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FOREWORD

In line with the journal policy, the present issue of ALA, the last this year, also includes also an article in Slovene. While striving for an active, open and engaged dialogue with the scholarly trends in the research of Asian languages around the world, ALA, as the sole scholarly journal devoted to Asian linguistics in Slovenia, also has set before itself the goal to cultivate critical scientific thought and terminology in this field among Slovenian speakers – by providing in one of the issues every year also research and technical articles in Slovenian, for the Slovenian reading public, above all for undergraduate students and the interested public at large. This has been a tradition and, I would say, also a duty, respected and eagerly put in practice by those of us who do science, including linguistics, in the context of a relatively small language community, that of Slovenian speakers.

The present issue begins with two articles concerned with the perception of phonological and phonetic differences between languages.

The first article, by Ashima AGGARWAL, deals with the acquisition of Hindi voicing and aspiration contrasts by monolingual English speakers in the framework of Optimality theory. The main result, that English learners do perceive aspiration distinction but not voicing contrast, also bears on adult learning of second languages in general.

In the second article, Nina GOLOB examines differences in Japanese and Slovene prosody – i.e., accent and intonation, from a phonological point of view. The study shows that there are phonological differences behind some superficial phonetic similarities in the examined phenomena, which represent a difficulty in the acquisition of L2 prosody.

In the next article, Abolfazl MOSAFFA JAHROMI examines the syntactic behaviour of *īn*, an expletive-like morpheme in Modern Persian, and argues in favour of the existence of expletives in Modern Persian, a language which has hitherto generally been considered to have no expletives.

The fourth and fifth article deal with categorisations. The fourth article deals with typological categorisation based on event framing strategies in Old Chinese and Old Japanese. On the basis of an analysis of available data, Wenchao LI concludes that while Old Chinese employed verb framing, satellite framing and equipollent framing, verb framing was its main pattern, while in Old Japanese all three patterns were employed comparably.

The fifth article, by Sumi YOON, deals with discourse categorisation of Japanese and Korean, both generally considered as “listener-responsible” languages. By analysing apologies in conversations by Japanese and Korean students, both those in

their home country and those studying in the US, the author argues for a recategorization of Korean as a “speaker-responsible language”.

In the technical article, in Slovene, at the end of this issue, Andrej BEKEŠ investigates the classification of genres in Japanese corpora, based on recent research he has also been involved in. He argues that various modal expressions, such as suppositional adverbs, may provide an interesting base for such classification.

Andrej Bekeš

RESEARCH ARTICLES

ACQUISITION OF HINDI CONTRASTS BY ENGLISH SPEAKERS: AN OPTIMALITY THEORETIC ACCOUNT

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Abstract

This paper provides an optimality theoretic account of perception of Hindi voicing and aspiration contrasts by English monolinguals. The participants were presented with minimal pairs of stop consonants belonging to three places of articulation, namely, bilabial, alveolar and velar. The minimal pairs varied in (a) voice; (b) aspiration; (c) voice and aspiration. The methodology involved taking a discrimination test wherein the English speakers reported whether the minimal pairs they heard were same or different. The findings were then subjected to quantitative analysis. The results show that aspiration distinction is clearly perceived by English monolinguals but voicing contrast is neutralized in the same position. The study adds to our knowledge of existing phonological theories such as Best's perceptual Assimilation Model (2001) and p-maps (Steriade, 2001). Based on the phonetic results, an optimality theoretic framework is applied to describe the results. The framework involves the ranking of faithfulness and markedness constraints and presenting an initial stage grammar for the L2 English learner of Hindi. In the end, some predictions are made about the further acquisition of these non-native contrasts by L2 English learners. The study has useful implications for adult second language learners.

Keywords

voicing, aspiration, acquisition, optimality theory, voice onset time

Izvleček

V raziskavi je avtorica proučila sposobnost angleško govorečih monolingvistov, da v jeziku hindi pravilno zaznajo zvonečnost oz. aspiracijo. Sodelujočim je predstavila minimalne pare treh vrst zapornikov: dvoustničnih, dlesničnih in mehkonebnih. Besede v paru so se razlikovale po zvonečnosti (a), po aspiraciji (b), ali pa po zvonečnosti in aspiraciji (c). Metodologija je vključevala diskriminacijski test, kjer so sodelujoči ugotavljali enakost oz. neenakost besed iz minimalnega para. Rezultati kvantitativne analize so pokazali, da angleško govoreči monolingvisti dobro zaznavajo razliko v aspiraciji, problem jim predstavljajo pari z zvonečim oz. nezvonečim soglasnikom v istem položaju besede. Raziskava prispeva k poznavanju že obstoječih fonoloških teorij, kot so Asimilacijski model zaznavanja (Best, 2001) in p-porazdelitve (Steriade, 2001). Fonetični rezultati so interpretirani tudi v okviru optimalnostne teorije – rangirani so po zvestobi in po zaznamovalnostnih omejitvah –, in predstavljajo začetno stopnjo hindijske slovnice kot tujega jezika angleško-govorečih. Na koncu avtorica navaja svoja predvidevanja o naslednjih razvojnih stopnjah jezika hindi kot tujega jezika. Raziskava je tudi prispevek k znanju o učenju tujega jezika odraslih.

Ključne besede

zvonečnost, aspiracija, usvajanje tujega jezika, optimalnostna teorija, VOT

1. Introduction

Voice onset time (henceforth VOT), is a feature of the production of stop consonants. It is defined as the length of time that passes between when a stop consonant is released and when voicing, the vibration of the vocal folds, begins. Voicing contrast in stops has been discussed in phonetics and phonology for the past few decades. Beginning with Lisker and Abramson (1964), in their well-known cross-language study, voice onset time (VOT) has been widely used to differentiate stop categories across languages.

VOT has come to be regarded as one of the best acoustic cues for discriminating three general stop categories, especially in word-initial position and based on the VOT different languages including Hindi and English use different categories (bilabial, alveolar or velar) to identify stops. By analyzing VOTs in stop consonants, linguists have concluded that for most languages, VOT values get longer as the place of articulation moves backward (Lisker & Abramson, 1964).

For this paper VOT will serve as the cue to measure the voicing of the Hindi stimuli whereas the results of the perception experiment will be analysed within the framework of optimality theory.

OT has emerged as a very useful tool within the past few decades and has useful implications for language acquisition. Optimality theory (OT) proposes that the observed forms of language arise from the interaction between conflicting constraints. It assumes that Differences in grammars reflect different rankings of the universal constraint set. Language acquisition can be described as the process of adjusting the ranking of these constraints (Tesar & Smolensky, 1998). This study is intended as a contribution to the understanding of several well-known problems relating to the learning of phonetic contrasts in second language (L2) pronunciation. In particular this paper focuses on some of the effects that the influences of similarity and difference between native and target language sound systems might have on the learning of (L2) phonology. It also aims at filling the gap in the understanding of p-maps (Steriade, 2001) and establishing a hierarchy of difficulty of perceptibility with regards to voicing and aspiration in the word initial position.

2. Theoretical background

The phenomenon of voicing and aspiration in Hindi has caught the attention of many phoneticians and phonologists for some time. There have been many studies on the voicing and aspiration in Hindi especially of VOT as an important cue to the place of articulation of initial stops. (Lisker & Abramson, 1964)

Acoustically the two kinds of stops, voiced and voiceless, are in most cases easily distinguished by reference to their spectrographic patterns; for voiced stops the formantless segment corresponding to the closure interval is traversed by a small

number of low-frequency harmonic components, while in the case of voiceless stops the closure interval is essentially blank.

The following are VOT values of Hindi from Lisker and Abramson (1964). For the purpose of this paper, only the VOT values for bilabial, alveolar and velar have been quoted.

Table 1: Hindi VOT values (Lisker and Abramson 1964)

	/b/	/b ^h /	/p/	/p ^h /	/d/	/d ^h /
Av.	-85	-61	13	70	-87	-87
R.	-120: -40	-105:0	0:25	60:80	-140:-60	-150: -60
N.	16	15	18	18	18	18

	/t/	/t ^h /	/g/	/g ^h /	/k/	/k ^h /
Av.	15	67	-63	-75	18	92
R.	5:25	35:100	-95:-30	-160:-40	10:35	75:100
N.	16	16	17	16	16	18

There has been numerous but valuable research on the Acquisition of learning the sounds of a second language some of which has been summarized below.

Flege (1992a,b) hypothesized that the likelihood of phonetic category formation for L2 phonetic segments is influenced importantly by the age at which L2 learning commences. More specifically, he hypothesized that the range of L2 segments for which additional phonetic categories are established decreases through childhood, but that even adult learners of an L2 may establish phonetic categories for L2 segments that differ substantially from the nearest L1 segment. For the present study it will try to extend the findings to Hindi.

For L2 sounds that are phonetically similar, a corresponding sound in the L1 yet differ acoustically from the L1 counterpart ("similar" L2 sounds), phonetic category formation may be blocked by the perceptual mechanism of equivalence classification. The hypothesized difference in how new and similar sounds are treated perceptually leads to the prediction that new but not similar sounds in an L2 may be mastered eventually by adult L2 learners. The prediction concerning similar L2 consonants has been confirmed in a number of previous studies (e.g., Flege, 1991).

Following Brown (1998), who claims that if a learner's L1 grammar lacks the phonological feature that differentiates a particular non-native contrast, he or she will be unable to perceive the contrast and therefore unable to acquire the novel segmental

representations; the present study offers an account of the acquisition of the Hindi voicing and aspiration by English speakers and seek if this is true of Hindi language.

Another important study in the field of non-native perception study is by Best (2001). She proposed in her Perceptual assimilation model (PAM) that a given non-native phone may be perceptually assimilated to the native system of phonemes in one of the given ways: (1) Two-category assimilation (TC) – when two non-native phones are categorized as two different native phonemes. (2) Single category assimilation (SC) – when 2 non-native phones are categorized equally well as one native phoneme. (3) Category goodness (CG) – when 2 non-native phones are categorized as one native phoneme but one fits better than the other. (4) Uncategorized-categorized pair (UC) – when one non-native phone is categorized, and the other remains uncategorized. (5) Uncategorized-uncategorized pair (UU) – when both non-native phones are uncategorized. (6) Non-assimilable (NA) – when non-native phones are perceived as non speech sounds, different from any native phonemes. One goal of this study will be to see if and where the various non-native phones fit into the English speaker's categories.

From a phonological perspective, analyzing language acquisition can give us useful insights into the learning process of the L2 learner. Hancin-Bhatt (2000) presented an Optimality Theoretic account of syllable codas in Thai ESL. Thai has a more restrictive set of constraints on what can occur syllable-finally than does English. Thai ESL learners thus need to resolve the conflict between what they know (their first language or L1) and what they are learning (their second language or L2 grammar). Optimality Theory provides the mechanisms to understand how this phonological conflict is resolved, and in what ways. The main findings of this study are that the L1 constraint rankings interact with L2 constraint rankings. Beginning with the L1 constraints ranked higher and then they eventually get demoted below L2 constraints. The study argues that constraint rerankings occur in an ordered fashion. Following from this study I will examine the ranking of constraints by speakers of English L1.

Hancin-Bhatt and Bhatt (1997) also relate certain key issues in optimality theory to Major's ontogeny model (1987): the high level of transfer at the beginning of the learning process may be related to the use of constraint ranking of the learner's mother tongue in the new L2 situation; the eventual decrease of transfer may be seen as the result of reranking. The current study is thus aimed to be one of the many steps towards an optimality theoretic account of language acquisition.

3. The present study

The present study of Hindi consonants is a preliminary study to capture the perception of word initial stop consonants by 10 monolingual English speakers. These English speakers have had no prior exposure to Hindi. To my knowledge there has been no study that looks at the acquisition of L2 voicing and aspiration from an

optimality theoretic perspective. The former studies have concentrated on the measurement of VOT values of contrasting segments and what it indicates about the differences and similarities in L1 and L2 phonetic and/or phonological categories. Little to no attention has been given to these from the perspective of latest phonological theories. In my opinion, analyzing the learners' data with respect to OT will give us useful insights into the learning process of L2 learners. It should be able to capture a clearer picture of what constrains or allows the learner of a language to be able to learn contrasts of a new language system. Given this aim, the present study will try to establish a baseline of sound perception by native English speakers. The focus of this paper will then be to analyze how Hindi voicing and aspiration contrasts are perceived by the English group.

4. Methodology

4.1 Subjects

All the 10 subjects were living in Gainesville, Florida at the time of testing; and were affiliated with the University of Florida. Subjects in the native English group spoke only American English. The age range of all participants was 18-24. None of them had any reported hearing deficit. All the subjects were compensated with course points for participating in the study.

4.2 Measurement

Assignment of VOT values is done as follows. The voice onset time of a plosive is defined as the duration between the release of a plosive and the beginning of vocal cord vibration. Standardly, VOT can be positive, negative, or 0.

1. If the onset of voicing follows the release, measure the interval between the release of the plosive until the onset of voicing. This is positive VOT.
2. If the onset of voicing coincides (approximately) with the release, this is 0 VOT. There is nothing to measure.
3. If the onset of vocal cord vibration precedes the plosive release, then measure the voicing duration from the onset of voicing (or the onset of closure if there is voicing throughout). This is negative VOT.

Note: on a spectrogram, in case of lag voicing, the release of a burst will be indicated by a dark striation followed by the consonant later. For prevoiced sounds you will see the voicing bar before the release burst for a short or zero lag the two will be very close (with release followed by voicing) or overlapping (at the same time). The onset of consonant was taken to be the first high amplitude peak in the spectrogram.

4.3 Stimuli

The following tables 2, 3 and 4 present the stimuli that were presented to the native English group. For purposes of clarity, they have been presented below in three separate tables, one each for voicing, aspiration and voicing and aspiration. The VOT values of the initial consonants as produced by the native Hindi speaker have also been measured. The stimuli were recorded by a native speaker of Hindi who was 25 years at the time of recording. The recording was done on a recorder in a noise free room.

4.4 Procedure

For the perception experiment the speech samples were recorded by the investigator in a quiet room using a recorder. The researcher is a native speaker of Hindi. The stimuli contained 38 Hindi minimal pairs (a total of 76 words, spoken in pairs) which varied for (1) voicing and (2) aspiration. All the minimal pairs contained stops in the initial position. Four minimal pairs were recorded for each place of articulation bilabial, alveolar and velar. To study the voicing contrast, two pairs were unaspirated (for e.g. p-b) and two pairs were aspirated (for e.g. p^h-b^h). To study the aspiration contrast, two pairs were voiceless (for e.g. p-p^h) and two were kept voiced (for e.g. b-b^h). The tokens were intermittently substituted with distractors, to avoid any possible cuing to the listener. However, the distractors were intentionally not made completely different from the tokens, so that they don't appear too different. They were still minimal pairs but contrasted for some feature other than voicing or aspiration. For e.g. [man] and [nan], [dal] and [bal]. So the resulting contrasts were pairs of:

- 1.a. voiceless aspirated (VIA) - voiced aspirated (VA)
- 1.b. voiced unaspirated (VU) – voiceless unaspirated (VIU)
- 2.a. voiced aspirated (VA)– voiced unaspirated (VU)
- 2.b. voiceless aspirated (VIA) – voiceless unaspirated (VIU)

Finally a set of minimal pair which varied both in voicing and aspiration was also tested for perceptibility:

- 3.a. voiceless – voiced aspirated
- 3.b. voiced – voiceless aspirated

The participants were told to take an AX test wherein they heard each minimal pair and had to determine whether the two words were same or different. They were given a sheet of paper with two columns numbered (1) to (38). One column said “same” and the other “different”. The participants were asked to check mark either of the two choices depending upon what they heard.

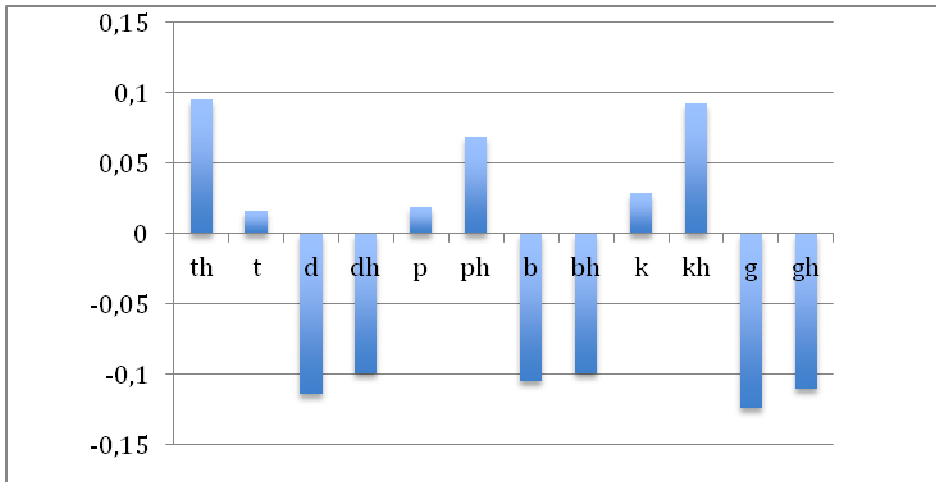


Figure 1: Mean VOT values of Hindi stop consonants

Figure 1 shows the mean VOT values of Hindi stop consonants belonging to three place of articulation; bilabial, alveolar and velar. It shows both aspirated and unaspirated stops. Positive VOT indicates positive lag whereas negative VOT indicates prevoicing. It is evident from the figure that Hindi voiceless unaspirated stops have a much shorter lag as compared to voiceless aspirated stops. But in the case of voiced stops, the data in the figure indicates that unaspirated stops have slightly longer prevoicing than aspirated ones. Whether or not the difference between voiced-voiceless and aspirated-unaspirated is significant will be tested below.

Table 2: VOT values of Hindi voicing contrasts used

VOICING (in ms)			
unaspirated		aspirated	
voiceless	voiced	voiceless	voiced
0.016	-0.067	0.101	-0.094
0.002	-0.081	0.077	-0.081
0.044	-0.084	0.069	-0.077
0.043	-0.135	0.106	-0.109
0.031	-0.137	0.097	-0.092
0.014	-0.098	0.071	-0.096
		0.079	-0.092
p-value=0.00066		p-value=0.00001	

Thus, my analysis of the data in Table 2 shows that there is a significant difference between the VOT values of VU (voiced unaspirated) and VIU (voiceless unaspirated) stops ($p < .05$) and there is also a significant difference, greater than on the basis of chance, between the VOT values of VIA (voiceless aspirated) and VA (voiced aspirated) stops in Hindi.

Table 3: VOT values of Hindi aspiration contrasts used

ASPIRATION (in ms)			
voiceless		voiced	
unaspirated	aspirated	unaspirated	aspirated
0.036	0.051	-0.107	-0.076
0.027	0.086	-0.114	-0.081
0.013	0.069	-0.13	-0.123
0.029	0.1	-0.16	-0.125
0.026	0.112	-0.096	-0.084
		-0.124	-0.15
p-value=0.00835		p-value=0.169097493	

Table 3 shows that there is a significant difference between the VOT values of VIU and VIA stops ($p < .05$). However, the VOT values of VU and VA are not significantly different in Hindi.

Table 4 includes a list of minimal pairs that contrast both in voicing and aspiration and their corresponding VOT values.

Table 4: VOT values of Hindi voicing and aspiration contrasts used

Minimal pairs	VOT (in ms)
dal	-0.126
t ^h al	0.085
kal	0.024
g ^h al	-0.125
tal	0.025
d ^h al	-0.11
pai	0.009
b ^h ai	-0.122

Minimal pairs	VOT (in ms)
kat	0.021
g ^h at	-0.132
p ^h er	0.085
ber	-0.129

5. The results

The data from the perception study has been presented below in Table 5, 6 and 7.

Table 5: Perception of voicing contrast

Voicing contrast	Number of times perceived same (total=20)	Number of times perceived different (total=20)
p-b	15	5
t-d	15	5
k-g	19	1
p ^h -b ^h	8	12
t ^h -d ^h	8	12
k ^h -g ^h	8	12

For the voicing contrast above, the number of times two unaspirated stops in the minimal pairs are heard same is significant $p=.001$, however the result for aspirated stops is inconclusive, we need more data. This indicates that voicing contrast is not perceived by non-native speakers (at least) in unaspirated initial stops.

Table 6: Perception of aspiration contrast

Aspiration contrast	Number of times perceived same (total=20)	Number of times perceived different (total=20)
d-d ^h	3	17
b-b ^h	11	9
g-g ^h	4	16

Aspiration contrast	Number of times perceived same (total=20)	Number of times perceived different (total=20)
p-p ^h	2	18
t-t ^h	1	19
k-k ^h	1	19

For the aspiration contrast above, the number of times two voiceless (unaspirated and aspirated) stops in the minimal pairs are heard different is significant $p=.00001$ and the fact that voiced aspirated and voiced unaspirated stops are heard different is also significant. This indicates that aspiration can be perceived by non-native speakers irrespective of voicing.

Table 7: Perception of voicing and aspiration contrast

Voicing and aspiration contrast	Number of times perceived same (total=10)	Number of times perceived different (total=10)
p-b ^h	0	10
p ^h -b	0	10
t-d ^h	2	8
t ^h -d	0	10
k-g ^h	5	5

The results for voicing and aspiration contrast are highly significant $p=.0004$, which indicates that non-native speakers have no problem hearing the two contrast when presented together.

6. Analysis

Since within OT every stage of acquisition has a grammar, which can be explained by means of some constraints and their ranking; the aim of this study would be to find the constraints that the native English speakers have and how they are ranked in their current stage of acquisition.

I propose the following set of constraints to explain the initial stage of learning by monolingual English speakers:

IDENT-IO (aspiration)/#_ - the specification for the feature [aspirated] of an input segment must be preserved in its output correspondent word initially.

IDENT-IO (voice)/#_ - the specification for the feature [voice] of an input segment must be preserved in its output correspondent word initially.

IDENT-IO (Asp)- the specification for the feature [aspirated] of an input segment must be preserved in its output correspondent.

*[VOICE]/#_ - no voiced consonants word initially.

*VOICED OBS- obstruents should not be voiced
(context free markedness constraint).

*ASPIRATED OBS- obstruents should not be aspirated
(context free markedness constraint).

Based on the results what we see then is that voiced-voiceless distinction is neutralized word initially except when the initial stop is aspirated. So we need a constraint hierarchy that neutralizes voicing distinction word-initially but preserves aspiration distinction in the same context.

The following tableaux show the ranking of the faithfulness and markedness constraints to produce the initial stage of grammar the English monolingual speakers are at:

Tableaux 1.a: Voiceless stop stays voiceless word initially

/pal/	IDENT-IO (asp)/#_	IDENT-IO (asp)	*ASP OBS	*VOICED OBS	*[voice] /#_	IDENT-IO (voice)/#_
☞ pal						
bal				*!	*	*!
p ^h al	*	*	*!			
b ^h al	*	*	*!	*	*	*

Tableaux 1.b: Voiced stop neutralizes to voiceless stop word initially

/bal/	IDENT-IO (asp)/#_	IDENT-IO (asp)	*ASP OBS	*VOICED OBS	*[voice] /#_	IDENT-IO (voice)/#_
☞ pal					*	*!
bal				*!	*	
p ^h al	*	*	*!			
b ^h al	*	*	*!	*	*	*

If the English speakers perceive /p/ and /b/ as [p] then in their ranking it is essential to have *VOICED OBS above IDENT-IO(voice)/#_. It means that context free markedness will be above faithfulness in order to neutralize the voicing contrast in the word initial context.

