

Notes on Degree Constructions of Gilgiti-Shina

Toshiko Oda

要旨

程度構文 (degree constructions) はこれまで英語などの主要言語のデータを中心に分析されてきたが、近年では分析対象の言語が多様化しつつあり、それにより新たな知見がもたらされることが期待されている。本論文ではパキスタン北部およびインドの一部で話されているシナー語 (Shina) の方言の一つであるギルギット・シナー語 (Gilgiti-Shina) の程度構文の基礎データを Beck et al. (2009) が提案した分類方法に照らし合わせて分析し、大まかな特徴を明らかにする。同時に、その比較構文 (comparatives) の観察を基に、ギルギット・シナー語のように程度構文に制限がある言語にコンテキストに依存した比較構文が生まれやすいという傾向があることを指摘し、今後の研究の方向性を提案する。

シナー語は口頭言語であり、2023年7月時点のパキスタンにおいて定められた表記法がない。本稿のデータは2023年2月にビデオ通話システムおよびパキスタン北部ギルギット・バルチスタン地方ミナワー村 (Minawar) 周辺で行ったフィールドワークで得た。

1. Introduction

Comparatives are known to exhibit cross-linguistic variations (Stassen 1985). Nevertheless, formal semantic research on comparatives has mainly focused on English, German, and other related languages (von Stechow 1984, among many others). The languages being analyzed have recently become more diverse, which may bring new findings and breakthroughs in syntactic and semantic research on comparatives.

This study aimed to investigate the basic properties of degree constructions including comparatives in Gilgiti-Shina spoken in northern Pakistan and suggest directions for further analysis. The degree constructions of Gilgiti-Shina resemble those of Hindi-Urdu documented by Beck et al. (2009). Nevertheless, the degree constructions of Gilgiti-Shina

are somewhat restricted compared to those of Hindi-Urdu and English. Thus, Gilgiti-Shina has more incentive to rely on context to express degree relationships. In fact, some data of comparatives in Gilgiti-Shina support the contextual analysis of comparison by Hohaus (2015) rather than standard compositional analysis.

Shina is an oral language; as of July 2023, there were no established writing systems. The observations and data of Gilgiti-Shina presented in this study were obtained from fieldwork conducted via Zoom interviews as well as face-to-face interviews in and around the village of Minawar, Gilgit-Baltistan, in February 2023.

2. Gilgiti-Shina in Pakistan

This section provides overall information of Gilgiti-Shina. It also includes the results of a survey conducted by the author in February 2023. Gilgiti-Shina was confirmed to have a stable status, and its native speakers expressed positive attitudes toward their language.

2.1 Overall information of Gilgiti-Shina

Shina is spoken in Pakistan and India. It is a Dardic language belonging to the Indo-Aryan languages. It is spoken in ethnic communities and is not taught in schools. As of July 2023, Shina has no official writing system in Pakistan¹. According to Eberhard, Simons and Fennig (2023), the number of L1 speakers of Shina could reach up to one million.

The Shina language has many dialects², one of which is Gilgiti-Shina. It is spoken in and around the city of Gilgit in the Gilgit-Baltistan region of Northern Pakistan. The area is surrounded by high mountains and is isolated from other regions of Pakistan (Figure 1). Bailey (1924) investigated Shina's grammar and phonology and identified three main types: Gilgiti, Kohistani, and Astori.

Gilgiti-Shina is normally considered the standard dialect of the Shina language. Bidulph (1880) notes that "The Gilgit pronunciation of Shina is supposed to be more refined than the dialects spoken in neighboring valleys" (p. 20). Bailey (1924) states that "Gilgit is the real home of the Shina language, and there it is spoken with the greatest purity" (vii). Based on a sociolinguistic study, Radloff (1992) states that "Gilgiti appears to be a more de facto standard than a recognized standard" (p. 199). Radloff mentioned that some radio programs in Shina for Radio Pakistan³ were produced in Gilgiti-Shina, and Gilgit was the center for trade and government in Northern Pakistan. These descriptions of Gilgiti-Shi-



Figure 1 View from Gilgit



Figure 2 Driving on the main street in Gilgit

na's prominence remain true as of February 2023 (Figure 2).

Most residents of the Gilgit area are bilingual between Gilgiti-Shina and Urdu because Pakistani public education is provided in Urdu. English is an official language in Pakistan, and English-language education is provided from primary schools. Accordingly, the interviews for this study were conducted in English. Nevertheless, conducting the field research in English limited the diversity of informants. The data presented in this paper were mostly provided by people in their thirties or below with college education. When the author conducted fieldwork in Gilgit in February 2023, English was found to be useful in airports, hotels, schools, and other institutions. However, translators were required to talk to the residents of Minawar and Sakwar villages.

Despite the lack of a writing system, the number of Shina speakers has remained stable, and Shina has been categorized as a 6a (vigorous) language by Eberhard, Simons and Fennig (2023). Nevertheless, Urdu seems to have significantly influenced Gilgiti-Shina. Young speakers often mix Urdu expressions with Gilgiti-Shina (p.c. with an informant on February 15th, 2023).

