical events or functioning as a conjunction 'and' with lexical active verbs. If we only focus on their syntactic properties then based on their distribution, *ko* and *te* must be associated with C, as they occur between the verb and verb in the structure.

2.5 Summary

By treating formatives with identical morphophonological forms as multifunctional markers in synchronic grammar, I have compared the distributions of Korean ko and Japanese to/tte/te. Instead of seeing them as different kos, they can be understood as 'recycled' formatives with three distinct morphosyntactic properties. In (22), repeated from (2), ko and to/tte/te emerge through the associations between different syntactic domains and contexts.

(22)	a.	[[[phihay-ka	taytanha-ta]- ko	malha -ko	iss-ess-ta]- ko]-↑	(Korean)
		damage-NOM	be terrible-DEC-KO	say-KO	exist-PST-DEC-KO-RI	
	'(Did you say they) were saying that the damage was terrible?'					

b.	[[[sugoi-Ø]-tte	i t-te	(i-)ta-Ø]-tte]-↓	(Japanese)
	be terrible-DEC-TTE	say-te	exist-PST-DEC-TTE-FI	
	'(I heard they) were sayin	g that it was	terrible.' (cf. Okamoto and Ono	2008)

I propose that the structural representations in (23a) and (23b) show the organizations of the functional elements in Korean clause (22a) and the Japanese clause (22b), respectively.

(23)

- a. $[RespP[GroundP[LinkngP[AnchoringP[Point-of-ViewP[ClassificationP malha] -ko iss]-ess]-ta] -ko]-\uparrow]$
- b. $[\text{RespP}[\text{GroundP}[\text{LinkingP}[\text{AnchoringP}[\text{Point-of-ViewP}[\text{ClassificationP} i]-te -i] -ta] \emptyset]-tte]-\downarrow]$

The syntactic structures in (23) are adopted from Wiltschko (2014, 2017), which makes a theorical assumption that a language-specific category is constructed through the association of a formative in that language with a hierarchically organized universal categorizer. There are differences between the structure in (23) and the canonical CP structure in generative grammar: i) the availability of two domains above LinkingP (\approx CP), namely GroundP and RespP; and ii) COMPLEMENTIZER is not a primitive universal category.

To summarize, the formatives *ko* and *to/tte* function as subordinators in contexts where there is a lack of interaction between speech participants; that is, when a matrix verb selects *ko* and *to/tte*, as in (24a). These particular formatives function as second-hand speech markers and may carry a semantic/pragmatic-related meaning when they are selected by a rising intonation associated with RespP; the domain RespP is activated in interactional communications where a response is required (25b).

	(a) low CP	(b) high CP
syntactic contexts	$C^{0}_{TYPE} < C^{0}_{DEPENDENT} < V^{0}$	C ⁰ _{TYPE} < C ⁰ _{INDIRECT} < C ⁰ _{INTERACTION}
Korean	C _{DEC} -ko Verb	C_{DEC} - <i>ko</i> $\downarrow \uparrow$ (echo)
		C_{DEC} - <i>y</i> $\downarrow \uparrow$ (hearsay)
Japanese	C _{DEC} - <i>to/tte</i> Verb	C_{DEC} -to/tte $\downarrow \uparrow$ (echo)
		C_{DEC} - <i>tte</i> $\downarrow \uparrow$ (hearsay)

Seemingly the same formatives occur ubiquitously in a domain lower than CP in both Korean and Japanese, as in (25).

(25)

syntactic contexts	$V^0 < C^0_{DEPENDENT} < V^0$	$V^0 < C^0_{DEPENDENT} < V^0$	$V^0 < C^0_{DEPENDENT} < V^0$
	IMPERFECTIVE ASPECT	DESIDERATIVE	CHRONICAL EVENTS
Korean	ssu- ko iss-	ssu- ko sip-	ssu- ko ka-la
	'be reading'	'want to write'	'write it and go'
Japanese	kai -te i-	kai -te mita-	kai -te i-ke
_	'be writing'	'want to write'	'write it and go'

The syntactic behaviours of *ko* and *to/tte/te* discussed in this section are summarized in the table below.

syntactic contexts and formatives	-ko	to/tte/te
subject position	X	X
thematic objection position with an accusative case	X	X
complement of attitude/communication verbs	\checkmark	to/tte
complement of an auxiliary verb 'exist; be'	\checkmark	<i>te</i> only
complement of a desiderative verb 'want'	\checkmark	<i>te</i> only
complement of an active verb	\checkmark	<i>te</i> only
complement of rising intonation in echo	\checkmark	to/tte
complement of rising intonation in hearsay	X	<i>tte</i> only

4. Conclusions

I have presented a brief comparison of the distributions of a pair of recycled functional markers in Korean and Japanese which exhibit similar morphosyntactic properties. The characteristics of *ko* and *to/tte/te* in their three distinct distributions have been demonstrated. For want of space, this paper leaves other distributions of *ko* and *to/tte* (namely, *ko* as a declarative question marker (Kim 2015) and *tte* as a topic marker (Okamoto and Ono 2008, R. Suzuki 2008, Hirose and Nawata 2016)) for future study.

Although I have not attempted to provide an answer here, it is worthwhile to ask why ko and to/tte appear so uniformly across syntactic domains. Is their multifunctionality related to areal typology or universal linguistic typology? Is there some system of regulation governing the recycling of functional markers? Taking the stance that Korean ko and Japanese to/tte are multifunctional morphosyntactic elements in synchronic grammar, their distribution can be further compared with that of *que* in Spanish, a typologically unrelated language that nevertheless shows similar multifunctionality (Corr 2016).¹³

This study adds to the contributions made by some scholars who have shown their consistent interests in comparison of morpho-syntactic structure between Korean and Japanese, including Horie (2000) and Yeon (2008). This study differs from two previous studies in that I have focused on the distributions of particular formatives rather than on comparing a particular construction. A careful study of the connection between the distribution of multifunctional elements in synchronic grammar and the grammaticalization of functional elements in diachronic grammar may provide an answer to how these languages are equipped with formatives systematically in their 'recycling' systems.

(26)

¹³ The distribution of to/tte is closer to the Spanish *que* than to the English *that*, as pointed out by Saito (2012).

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