On the other hand aspiration in the word initial position is always perceived different from unaspirated stops. That is the English speakers do not have any difficulty in hearing the aspiration contrast word initially.

Tableaux 2: Ranking based on tableaux 1a. and 1b.

/C ^h al/	IDENT-IO (asp)/#_	IDENT-IO (asp)	*ASP OBS	*VOICED OBS	*[voice] /#_	IDENT-IO (voice)/#_
pal	*!	*				*(if /b ^h al/)
bal	*!	*		*!	*	*(if /p ^h al/)
↪ c ^h al			*			

It indicates that aspiration contrast is better perceived than voicing contrast in word initial position.

7. Discussion

Following Best's model (and knowing that English /b/ is voiceless) we can conclude that the Hindi VIU and VU (for e.g. /p/-/b/) are placed in the same category by English speakers. This would be a case of Single category assimilation. Since the VIA and VIU are significantly heard different this makes for a case for two category assimilation. Next, the fact that /p^h/-/b^h/ are perceived to be same or different almost equal number of times, indicates that it is a matter of category goodness, /ph/ might be a "good" exemplar of the category and bh might be "not so good". Last, the distinction between /b/-/b^h/ can also be characterized as category goodness, since the difference between the two is not very well perceived by the English speakers, although a firm generalization would require more data for /b/-/b^h. Attention must also be paid to the fact that the difference in the VOT of stimuli /b/-/b^h/ was much lesser than that of /d/-/d^h/ or /g/-/g^h/. Considering the fact that English /b/ is actually voiceless, or in other words it is [p] we can also say that there exists a relationship of CG between [p]-/b^h/. A diagram would best capture this relationship between the different categories.

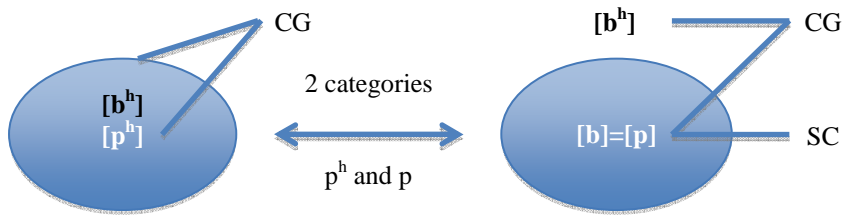


Figure 2: Analysis using PAM model

Another contribution of this study can be to add to the study of p-maps, a recent addition to correspondence theory. “P-map is a mental representation of the degree of distinctiveness of different contrasts in various positions. It is a set of statements with different degrees of generality about absolute confusability from which relational statements can be deduced.” (Steriade, 2001).

The P-map’s broadest claim is that the range of systematic, cross-linguistically invariant differences goes beyond the expressive capabilities of current theories of correspondence. In addition, we need to show that perceived degree-of-similarity differences correlate with choices made in phonological systems between alternative options of modifying an input.

In the present study for instance we see that $[p]$ and $[b]$ are judged as more similar than $[p]$ and $[p^h]$. It indicates some significant preference for $[b]$ as against $[p^h]$, since substituting $[b]$ for $[p]$ is a less significant departure from the input than substituting $[p^h]$. The finding is well supported by the results of the present study, wherein, for English speakers, voicing contrast is significantly more confusable relative to aspiration contrast.

The idea that some features contribute more to dissimilarity than others has been investigated by phoneticians and psycholinguists for some time. This study I hope successfully fills the void in the understanding that [+aspiration] feature plays a major role in generating dissimilarity judgments, in contrast to voicing. It will enable us to make statements about relative confusability such as:

The contrast t/d word initially gives rise to more instances of misidentification than the contrast t/t^h in the same context.

8. Predictions

Unlike Brown (1998), who suggested the inability of a learner to acquire a non-native phonological feature, I believe that the learner will be able to learn the L2 contrast. This is based on the fact that although p-p^h, t-t^h, k-k^h etc. are not phonemically present in the phonological system of the participants of this study they were still able to perceive them as distinct sounds. That is although aspiration being phonemic in Hindi and not in English can still be perceived by English speakers, it is possible that with enough training voicing contrast can be heard too. However, we need to keep in mind, p-maps and their implications on learning: more confusable features might be harder to learn than less confusable ones.

A target like perception (and production) will then be exhibited by demoting context free markedness (*VOICED OBS) and contextual markedness (*[voice]/#_) below faithfulness (IDENT-IO (voice)/#_ to get rid of word initial voicing neutralization:

Tableaux 3: Target Hindi grammar

/bal/	IDENT-IO(asp)/#_	IDENT-IO (asp)	*ASP OBS	IDENT-IO (voice)/#_	*VOICED OBS	*[voice] /#_
pal				*!		
↵ bal					*	*
p ^h al	*	*	*!			
b ^h al	*	*	*!	*	*	*

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ACOUSTIC PROSODIC PARAMETERS IN JAPANESE AND SLOVENE: ACCENT AND INTONATION

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Abstract

The study investigates realizations of the three acoustic parameters, duration, fundamental frequency and intensity, in relation to accent and intonation in Japanese and Slovene. Ten native speakers of each language pronounced nonsense words of different accentual patterns placed within the declarative-interrogative intonational context. Results of the acoustic analysis reveal clear differences in behavior of the three parameters under various conditions, and suggest the following phonological differences between the two languages: 1. Prosodic features realizing accent and intonation differ, 2. Interaction between accent and intonation differs, and 3. Prosodic features function uniformly within different units of successive segments, the so-called prosodic units. However, looking into the overall characteristics of the acoustic signal, certain similarities are also observed. The study anticipates that the above phonological differences, especially those realized as phonetic similarities represent a great difficulty in acquisition of L2 prosody, and specific examples of a possible L1 interference are provided.

Keywords

Japanese, Slovene, accent, intonation, prosodic features

Izvleček

Raziskava obravnava tri osnovne akustične parametre (trajanje, osnovno frekvenco in intenziteto) in njihovo razločevalno funkcijo pri besednem naglasu oz. intonaciji v japonščini in slovenščini. Po deset govorcev za vsak jezik je bralo nesmiselne besede, ki so bile vstavljene v povedne in vprašalne stavke. Rezultati akustične analize so pokazali očitne razlike v obnašanju akustičnih parametrov pod različnimi pogoji, iz katerih avtor sklepa o naslednjih fonoloških razlikah med japonščino in slovenščino: 1. prozodične lastnosti, ki oblikujejo besedni naglas in intonacijo, se razlikujejo, 2. interakcija med besednim naglasom in intonacijo se razlikuje, 3. enotno delovanje prozodičnih lastnosti se zgodi znotraj različnih fonotaktičnih sklopov, t.i. prozodičnih enot. Hkrati opazovanje splošnih karakteristik akustičnega signala nakazuje tudi na določene podobnosti med jezikoma. Raziskava podaja splošno spoznanje, da omenjene fonološke razlike v prozodiji japonščine in slovenščine, še posebej tiste, ki se v govoru realizirajo kot fonetične podobnosti, predstavljajo veliko oviro pri usvajanju japonščine oz. slovenščine kot tujega jezika. Dodani so tudi konkretni primeri predvidenega vpliva maternega jezika na učenje tujega jezika.

Ključne besede

japonščina, slovenščina, besedni naglas, intonacija, prozodične lastnosti

1. Introduction

Except for a few articles and presentations written by the author (Golob, 2004a; Golob, 2004b), nothing within the broad area of phonetics and phonology has yet been done on comparison between Japanese and Slovene. A pilot-study¹ at the University of Ljubljana² showed that Slovene students of Japanese have great difficulties with Japanese pronunciation, especially with the part of it concerning accent and intonation. Mispronunciations revealed certain patterns that are thought to be the result of the first language interference, and thus an insight into differences and similarities between Japanese and Slovene prosody should provide valuable information for further research on foreign language acquisition as well as on language universals and typology³.

The present study is concerned with the acoustic realization of accent in declarative and interrogative intonational contexts in Japanese and Slovene. Attention is directed to prosodic features⁴ of length, pitch and loudness and their acoustic counterparts within the CV and/or CVN⁵ phonotactic sequences, and their correlation with accent and intonation.

The following three questions are discussed:

- i) Which prosodic features correlate with accent and intonation?
- ii) How do accent and intonation interact in terms of their relevant prosodic features?
- iii) What kind of segmental formation, called prosodic unit, do prosodic features indicate?

To answer i) and ii) phonotactically unmarked (canonical) consonant+vowel sequence (CV) is employed, and words consisting of either two or three of such sequences placed into all possible accentual patterns within declarative and interrogative intonation are introduced. Comparisons of pairs of words that only differ in one factor (the so-called minimal pairs) are expected to reveal the correlative prosodic features⁶ and the way they correlate in Japanese and Slovene, respectfully.

¹ Unpublished.

² Department of Asian and African Studies, Japanology.

³ Gass and Selinker (1983) write that contrastive analyses are not only useful for pedagogical purposes (e.g. making lists of hypothetical problems in learning a foreign language) but also for purely linguistic purposes (e.g. discussing language contact situations, language transfer with bilinguals etc.).

⁴ Phonetic features.

⁵ N is an alveolar nasal.

⁶ For example, phonological accent, be it stress, tone or pitch accent, is acoustically either partially or fully realized by fundamental frequency F_0 , the latter also being the main intonational acoustic parameter. For discussion on only those prosodic features correlating with intonation, comparison between words that keep all factors (segmental surrounding, accent pattern, etc.) but intonational context the same will be conducted.

After the first two questions having been answered, CVN sequence is considered to discuss question iii). CVN sequence, where N represents an alveolar nasal, is – apart from the CVQ⁷ sequence, in which Q only realizes duration and is for that reason left out of the discussion – the only possible C1VC2 sequence in Japanese, and is at the same time one of the well-formed structures in Slovene. Supposing a CV sequence as a basic prosodic unit, CVN sequence is once compared to one CV sequence (CVN = CV) and once to two CV sequences (CV + N = CV + CV). Comparisons are expected to confirm or disprove the individual character of N in the two languages, respectfully.

Numerous studies on Japanese prosody offer a great amount of phonological discussions as well as empirical studies. Regardless of the theoretical models authors follow, it is well established that Standard Japanese⁸ is a pitch accent, mora-timed language, where a characteristic pitch pattern, a high-low tonal sequence, marks the word accent, and is governed by mora timing⁹. Mora is traditionally defined in terms of absolute duration and any CV, V, N or Q is in its length proportional to one mora (Hattori, 1960; Kindaichi, 1967; etc.). The definition of isochrony was reconsidered by Lehiste (1977), who draw a distinction between perceptual (psychological) and phonetic isochrony. It is proven that mora in Japanese does not /always/ capture phonetic reality (Sugitoo, 1982; Beckman, 1982; etc.). Naming mora as an accent bearing unit, Sugitoo (1982) defined the so-called “late fall” [*ososagari*] phenomenon, an acoustic phenomenon in which the peak of fundamental frequency is not seen on the phonologically accented mora but is instead shifted to the following mora¹⁰. She also showed that intensity curve suggests no systematic response to accented mora and suggested that fundamental frequency is the basic cue making up accent (Sugitoo, 1982).

Compared to Japanese, acoustics of Slovene prosody is in many ways still an unchallenged topic. Numerous dialects with two different accent types – some dialects have stress accent and some pitch accent¹¹ – blending in a small geographical area makes it difficult to define Standard Slovene¹². Lehiste (1961) analyzed the Maribor

⁷ Q is a glottal plosive.

⁸ Standard Japanese is nowadays equated with the Tokyo dialect. The difference between Standard Japanese and Common Japanese has disappeared.

⁹ The concept of mora is found in the work of Trubetzkoy (1969/1939), who drew distinctions between “syllable-counting” and “mora-counting” languages, and placed Japanese into the latter group.

¹⁰ The phenomenon was first observed by Neustupny (1966). It tends to occur in initially accented words whose second mora has a non-high vowel and does not influence the perception. She argues that rather than peak of the fundamental frequency the downward movement induces a percept of accent (Sugitoo, 1982).

¹¹ According to the review of the previous studies, what is called pitch accent in Slovene seems to be phonetically (acoustically) different from what is called pitch accent in Japanese. However, there is yet no contrastive study that could support this thought.

¹² According to Toporišič (1976/2000, p. 63) “official Slovene can have either stress or pitch accent. Since pitch accent is used in the dialect of the capital Ljubljana, pitch accent is thought as preferential” (my translation).

speech, which belongs to one of the stress accent dialects (Rigler, 1968), and her findings suggest that “three prosodic systems are simultaneously present in Standard Educated Slovene: stress, pitch and quantity” out of which “stress system appears to be primary”¹³. Toporišič in his works discusses both accent types, however, bases mainly on perceptual impressions. His data concerning stress accent (Toporišič, 2000/1976, p. 63) agree with those of Lehiste (1961) saying that “loudness together with high pitch marks the accent place, of which only loudness is distinctive”¹⁴, and he continues the tradition of recognizing two specific tones in pitch accent dialects (Toporišič, 1978): the rising tone (acute) and the falling tone (circumfleks). The tones, which are characteristic for accented syllables only, were phonologically redefined in relation to the following syllables as low and high, respectively, but “their phonetic interpretation remains unsatisfactory” (Toporišič, 1978, p. 225). A detailed work on acoustics of Slovene pitch accent as spoken in Ljubljana was written by Srebot-Rejec (1988), who expresses doubt on the accurate usage of the formal pitch accent in Standard Slovene nowadays. The thought was further debated by Tivadar&Jurgec (2003) and Jurgec (2005) concluding that stress-accented speech is nowadays regarded as more neutral, and as such preferred in public use.

2. Experimental investigation

2.1 Method

2.1.1 Material

Material used in the present study was chosen following the study on reiterant speech by Larkey (1983). Twelve nonsense words (Table 1) with successively more scope for voicing and different accent patterns¹⁵ were embedded in carrier phrases such as *A: What is this? ...word...? B: Yes. ...word...*, designed to elicit declarative and interrogative intonational characteristics of the words used.

¹³ What Lehiste in her work calls “stress” is named intensity (loudness) in this study (see Lehiste 1970 for explanation on relation between stress and intensity/loudness).

¹⁴ My translation.

¹⁵ Accent pattern was marked according to standard accent markings in both languages. In Japanese, accent mark was placed on perceptually the last high mora, and in Slovene, on the stressed syllable. Due to the confusion of whether or not pitch accent is still in use in Standard Slovene, and also to the fact that Slovene children only learn markings for stress accent at school (Herrity, 2000), only stress accent is accounted for for Slovene in this study.

Table 1: A list of nonsense words used in a research

Japanese					Slovene				
phonemic sequence	accent pattern	1 mora	2 mora	3 mora	1 syll.	2 syll.	3 syll.	stress place	phonemic sequence
CV	head-high	な	なな	まなま	na	nana	manama	1. syll.	CV
	mid-high	/	/	なまま	/	mana	namama	2. syll.	
	no-high	ま	まな	ななま	/	/	nanama	3. syll.	
CVN	head-high	/	なん	まんだ	nan	manta	/	1. syll.	CVN
	mid-high	/	/	なまん	/	naman	/	2. syll.	
	no-high	/	まん	なんだ	/	nanta	/	2. syll.	

The words fulfil phonotactic conditions of each language and either consist of CV sequences alone or also include a CVN sequence. Pronounced in two different languages, the same word keeps its accent place but differs in accent type. Such a pair of pronunciations of the same word is called a “cross-linguistic minimal pair” in this study.

2.1.2 Subjects

Twenty female native speakers, ten for each language, were the subjects in the study. Japanese subjects were native speakers of the Tokyo dialect, while Slovene speakers were from 3 different areas, Ljubljana, Trbovlje and Celje¹⁶. All were in their twenties and had no hearing or speaking problems.

2.1.3 Recording procedures and acoustic analyses

Most of the recordings were conducted in a soundproof studio, some of them in a silent room (four Slovene speakers). They were digitized at a sampling rate of 44.1 kHz and processed by Praat 4.2.

The three acoustic parameters, duration, Fo and intensity were measured in the following way (Figure 1). First, borders between phonemes were defined and duration was measured for each CV sequence. Then, Fo and intensity values were extracted at four places of each vowel: its beginning and end, and the two mid-points.

¹⁶ Ljubljana speech is traditionally thought of as pitch accent dialect but in recent years the change into stress accent area is very rapid. Trbovlje and Celje speech belong to stress accent dialects.

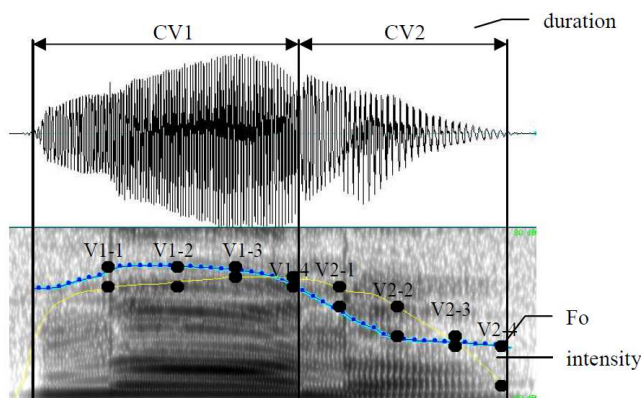


Figure1: Examples of prosodic feature extraction.

Adjusting analyses to the purpose of the study, N of the CVN sequence was analyzed in two different ways. Firstly, N was treated in the same way as a CV sequence, and its duration, Fo and intensity were measured according to the above explanation for CV sequence. Secondly, N was treated as an inherent part of the whole CVN structure, and thus the duration of the whole CVN was measured. Fo and intensity were measured on the CN sequence in the same way as the vowel of a CV sequence.

2.1.4 Handling the data

Acoustic parameters and their systematic behavior were interpreted in connection to the phonological accent and intonation. The three questions, 1. Which prosodic features correlate with accent and intonation?, 2. How do accent and intonation interact in terms of their relevant prosodic features?, and 3. What kind of segmental formation, or prosodic unit, do prosodic features indicate?, were discussed as follows. First, by comparing the parameters of phonologically accented CV with the surrounding unaccented CV sequences of the same word¹⁷, acoustic parameters responding to accent place were defined, and furthermore, by comparing the parameters in different intonational contexts of the same word, acoustic parameters responding to intonational contexts were defined. Second, by eliminating the relevant parameters, their systematic behavior was analyzed, and the interaction of parameters responding to accent place and those responding to intonational context was proposed. Third, by comparing acoustic characteristics of the CVN sequence to the CV sequence, segment N was defined either as an independent prosodic unit or as a constituent of a larger CVN unit according to its prosodic function.

¹⁷ A word has at most one (primary) accent place both in Japanese and Slovene.

2.2 Results

2.2.1 CV structure

Lack of space only allows a presentation of the words containing three successive CV sequences. Tendencies described below are equally applicable to the words of two consecutive CV sequences.

Duration

Figure 2, 3 show average durations for each word and their respective CV sequences for the pronunciations by 10 Japanese (left) and 10 Slovene speakers (right).

There is a general tendency in both languages shortly described as: the closer to the end of the word the greater the duration of a CV sequence. It is observed in all cases regardless of accentual and intonational patterns. The observed lengthening phenomenon would need further statistical analyses but can generally be described as one of the language-independent prosodic features (Vaissiere, 1983). Having no linguistic function it will be left out of further discussion.

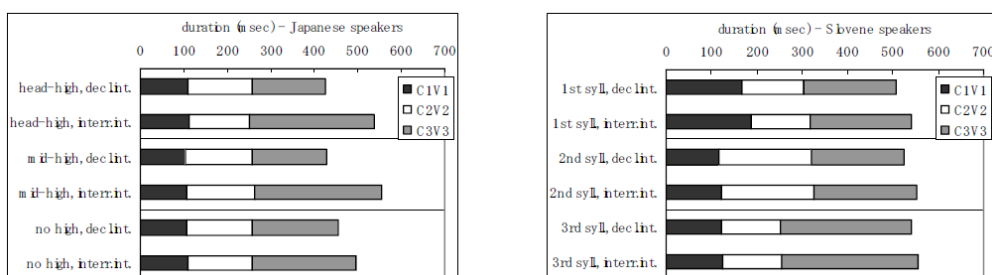


Figure 2, 3: Average durations for Japanese (left) and Slovene speech (right)

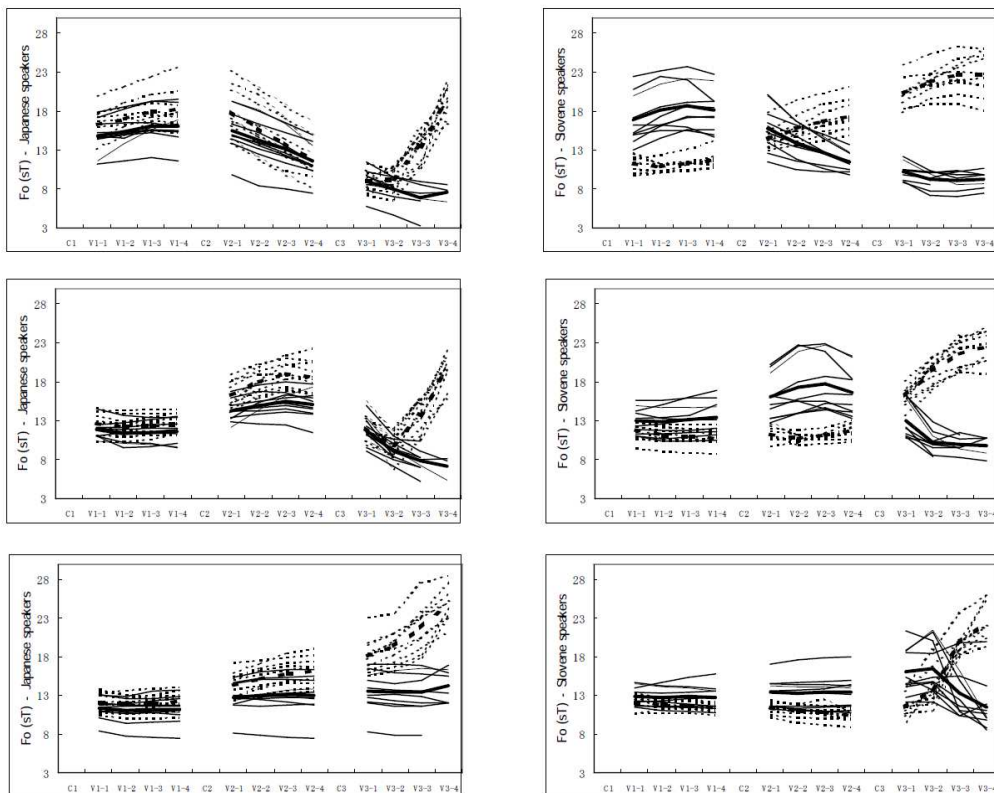
The Japanese data suggest no response of duration to accent place, showing no differences in durations of CV sequences among the words under different accentual conditions neither in declarative nor in interrogative intonation. It is however observed that duration is responsive to intonational contexts because the duration of the whole word in interrogative intonation is greater than that in declarative intonation. Furthermore, except for the final CV sequence all CV sequences are found to be of roughly the same duration. The final CV sequence in interrogative intonation carries greater duration compared to the CV sequence of the same position in declarative intonation.

Results for Slovene show different tendencies. As for accent, duration shows responses to different patterns by realizing higher values for the accented CV sequences compared to the surrounding unaccented CV sequences. On the other hand, the data reveals no responses to intonational contexts, showing negligible durational

differences of the whole words as well as the respective CV sequences within different intonational contexts.

Fo

Figures 4a-4c (from top to bottom on the left) and 5a-5c (from top to bottom on the right) show the average Fo curves in bold line and individual Fo curves for 10 Japanese and 10 Slovene speakers, respectively.



Figures 4a, 4b, 4c and 5a, 5b, 5c: Fo curve¹⁸ for Japanese (left) and Slovene speech (right) in words with different accentual patterns.

In both languages Fo curve shows specific responses to accentual patterns as well as intonational context.

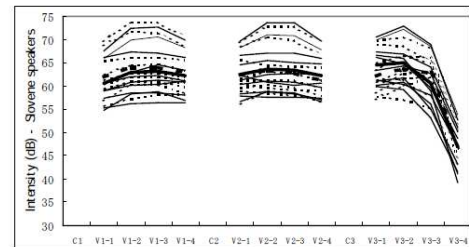
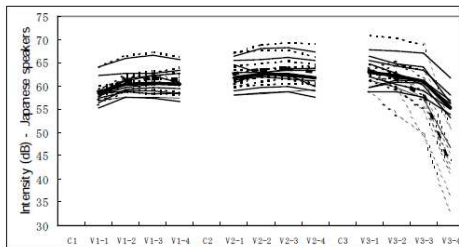
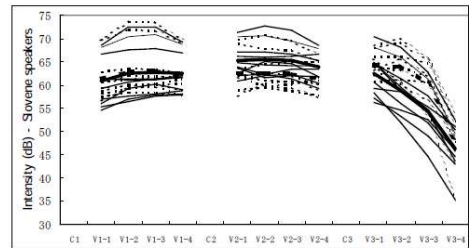
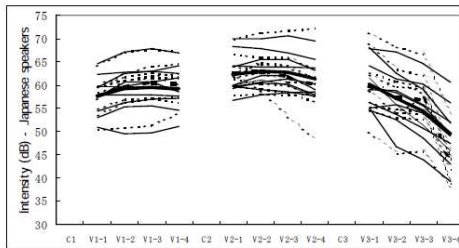
¹⁸ Full lines illustrate Fo curves in declarative intonation and dotted line in interrogative intonation. Figures a above represent words accented on the first CV sequence, figures b in the middle words accented on the middle CV sequence and figures c below represent the Japanese unaccented word (left) and Slovene word accented on the last CV sequence (right).

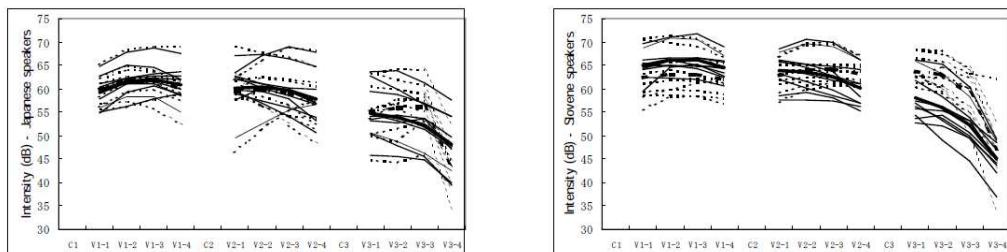
In Japanese, a rising F_0 curve on the accented CV sequence followed by a relatively steep fall on the following CV sequence, low F_0 values on the CV sequence preceding the accented CV sequence, and finally, a rising-flat F_0 curve through the whole unaccented word, are the uniform characteristics for declarative intonational contexts. F_0 curves in the interrogative context of the same word show similar movements until the last CV sequence in unaccented word (Figure 4c) and until the middle of the last CV sequence in accented words (Figure 4a, 4b). After that a steep rise is observed in all cases.

Compared to Japanese, F_0 curve in Slovene shows different behavior. Words in declarative intonation realize F_0 peaks roughly in the middle of the accented CV sequence, and the peak is preceded by a steady rise of F_0 in the preceding CV sequences. F_0 curve flattens by the end of the word. There is a reversed interdependence observed between the F_0 curves in declarative and interrogative intonation, that is, in the place where F_0 curve reaches its highest value in declarative intonation it realizes its lowest value in interrogative intonation. F_0 curves keep the reversed interdependence after the extreme F_0 values, showing a gradual fall in declarative intonation, and a gradual rise in interrogative intonation.

Intensity

Figures 6a-6c (from top to bottom on the left) and 7a-7c (from top to bottom on the right) show the average intensity curves in bold line and individual intensity curves for 10 Japanese and 10 Slovene speakers, respectively.





Figures 6a, 6b, 6c and 7a, 7b, 7c: Intensity curves¹⁹ for Japanese (left) and Slovene speech (right) in words with different accentual patterns.

The data show a main difference between Japanese and Slovene in that intensity curves reveal no response either to accentual or to intonational patterns in Japanese. The dispersion of intensity curves, also reported by Sugitoo (1982) is particularly large at the end of the words.

In Slovene, intensity curve shows particular responses to both accentual and intonational patterns, however, the two types of tendencies do not disclose any interaction. In words with declarative intonation intensity curve is similar to F_0 curve: intensity peak is realized roughly in the middle of the accented CV sequence, and is preceded by a steady rise and followed by a steady fall in most cases. On the other hand, intensity curve in words with interrogative intonation shows the same movements regardless of accent patterns. Instead, a gradual rise is observed from the beginning until the middle of the last CV sequence where it changes to a fall.

Discussion

Japanese and Slovene words consisting of CV sequences were analyzed and the data revealed that values of certain acoustic parameters change according to the changes of accentual patterns or intonational contexts. Such acoustic evidence suggests the existence of more abstract relations, correlations of prosodic features with accent and intonation illustrated in Table 2.

Table 2: Results on feature responses

	Japanese		Slovene	
	accent	intonation	accent	intonation
length (duration)	—	+	+	—
pitch (F_0)	+	+	+	+
loudness (intensity)	—	—	+	+

¹⁹ Full lines illustrate intensity curves in declarative intonation and dotted lines in interrogative intonation. Figures a above represent words accented on the first CV sequence, figures b in the middle words accented on the middle CV sequence and figures c below represent the Japanese unaccented word (left) and the Slovene word accented on the last CV sequence (right).

In the data for Japanese, only pitch correlates with accent, and pitch and length correlate with intonation. As for Slovene, all three features correlate with accent, while pitch and loudness correlate with intonation.

From the observations on how the relevant prosodic features behave under different accentual and intonational conditions the following phonetic conclusions were made.

a. Japanese:

- rising pitch on the accented CV sequence compared to the falling pitch afterwards
- greater length of the final CV sequence in interrogative intonation compared to the declarative one.

b. Slovene:

- greater length of the accented CV sequence compared to the surrounding CV sequences, and pitch and intensity extreme values on the accented CV sequence,
- pitch and intensity peak on the accented CV sequence in declarative intonation. In interrogative intonation, a rising tendency of pitch after its lowest value on the accented CV sequence, and the intensity peak on last CV sequence with no relation to accentual pattern.

2.2.2 CVN structure

With the CVN structure only representative data is shown in details and prosodic features that were proven not correlate with accent and intonation (see 2.2.1.) are thought as irrelevant in the case of CVN sequences as well.

In this section two different sound segments, a vowel and a nasal, will be compared acoustically, which consequently brings the need to consider their intrinsic acoustic qualities. According to Lehiste (1970), first, intrinsic duration of a nasal is shorter to the one of a vowel, and a CV sequence is intrinsically longer than N alone. Second, compared to vowels intrinsic F_0 is lower for nasals. And third, intrinsic intensity of vowels is greater than that of nasals.

Duration

Figure 8 and 9 show the data for duration in Japanese (left) and Slovene (right).

It is interesting to note that in declarative intonation the word duration as well as the duration of the segment N alone is roughly the same in Japanese and Slovene, being remarkably shorter for the nasal compared to the CV sequence. This supports the previous findings that there is no phonetic isochrony of moras in Japanese (Beckman, 1982; Sugitoo, 1982; etc.).

The Japanese data reveal durational responses to intonational contexts in the same way as described for CV sequences in 2.2.1. The final sequence – be it CV or N but not CV and N – is significantly longer in interrogative than in declarative intonation.

In Slovene, there is no immediate difference seen in the duration of N between the stressed and unstressed CVN sequence even though there is a difference in the duration of the CV sequence alone. To examine the existence of durational differences of N further statistical analysis would be needed.

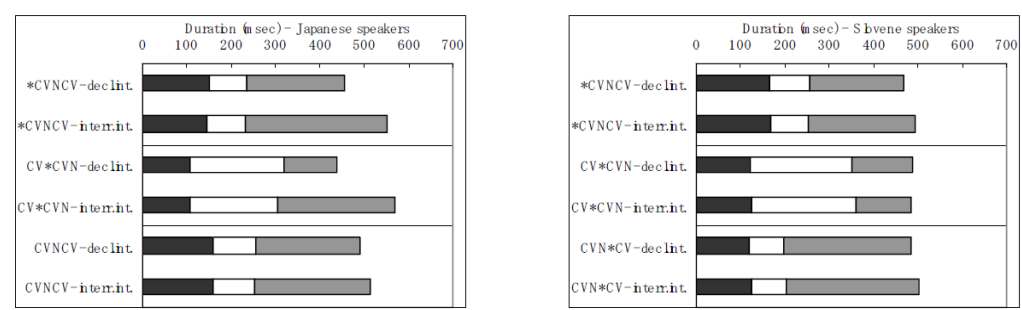


Figure 8, 9: Average durations for Japanese (left) and Slovene speech (right). Asterisk marks accent place.

Fo

Japanese data (Figure 10a, 10b) for fundamental frequency show that the rising Fo curve for N can only be realized when the unaccented CVN sequence takes the initial place in a word, the tendency that proves to be (partially) independent from accent patterns. What suggests Fo curve for N to behave independently from the proceeding CV sequence and similarly to Fo curve of any other CV sequence is its final position in a word where CV sequence proceeding N is accented. In such case Fo curve over the CVN sequence takes a typically fall-rise curve in the final position of an interrogative intonation, which is comparable to two CV sequences (Figure 10a). Fo curve of the whole CVN sequence has no similar counterpart in a single CV sequence (Figure 10b).

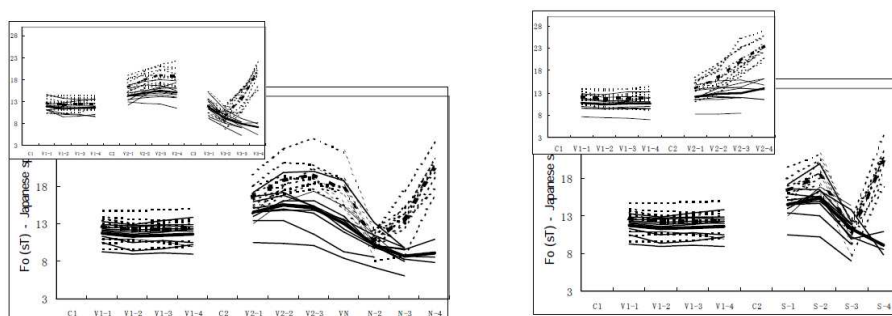


Figure 10a, 10b: Fo curve of the Japanese word “naman” 「なま」 where CVN is once taken as 2 units (CV+N, left) and once as one unit (CVN, right), and compared to three CV sequence and two CV sequence words, respectively.

An example of a Fo curve shape from Slovene is presented in Figure 11a and 11b. Characteristic response of Fo curve to accentual patterns, as was described in 2.2.1., is marked with its extreme values in the middle of the accented vowel. In case of a CVN structure, of which CV is accented, Fo peak is realized in the middle of the whole CVN structure (11b) and not in the middle of CV structure alone (11a). This suggests that Fo curve realized by N completes the Fo curve of the preceding CV into a shape that is comparable to a Fo curve of any other accented CV sequences.

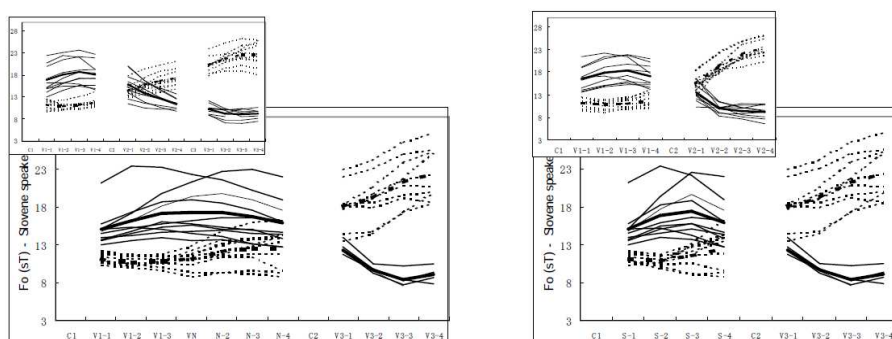


Figure 11a, 11b: Fo curve of the Slovene word “manta” where CVN is once taken as 2 units (CV+N, left) and once as one unit (CVN, right), and compared to three CV sequence and two CV sequence words, respectively

Intensity

Intensity is characterized as a responsive acoustic parameter in Slovene only, and thus the discussion on Japanese is omitted.

Figures 12a, 12b, 13a and 13b illustrate intensity curves of two Slovene words building a minimal pair by differing in accentual pattern. Comparing them, as well as

observing their intensity curves within CVN structure does not give any straight suggestions whether N realizes intensity independently or within a CVN sequence, and further statistical analysis would be needed to examine it.

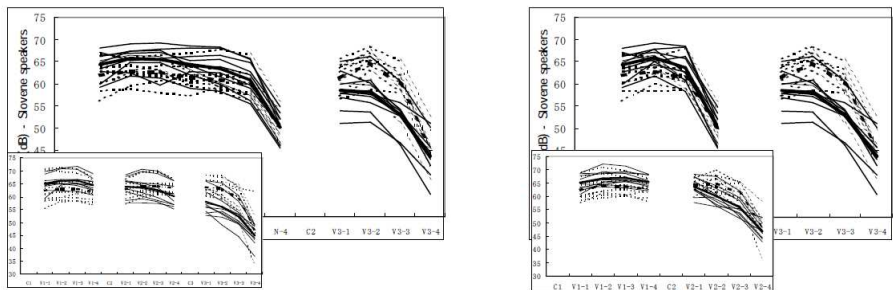


Figure 12a, 12b: Intensity curve of the Slovene word “mánta” where CVN is once taken as 2 units (CV+N, left) and once as one unit (CVN, right), and compared to three CV sequence and two CV sequence words, respectively

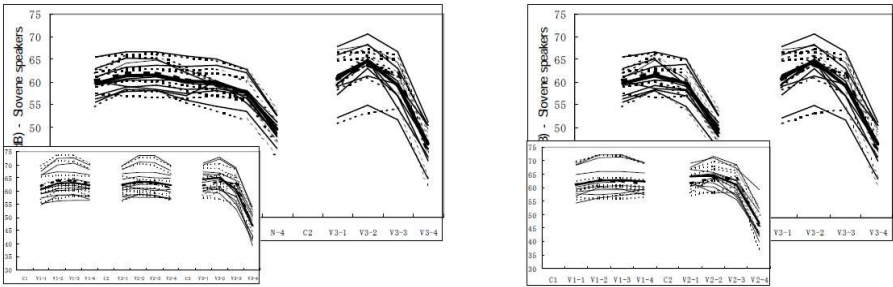


Figure 13a, 13b: Intensity curve of the Slovene word “mánta” where CVN is once taken as 2 units (CV+N, left) and once as one unit (CVN, right), and compared to three CV sequence and two CV sequence words, respectively.

Discussion

In previous sections the three acoustic parameters were analyzed for CVN sequence. The analysis was conducted in two ways, once as a CV+N sequence and the other time as a CVN sequence. Tendencies of the behavior of the parameters were compared to those of two successive CV sequences and one CV sequence, respectfully, and a prosodic unit for each language was suggested as illustrated in Table 3.

Table 3: Prosodic unit in Japanese and Slovene
according to the behavior of prosodic features

	Japanese				Slovene			
	accent		intonation		accent		intonation	
	N	CVN	N	CVN	N	CVN	N	CVN
length (duration)	/	/	+	–	–	△	/	/
pitch (Fo)	+	–	+	–	–	+	–	+
loudness (intensity)	/	/	/	/	+	+	+	+
Overall	+	–	+	–	–	+	–	+

In Japanese, pitch movements of the segment N alone show responses to accent and intonation similar to any CV sequence in the same position, which is not the case for the CVN structure as a whole. Furthermore, duration of the segment N alone when in a word-final position is greater in interrogative than in declarative intonation. The two observations confirm the prosodically independent character of the segment N in Japanese.

On the other hand, there was no similarity found for the tendencies of length and pitch between the segment N alone and a CV sequence in Slovene. The data suggest that the whole CVN sequence realizes a feature response that is comparable to any other CV sequence in the same position. However, further statistical analysis is needed to prove the statement. Finally, loudness, which responds to both accent and intonation in Slovene, offers no straight data of whether the segment N is an independent variable or not, and observations keep both possibilities open for discussion.

In overall, it can be concluded that N in Japanese behaves as any other CV sequence and thus forms a prosodic unit on its own. This is not the case for Slovene, where N constitutes a unit with the preceding CV sequence, and is as such comparable to any other CV sequence under the same conditions. CVN sequence is then considered as one prosodic unit.

3. Overall discussion

The main goal of the study was to answer the following three questions: 1. Which prosodic features correlate with accent and intonation, 2. What is the interaction between accent and intonation, and finally, 3. What is the prosodic unit in each language. The latter was discussed on the CVN sequence, where a clear distinction in the behavior of the features was observed between the two languages. While in Japanese, features for the segment N alone behave similarly to features for any other CV sequence, this is not the case in Slovene, where a whole CVN sequence is comparable to a CV sequence. These conclusions agree with the previous studies on what is called moraic character of the nasal N in Japanese and a closed syllable in

Slovene (see 1. Introduction), however, are reached from a different perspective, namely from the acoustic analyses of the behaviour of the three prosodic parameters in different accentual and intonational patterns, rather than their absolute values.

Presuming the difference on the prosodic unit, the following discussion will operate with models for relevant prosodic features. The above data (Table 2) showed that pitch correlates with accent and intonation in both languages, which can on the surface be taken as a phonological similarity between the two languages. However, a detailed overview of the way pitch correlates with either accent or intonation under different conditions, also taking other relevant features into account, suggests a straightforward difference in the interaction between the features correlating with accent and those correlating with intonation. In other words, specific pitch patterns suggest a phonological difference in the interaction of accentual and intonational domain between Japanese and Slovene, in short, between accent and intonation.

Figure 14 illustrates modeled relevant features, pitch and length, for Japanese. A full line represents declarative intonation and a dotted line interrogative intonation. Models of all the words used in the study are presented, therefore the lines are divided on a time domain into one, two or three successive groups (from top to bottom), each group representing one prosodic unit. There is a dot placed above the prosodic unit marking the accent place.

Models of pitch and length together reveal that the pitch rise characterizing interrogative intonation is executed after all the information for the accentual domain have been realized, suggesting a declarative intonational to be phonetically described as “neutral” or phonologically as a “zero intonation”. In other words, phonetically, there is a linear interaction between accentual and intonational domain, in which the latter follows former on time domain. More abstractly, supposing that both accentual and intonational domain exist throughout the whole time domain, accentual domain overlays the intonational one.

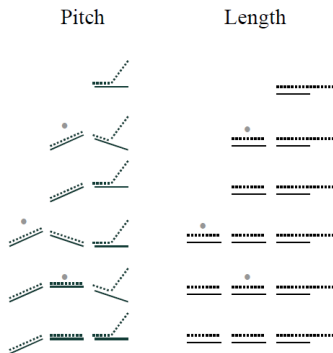


Figure 14: Modeled patterns of pitch and length in Japanese

The above data for Slovene revealed all three prosodic features to be relevant, and their models are shown in Figure 15. In two different intonational contexts, unchanged timing domain suggests overlapping interaction between accentual and intonational domain that is revealed mainly through pitch patterns. These show a reversed interdependence best seen on the accented prosodic units. On the other hand, loudness in interrogative intonation takes the shape that indicates no interaction either with the loudness pattern in declarative intonation or with the accented prosodic unit. The fact might prove to be significant for the interpretation of the relation among the three features, and is written here only to propose a topic for a new investigation.

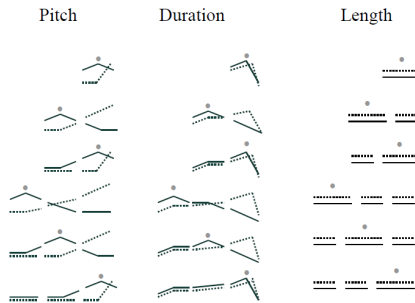


Figure 15: Modeled patterns of relevant features for Slovene

3.1 Predictions: L1 interference in acquisition of Japanese as L2

Three types of phonological differences were discussed in the previous section. To name them as discussed throughout the study, the first difference is in the prosodic features that correlate with either accent or intonation, or both. The second difference is in the way the relevant features behave, which suggests a different interaction between accent and intonation. Lastly, the third difference is in the so-called prosodic unit, or the function of the segment N in Japanese and Slovene, respectively.

However, as mentioned in the overall discussion (chap. 3, para. 2), the surface or phonetic form shows certain similarities between the two languages that will be presented below. Comparison of pitch patterns for declarative intonational context is illustrated in Figure 16a (left) and that for interrogative intonational context in Figure 16b (right). In both figures Japanese pitch models are placed on the left side and Slovene pitch models on the right side. Such a left-right pair of pitch models corresponds to a cross-linguistic minimal pair. The arrows indicate similarities of basic pitch movements, a series of rises and falls, between the two languages.

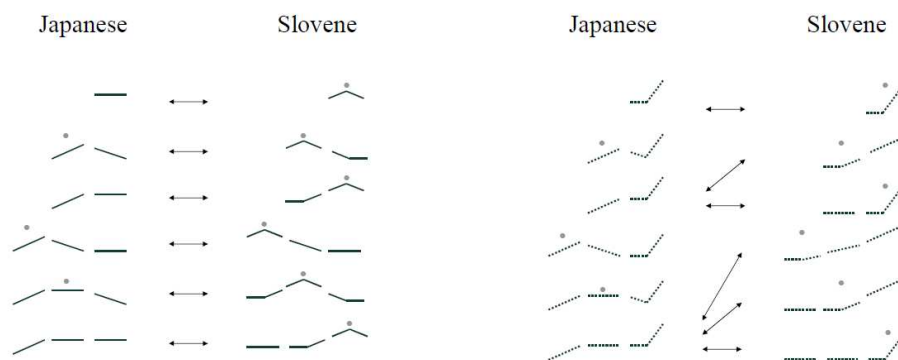


Figure 16a, 16b: Surface similarities of pitch patterns for declarative (left) and interrogative intonational context (right)

In declarative intonational context, similarities are observed within the cross-linguistic minimal pairs, while this is not the case for all such minimal pairs in interrogative intonational context. Comparison suggests that Slovene pitch models in all accentual patterns reflect Japanese pitch models of the unaccented words.

The above findings have practical implications for the prediction of first language interference for Slovene students of Japanese. First language interference is a process of language transfer, in which “the learning of task A will affect the subsequent learning of task B” (Jakobovits, 1970, p.188) in a negative way. The process incorporates the view that patterns of a native language, including both forms (phonetics) and functions of elements (phonology), are superimposed on the patterns learned in a second language.

It is predicted that the aspects of those phonological differences that also reflect in phonetic differences will largely effect communication and will result in misinterpretations of the meaning on the side of the listener. On the other hand will phonological differences that partially reflect in phonetic similarities effect the communication to the level, where the meaning is conveyed successfully but the speaker’s pronunciation is described as having a foreign accent. According to Kellerman’s framework of language transparency (Kellerman, 1977), language transfer is more likely to occur in the case where two languages are close in rules and forms. The above combination of phonological differences and phonetic similarities is predicted to cause language interference, greater than that originating from phonological and phonetic differences.

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EXPLETIVES IN MODERN PERSIAN

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Abstract

It has generally been argued that Persian does not include dummy elements called expletives, in spite of the existence of the morpheme *in* which shows the behavior of an expletive in specific constructions. The morpheme is not a part of the argument structure and has no meaning. In Persian, which is a pro-drop language, the morpheme *in* as expletive is generated only in [SPEC CP] of an independent clause. This element may occur in a subject position, object position, or as an object of a preposition. In subject and object positions it is optional when S' moves to the end of the sentence, or is adjoined to it, in other cases it is obligatory. As an object of a preposition it is always obligatory, no matter whether the structure is the result of a movement or not. The aim of this article is to provide evidence in favor of the existence of expletives, and their projection in Persian.

Keywords

predicate logic, expletives, projection principle, theta criteria

Izvleček

V jezikoslovju prevladuje miselnost, da perzijsčina ne vsebuje mašil, navkljub obstoju morfema *in*, ki v specifičnih strukturah izkazuje lastnosti mašila. Ta morfem ne predstavlja argumenta in ne nosi pomena. V perzijsčini, ki spada med "pro-drop" jezike (tj. nekateri zaimki so lahko pod določenimi pogoji izpuščeni), se morfem *in* pojavlja le v strukturi [SPEC CP] neodvisnega stavka, in sicer kot osebek, predmet ali pa kot predložni predmet. V primeru, ko je S' na koncu stavka, oz. mu je le-ta priključen, je morfem *in*, ki nastopa kot osebek ali povedek, poljuben, v vseh drugih primerih je obvezen. Kot predložni predmet je vedno obvezen. Namen tega članka je pokazati obstoj mašil teoretično in na konkretnih primerih.

Ključne besede

predikativna logika, mašilo, princip projekcije, theta kriterij

1. Introduction

Within generative grammar, counting everything from the principle-and-parameters approach to the recent minimalist approach, the existence of expletives in pro-drop languages has been commonly assumed (e.g. Burzio, 1986; Chomsky, 1995).¹ Dutch and Italian, for example, are among pro-drop languages, and allow expletives to be generated in their architecture of grammar (cf. Reuland, 1988; Brandner, 1993). Current work on the syntax of expletive “there” in English has largely focused on theoretical problems which expletive “there” poses with regard to agreement, case and thematic roles (Chomsky, 1995, 1993; Lasnik, 1995; Groat, 1995). Chomsky (1995, 1993) focuses on LF-Affix analysis and Lasnik (1995) on partitive case analysis. Koenenman and Neeleman (2001) argue that predication theory is instrumental in capturing the distribution of expletives.

Following Jackendoff’s (1997, 2002) notion of defective lexical item, I define expletives as words with syntactic properties but with no semantic content. Projection of such dummy elements has generally been in veil in Persian. Mahootian (1997, p. 48) posits that Persian does not allow dummy subjects. Karimi (2005, p. 77) posits that there are no overt expletives in Persian, and also that there is no evidence to assume the existence of covert expletives in this language. Moreover, no independent report of expletives in Persian can be found in books devoted to generative view, such as Miremadi (1977) for example.

The aim of this article is to support the view that expletives are generated in this language. One of the reasons for the neglect or overlook of these elements in Persian is argued to be the existence of a homophonous morpheme, which is morphologically similar to an expletive. Morpheme *īn* “this”, which behaves like a pronoun and occurs either in a subject position, object position, or as an object of a preposition, is likely to be mistaken for a free morpheme *īn*, which is null, and this is indeed what has been the line of reasoning when assuming expletives. In addition to morphological similarity, the effect of writing system and pro-drop nature of Persian can be mentioned as the other sources for the neglect of these non-argument elements. This article attempts to provide evidence in support of the existence of expletives as dummy elements in Persian, and predicate logic is thought to play fundamental role in paving the way for generating these elements in [SPEC CP] of independent clauses.

2. Predicate Logic and Expletives

Predicates are words which do not belong to any referring expressions. Some predicates are one-place predicates requiring only one argument (like “sleep”), some

¹ The same has not usually been the case for topic-drop languages like Japanese and Korean for which the theoretical necessity of expletives has rarely been discussed.

are two-place predicates requiring two arguments (like “kill”), and some are three-place predicates requiring three arguments (like “give”) (Hurford & Heasley, 1996). Intransitive verbs correspond to one-place predicates with only one argument, and transitive verbs of traditional syntax correspond to at least two-place predicates taking two or more arguments. Satisfying argument structure of the verb results in a grammatical sentence of that language, and any further addition of arguments would make such sentence ungrammatical, as exemplified below.

The verb “surprise” takes two arguments, one in a subject position and undertaking a role of an actor, and another in an object position with a role of a patient. The result is a grammatical sentence:

- (1) John surprised Julia.

It is crucial to notify that every verb has only one argument structure, but not all arguments of a predicate are necessarily realized as NPs, and some NPs in the subject position of a sentence are not assigned a thematic role; hence, they are not arguments.

- (2) It surprised Julia that the Earth is round.

In this sentence the NP “it” is not assigned a theta role and should not be considered as an argument because every verb has only one argument structure. The verb “surprised” is a two-place predicate which assigns two theta roles, one to the object “Julia” and the other to the S’ “that the Earth is round”. In case “it” in a subject position were considered as a part of an argument structure, a verb would be allowed to have two or more argument structures, which is against the set rules. Hence, “it” is supposed to be a special element with no argument structure and receiving no theta role. In other words, it is an expletive. Though there have yet been no reports on such elements and their syntactic behavior, the following data ramifies evidence in support of expletives in Persian, contrary to the literature (cf. Karimi, 2005) that argue against the existence of these syntactic elements.

3. Expletives in Subject Position

Persian is a pro-drop language with canonical SOV word order. The unmarked position of an object in Persian is in front of a verb, and there is an object marker *rā* which distinguishes subjects from objects. It is also possible to put object before subject in more marked constructions. In order to prove the existence of expletives in Persian one should pay attention to the argument structure of the verbs that can take such elements.

The verb *moteaʔjeb kærdaen* (to surprise) is a two place predicate in Persian which takes two NPs as its arguments:

- (3) Julia Alī rā moteæjjebkærd
 SUB_(proper name) OBJ_(proper name) object marker surprise AUX
 Julia surprised Ali

An additional argument in a sentence results in ungrammaticality since every NP has to receive one theta role, and an extra argument can receive none. Ungrammaticality of the following example is due to the projection of *īn* as one of the arguments of the verb *moteæjjeb kærd* without a theta role.

- (4) * *īn* Julia Alī rā moteæjjeb kærd
 this (it) SUB OBJ object marker surprise AUX

However, it is possible to realize one of the arguments not as a NP but as an S'.

- (5) *īn* [S' ke zæmīn gerd æst] Julia rā moteæjjeb kærd
 it COMP_(that) Earth round is OBJ obj-marker surprised AUX
 It surprised Julia [S' that the Earth is round]

The verb “to surprise” is a two place predicate which is assigned two theta roles. However, the presence of *īn* in Persian is problematic because its grammar has projected an element which filters out case filter. The constituent *īn* receives no case and hence this sentence should be ungrammatical. As it is the case that every verb has only one argument structure, this element is problematic in the architecture of grammar proposed by generative grammar. In fact, pronoun *īn* in Persian contributes nothing to the meaning of a sentence, so *īn* plays no role in a semantic make-up of such a sentence. Its presence is required simply for structural reasons. Such a dummy pronoun is often called an expletive pronoun.

Expletives are elements constituting NPs which are not arguments and to which no theta role is assigned. If we replace *īn* with some other NP which requires a theta role, the result is ungrammaticality because one of the arguments receives no theta role, as shown in the following sentence.

- (6) **ū* [S' ke zæmīn gerd æst] Julia rā moteæjjeb kærd
 he COMP_(that) Earth round is OBJ obj-marker surprised AUX

What is noticeable is that *īn* behaves like an expletive syntactically. Although it is a dummy element, referring to no meaning, Persian does not allow S' in a subject position without the expletive *īn*. In other words, it is ungrammatical to use S' as a subject without an expletive, as shown in the next example.

- (7) * [S' ke zæmīn gerd æst] Julia rā moteæjjeb kærd
 COMP_(that) Earth round is OBJ obj-marker surprised AUX

Ungrammatical sentence without an expletive in a subject position can turn into a grammatical sentence if *S'* moves and adjoins to VP at the end of the sentence, as in the following example:

- (8) Julia *rā* *moteæjjeb kærd* [*S'* *ke* *zæmīn gerd æst*]
 OBJ obj-marker surprised AUX COMP_(that) Earth round is
 (It) surprised Julia that the Earth is round

Constructions in which *S'* has been moved rightward without the help of an expletive, like in the sentence above, can be used with such elements at the end, too. In other words, the expletive *īn* and *S'* are allowed to occur after the verb.

- (9) Julia *rā* *moteæjjeb kærd īn* [*S'* *ke* *zæmīn gerd æst*]
 OBJ obj-marker surprised AUX it COMP_(that) Earth round is
 It surprised Julia that the Earth is round

It is also feasible to analyze dummy elements in a subject position phonetically. *S'* is adjoined at the end:

- (10) *īn* Julia *rā* *moteæjjeb kærd* [*S'* *ke* *zæmīn gerd æst*]
 it OBJ obj-marker Surprised AUX COMP_(that) Earth round is
 It surprised Julia that the Earth is round

The obligatory nature of the presence of expletive is due to the extended projection principle (Chomsky, 1982, p. 10) which requires the subject position to be filled.

Some more examples of predicates which project an expletive in a subject position are:

- (11) two-place predicates
 nārāhæt kærdæn (to bother)
 negarān kærdæn (to worry)
 ghæmgīn kærdæn (to make sad)
 šādāb/šād kærdæn (to make happy)
- (12) one-place predicates
 mohem būdæn (be important)
 jāye taæssof būdæn (be sorry)
 lāzem būdæn (be necessary)
 jāleb būdæn (be interesting)

4. Expletives in Object Position

The occurrence of expletives in Persian is not limited only to a subject position, it is also found in an object position², as in the following example. *S'* has been adjoined sentence-finally, the dummy element *īn* is followed by the object marker *rā*:

- (13) Julia *īn* *rā* *mīdānāed* [*S'* *ke* *zāmīn* *gerd* *æst*]
 OBJ it obj-marker know COMP (that) Earth round is
 Julia knows that the Earth is round.

There are several other structures including expletives in an object position:

- (14) Julia *īn* [*S'* *ke* *zāmīn* *gerd* *æst*] *rā* *mīdānāed*
 OBJ it COMP_(that) Earth round is obj-marker know
 Julia knows that the Earth is round.

- (15) *Julia [*S'* *ke* *zāmīn* *gerd* *æst*] *rā* *mīdānāed*
 OBJ COMP_(that) Earth round is obj-marker know

- (16) *Julia *īn* [*S'* *zāmīn* *gerd* *æst*] *rā* *mīdānāed*
 OBJ it Earth round is obj-marker know

In an object position, the presence of both the expletive and the complementizer is necessary. Though the expletive *īn* is not optional in object position, it may be omitted in cases when *S'* moves to the end of *S* as the following examples indicate:

- (17) Julia *mīdānāed* [*S'* *ke* *zāmīn* *gerd* *æst*]
 OBJ know COMP_(that) Earth round is
 Julia knows that the Earth is round.

- (18) Julia *īn* *rā* *mīdānāed* [*S'* *ke* *zāmīn* *gerd* *æst*]
 OBJ it obj-marker know COMP_(that) Earth round is
 Julia knows that the Earth is round.

- (19) *Julia *īn* *mīdānāed* [*S'* *ke* *zāmīn* *gerd* *æst*]
 OBJ it know COMP_(that) Earth round is

The conclusion which may be drawn from the above examples is that the expletive *īn* is optional in an object position under the condition that both the expletive and the object marker are omitted. The above sentences are the result of a movement of *S'* and the adjunction to the end.

However, in base generated structures which are not the result of such a movement, expletives and object markers exhibit different syntactic behavior. It is impossible to omit an object marker after *S'* without losing grammaticality of the whole sentence. The obligatory nature of expletives after *S'* has been shown in the following examples:

² See Postal and Pullum (1988) for example sentences with anticipatory object “it” in English.

- (20) Julia *in* [*S'* *ke* *zæmīn* *gerd* *æst*] *rā* *midanad*
 OBJ *it* COMP_(that) *Earth* *round* *is* obj-marker *know*
 Julia knows that the Earth is round.

- (21) *Julia *in* [*S'* *ke* *zæmīn* *gerd* *æst*] *midanad*
 OBJ *it* COMP_(that) *Earth* *round* *is* *know*

Below is a list of some more verbs that subsume expletives in an object position:

- (22) *hæds zædæn* (to guess)
ommīdvār būdæn (to hope)
pīshnehād kærdæn (to offer)
færāmūš kærdæn (to forget)
be yād āværdæn (to remember)

5. Expletives as Objects of Preposition

In Persian, expletive *in* may also occur after prepositions:

- (23) Julia *be* *in* [*S'* *ke* *zæmīn* *gerd* *æst*] *fekr* *kærd*
 OBJ PREP_(to) *it* COMP_(that) *Earth* *round* *is* *thought* AUX
 Julia thought that the Earth is round.

- (24) Julia *be* *in* *fekr* *kærd* [*S'* *ke* *zæmīn* *gerd* *æst*]
 OBJ PREP_(to) *it* *thought* AUX COMP_(that) *Earth* *round* *is*
 Julia thought that the Earth is round.

The syntactic behavior of an expletive after prepositions differs from its behavior in other positions; its presence is obligatory. The obligatory nature of the presence of expletives after prepositions can be ascribed to the fact that PP is not a part of the argument structure of the verb, i.e. it is an adjunct.

- (25) *Julia *be* [*S'* *ke* *zæmīn* *gerd* *æst*] *fekr* *kærd*
 OBJ PREP_(to) COMP_(that) *Earth* *round* *is* *thought* AUX

- (26) *Julia *be* *fekr* *kærd* [*S'* *ke* *zæmīn* *gerd* *æst*]
 OBJ PREP_(to) *thought* AUX COMP_(that) *Earth* *round* *is*

The important characteristic of the expletive *in* after prepositions is that it refers to nothing in the external world. If it were the case that it could refer to something beyond the sentence, its existence as an expletive would be questionable.

6. Neglect of Expletives in Persian

Up to this point several examples have been introduced to support the view that expletives are generated in Persian. One of the reasons why both, the traditional

grammar as well as modern linguistic studies have neglected the existence of this constituent in Persian may be found in the writing style. The consequence of writing on leading into ignoring dummy elements implicitly when assuming them. Expletive *in* and the following complementizer in Persian are written as one word *inke* and as such have always been interpreted as one constituent. There seem to be no literature where *inke* would be treated as two different syntactic constituents, one as an expletive and the other as a complementizer.

- (27) Julia be [S' inke zæmīn gerd æst] fekr kârd
 OBJ PREP_(to) expletive COMP Earth round is thought AUX
 Julia thought that the Earth is round.

Another feasible reason for the neglect of these elements lies in the fact that there exists another similar constituent in Persian which, when proceeding a noun, functions differently from expletives. This constitute is not semantically void (as in *in ketâb* “this book”; *in mærd* “this man”), and according to Lyons (1996) has its own deictic meaning. Expletives, as presented in this paper, have always been ascribed to the category of a noun, and this conception has gained dominance in syntactic argumentations.

Yet another reason can be found in the pro-drop nature of Persian language, which allows expletives to be phonetically empty. It is significant to note that expletive *in* has an allomorph *ān*, which has the same distribution as *in*. The use of *in* is more frequently found in a spoken language, while *ān* is more prone to be invoked in written form.

- (28) Julia ān rā mīdānest [S' ke zæmīn gerd æst]
 OBJ it obj-marker know_(past) COMP_(that) Earth round is
 Julia knew that the Earth is round.

7. Thetaless Expletives

The claim that there exists an element called expletive in Persian still invokes a question why expletives, receiving no theta role, can occur in object positions or as objects of prepositions, which is contrary to the general position requirements. To resolve this dilemma, possible syntactic positions of expletives are to be verified. Expletives are generated in [SPEC CP] of an independent clause which receives no theta role.

In the light of this conception the tree diagram for expletive *in* in a subject position would be as the following:

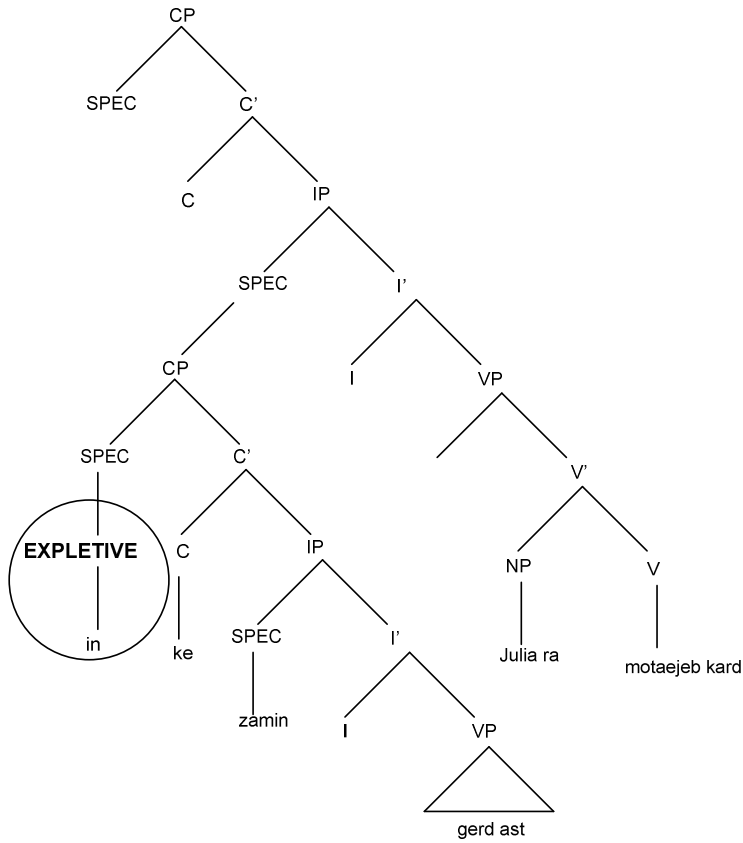


Figure 1: The expletive *in* in a subject position

The next tree diagram shows the expletive *in* in an object position:

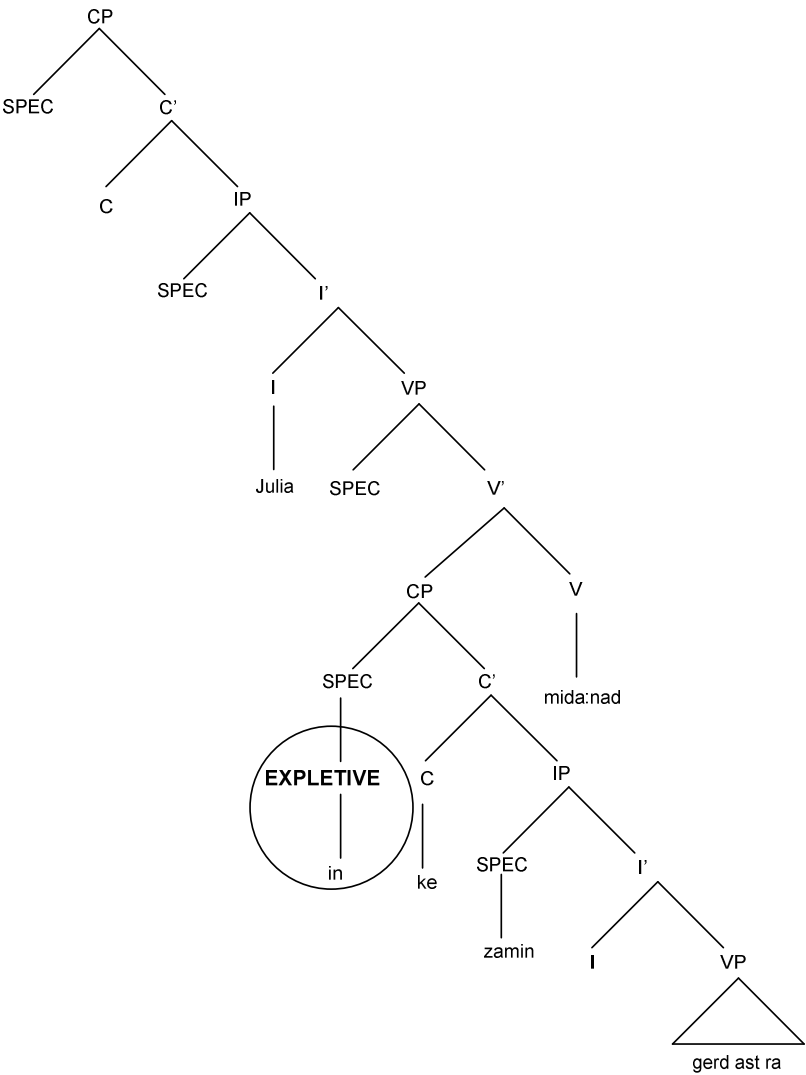


Figure 2: The expletive *in* in an object position

Furthermore, the expletive *in* after a preposition would result in the following tree diagram:

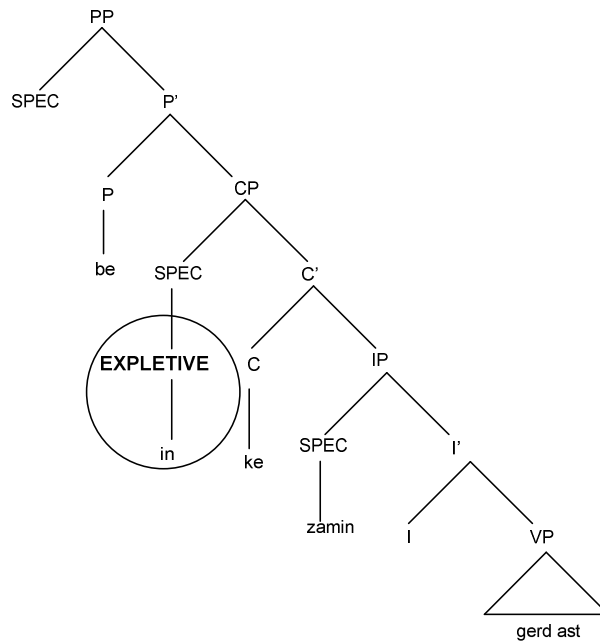


Figure 3: The expletive *in* after a preposition

Haegeman (1992, p. 55) proposes that expletives always turn up in a subject position, i.e. in the NP position for which the verb does not subcategorize. Indeed, expletives are elements lacking a theta role, and the theory predicts that expletives can only occur in NP positions that are not subcategorized for, i.e. subject position of a sentence.

8. Conclusion

Expletives are non-argument elements in NP positions to which no theta role is assigned. They may occur not only as subjects but also as objects. Their occurrence after prepositions is unlike the English structure where such position is ungrammatical. As expletives escape the theta role criterion, it is supposed that they are inserted into grammar after the theta criterion has filtered out the X-bar rules. It was argued that the reason for expletives being in background has its roots in morphological homophony of a similar but still different constituent as well as in the effect of how expletives are realized before complementizers in written form of Persian.

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A COMPARISON OF EVENT FRAMING IN OLD CHINESE AND OLD JAPANESE

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Abstract

This paper brings data on Old Chinese and Old Japanese together in order to conduct an investigation into event-framing strategies. Old Chinese consists of a monosyllabic root with five constituents that express the path: (a) particle, (b) incorporated noun, (c) preverb, (d) verb root, and (e) complement. *Verb framing*, *satellite framing*, and *equipollent framing* are all found in the data. Crucially, before the birth of disyllabic word roots and verb compounding in the Late Han Dynasty, *verb framing* seems to have been the main pattern. Throughout the transformation of the Chinese language, the use of incorporated nouns and preverbs denoting the path has declined, with the remaining particles serving motion events. This contributes to the contention that contemporary Chinese is a *satellite-framed language*. Meanwhile, verb complements emerged and played the main role in non-motion events. In terms of Old Japanese, all three event-framing patterns have been observed. Moreover, the path is denoted via three means: prefix, auxiliary, and verb compounding. Among them, verb compounding appears to play the most significant role. These distinct event-framing patterns both intralinguistic and crosslinguistic are based on the diversity of lexical resources of motion/non-motion event framing and preferences for event-encoding options by selecting different lexical resources.

Keywords

Old Chinese, Old Japanese, Event framing, Path, Manner

Izvleček

Članek proučuje strategije uokvirjanja dogodkov na osnovi gradiv iz stare kitajščine in japonščine. Staro kitajščino sestavlja pet tipov enozložnih korenov, ki izražajo sled: (a) členek, (b) inkorporirani samostalnik, (c) predglagol, (d) glagolski koren ter (e) dopolnilo. V gradivu je mogoče najti uokvirjanje s pomočjo glagolov, uokvirjanje s pomočjo satelitov kot tudi uokvirjanje s pomočjo obojih (*equipollent framing*). Kar je pomembno, pred rojstvom dvozložnih besednih korenov in sestavljenih glagolov v obdobju Poznega Hana je kot kaže kot glavni tip prevladovalo uokvirjanje s pomočjo glagolov. Skozi ves proces preoblikovanja kitajskega jezika je raba inkorporiranih samostalnikov za izražanje sledi in predglagolov za izražanje načina nazadovala; ostali členki so služili za izražanje dogodkov povezanih z gibanjem. Vse to je prispevalo k mnenju, da je sodobna kitajščina jezik, ki temelji na uokvirjanju s pomočjo satelitov. Nasprotno pa so se glagolska dopolnila pojavila in igrala glavno vlogo v dogodkih, ki niso povezani z gibanjem. V okviru stare japonščine so bili opaženi vsi trije tipi uokvirjanja. Sled se povzru izraža s pomočjo treh sredstev: predpon,

pomožnih glagolov in sestavljenih glagolov. Ti razločni vzorci uokvirjanja dogodkov, tako znotraj enega jezika kot medjezikovno, temeljijo na raznolikosti leksikalnih sredstev za uokvirjanje dogodkov, tako tistih, ki so povezani z gibanjem, kot tistih, ki niso, ter na prednostnem redu pri izboru različnih leksikalnih sredstev za kodiranje dogodkov.

Ključne besede

Stara kitajščina, Stara japonščina, uokvirjanje dogodkov, sled, način

1. Introduction

In Talmy's typological classification of complex events, all languages fall into two types: *verb-framed* languages and *satellite-framed* languages. *Satellite-framed* languages are languages that habitually map the core schema onto "satellites", such as prefixes, adverbs, and complements, whilst *verb-framed* languages express the path of motion in the verb (Talmy, 2000b, p. 222). Accordingly, contemporary Chinese is allegedly a *satellite framing*-dominant language because, in Talmy's terms, it frames the path of motion in a satellite. This is shown in (1) in boldface:

- (1) 飛機 飛 過 了 海峽
 Fēijī fēi **guò** le hǎi-xiá
 plane fly across PAST the strait
 Lit: "The plane flew across the strait."

The manner in (1) is expressed by the main verb *fēi*, "fly", and the path is expressed by an element other than a verb, i.e. *guò*, "across". On the other hand, contemporary Japanese habitually frames the path of motion in the verb and hence is alleged to be a *verb-framed* language, as exemplified by (2):

- (2) 太郎 は 駅 に 歩いて行った
 Taroo wa eki ni *aruiteitta*
 Taroo Top station to walk-PAST
 "Taroo walked to the station"

Talmy's dichotomous typology has been criticised by many scholars in points of detail (see, for example, Matsumoto, 1996; Ramchand & Folli, 2005; Croft, 2010). Among the critics, Slobin (2004b) and Zlatev and Yangklang (2004) are the most important. They propose a third class: *equipollent framing*, which seems to apply to languages that have productive verb compounds or serial verb constructions, such as Thai and Chinese.

In fact, the event framing of Chinese has undergone a long-term evolution. From the warring states period (551 B.C. to 479 B.C.) till the unification of Qin (221 B.C.), the Chinese language consisted of a monosyllabic root, to which affixes were attached. From the Han period (202 B.C.), disyllabic word roots appeared, e.g. nominal compounds 君子 "*jūnzǐ*", verbal compounds 杀戮 "*shā-lù*" and compound particles 呜

呼 “*wūhū*”. Finally, serial verb construction appeared. Some data suggest that Old Chinese exhibits *verb framing*, as illustrated in (3):

- (3) 賢良 遂 進 而 姦邪 并 退
 xián-liáng suì **jìn** ér jiān-xié bìng **tuì**
 talented excellent then proceed and wicked evil together withdraw
 “The talented and excellent will then go forwards and the wicked and evil
 will withdraw.” (Hanfezi)

In (3), the semantic component of the path is incorporated in the head verb, i.e. 進 *jìn*; 退 *tuì* (in boldface). Such data come to resemble Old Japanese, as we can see in (4):

- (4) ...那 賀 那加佐麻久 阿佐阿米 能 疑理爾 多多年 叙...
 na ga naka-sa-ma ku asa ame no kwiri ni **tata-mu** zo
 you GEN cry-RESP-CONJ-NLZR morning rain GEN fog DAT rise-CONJ FOC
 “your crying is like the rising into fog of the morning rain” (Kojiki 4)

(4) is a telic event, consisting of a combination of [Ground NP¹ + V]. The path is encoded by the head verb 立たむ *tatamu*.

This paper brings a diachronic perspective to the study of motion and non-motion events in Old Chinese and Old Japanese. The following two issues are to be discussed:

- (a) The vocabulary of Chinese has undergone a long-term grammaticalisation, i.e. many particles which are considered “satellites” in contemporary Chinese bear substantive content in Old Chinese. This inspires us to ponder if *verb framing*, *satellite framing*, and *equipollent framing* coexisted in Old Chinese?
- (b) The similarities between Old Chinese and Old Japanese, bearing in mind that both exhibit *verb framing*.

To serve the above purpose, this paper is mapped out as follows: in section 2, we discuss motion events in Old Chinese, followed by a look at the expressions of the path component. Section 3 is devoted to the event framing of Old Japanese. Finally, section 4 proposes a hypothesis and concludes the paper.

The data for Old Chinese were collected from Analects (論語 700 B.C.), Shi Jing (詩經 1000 B.C.), Mencius (孟子 475 B.C. – 221 B.C.), Xun Zi (荀子 313 B.C. – 238 B.C.), Han Fei Zi (韓非子 281 B.C. – 23 B.C.), Zhan Guo Ce (戰國策 Western Han Dynasty: 206 B.C. – A.D. 24), Shi Ji (史記 104 B.C. – 91 B.C.). The data for Old Japanese were collected from Kojiki Kayō (古事記歌謠, A.D. 712), Nihon Shoki Kayō (日本書紀歌謠, A.D. 720), and Man'yōshū (万葉集, after A.D. 759).

¹ NP: noun phrase

2. Motion event framing in Old Chinese

2.1 Definitions of “satellite” and “Ground NP”

Before we get started, it is worthwhile defining two terminologies, i.e. “satellite” and “Ground NP”. According to Talmy:

The satellite to the verb... is the grammatical category of any constituent other than a nominal or prepositional-phrase complement that is in a sister relation to the verb root. The satellite, which can be either a bound affix or a free word, is thus intended to encompass all of the following grammatical forms: English verb particles, German separable and inseparable verb prefixes, Latin or Russian verb prefixes, Chinese verb complements... (Talmy, 2000, p. 222)

A Ground NP appears like a common noun. Nikitina (2008, pp. 186-187) divides the grounds into two types: (a) Container grounds: locations with well-defined boundaries, and often a well-defined entrance/exit, such as rooms, boxes, and buildings; and (b) Area grounds: locations that lack such boundaries, such as forests, neighbourhoods, fields and space.

Crucially, following Talmy (2000), the framing event entails a core schema, which describes the relationship between the Figure and the Ground. This core schema, in Talmy’s words, is the Path. Given this, how the path is framed—by the main verb or the satellite to the main verb—appears the most essential point.

2.2 Previous studies on Old Chinese linguistics

The key figure in the historical study of Chinese was Bernhard Karlgren, whose reconstruction of the language of the Qieyun rhyming dictionary of A.D. 601 (1915-26) led to the discovery of the relations between morphology and syntax in Old Chinese. Another dominant figure was Kennedy (*The Classical Pronoun Forms ngo and nga*, 1956), whose study particularly focuses on tone, stress, and pause. AC Graham (1973) discusses the evolution of the pronoun system and denies the analogy with the Indo-European case system. Other key figures include Chou Fa-kao (*Historical Grammar of Ancient Chinese*) and Wang Li. In spite of these remarkable previous studies, there have been few attempts made at the study of event framing in Old Chinese. Peyraube contributes to a discussion on Chinese directional complements in Hickmann and Robert’s (2006) book *Space in Languages*. Their short discussion focused on the grammaticalisation of 来 “come”, 去 “go”, and 出 “exit”.

2.3 Motion events in Old Chinese

In light of the definitions of “satellite” and “Ground NP”, we are now in the position of examining the framing behaviours of Old Chinese motion and non-motion events.

2.3.1 Path expressed by particle [v' V [_{pp} P NP]]

The following is a motion event from *Analects*, where a particle expresses the path, i.e. 自 *zì* “from”:

- (5) 有 朋 自 遠 方 來
 yǒu péng zì yuǎn fāng lái
 have friend from distant place come
 “have a friend coming from a distant place” (*Analects*)

In (5), 来 *lái* bears a substantive meaning, i.e. “to come”. In modern Chinese it has been grammaticalised, holding a deictic meaning, e.g. *pǎo chū lái* “run-out-come”. Here it is paired with an ablative case marker 自 *zì* “from”, which binds the path and entails a source (*yuǎn fāng* “distant place”) function. This motion event, in Talmy’s sense, technically exhibits *satellite framing*.

2.3.2 Path expressed by verb root [Figure V Ground NP]

Motion events with the path denoted by verb roots present two types of event-framing pattern. The following piece of data suggests its path lexicalised by a verb root:

- (6) 甘茂 亡 秦 且 之 齊
 Gān Mào wáng Qín qiě zhī Qí
 Gan Mao exile Qin moreover go to Qi
 “Gān Mào exile (from) Qín and went to Qí” (*Zhanguo*)

(6) is a coordinate clause, denoted by the conjunction 且 “moreover”². Two motion morphemes are involved, i.e. 亡 *wáng* and 之 *zhī*. The first morpheme 亡 *wáng* is unergative, meaning “exile” and 秦 *Qín* is a container Ground NP, denoting the SOURCE of *wáng* “exile”. Thus, syntactically, 亡秦 *wáng Qín* is like a verb phrase (VP), and licenses the external argument.

² According to a reviewer of this piece, “亡 (且) 之 ... ” can also be considered as split construction.

The second motion verb 之³ *zhī* “reach, arrive at”, likewise appears to incorporate the container Ground NP 齐 *Qí*, which contributes to the GOAL. Thus, the motion 之 “reaching Qi” is like a VP. The semantic relationships of the motion verbs and the Ground NPs in the two motion events are similar. They both conflate the path into the head verbs and thus suggest *verb framing*.

The following data, from *Xunzi* (313 B.C. – 238 B.C.), also has its path framed with a verb root. However, it presents a different framing pattern:

- (7) 孔子 趋 出
 Kǒng zǐ **qū** **chū**
 Kǒng zǐ hurry go out
 “Kǒng zǐ went out in a hurry” (*Xunzi*)

As far as (7) is concerned, 趋 *qū* denotes the manner of the motion, meaning “hurry up”; 出 *chū* serves as the path component. Peyraube (2006) points that a coordinate conjunction is available to insert between the two morphemes; thus it can be 趋而出 “hurry up and go out”. This syntactic test suggests that the two morphemes, i.e. manner and path, receive an equal semantic as well as syntactic weight. This inspires us to ponder if, as early as 313 B.C. – 238 B.C., *equipollent framing* already existed. However, such data is not found much, as the path morpheme 出 *chū* soon gets grammaticalised and behaves like a directional complement.

2.3.3 Path expressed by complement [v' V [V-COMP⁴]]

Example (8) is a non-motion event from *Shi ji* (史记 104 B.C. – 91 B.C.), a century later than the *Xunzi*. 出 *chū* is the path verb, behaving like a satellite, i.e. a resultative complement rather than a substantive verb as it does in the earlier work:

- (8) 晋人 也 逐 出 之
 Jìn rén yě zhú chū zhī
 Jin people also chase go out PRON-PLUR
 “As far as Jin people are concerned, they are driven away” (*Shi ji*-Benjia 6)

To note, the pronoun 之 *zhī* co refers to the topic 晋人 *Jìn rén*, “people of Jin Land”. The cause verb 逐出 *zhú-chū* “chase-go out” is composed by a transitive verb V1 逐 *zhú*, which Li and Thompson (1981) and Lu (1973) refer to as a “displacement verb”, and a complement 出 *chū*. V1 does not imply an accomplishment; it is the second morpheme 出 *chū* that denotes the result of the action. Obviously, 出 *chū* here seems to have lost its full lexical meaning, which we suppose to be due to the

³ 之 has many meanings; it could be a pronoun, a grammaticalised nominaliser, or verb, as in this case. The verb usage is frequently found in Old Chinese, with more examples including 輶耕之垄上 [陈涉世家].

⁴ COMP: complement

vocabulary evolution during the Han Dynasty. Crucially, though, the manner morpheme and path morpheme together take the patient 之, i.e. a plural pronoun; they are not bound. The path 出 *chū* can be replaced by other complements, as long as they denote an accomplishment to the action. Given this, we can assume that it is the first constituent that determines the transitivity of the whole and thus should be viewed as the head. The resultative path component here can be considered framed outside of the verb root. Therefore *satellite framing* is suggested in this event.

2.3.4 Path expressed by preverb [*v'* V [PREV⁵-V]]

Furthermore, it is a very productive pattern that motion verbs are preceded and modified by potential preverbs in Old Chinese, as shown in (9):

- (9) 載 馳 載 驅
 zài chí zài qū
 PREV race PREV rush
 “(I) was racing along and (I) was rushing along” (Shi Jing)

There are two motion verbs, i.e. 馳 *chí* 驅 *qū*. The path is not borne by the head verb but a non-head preverb, i.e. 載 *zài*, which denotes a progressive reading of the motion.

2.3.5 Path expressed by incorporated noun [*v'* V [_{NP} [N-V]]]

Path can be further denoted by an incorporated noun, as exemplified by (10):

- (10) 孔雀 東 南 飛 五 里 一 徘徊
 kǒng què dōng nán fēi wǔ lǐ yī pái-huái
 peacock east south fly five league one waver
 “South-east fly the peacocks, every five leagues they waver” (Kongque Dongnan Fei)

The directional noun 東南 *dōng nán* “southeast” functions as a manner or an adverb of the motion verb 飛 *fēi* “fly”, meaning “towards the southeast”. In this case, an incorporated noun denotes the satellite in relation to the verb. Moreover, it also appears that, in the Late Han Dynasty, a bisyllabic-morpheme verb emerges, e.g. 徘徊 *pái-huái*. The two morphemes are both bound, and are considered a rhyming compound 疊韻詞 (see Chung, 2006, pp. 138-139). Incorporating Talmy’s (2000, pp. 35-36) discussion of “translational motion”, *pái-huái* “to wander” should be considered a self-contained motion. Therefore, such data is excluded, despite it providing a piece of evidence for potential *equipollent framing* in Old Chinese.

⁵ PREV: preverb

2.4 Summary

This section has been devoted to event framing in Old Chinese and the data have shown a degree of intralinguistic variation. Old Chinese displays three framing strategies: *verb framing*, *satellite framing*, and *equipollent framing*. This result fails to justify our assumption on the development of event-framing patterns, i.e. that *satellite framing* may appear later than *verb framing* (in fact, its first appearance is as early as 700 B.C., in *Analects*). There is therefore no trend suggesting the development of Chinese event framing shifting from *verb framing* towards *satellite framing* to *equipollent framing*; instead, they co-exist in Old Chinese. However, we can assume *verb framing* was the main framing strategy before the syntactical evolution that takes place in the Han period. Moreover, it has been observed that five constituents contribute to the path: (a) particle, (b) verb root, (c) complement, (d) preverb and (e) incorporated noun.

3. Event framing in Old Japanese

In this section, the discussion focuses on Old Japanese. Contemporary Japanese is typically considered to be *verb framing* (Talmy, 2000, p. 222) and such a strategy is also seen in Old Japanese. Furthermore, the path is expressed by a variety of lexical resources.

It is worth mentioning that, before the development of the purely phonetic script *hiragana* (in the late 800s A.D.), the Japanese employed Chinese characters to represent on paper vernacular Japanese. *Kojiki*, the oldest extant chronicle in Japan, is written in a mixed Chinese-Japanese script, which is termed 変体漢文 *hentai-kanbun* “variant Chinese”. Variant Chinese refers to a script which is a combination of Chinese and a phonetic transcription of Japanese. *Nihon Shoki Kayō* is the second oldest book of classical Japanese. It was written in classical Chinese, due to it being the official language at that time. *Man’yōshū* is the oldest collection of Japanese poetry and was written in *man’yōgana*, where three patterns of the borrowing of Chinese characters are used, i.e. solely borrowing semantic meaning, solely borrowing phonological value, and borrowing both semantic and phonological values.

3.1 Verb framing in Old Japanese

In light of the Old Japanese data, we are now in the position to examine the framing strategies of motion and non-motion events. To begin with, we explore a variety of lexical resources that denote the path.

3.1.1 Path denoted by prefixes [v' V [PREF-V]]

First, the path can be expressed by a prefix on the verb. The following example provides a combination of [Ground NP + Prefix + Manner]⁶:

- (11) 故志 能 久迹 迹.. 佐加志 賣 遠 阿理登
 Kwosi no kuni ni sakasi mye wo ari to
 Kosi COP land DAT ADJ.COP-ADN maiden ACC exist COMP⁷
- 岐加志弓 佐 用婆比 爾 阿理 多多斯 用婆比 迹
 kikosite sa- ywobapi ni ari- tata-si ywobapi ni
 hear-respect PREF courtship DAT PREF set out courtship DAT
- 阿理 加用婆 勢
 ari- kaywopa- se
 PREF go out-respect EXCL

“Hearing that there was a pretty maiden, (the emperor) set out to woo her, went out to propose to her” (Kojiki 2)

The motion verbs, あり立たし *aritatasi*; あり通はせ *arikaywopase* are in respectful forms, meaning “set out”. The paths of motion verbs 立つ; 通ふ are denoted by the potential prefix あり. The path expression is telic, since they imply the arrival at the destinations, i.e. the Ground NP 婚ひ. Given this, *verb framing* is exhibited in the two motion events.

3.1.2 Path denoted by auxiliaries [v' [[V-AUX] V]]

Second, the expression of the path can be denoted by an auxiliary on the verb, as shown in (12):

- (12) 吾 妹子 夢 見 来...
 waga imokwo wo ime ni mi-ye- ko to
 my dear love dream DAT see-PASS- come.IMP COMP
 “praying: ‘my dear love, come (let me see) appear to me in my dreams’”
 (MYS 12.3128)

This is an optative expression. Following Nikitina’s (2008: 186) insight, 夢 *ime* can be assumed as a container Ground NP. In the motion 見来 *mi-ye-ko*, the path is expressed via an auxiliary “-ye-”, which denotes a passive reading. Incorporating this, the path information is lexicalised in the verb as the head, which thus suggests *verb framing*.

⁶ The analysis and glossing of Old Japanese examples follow Frellesvig (2010).

3.1.3 Path denoted by verb compounding [v' V [V-V]]

Path can be further expressed by verb compounding, as shown in (13):

- (13) ...阿賀 淤富久爾 奴斯 那 許曾 波 遠 迹 伊麻世
 a ga opo-kuni nusi na koso pa wo ni imase
 I-GEN great-country -ruler you FOC TOP man COP exist.RESP
- 婆 宇知 微流 斯麻 能 佐岐邪岐 加岐 微流
 ba uti mwiru sima no sakizaki kaki mwiru
 -because PREF- move.about island GEN tip-tip PREF- move.about
- 伊蘇 能 佐岐 淤知 受
 iswo no saki oti- zu
 beach GEN tip fall NEG

“Oh, my divine Yachipoko, the ruler our country, since you are a man, you move about on all the islands; move about on each beach, without exception” (Kojiki 5)

The above two motion events consist of a combination of [Area Ground NP + V-V⁸], i.e. うち廻る *uti-mwiru*; かき廻る *kaki-mwiru*. They are atelic directed motion events. The path is encoded by the head verb 廻る; the manner components are expressed by prefixes on the verbs, i.e. うち *uti*; かき *kaki*. The motion events display *verb framing*.

In fact, the employment of verb compounding is quite often found in the *Man'yōshū* and (14) provides another example:

- (14) 高圓 乃 山 尔 毛 野 尔 母 打 行
 Takamatwo no yama ni mo nwo ni mo uti- yuki
 Takamatwo GEN mountain DAT FOC field DAT FOC PREF go
- 而 遊 往 杼..
 te aswobi- aruke do.
 GER play walk CONC

“Though go and wander around the mountain and fields of Takamato as I like ...”
 (MYS 8.1629)

A salient property of this motion event lies in that it involves two verbal forms: a main verb, denoted by V2 往 *aruku* “walk”, and an adverbial verb denoted by V1 遊 *aswobu* “play”. The motion is not telic as there is no destination. Such a pattern appears quite productive in Old Japanese.

Furthermore, in the following *verb-framing* event, the path information is encoded by the head verb, with manner indicated by an adverbial verb:

⁸ V-V: verb compounding

- (15) 秋 豆氣 婆 之具礼 乃 雨 零 阿之比奇 能
 aki duke ba sigure no ame puri asipikwi no
 Fall approach -PROV cold- GEN- shower- fall-INF Asipikwi GEN
- 夜麻 能 許奴礼 波 久礼奈為 爾 仁保比 知礼 止毛
 yama no konure pa kurenawi ni nipopi tire domo
 mountain GEN tree-tops TOP crimson COP smell-INF go bare -CONC

“When autumn approaches with cold showers, the mountain tree-tops turn red and soon go bare” (MYS 18.4111)

To note, in contemporary Japanese におい means “smell”, but in the time from Old Japanese to pre-modern Japanese *nipopi* denotes the meaning “beautiful”; here, *nipopi* plays the role of modifying the manner of the motion *tiru*.

3.2 Equipollent framing in Old Japanese

So far, it seems that verb compounding plays the most significant role in motion events in Old Japanese. The following non-motion event, however, which is again denoted by verb compounding, is different:

- (16) 黄葉 乃 散飛 見 乍...
 momitiba no tiri-tobu mi tutu
 yellow leaves GEN scatter (intr.)-fly see. INF.CONT
 “Look at the leaves scattering” (MYS 4.543)

The compound 散飛 *tiritobu* is in a relative clause. It is composed by two non-scalar change motion morphemes, i.e. V1 *tiru* “scatter” and V2 *tobu* “fly”. The two morphemes have the same meaning and scalar properties. They are considered a synonymous lexicon. The events represented by V1 and V2 are classified as the same categories (i.e. both of them are motion events). Given this, syntactically and semantically, the two motion morphemes seem to receive an equipollent weight. Therefore, *equipollent framing* is tentatively suggested.

Another piece of evidence for this framing pattern is provided in (17):

- (17) 足受利 四管 頓 情 消失 奴
 asi-zuri situt tatimatini kokoro ke-use- nu
 feet scoot-INF. CONT quickly. ADV heart vanish-get lost NEG
 “Keep scooting over, then, the heart does not vanish nor get lost” (MYS 9.1740)

The two morphemes in the non-motion event *keuse* “vanish-get lost” have the same meaning and scalar properties, i.e. both V1 消 “vanish” and V2 失 “get lost” are unaccusative verbs. Semantically, the two morphemes are weighted equally. Syntactically, the compound is followed by a negative auxiliary 奴 *nu*. As stated above, *Man’yōshū* was written in *man’yōgana*, a form in which Chinese characters are employed to represent Japanese. Hence, the negation of Old Japanese is denoted by an

independent word rather than inflectional auxiliary attached to V2, as in contemporary Japanese. Therefore, morphologically, the two morphemes are ranked as equipollent and are framed coordinately. Given this, we may safely conclude that Old Japanese could possibly exhibit *equipollent framing*.

3.3 Satellite framing in Old Japanese

Furthermore, the following data inspires us to ponder if *satellite framing* also perhaps exists in Old Japanese. In this non-motion event, the path is expressed by verb compounding, which consists of a cause verb V1, denoting an action and a stative verb V2, expressing a state or the result of an action:

- (18) 我 刺 柳 絲 乎 吹 亂 風 尔
 wa ga kazasu yanagwi no ito wo **puki-midaru** kaze ni
 I GEN hold willow GEN string ACC blow-scatter (tr.) wind COP
- 加 妹 之 梅 乃 散 覽
 ka imo ga ume no tiru ramu
 EXCL wife GEN plum GEN splattered CONJ

“The wind that blows and scatters the willow that I am holding, oh, my wife’s plum must also be scattered around at the moment” (MYS 10.1856)

The compound 吹亂 *puki-midaru* “blow-scatter” is composed by an unaccusative verb and a transitive verb. V1 *puki* “blow” denotes the cause of the motion and V2 contributes to the result *midaru* “scatter”. A verb weakening is seen in the morpheme 亂 *midaru* “scatter”. As a result, it should be acknowledged as a resultative complement. Given this, we argue this non-motion event lexicalises the path information by a resultative complement rather than a head verb. Crucially, such a resultative complement behaves like a satellite, and this inspires us to tentatively propose that *satellite framing* does indeed potentially exist in Old Japanese.

3.4 Summary

In this section, discussion has focused on the event framing of motion and non-motion events in Old Japanese. The path in is expressed via three means, i.e. prefix, auxiliary, and verb compounding. Among them, verb compounding appears to play the most significant role. *Verb framing* appears to be the main framing strategy. Interestingly, *satellite framing* and *equipollent framing* have also been found in the data. This phenomenon suggests that Old Japanese displays a wider variety of framing strategies than contemporary Japanese. We thus ponder whether such variety is possibly down to the distinct writing systems employed in Old Japanese, e.g. 変体漢文 *hentai-kanbun* “variant Chinese”, 万葉がな *man’yōgana* etc. Along with the emergence of the purely phonetic script *hiragana* in the late 800s A.D., “variant

Chinese” and *man’yōgana* gradually disappear, with the syntactic similarities between Chinese and Japanese declining. When we come to today, they have diverged so far as to now belong to different language families.

4. Conclusion

This paper has brought a diachronic perspective to an investigation of event framing in Old Chinese and Old Japanese. Contrary to our assumptions, it seems there is no unidirectional shift of event-framing strategy in Old Chinese or Old Japanese. Path can be denoted by a variety of lexical resources. Particle, preverb, incorporated noun, prefix, auxiliary, verb root, verb compounding and complement have all been observed to express the path in Old Chinese and Old Japanese. This variety in the expressions of path give rise to various *event-framing* patterns. Three event-framing patterns, i.e. *satellite framing*, *verb framing*, and *equipollent framing*, seem to co-exist in both Old Chinese and Old Japanese. Table 1⁹ gives a comparison of the distinct event-framing strategies according to various linguistic resources in each language. Table 2 provides the linguistic transformation that gives rise to the change of framing patterns in the two languages.

Table 1: Event-framing strategies in line with the lexical and morph syntactic resources

Lexical resources	Old Chinese	Old Japanese
Particle	<i>sf</i>	Ø
Incorporated NP	<i>sf</i>	Not saliently used
Prefix	Ø	<i>vf</i>
Auxiliary	Ø	<i>vf</i>
Verb compounding	Rare but <i>sf; ef</i>	Productively exist <i>vf; ef; sf</i>
Preverb	<i>vf</i>	Ø
Complement	Rare but <i>sf</i>	Rare but <i>sf</i>

⁹ s f: satellite framing, e f: equipollent framing, v f: verb framing

Table 2: Linguistic transformation of lexical and morph syntactic resources

Lexical resources	Modern Chinese	Modern Japanese
Particle	Remain	Exist
Incorporated NP	Declined	Exist
Prefix	Transformed to verb compound	Remain
Auxiliary	Declined	Remain
Verb compounding	Productively exist	Productively exist
Preverb	Declined	Ø
Complement	Productively exist	Declined

Furthermore, this paper argues that Talmy's typology, as well as those of other linguists (Slobin, 2004b; Zlatev & Yangklang, 2004), are not real semantic typologies of crosslinguistic variation. The distinct event-framing patterns we see both intralinguistically and crosslinguistically are based on the diversity of lexical resources available in terms of motion/non-motion event framing and on the preferences for event-encoding options which rest on the selection of different lexical resources.

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Grammatical Terms

ACC	accusative	IMP	imperative
ADV	adverb	INF	infinitive
COMP	complementiser	NEG	negative
CONC	concessive	NLZR	nominalizer
COND	conditional	PASS	passive
CONJ	conjectural	PLUR	plural
CONT	continuous	PREF	prefix
COP	copula	PRON	pronoun
DAT	dative	PROV	provisional
EXCL	exclamatory	RESP	respect
FOC	focus	TOP	topic
GER	gerund		

Chinese data source

- 論語 *Analects* (700 B.C.)
- 詩經 *Shi Jing* (1000 B.C.)
- 孟子 *Mencius* (475 B.C. – 221 B.C.)
- 荀子 *Xun Zi* (313 B.C. – 238 B.C.)
- 韓非子 *Han Fei Zi* (281 B.C. – 23 B.C.)
- 戰國策 *Zhan Guo Ce* (206 B.C. – A.D. 24)
- 史記 *Shi Ji* (104 B.C. – 91 B.C.)

Japanese data source

- 万葉集 *Man'yōshū* (A.D. 759)
- 古事記歌謠 *Kojiki Kayō* (A.D. 712)

IS KOREAN REALLY A LISTENER-RESPONSIBLE LANGUAGE LIKE JAPANESE?: A CONTRASTIVE DISCOURSE ANALYSIS OF KOREAN AND JAPANESE APOLOGIES

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Abstract

According to Hinds' typology of languages on discourse level, Japanese and Korean are both considered listener-responsible languages, whereas English is classified as a speaker-responsible language (Hinds, 1987). However, in conversation, Yoon (2009) demonstrated that Korean should be classified as a speaker-responsible language based on her contrastive analysis of daily conversations between married couples in Japanese and Korean, where address terms and fillers are used as contextualization cues (Gumperz, 1982) to convey a speaker's intention to the interlocutor metacommunicatively. The purpose of the present study is to show that Japanese is listener-responsible, while Korean is a speaker-responsible language on the level of conversational communication. In order to test the hypothesis, surveys and recordings of real conversations of Japanese and Korean people were conducted and analyzed.

The informants in the present study consisted of four groups: Japanese university students who live in their own country, Japanese university students who live in the U.S., Korean university students who live in their own country and Korean university students who live in the U.S. A Discourse Completion Test (DCT) was completed by Japanese and Korean university students to compare the differences in speaker responsibility in apologies. The results suggest that Korean should be classified as a speaker-responsible language for understanding in conversations, since Korean speakers produce many more utterances and convey more information per utterance to the interlocutor than Japanese speakers. Furthermore, it is found that the responsibility for the understanding of utterances correlate with daily use of American English, especially in the case of Japanese university students.

Keywords

Speaker responsibility, listener-responsibility, Japanese, Korean, apology

Izvleček

Po Hindsovi tipologiji jezikov na ravni diskurza naj bi bila oba japonski in korejski jezik v skupini jezikov, pri katerih je sogovorec (oz. bralec) bolj odgovoren pri razumevanju namena diskurza (listener-responsible). Po drugi strani je angleščina uvrščena v skupino jezikov, pri katerih je govorec (oz. pisec) bolj odgovoren (speaker-responsible) (Hinds, 1987). Yoon (2009) je na osnovi protistavne analize vsakodnevnih konverzacij med poročenimi moškimi in ženskami v japonščini in korejščini ugotovila, da je korejščina v slednji skupini, tj. da je govorec/pisec bolj odgovoren za razumevanje namena diskurza: v raziskavi so bili upoštevani nagovori in polnila kot ključni kontekstualizacije (Gumperz, 1982), ki metakomunikativno

posredujejo govorcev namen sogovorcem. Cilj pričujočega prispevka je to, da se preveri, da je v japonščini sogovorec oz. poslušalec odgovoren, medtem ko je v korejščini odgovoren govorec na ravni govorne komunikacije.

Pogovore med Japonci in Korejci smo posneli in analizirali. Testirani so bili v 4 skupinah: japonski univerzitetni študenti, ki živijo v svoji domovini, japonski univerzitetni študenti, ki živijo v ZDA, korejski univerzitetni študenti, ki živijo doma, in korejski univerzitetni študenti, ki živijo v ZDA. Vsi študenti so izpolnili DCT test (Discourse Completion Test), po katerem bi ugotovili razlike v odgovornosti govorca v opravičevanju. Rezultati kažejo, da so govorci v korejščini, v primerjavi z govorci v japonščini, bolj odgovorni za razumevanje vsebine pogovora, ker izgovorijo veliko več izrazov in tako posreduje več informacij sogovorcem. Dalje smo ugotovili, je odgovornost za razumevanje izgovorjenih izrazov v sorazmerju z vsakodnevno rabo ameriške angleščine, zlasti v primeru japonskih univerzitetnih študentov.

Ključne besede

odgovornost govorca, odgovornost sogovorca, japonščina, korejščina, opravičila

1. Introduction

According to Hinds' typology of languages, Japanese and Korean are classified as reader/listener-responsible languages on the discourse level (Hinds, 1987). However, on the basis of her comparison of address terms in Japanese and Korean conversations between husband and wife, Yoon (2009) criticized his claim and proposed that Korean should be regarded as a speaker-responsible language on the conversational level. In the present paper, apologies in conversations by Japanese and Korean university students are compared in order to support for the claim that Japanese is a listener-responsible language, whereas Korean is a speaker-responsible language on the conversational level, though both are categorized as listener-responsible languages according to Hinds (1987). In addition, the present paper examines whether the daily use of English, which is categorized as a speaker-responsible language according to Hinds (1987), can influence the ways that Japanese and Korean speakers converse with respect to the responsibility for understanding utterances. To examine this, utterances by Japanese university students and Korean university students who live in the United States of America and use English on a daily basis were analyzed. In the current study three research questions arise:

- (1) Is the total amount of information uttered per turn in Japanese and Korean different? Which language contains a higher amount of information per turn?
- (2) What semantic formulas are preferred for appropriate communication in apology discourse in Japanese and Korean, respectively?
- (3) Does the daily use of English influence the use of native Japanese and Korean language with respect to responsibility for the understanding of utterances?

2. Literature review

Hinds (1987) claimed that languages can be categorized as reader/listener-responsible languages or writer/speaker-responsible, and pointed out that English is a writer/speaker-responsible language and Japanese and Korean are both reader/listener-responsible languages because of the similarity of writing patterns. He states:

In Japan, perhaps in Korea, and certainly in Ancient China, there is a different way of looking at the communication process. In Japan, it is the responsibility of the listener (or reader) to understand what it is that the speaker or author had intended to say. (Hinds, 1987: 144)

As he used the word *perhaps*, it might be assumed that both Japanese and Korean are classified as listener-responsible languages without any analysis of the data on the conversation level, only based on research of an essay written in English and Japanese. He also simply introduced an episode associated with speaker-responsibility and listener-responsibility between an American woman and a Japanese taxi driver by citing Naotsuka & Sakamoto *et al.* (1981).

Hinds (1987) examined an expository essay from the Asahi Shimbun's daily column *Tensei Jingo* ("Vox Populi, Vox Dei") and its English translation and found two main reasons why Japanese should be categorized as a reader/listener-responsible language. First, in terms of rhetorical pattern Japanese essays, including the one mentioned above, are organized by *ki-sho-ten-ketsu*. In *ten*, new subtopics are introduced, but are written in a style which assumes the reader is already familiar with the subtopics. Second, Hinds (1987) noted that there was an absence or attenuation of landmarks that help the reader to understand the relationship between sentences.

There are three criticisms of Hinds' theory of *reader/listener responsibility vs. writer/speaker responsibility*. First, it is not appropriate to compare an original Japanese column and its translated English version. The writer's expectations of the reader may be different. The original column was written for Japanese readers who can understand Japanese and live in Japan, and are familiar with present Japanese society and culture. In contrast, the English version was written for people who are Japanese but find it hard to understand Japanese language, society, or culture because they live in other countries, or are not Japanese but who are interested in Japanese language, society, or culture. Also, the fact that the person who translated the Japanese column into English may not have been a native Japanese speaker or English speaker should have been taken into consideration. If he or she was a native Japanese speaker, it is also possible that his or her Japanese was influenced by English or vice versa.

Second, Hinds used the term *listener-responsible* and *speaker-responsible* without any experimental consideration on the level of conversation except citing an episode between an American customer and a Japanese taxi driver from Naotsuka & Sakamoto *et al.* (1981). It is possible that language has different features in regards to responsibility for understanding utterances in written discourse and spoken discourse.

Third, Korean is categorized as a reader/listener-responsible language by inference that Korean language and Japanese language share common syntactic features and writing patterns. There are many studies which demonstrate the differences between Japanese and Korean discourse, although the languages are structurally very similar. Thus it is too simplistic to put Japanese and Korean in the same category without any experimental consideration.

In regards to conversational level, Takigawa (2006) analyzed a conversation between a Japanese wife and her American husband and found that the Japanese wife stated the point at the end of her story and her American husband had difficulty following her story. His results seem to support Hinds' *delayed introduction of purpose* (Hinds, 1990: 98) on the conversation level in Japanese. It is important to note that Takigawa (2006) attempted to demonstrate the theory of Hinds (1987; 1990) on the conversation level and found a similar result to Hinds (1990). However, Takigawa (2006) examined the responsibility for understanding utterances with a very specific example: A short Japanese conversation between an American husband who was living in Japan and spoke both Japanese and English, and his Japanese wife who had lived in the U.S. and studied English.

Yoon (2009) analyzed samples of conversations which were collected from Japanese married couples and Korean married couples. It was found that Korean married couples not only give more information, but also speak more directly than Japanese married couples to convey their intention to the listener in conversations. However, it is necessary to examine the results in conversations outside married couples.

3. Methodology

3.1 Participants

Survey participants of the current study were divided into four groups: Japanese and Korean university students in their countries, and Japanese and Korean university students in the United States of America. Specifically, 101 (male: 55, female: 46) Japanese (Mean Age = 18.7 years; Range = 18-24 years old) and 71 (male: 29, female: 42) Korean (Mean Age = 19.5 years; Range = 18-24 years old) university students who live in the capital spheres of Tokyo and Seoul, respectively. 34 (male: 18, female: 16) Japanese (Mean Age = 24.5 years; Range = 19-32 years old) and 58 (male: 32, female: 26) Korean (Mean Age = 26.3 years; Range = 20-35 years old) university students who were studying at universities which are located in Washington D.C. and Boston, Massachusetts in the United States of America at the time that this research was conducted. The Japanese students' average length of stay in the United States of America is 37.8 months (Range = 6-120 months) and the Korean students' is 33.9 months (Range = 6-84 months). The following abbreviations are used in the present study:

JU: Japanese University students

KU: Korean University students

JMU: Japanese Male University students

JFU: Japanese Female University students

KMU: Korean Male University students

KFU: Korean Female University students

JIU: Japanese International University students who live in the U.S.

KIU: Korean International University students who live in the U.S.

3.2 Methods

A DCT (Discourse Completion Test) was completed by JU and JIU in Japanese, KU and KIU in Korean to compare differences with respect to speaker responsibility. The DCT was conducted in the classroom for JU and KU, while JIU and KIU completed the DCT individually out of the classroom. The DCT was originally developed to compare the speech act realization of native and nonnative Hebrew speakers (Blum-Kulka, 1982, following Levinson, 1975). The test consists of scripted dialogues which are preceded by a short description of the situation specifying the setting and the social distance between the participants and their status relative to each other (Blum-Kulka, 1989). The DCT used for the present study was made by the researcher in light of Blum-Kulka (1989) to compare the way Japanese and Korean speakers use apology expressions. Using the DCT can show not only the total amount of utterances, but also when speakers convey their real intentions in the conversation. The DCT used in the present study has been translated from Japanese and Korean into English and is shown below. (See appendix 1 for the original Japanese and Korean versions of the DCT.)

You arranged to meet a good friend in front of a movie theater to see a movie, but you are about 20 minutes late.

You: ()

Friend: "That's OK. It couldn't be helped because your class finished late."

You: ()

Friend: "Ticket? I have already bought two tickets."

You: ()

Friend: "You don't have to thank me for just getting the movie tickets."

3.3 Data Analysis

It is not adequate to only calculate the number of words or sentences used in conversations to compare information in utterances in Japanese and Korean, because there is not a one-to-one correspondence of linguistic items between both languages. Therefore, the data obtained from the participants was analyzed quantitatively by using semantic formulas with respect to information in utterances in corresponding situations between Japanese and Korean speakers (Beebe, Takahashi, & Uliss-Weltz, 1990; Blum-Kulka, House, & Kasper, 1990; Tao, 2007). Semantic formulas are types of semantic units in speech acts, all the utterances involved in completing the dialogue in the DCT were identified as semantic formulas for the purpose of this paper. For example:

Hey mate, I am really sorry I am late. The lecture was finished late.
(Address term) (Adverb) (Fact) (Reason)
(Apology)

The analysis of semantic formulas can clarify not only the amount of information in the utterances but also the construction patterns of apologies by Japanese and Korean speakers.

Table 1, 2, and 3 below show which semantic formulas were used in utterances of the first, the second, and the third turn, respectively. The ADVERB and the INTERJECTION occur before or after the APOLOGY or THANKS expressions in the first and second turn. It is well known that Japanese usually use an apology expression like “sumimasen” (The Hepburn system is used for Japanese and the Yale system is used for Korean in the latin alphabet in the present study.) or “gomen” as a thankful expression (Ide, 1998; Jin, 2002; Kim, 1996; Yamamoto, 2003) and sometimes a Korean apology expression like “mianhay” is also used in appreciations. It is difficult to decide whether “gomen” and “mianhay” are used for apology or appreciation expressions in the DCT. Even though the situation set for the DCT in the present study is an apology for being late for an appointment fundamentally, the participants might say “Thank you” for understanding the reasons for being late or getting a ticket from their friends. Thus, the apology expressions “gomen” or “mianhay” are categorized literally as semantic formula APOLOGY and the thankful expressions “arigato” or “komawe” are categorized superficially as semantic formula THANKS in the second and the third turn.

Utterances about buying movie tickets, for example, “Let’s go buy tickets” or “Have you bought the tickets yet?” are regarded as semantic formula TICKET in the second turn. Utterances about worrying that the movie has already started are regarded as semantic formula MOVIE in the second turn. (See appendix 2 for the Japanese and Korean versions of examples of semantic formulas.)

Table 1: Semantic formulas and examples in the first turn
in university students' apologies

	Semantic formulas	Examples
1	APOLOGY	"I am sorry."
2	FACT	"I am late."
3	REASON	"The lecture finished late."
4	ADVERB	"(I am) really (sorry)."
5	ADDRESS TERM	"John!"
6	INTERJECTION	"Oh, (sorry)."
7	OTHERS	"When did you get here?"

Table 2: Semantic formulas and examples in the second turn

	Semantic formulas	Examples
1	APOLOGY	"I am sorry."
2	THANKS	"Thank you."
3	TICKET	"Let's go buy tickets."
4	MOVIE	"Do you think the movie's started already?"
5	COMPENSATION	"I will buy you some popcorn."
6	OTHERS	"I don't like the professor."

Table 3: Semantic formulas and examples in the third turn

	Semantic formulas	Examples
1	APOLOGY	"I am sorry."
2	THANKS	"Thank you."
3	SURPRISE	"Really?"
4	COMPLEMENT	"You are a good friend."
5	COMPENSATION	"I will buy you some popcorn!"
6	INTERJECTION	"Oh, (thanks)."
7	ADVERB	"(I) Really (appreciate it)."
8	OTHERS	"You shouldn't have bought the ticket for me."

4. Results

4.1 The first turn

4.1.1 JU * KU

Table 4 indicates the rates that semantic formulas were used in the first turn for JU and KU. The ANOVA revealed that the amount of semantic formulas used in Korean utterances was significantly higher than Japanese utterances with respect to semantic formulas REASON, ADDRESS TERM, and INTERJECTION. As for the semantic formula ADVERB, a significant difference was found between KMU and JMU. KMU used semantic formula ADVERB significantly more than JMU. Also, there was a significant difference between female and male Japanese students regarding the semantic formula ADVERB. JFU uttered semantic formula ADVERB significantly more than JMU.

Table 4: Mention rates of semantic formulas in the first turn of JU and KU in apologies

		χ^2 ANOVA (two way) by arcsin asin		
	Female	Male	χ^2	Post hoc analysis
1 JU	100.0	94.5	Nationality	1.63
KU	95.2	96.6	Gender	2.29
			Interaction	4.19
2 JU	54.3	50.9	Nationality	0.78
KU	45.2	48.3	Gender	0.00
			Interaction	0.24
3 JU	43.5	58.2	Nationality	11.20 * KU>JU
KU	78.6	65.5	Gender	0.00
			Interaction	4.91
4 JU	19.6	3.6	Nationality	6.64 * KM>JM
KU	28.6	17.2	Gender	9.25 * JF>JM
			Interaction	0.97
5 JU	0.0	0.0	Nationality	36.92 * KU>JU
KU	21.4	10.3	Gender	1.35
			Interaction	1.35
6 JU	0.0	1.8	Nationality	55.85 * KU>JU
KU	26.2	31.0	Gender	1.99
			Interaction	0.38

χ^2 ANOVA (two way) by arcsin asin				
	Female	Male		χ^2 Post hoc analysis
7 JU	0.0	1.8	Nationality	5.82 * KF>JF
KU	7.1	3.4	Gender	0.14
			Interaction	2.71
Note: *p<0.05, Unit: %, 1: Apology, 2: Fact, 3: Reason, 4: Adverb, 5: Address term, 6: Interjection, 7: Others, JU: Japanese university students, KU: Korean university students, JM: Japanese male university students, JF: Japanese female university students, KM: Korean male university students, KF: Korean female university students.				

4.1.2 JU/KU * JIU/KIU

Table 5 shows the rates that semantic formulas were used in the first turn by JU, KU, JIU, and KIU. Significant differences were found for semantic formulas FACT, REASON, and INTERJECTION because of the main effect of using English in daily conversation. The rates that the semantic formula FACT was used by JIU is significantly higher than JU's. KU uttered the semantic formulas REASON and INTERJECTION significantly more than KIU.

Table 5: Mention rates of semantic formulas in the first turn of JU, KU, JIU, and KIU in apologies

χ^2 ANOVA (two way) by arcsin asin				
	Japanese	Korean		χ^2 Post-hoc analysis
1 JU/KU	97.0	95.8	English	0.03
JIU/KIU	97.1	94.7	Nationality	0.48
			Interaction	0.05
2 JU/KU	52.5	46.5	English	7.68 * JU/JIU:JIU>JU
JIU/KIU	76.5	57.9	Nationality	3.83
			Interaction	1.13
3 JU/KU	51.5	73.2	English	12.20 * KU/KIU:KU>KIU
JIU/KIU	50.0	29.8	Nationality	0.02
			Interaction	10.67 * JU/KU:KU>JU,JIU/KIU:JIU>KIU
4 JU/KU	10.9	23.9	English	2.70
JIU/KIU	5.9	14.0	Nationality	5.53 * JU/KU:KU>JU
			Interaction	0.07
5 JU/KU	0.0	16.9	English	0.01
JIU/KIU	2.9	7.0	Nationality	15.32 * JU/KU:KU>JU
			Interaction	6.05 * JU/JIU:JIU>JU,KU/KIU:KU>KIU

χ^2 ANOVA (two way) by arcsin asin					
	Japanese	Korean		χ^2	Post-hoc analysis
6 JU/KU	1.0	28.1	English	5.08	* KU/KIU:KU>KIU
JIU/KIU	2.9	3.5	Nationality	12.80	* JU/KU:KU>JU
			Interaction	11.03	*
7 JU/KU	1	4.2	English	13.91	* JIU/KIU>JU/KU
JIU/KIU	14.7	15.8	Nationality	0.84	
			Interaction	0.47	
Note:*p<0.05, Unit: %, 1: Apology, 2: Fact, 3: Reason, 4: Adverb, 5: Addressterm, 6 :Interjection, 7: Others, JU: Japanese university students, KU: Korean university students, JIU: Japanese international university students who live in the U.S., KIU: Korean international university students who live in the U.S.					

4.2 The second turn

4.2.1 JU * KU

Table 6 below shows the rates that semantic formulas were used by JU and KU in the second turn.

Table 6: Mention rates of semantic formulas in the second turn of JU and KU in apologies

χ^2 ANOVA (two way) by arcsin asin					
	Female	Male		χ^2	Post hoc analysis
1 JU	35.6	9.1	Nationality	0.23	
KU	26.2	20.7	Gender	8.96	* JU: FU>MU
			Interaction	4.06	* MU: KU>JU
2 JU	11.1	12.7	Nationality	10.87	* FU: JU>KU
KU	0.0	6.9	Gender	4.78	* KU: MU>FU
			Interaction	3.29	
3 JU	97.8	87.3	Nationality	7.02	* JU>KU
KU	88.1	75.9	Gender	8.02	* FU>MU
			Interaction	0.17	
4 JU	2.2	1.8	Nationality	22.79	* KU>JU
KU	26.2	13.8	Gender	1.66	
			Interaction	1.15	
5 JU	0.0	0.0	Nationality	42.39	* KU>JU
KU	11.9	24.1	Gender	1.47	
			Interaction	1.47	

χ^2 ANOVA (two way) by arcsin asin					
	Female	Male		χ^2	Post hoc analysis
6 JU	2.2	1.8	Nationality	1.08	
KU	2.4	6.9	Gender	0.52	
			Interaction	0.88	
Note: *p<0.05, Unit: %, 1: Apology, 2: Thanks, 3: Ticket, 4: Movie, 5: Compensation, 6: Others, JU: Japanese university students, KU: Korean university students, JM: Japanese male university students, JF: Japanese female university students, KM: Korean male university students, KF: Korean female university students.					

Regarding nationality, the ANOVA revealed significant differences between Japanese and Korean for all semantic formulas in the second turn except OTHERS. KMU uttered the semantic formula APOLOGY significantly more than JMU. KFU uttered the semantic formula THANKS significantly more than JFU. JU uttered semantic formula TICKET significantly more than KU. KU uttered the semantic formulas MOVIE and COMPENSATION significantly more than JU.

There are three significant differences in regards to gender in the second turn. First, both JFU and KFU uttered the semantic formula TICKET significantly more than JMU and KMU, respectively. Secondly, JFU uttered the semantic formula APOLOGY significantly more than JMU. Finally, KMU uttered the semantic formula THANKS significantly more than KFU.

4.2.2 JU/KU * JIU/KIU

Table 7 shows the results of the ANOVA for the rates that semantic formulas were used in the second turn. The JIU uttered the semantic formula APOLOGY significantly more than JU, while KU uttered APOLOGY significantly more than KIU. JIU uttered the semantic formula COMPENSATION significantly more than JU.

Table 7: Rates that semantic formulas were used in the second turn of JU, KU, JIU, and KIU in apologies

χ^2 ANOVA (two way) by arcsin asin					
	Japanese	Korean		χ^2	Post-hoc analysis
1 JU/KU	21.0	23.9	English	0.00	
JIU/KIU	38.2	10.3	Nationality	5.26	* JIU/KIU: JIU>KIU
			Interaction	7.93	* JU/JIU:JIU>JU, KU/KIU:KU>KIU
2 JU/KU	12.0	2.8	English	0.07	
JIU/KIU	8.8	3.4	Nationality	5.14	* JU/KU: JU>KU
			Interaction	0.28	

χ^2 ANOVA (two way) by arcsin asin					
	Japanese	Korean		χ^2	Post-hoc analysis
3 JU/KU	92.0	83.1	English	3.14	
JIU/KIU	82.4	75.9	Nationality	2.67	
			Interaction	0.18	
4 JU/KU	2.0	21.1	English	0.16	
JIU/KIU	5.9	17.2	Nationality	15.17	* KU/KIU>JU>JIU
			Interaction	1.33	
5 JU/KU	0.0	16.9	English	5.61	* JU/JIU: JIU>JU
JIU/KIU	5.9	22.4	Nationality	25.51	* KU/KIU>JU/JIU
			Interaction	1.75	
6 JU/KU	2.0	4.2	English	9.38	* JIU/KIU>JU/KU
JIU/KIU	11.8	15.5	Nationality	0.79	
			Interaction	0.01	

Note: *p<0.05, Unit: %, 1: Apology, 2: Thanks, 3: Ticket, 4: Movie, 5: Compensation, 6: Others, JU: Japanese university students, KU: Korean university students, JIU: Japanese international university students who live in the U.S., KIU: Korean international university students who live in the U.S.

4.3 The third turn

4.3.1 JU * KU

Table 8 shows the rates that semantic formulas were used in the third turn by JU and KU in apologies.

Table 8: Rates that semantic formulas were used in the third turn by JU and KU in apologies

χ^2 ANOVA (two way) by arcsin asin					
	Female	Male		χ^2	Post-hoc analysis
1 JU	21.7	7.3	Nationality	5.25	* KM>JM
KU	31.0	20.7	Gender	6.13	* JF>JM
			Interaction	0.49	
2 JU	97.8	87.3	Nationality	18.02	* JU>KU
KU	71.4	75.9	Gender	1.53	
			Interaction	4.02	
3 JU	43.5	32.7	Nationality	3.20	
KU	54.8	44.8	Gender	2.54	
			Interaction	0.01	

χ^2 ANOVA (two way) by arcsin asin					
		Female	Male		χ^2 Post-hoc analysis
4	JU	6.5	20.0	Nationality	1.67
	KU	16.7	20.7	Gender	3.74
				Interaction	1.35
5	JU	0.0	0.0	Nationality	54.36 * KU>JU
	KU	42.9	6.9	Gender	11.38 * KF>KM
				Interaction	11.38 *
6	JU	10.9	7.3	Nationality	124.17 * KU>JU
	KU	73.8	75.9	Gender	0.08
				Interaction	0.43
7	JU	21.7	9.1	Nationality	2.92
	KU	31.0	17.2	Gender	6.58 * JF/KF>JM/KM
				Interaction	0.01
8	JU	6.5	9.1	Nationality	21.46 * KU>JU
	KU	21.4	41.4	Gender	4.03 * KM>KF
				Interaction	1.62
Note: *p<0.05, Unit: %, 1: Apology, 2: Thanks, 3: Surprise, 4: Complement, 5: Compensation, 6: Interjection, 7: Adverb, 8: Others, JU: Japanese university students, KU: Korean university students, JM: Japanese male university students, JF: Japanese female university students, KM: Korean male university students, KF: Korean female university students.					

An ANOVA was conducted in order to determine whether the speakers' use of semantic formulas is different depending on the speaker's nationality or gender. The ANOVA revealed that KU's use of semantic formulas is significantly higher than JU's for the semantic formulas COMPENSATION and INTERJECTION. And it was revealed that KMU uttered the semantic formula APOLOGY significantly more than JMU. The ANOVA also revealed that JU's use of APOLOGY is significantly higher than KU's.

4.3.2 JU/JIU * KU/KIU

Table 9 shows the use of semantic formulas in the third turn by JU, KU, JIU, and KIU in apologies.

Table 9: Rates that semantic formulas were used in the third turn of JU, KU, JIU, and KIU in apologies

χ^2 ANOVA (two way) by arcsin asin					
	Japanese	Korean		χ^2	Post-hoc analysis
1 JU/KU	13.9	26.8	English	2.21	
JIU/KIU	8.8	17.2	Nationality	4.71	* JU/KU: KU>JU
			Interaction	0.07	
2 JU/KU	92.1	73.2	English	4.22	* KU/KIU: KU>KIU
JIU/KIU	88.2	53.4	Nationality	24.65	* JU/JIU>KU/KIU
			Interaction	1.13	
3 JU/KU	37.6	50.7	English	0.92	
JIU/KIU	41.2	34.5	Nationality	0.23	
			Interaction	2.30	
4 JU/KU	13.9	18.3	English	5.02	* JU/JIU: JU>JIU
JIU/KIU	2.9	12.1	Nationality	3.37	
			Interaction	0.87	
5 JU/KU	0.0	28.2	English	13.00	* JU/JIU: JIU>JU
JIU/KIU	14.7	36.2	Nationality	37.32	* JIU/KIU>JU/KU
			Interaction	5.36	*
6 JU/KU	8.9	74.6	English	0.84	
JIU/KIU	50.0	39.7	Nationality	22.89	* JU/KU: KU>JU
			Interaction	40.26	* JU/JIU:JIU>JU,KU/KIU:KU>KIU
7 JU/KU	14.9	25.4	English	2.17	
JIU/KIU	8.8	17.2	Nationality	3.78	
			Interaction	0.00	
8 JU/KU	7.9	29.6	English	0.01	
JIU/KIU	14.7	19.0	Nationality	6.85	* JU/KU: KU>JU
			Interaction	3.07	
Note: *p<0.05, Unit: %, 1: Apology, 2: Thanks, 3: Surprise, 4: Complement, 5: Compensation, 6: Interjection, 7: Adverb, 8: Others, JU: Japanese university students, KU: Korean university students, JIU: Japanese international university students who live in the U.S., KIU: Korean international university students who live in the U.S.					

As Table 9 shows, there are four significant differences between JU/KU and JIU/KIU. As for the semantic formulas THANKS and INTERJECTION, KU's rates are significantly higher than KIU's. However, JIU's use of the semantic formula INTERJECTION is higher than JU's. For the semantic formula COMPLIMENT, JU's use is significantly higher than JIU's.

5. Discussion

5.1 Explanations for apology preferred by Korean

As shown clearly in the results for the rates of use the semantic formulas above, Korean speakers tend to explain their situation positively, while Japanese speakers leave the understanding of the situation to the interlocutors. As for the semantic formula REASON in the first turn (KF: 78.6%, KM: 65.5%, JF: 43.5%, JM: 58.2%; $\chi^2 = 11.20$, $p < 0.05$), Korean students tried to explain the reasons why they were late for the appointment to the listeners actively. In contrast, only about 50% of Japanese students referred the reasons despite having a particular reason that the lecture finished late in the DCT.

Surprisingly, little attention has been given to the strategy of apology in the field of comparison study between Japanese and Korean, since it is easy to assume that there are few differences between Japanese and Korean communication because of cultural, linguistic, and geographic similarities. Most of the studies that are associated with apology have focused mainly on the expressions of apology in Japanese and Korean (Ogoshi, 1993; Kim, 1996; Jin, 2004; Hong, 2006;).

However, there are some contrastive studies of strategies for apology between Japanese and American speakers. Kondo & Taniguchi (2007) compared the apology strategies between Japanese and American English speakers and found that the impressions of giving reasons for their apology are different. Japanese listeners take the reason as a “defense”, while American speakers, who speak English as a speaker-responsible language according to Hinds (1987), regard it as a “polite explanation” in apologies. In her comparison of strategies of apology between Japanese and Americans, Ikeda (1993) also described that American speakers use the explanation strategy more than Japanese. The results of Ikeda (1993) are similar to those of the present study. Ikeda (1993) also pointed out that Japanese speakers tend to utter only apology expressions without any other strategic utterances, while American speakers utter not only explanation but also compensation with apology expressions. The ANOVA revealed that Korean speakers utter compensation significantly more than Japanese speakers in the present study. In the third turn, Japanese students utter just expressions of apology or appreciation, while Korean students added compensation when they knew that their friends had bought two tickets for themselves already (KF: 42.9%, KM: 6.9%, JF: 0.0%, JM: 0.0%; $\chi^2 = 54.36$, $p < 0.05$), as shown:

Friend: “Tickets? I have bought two tickets already.”

Japanese: “Arigato.”
(Thank you)

Korean: “Komawe. Nayka phapkhon salkey.”
(Thank you. Let me buy some popcorn.)

Korean speakers used semantic formula COMPENSATION in the second turn (KF: 11.9%, KM: 24.1%, JF: 0.0%, JM: 0.0%; $\chi^2=42.39$, $p < 0.05$) to compensate their friends for being late by offering that they want to buy their friends a ticket, while no Japanese speakers uttered COMPENSATION and they only asked their friends to go buy tickets, or asked whether the friends had bought the tickets already or not, as shown in the conversation below.

Friend: "That's OK. It couldn't be helped because the class finished late."

Japanese: "Gomen. Tokorode chikettowa mo katta?"

(I am sorry. By the way did you buy your ticket already?)

Korean: "Mian. Kutaysin thikheysun nayka salkey."

(I am sorry. I will buy a ticket for you then.)

According to Ikeda (1993), the reason for such differences between Japanese and American speakers is caused by the difference in attitudes to *face* (Brown & Levinson, 1987) in both countries. In other words, the *face* to Japanese speakers is deeply related to be admitted and accepted by their interlocutors because of the vertical social-cultural structure (*tate shakai*) in Japan. It is for that reason that Japanese speakers tend to avoid using the explanation strategy, especially when they talk to a person who is older or of higher status than themselves, and they try to put weight on conveying an apology expression itself and apologize efficiently.

Japanese and Korean social structures are fairly similar compared to that of the U.S., thus it is hard to explain the phenomena by just the difference of social structures, since the tendency of Korean speakers to give a reason for their apology in the results of the current paper is similar to that of American speakers. It is suggested that Korean is a speaker-responsible language similar to American English, since Korean and American English share some features with respect to giving extra explanations to help listeners' understanding of utterances, even though Korean was categorized as a listener-responsible language by Hinds (1987).

There is no significant difference between Japanese and Korean for the utterance rate of the semantic formula COMPLIMENT in the third turn (KF: 16.7%, KM: 20.7%, JF: 6.5%, JM: 20.0%). However, it was found that the ways of uttering COMPLIMENT were different in Japanese and Korean. Korean speakers tend to utter a complete sentence in order to comment about and convey their thankful emotions for receiving a movie ticket, while Japanese speakers tend to use only a typical word for compliment like "sasuga" (just as one thought) or "yahari" (as expected) as the example below:

Friend: "Tickets? I have bought two tickets already."

Japanese: "Arigato. Sasuga."

(Thank you. It's just (like you to have bought a ticket already)).

Korean: "Komawe. Yeksi netapta."

(Thank you. It's just like you (to have bought a ticket already)).

5.2 Expressions of apology and thanks

Even though the situation set by the researcher in the present study is basically an apology, many Japanese and Korean participants mixed apologetic expressions and thankful expressions in use, especially in the second (Apology; KF: 26.2%, KM: 20.7%, JF: 35.6%, JM: 9.1%, Thanks; KF: 0.0%, KM: 6.9%, JF: 11.1%, JM: 12.7%) and the third turn (Apology; KF: 31.0%, KM: 20.7%, JF: 21.7%, JM: 7.3%, Thanks; KF: 71.4%, KM: 75.9%, JF: 97.8%, JM: 87.3%). Two reasons could account for this. First, the participants who were late reacted differently when their friend arrived on time and bought them a ticket. Some participants felt sorry and some participants felt appreciation in the same situation. Second, it is hard to distinguish between the expressions for apology and thanks clearly in Japanese and Korean compared to “I am sorry” and “Thank you” in English. It is well known that the Japanese expression for apology “sumimasen” is also used as an expression of appreciation in Japanese discourse, as described above (Kim, 1996; Ide, 1998; Yamamoto, 2003). For example, on someone’s birthday the following kind of conversations could happen in both Japan and Korea, but not in the U.S:

A: “Happy birthday! Here you are. I hope you like this present.”

B: “I am sorry.”

(Japanese: Sumimasen.)

(Korean: Mianhakey...)

In the example of receiving a birthday present above, a Korean speaker might not say as conclusively “I am sorry” as a Japanese speaker, that is why little attention has been paid to the use of Korean apology expressions as thankful expressions in past research. It is interesting that Korean speakers say “Mianhakey” which means “I feel sorry I made you to do this for me” while they don’t use “I am sorry” in situations showing appreciation.

The results of the third turn in the present study show that Korean male speakers uttered apologetic expressions when they found that their friend had bought a movie ticket for them significantly more than Japanese male speakers (KM: 20.7%, JM: 7.3%; $\chi^2=5.25$, $p < 0.05$). Korean female speakers uttered apologetic expressions more than Japanese female speakers (KF: 31.0%, JF: 21.7%) though there was no significant difference between them (about 9.3 percent). Also, Korean male speakers uttered apologetic expressions significantly more than Japanese male speakers (KM: 20.7%, JM: 9.1%; $\chi^2=4.06$, $p < 0.05$) in the second turn when their friend said he or she could understand why they had been late for the appointment. It is reasonable to suppose that Korean speakers try to convey the emotion that they feel sorry for being late for the appointment to the interlocutor actively by uttering apologetic expressions through all the turns. Also, the results of the present study are different from those of Kim (1996) which claimed that Korean speakers barely use apologetic expressions in thanks. Thus,

it will be necessary to examine what kinds of expressions are used for apology and thanks in Japanese and Korean in other situations.

Korean speakers also used the semantic formulas ADVERB (Turn 1; KF: 28.6%, KM: 17.2%, JF: 19.6%, JM: 3.6%, Turn 3; KF: 31.0%, KM: 17.2%, JF: 21.7%, JM: 9.1%) and INTERJECTION (Turn 1; KF: 26.2%, KM: 31.0%, JF: 0.0%, JM: 0.0%, Turn 3; KF: 73.8%, KM: 75.9%, JF: 10.9%, JM: 7.3%) which modify the apologetic and thankful expressions in order to convey their feeling actively. It has been pointed out that both Japanese and Korean speakers use adverbs more in apologetic expressions than thankful ones if the feelings of apology are stronger or the interlocutor is older than the speakers (Kim, 1996). The results of the current study clearly show that Korean speakers use more semantic formulas ADVERB and INTERJECTION right before or after expressions of apology or thanks compared to Japanese speakers in corresponding situations.

It was found that Korean speakers used the semantic formula ADDRESS TERM in the first turn while no Japanese speakers used ADDRESS TERM (KF: 21.4%, KM: 10.3%, JF: 0.0%, JM: 0.0%). The results of this study confirm the claim of Yoon (2008) that Korean speakers use address terms as *contextualization cues* (Gumperz, 1982) more frequently in conversations compared to Japanese speakers. In the present study, many Korean speakers uttered “Chinguya” which means “Hey, friend” in order to attract the listener’s interest and to make sure that the relationship between the speaker and the listener (good friends) stays unchanged and established before or after saying “I am sorry.”

5.3 Influence of the daily use of English in the responsibility for understanding utterances

In regards to whether the daily use of English, which is classified as a speaker-responsible language, can influence the ways Japanese and Korean speak their native languages, the results show that JIU used more semantic formulas than JU generally. The ANOVA revealed that JIU uttered the semantic formulas FACT (JU: 52.5%, JIU: 76.5%) and ADDRESS TERM (JU: 0.0%, JIU: 2.9%) in the first turn, APOLOGY (JU: 21.0%, JIU: 38.2%) and COMPENSATION (JU: 0.0%, JIU: 5.9%) in the second turn, and COMPENSATION (JU: 0.0%, JIU: 14.7%) and INTERJECTION (JU: 8.9%, JIU: 50.0%) in the third turn significantly more than JU. It is interesting that JIU uttered FACT significantly more than JU in apologies and FACT is the only semantic formula that JIU and KIU uttered more than JU and KU, respectively, though there is no significant difference between KU and KIU (KU: 46.5%, KIU: 57.9%) in the first turn. Regarding the semantic formulas ADDRESS TERM in the first turn and COMPENSATION in the second turn, nobody in JU uttered either semantic formula. The data suggests that Japanese, which is classified as a listener-responsible language, could be influenced by English, which is regarded as a speaker-responsible language.

6. Conclusion

The present study set out to investigate the differences between Japanese and Korean speakers' responsibility for the understanding of utterances in a conversation. The experiment was carried out to compare how semantic formulas are used in utterances as helpful information for the listeners in corresponding situations in both Japanese and Korean. To answer the first research question, the results of the current study suggest that Korean should be classified as a speaker-responsible language for the understanding of utterances in conversations, since Korean speakers uttered more semantic formulas than Japanese speakers. To answer the second research question, Korean speakers uttered semantic formulas REASON, ADDRESS TERM, ADVERB, INTERJECTION, and COMPENSATION in apologies significantly more than Japanese speakers. Finally, to answer the third research question, it was found that the daily use of American English influenced Japanese and Korean speakers' use of their native language, especially in the case of Japanese speakers.

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Appendix 1

The DCT written in Japanese

あなたは親しい友達と一緒に映画を見ることになっています。しかし、待ち合わせしている映画館前に、20 分ほど遅れて着きました。

あなた：（ ）

友達：大丈夫、授業が長引いたのなら仕方ないよ。

あなた：（ ）

友達：チケット？ もう二人分買ってあるよ。

あなた：（ ）

友達：映画のチケットぐらいでお礼を言わなくてもいいよ。

The DCT written in Korean

당신은 친한 친구와 함께 영화를 보기로 했습니다. 그러나 약속장소인 영화관 앞에서 20 분 정도 늦게 도착했습니다.

당신 : ()

친구 : 괜찮아 수업이 늦게 끝났으니까 어쩔 수 없지.

당신 : ()

친구 : 티켓? 벌써 2 장 사 왔어.

당신 : ()

친구 : 영화 표 정도로 인사한해도 돼.

Appendix 2

The semantic formulas written in Japanese and Korean

Table 1: Semantic formulas and examples in the first turn in university students' apologies

	Semantic formulas	Examples
1	APOLOGY	“ごめんね” “미안해”
2	FACT	“遅れた” “늦었어”
3	REASON	“授業が長引いた” “수업이 늦게 끝났어”
4	ADVERB	“本当に (ごめん) ” “정말 (미안해)”
5	ADDRESS TERM	“O O ちゃん” “O O 야”
6	INTERJECTION	“あ、 (ごめん) ” “아, (미안)”
7	OTHERS	“いつ着いた?” “언제 왔어?”

Table 2: Semantic formulas and examples in the second turn

	Semantic formulas	Examples
1	APOLOGY	“ごめんね” “미안해”
2	THANKS	“ありがとう” “고마워”
3	TICKET	“チケット買いに行こう” “티켓 사러 가자”
4	MOVIE	“映画もう始まったのかな?” “영화 벌써 시작했을려나?”
5	COMPENSATION	“ポップコーンおごるよ” “내가 팝콘 살게”
6	OTHERS	“あの先生嫌い” “그 선생님 싫다”

Table 3: Semantic formulas and examples in the third turn

	Semantic formulas	Examples
1	APOLOGY	“ごめんね” “미안해”
2	THANKS	“ありがとう” “고마워”
3	SURPRISE	“本当?” “정말?”
4	COMPLEMENT	“君はいい友達だ” “너는 좋은 친구야”
5	COMPENSATION	“ポップコーンおごるよ” “내가 팝콘 살게”
6	INTERJECTION	“あ、（ありがとう）” “아, (고마워)”
7	ADVERB	“本当に（ありがとう）” “정말 (고마워)”
8	OTHERS	“チケット買わなくてもよかったのに” “티켓 안 사도 되는데”

STROKOVNI ČLANKI
(Technical Articles)

KLASIFICIRANJE BESEDILNIH ZVRSTI V JAPONŠČINI^{*}

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Izvleček

Članek v okvirju Hallidayeve sistemsko-funkcijske lingvistike obravnava nekatere pristope h klasificiranju besedilnih zvrsti oz. žanrov v japonščini v zadnjem času. Besedilne zvrsti se razlikujejo glede na značilnosti konteksta situacije, tj., področja, tona in načina. Klasifikacijski pristopi se večinoma osredotočajo na značilnosti področja, ki se odražajo v porazdelitvi polnopomenskih leksičnih enot v besedilu. Pristopi, predstavljeni v članku, se nasprotno opirajo na evidencialno-modalne pomene, izražane preko evidencialnih prislovov in pomožnih evidencialno-modalnih elementov na koncu povedi.

Ključne besede

klasificiranje, besedilna zvrst, evidencialni prislovi, evidencialno-modalni izrazi

Abstract

This paper deals with some recent approaches to Japanese text classification within the framework of Halliday's systemic functional linguistics. Text types differ according to the properties of their respective field, tenor and mode. Classification approaches usually center on field properties as reflected in content words and their distribution in texts. On the other hand, approaches introduced in the present paper are based on evidential-modal meanings, expressed by evidential adverbs and sentence-final auxiliary evidential-modal expressions.

Keywords

classification, text type, evidential adverbs, evidential-modal expressions

^{*} Title in English: Text Type Classification in the Japanese Language

1. Uvod

Didaktika tujih jezikov, kjer se pogosto srečujemo z vprašanjem besedilne zvrstnosti, in kako to vedenje posredovati učečim se, je ena od pomembnih motivacij za proučevanje in klasificiranje besedilne zvrstnosti oz. besedilnih žanrov. To velja tudi za japonščino, kjer v zadnjem času dobiva velik poudarek poučevanje strokovne japonščine. Prav tako se je z uveljavljanjem obsežnih korpusov v raziskovanju japonskega jezika (npr. korpus BCCWJ, uravnoteženi korpus sodobnega japonskega pisnega jezika, Maekawa 2007) pojavila potreba po raznih zvrsteh besedil, ki naj bi bila vključena vanje. Pričujoči članek predstavlja nekaj novejših pristopov h klasificiranju besedilnih zvrsti v japonščini, predvsem iz kroga laboratorija Kikuko Nishina in njenih učencev, Irene Srdanović in Bora Hodoščka na Tokijskem tehnološkem institutu (Tokyo kogyo daigaku), kjer sem sodeloval kot gostujoči raziskovalec v letnem semestru 2010.

Idea besedilne zvrsti je povezana z opažanjem, da se velik del človekovega delovanja v družbi ponavlja v bolj ali manj enakih situacijskih kontekstih, kar ima za posledico tudi ponavljajočo se rabo jezikovnih sredstev v enakih okoliščinah. V nadaljevanju se opiram na sistemsko-fukcijsko jezikoslovje. Le-to povezuje jezik kot vedenje (sistem) s kontekstom situacije, kjer se, glede na dejavnost, ki se v danem kontekstu odvija, jezik udejanji kot določena besedilna zvrst. Kontekst situacije sestavljajo trije vidiki, PODROČJE (dejavnost, ki se izvaja skozi jezik), TON (odnosi med soudeleženci, njihov status) in NAČIN (kako se dana jezikovna dejavnost udejanja kot besedilo). Ponavljajoči se jezikovni vidik konteksta situacije povzema pojem REGISTER. Register je "konfiguracija semantičnih sredstev, ki jih član neke kulture tipično povezuje z danim tipom situacije" (Halliday, 1978:111). Vidiki kontesta situacije so povezani tudi z naslednjimi pomenskimi kompleksi (meta-semantične funkcije): področje z ideacijsko funkcijo, ton z medosebno funkcijo ter način z besedilotvorno funkcijo (Halliday, 1978; Hasan, 2009).

Kakšne so konkretne značilnosti dane besedilne zvrsti, je odvisno od tega, kakšna jezikovna dejavnost se odvija v danem kontekstu situacije, to pa je odvisno od treh vidikov, tj. področja, tona in načina, njihove značilnosti pa se odražajo na pomenih aktiviranih iz prej omenjenih pomenskih kompleksov. Pričakovati je, da bodo merila za pripadnost neki zvrsti tesno povezana s področjem in tonom. Dano področje implicira določen nabor ideacijskih pomenov, ki se odražajo v rabi jezikovnih sredstev, ki pripadajo leksiki in v naklonskem sistemu predvsem evidencialnosti. Dani ton pa implicira določen nabor medosebnih pomenov, kar se v jezikovnih sredstvih odraža v naklonskem sistemu ter sistemu spoštljivosti.

V naslednjih razdelkih je predstavljen pristop h klasificiranju, temelječ na sistemu modalnosti oz. evidencialnih pomenov.

2. Dosedanji pristopi h klasificiranju besedil v japonščini

Večina dosedanjih pristopov h klasificiranju besedil v japonščini temelji na vidikih rabe polnopomenskega besedišča, skratka na analizi tega, kako se področje odraža v udejanjenem besedilu. Eden zgodnejših poskusov je Kabashima in Jugaku (1965), kjer avtorja predlagata kot merilo pogostnost posameznih besednih vrst, predvsem samostalnika, ter dodatno količnik med določili (*shûshokugo*; s tem terminom zajameta prislove, pridevnike in adnominalne) ter glagoli v besedilu. Besedila, kjer je pogostnost rabe samostalnikov visoka, naj bi grobo rečeno pripadala opisnim žanrom. Le-ti se glede na višino količnika med določili in glagoli nadalje delijo na dejavne (kadar je količnik nizek) in statične (kadar je količnik visok). Besedila, kjer je pogostnost rabe samostalnikov nizka, pa pripadajo povzemalnim žanrom. Hodošček (2011) je ta pristop preverjal na korpusu BCCWJ. Hodošček je potrdil ugotovitve Kabashima in Jugaku (1965), izjema je bil predvsem nov žanr spontanih internetnih besedil kot so blogi ipd., v katerih se distribucija besednih vrst razlikuje od drugih žanrov.

Drug pristop, Sano (2008), je novejše narave in temelji na pojmu informacijske gostote (*density of information*) (Halliday, 1990), oziroma besediščne gostote (*lexical density, goi mitsudo*). Besediščna gostota je kot parameter pridružena posameznemu besedilu. Sano (str. 85) jo definira kot razmerje med vsemi polnopomenskimi besedami v besedilu in vsemi stavki (*setsu, clause*), ki vsebujejo povedek. Besediščna gostota, kot je pokazal Sano, dobro korelira z značilnostmi raznih pisnih in govorjenih žanrov. Problem te metode pa je, da je z vidika obdelave podatkov in računanja dokaj zahtevna, štetje stavkov namreč zahteva ročno ali avtomatsko analizo besedila v sestavljene povedi in stavke ter zato ni dostopna za hitro klasificiranje posameznih besedil, ki bi ga npr. potreboval učitelj japonskega jezika pri sestavljanju jezikovnega gradiva za svoje učence.

3. Evidencialni pomeni kot kriterij besedilne zvrsti

3.1 Evidencialni prislovi in besedilne zvrsti

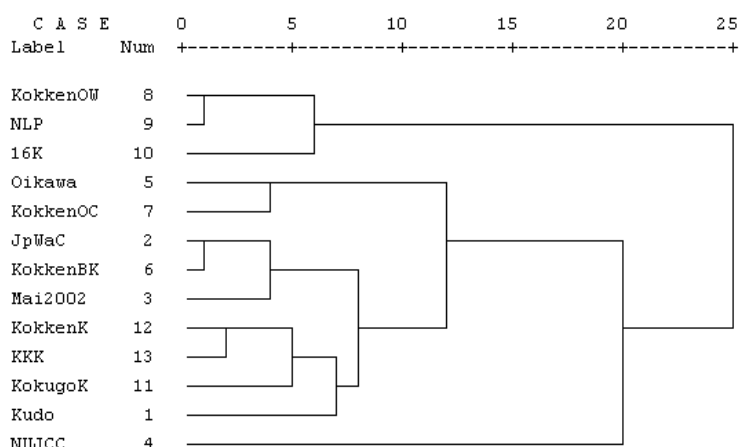
Kot ena od možnosti so se pokazali evidencialni pomeni, ki jih v japonščini posredujejo predvsem evidencialni povedni prislovi (*suiryôteki fukushi*) ter evidencialno-modalni izrazi na koncu povedi. Srdanović et al. (2008a) so, izhajajoč iz Kudô (2000) na obsežnem korpusnem gradivu pokazali, da Kudôjeva ugotovitev o sistematični korelaciji evidencialnih prislovov in modalnih izrazov na koncu povedi velja tudi v tem primeru. Prav tako, kot ugotavljajo Srdanović et al. (2008b), se porazdelitev gostote evidencialnih prislovov in evidencialnih modalnih izrazov razlikuje glede na različne vrste korpusov s tipsko homogenimi besedili (korpusi učbenikov, literarnih del, časopisnih člankov ipd.). Razlike v porazdelitvi so nazorno razvidne iz tabele 1 spodaj.

Tabela 1: Porazdelitev evidencialnih prislovov v različnih tipih besedil (Srdanović et al., 2008b)

Pridružena modalnost	Korpusi		NUJCC	Oikawa	KokkenOC	JpWaC	KokkenBK	Mai2002	KokkenOW	NLP	16K	KokugoK	KokkenK	KKK	Kudo
	Evid. prislovi														
N	kanarazu	7	14	4	8	15	25	5	23	42	12	28	16	4	
N	zettai	52		14	9	6	11	2			3	2	4	5	
N	zettaini			11	6	8	12	2		4	3	9	2		
N/M	kanarazushimo	1	5	2	6	6	8	84	66	39	0	10	6		
N/V	yohodo		1	2	2	3	2	0			3	1	2	4	
N/V	yoppodo	2		2	1	1	1				1				
N/P	taigai	2	8	1	1	1	0							1	
N/P	taitei	1		5	4	2	3	1	6	4	4	6	12	1	
N/P	kitto	15	8	15	12	14	10		3		38	26	26	28	
P	ookata		1	0	0	1	0				1	1	2	3	
P	osoraku	1	8	1	13	12	9	1	3	7	2	5	10	19	
P	sazo			0	0	1	1				4	1	2	5	
P	tabun	3	39	26	16	11	6	2		3	3	4	8	10	
V	doumo	6	7	6	8	7	5	0		1	15	2	4	5	
V	douyara	2		3	5	5	3				3			5	
V	angai	3	1	0	2	1	1	0		1	1	1		2	
M	hyottoshitara	1	1	1	1	1	1				1	1	2	3	
M	hyottosuruto				0										
M	kotoniyoreba			0	0	0	0								
M	kotoniyoruto				0	0	1	3		1				1	
M	moshikashitara	5	8	5	3	3	1				2	2	2	5	
M	moshikasureba			1	0										
M	moshikasuruto				1	1	0				1	1	2		

N: nujno; M: možno; V: verjetno; P: pričakovano; podatki so izraženi v odstotkih
rdeče polje > 50%; oranžno polje: ~40%; rumeno polje: ~25%, lila polje: ~15%

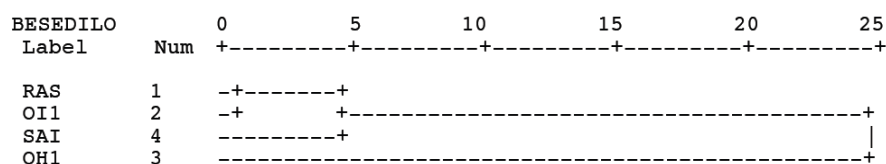
Še izrazitejše postanejo, če rezultate v tabeli analiziramo s pomočjo algoritmov razvrščanja v skupine, kot je prikazano na sliki 1 spodaj. Intuitivno je sprejemljivo, da imamo podobno porazdelitev evidencialnih prislovov v zbirki uradnih besedil iz uradnih “belih knjig” (KokkenOW) ter v znanstvenem diskurzu v člankih o računalniški obdelavi naravnih jezikov (NLP), ki se jim pridružuje mini korpus naravoslovnih učbenikov (16K). Kot je razvidno iz tabele 1, vse tri odlikuje zelo močna prisotnost evidencialnega prislova *kanarazushimo* ([ne] nujno), ki se tipično nanaša na negativno možnost. Pri vseh treh gre za objektivna, formalna besedila. Na nasprotnem koncu je prav tako sprejemljivo, da korpus neformalnih pogovorov NUJCC izstopa iz ostale mešane skupine.



Slika 1: Razvrstitev korpusov iz tabele 1 v skupine (Srdanovič et al., 2008b)

Skratka, razlike v porazdelitvi gostote izrazov glede na tip besedila bi načeloma lahko služile kot osnova za klasificiranje besedilnih zvrsti, ali posameznih besedil ali pa korpusov homogenih besedilnih zvrsti.

Bekeš je v pilotski študiji (2008) preverjal zamisel na omejenem gradivu manjših govornih in pisnih korpusov. Izkazalo se je, da je razlikovanje med besedilnimi zvrstmi na osnovi porazdelitve evidencialnih prislovov dokaj zadovoljivo glede na omejen obseg podatkov iz posameznih besedil.



Slika 2: Razvrščanje korpusov skupine glede na besedilne zvrsti

Kot je razvidno iz slike 2 zgoraj, porazdelitev evidencialnih prislovov, sicer aglomerirana glede na tip evidencialnih pomenov, ostro razlikuje med korpusom neformalnih spontanih konverzacij (OH1), ter med ostalimi tremi: novelo Rashomon (RAS), korpusom formalnih intervjujev (OI1) ter učbenikom celične biologije (SAI). Nadalje, znotraj grupe treh je učbenik (SAI) jasno profiliran nasproti noveli (RAS) in formalnim intervjujem (OI1).

Pri izražanju evidencialnih pomenov se pojavljajo evidencialni prislovi 20- do 100-krat manj pogosto kot evidencialno-modalni izrazi na koncu povedi, s katerimi

osoraku							
DZB	%	ČAS	%	ČLA	%	UČB	%
darou	9.52	darou	29.27	Ø	40.00	Ø	33.33
Ø	7.94	Ø	19.51	darou	13.33	darou	33.33
toomou	6.35	nodarou	19.51	toomowareru	13.33	nodewanaidarouka	33.33
nodewanaika	5.56	nitigainai	4.88	monodarou	6.67		
daroutoiufuuniomou	2.38	hazu	4.88	monodatosuisokusareru	6.67		
nodewanaikatoomou	2.38	nai	4.88	daroune	6.67		
toomounodane	2.38	nodewanaidarouka	4.88	tokangaerareru	6.67		
nodewanaikatoiuifuunikanjiteiru	2.38	toomowareta	2.44	nai	6.67		
nodehanaidarouka	2.38	dewanaidarouka	2.44				
nodewanaikato	2.38	dewanaika	2.44				
nodarou	2.38	dewanaikatoomou	2.44				
darou to omou	2.38	mai	2.44				
nodane	2.38						

rezultati pod 2% izpušćeni; v BEL se osoraku ne pojavi

Iz tabele 2 je razvidna velika disperznost izrazov v korpusu besedil iz državnega zbora (DZB) – odraz mdr. načina, t.j. ustnega komuniciranja. Vsi drugi korpusi so korpusi pisnih besedil. Disperznost porazdelitve se zmanjšuje od časopisnih člankov (ČAS), preko znanstvenih člankov (ČLA) do učbenikov (UČB). V teh korpusih pa so tudi očitne razlike v porazdelitvi gostote evidencialno-modalnih izrazov. V časopisnih člankih (ČAS) *osoraku* najpogosteje sovпада s pričakovano obliko *darou* (verjetno). V znanstvenih člankih (ČLA) sovпада z ničelno modalno obliko, medtem ko se v učbenikih (UČB) sicer pojavlja redko, a v treh različnih oblikah.

Iz tabele 2 je razvidno, da variabilnost sopojavljanja evidencialno-modalnih izrazov z evidencialnimi prislovi sovпада s posameznimi besedilnimi zvrstmi. Na podrobnejšo analizo, v kakšni povezavi je ta variabilnost z značilnostmi konteksta situacije, to je s področjem, tonom in načinom, bo treba še počakati. Je pa disperznost porazdelitve evidencialno-modalnih izrazov na koncu povedi v sopojavljanju s posameznimi evidencialnimi prislovi bistveno večja, kot bi bilo pričakovati na osnovi rezultatov v Kudô (2000), in ponuja, ob ustrezni operacionalizaciji in teoretski utemeljitvi, obetavno možnost za klasificiranje besedilnih zvrsti v japonščini.

4. Zaključek

V članku so prikazani nekateri pomembnejši rezultati analize besedilnih zvrsti, temelječe na sistemu modalnosti oz. evidencialnih pomenov. Pristopi, temelječi na porazdelitvi polnopomenskih besed, so glede na področje lahko uspešnejši, a z vidika obdelave jezikovnih podatkov zahtevni. Pristop na osnovi evidencialnih prislovov je v tem pogledu nezahteven in se izkaže za hitro a grobo metodo določanja besedilnih zvrsti. Pristopi na osnovi evidencialno-modalnih izrazov na koncu povedi obetajo več, zaradi pogostnosti pojavljanja teh oblik so načeloma uporabni tudi za manjše korpusne in posamezna besedila, a so zopet zahtevni z vidika obdelave podatkov.

Zaključimo lahko, da bi bilo za natančno določanje besedilnih zvrsti verjetno treba kombinirati posamezne metode. Vsaka od metod se opira samo na omejen nabor značilnosti konteksta situacije analiziranih besedil, širši zajem značilnosti s kombinacijo posameznih metod bi tako nedvomno prispeval k natančnejšemu klasificiranju besedilnih zvrsti.

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