2.2 Native speakers' perception of Gilgiti-Shina

According to Eberhard, Simons and Fennig (2023), the attitude of native speakers toward Shina is described as "positive," and this was confirmed by a survey conducted by the author with 45 speakers in February 2023. The participants for the survey were female secondary school students in Minawar Village, Gilgit-Baltistan (Figure 3)⁴. All of them lived in nearby villages and walked to school (Figure 4). It should be noted that not all parents send their female children to secondary schools in the area. Traditional culture still prevails there; women typically stay home, and young girls are not necessarily en-



Figure 3 Secondary school in Minawar



Figure 4 Villages near the secondary school

couraged to attend school. Therefore, the survey participants were from families with relatively open-minded parents.

When asked what they thought about their first language (Gilgiti-Shina), most gave positive comments in written English (Figure 5). Some commonly observed expressions in their writings are as follows⁵):

- (1) a. People in my village speak in Shina.
- b. Shina is a little famous in Gilgit.
- c. I want my children to speak in Shina, too.
- d. I like Gilgit and the language in Gilgit.

Many mentioned that Shina is “a little famous,” meaning that it is the dominant language spoken in the Gilgit area among many languages in northern Pakistan (Balti, Burushaski, Domaaki, Gojri, Kalasha, and many others). This dominance seems to give the speakers a sense of pride and confidence. In fact, the participants were eager to provide data of Gilgiti-Shina to the author (Figure 6).

However, two participants mentioned that they preferred Urdu or English to Shina. Urdu and English seem to have somewhat higher social status. For instance, one resident was willing to talk to children in Urdu rather than Shina because Urdu is “more important” (February 20, 2023). Another described Shina as “not a proper language” because it is “only for speaking” (February 22, 2023). This is partly because a good command of Urdu is essential for employment, even in the local area. In Pakistan, college education is mostly conducted in English, and being a competent English speaker improves job opportunities. Educated people in the Gilgit area normally speak fluent Urdu and English, in ad-

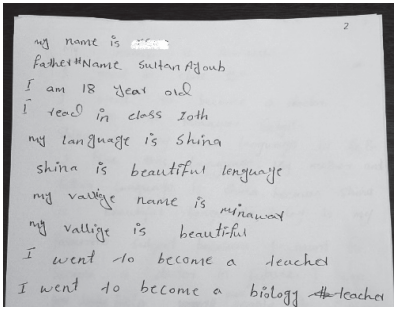


Figure 5 A secondary school student's essay in English

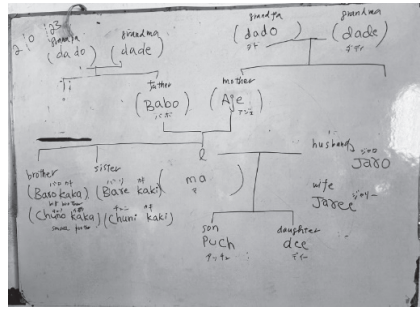


Figure 6 Family tree in Shina written in Latin alphabet

dition to their local languages, including Gilgiti-Shina.

3. Previous studies of degree constructions of Shina

Previous research on Shina in English is limited. In addition, most previous studies available in English have focused on the morphological and phonological aspects of Shina (Schmidt 1981, Schmidt 1985a, Schmidt 1985b, Radloff 1999 and others). Nevertheless, Schmidt and Kohistani (2008) and Bailey (1924) included descriptions of Shina's grammar. This section reviews the degree constructions of Shina, as documented in Schmidt and Kohistani (2008) and Bailey (1924). Beck et al.'s (2009) classification of languages according to their degree properties was reviewed to predict Shina's degree properties.

3.1 Degree construction data in Bailey (1924)

Bailey (1924) covers a great deal of the grammar of Gilgiti-Shina. However, it provides only a limited description of degree constructions. The following is cited from Bailey (1924: 63).

- (2) Comparison: —There are no forms for the comparative and superlative. They are expressed by means of the prepositions *jo* 'from,' *zho* 'than'.

chunu 'small'

ma jo chunu 'smaller than I'

bute jo cunu 'smaller than all' 'smallest'

(Bailey 1924: 63)

Bailey describes *ma jo chunu* ‘smaller than I’ as not being a comparative expression. However, similar constructions in many languages have been analyzed as comparatives. For instance, the comparative expression *ma jo chunu* ‘smaller than I’ simply lacks an overt comparative morpheme such as *-er* in English. This resembles *yorimo* comparatives in Japanese as shown in (3).

- (3) *kare-wa watasi yorimo wakai.* [Japanese]
 he-top I than young
 ‘He is younger than me.’

Despite lacking a visible comparative morpheme, *yorimo*-constructions and similar constructions in other languages have been treated as comparatives in the literature. Therefore, this study treats *ma jo chunu* ‘smaller than I’ in (2) as comparative in Shina.

3.2 Data of degree constructions in Schmidt and Kohistani (2008)

Schmidt and Kohistani (2008) are among the few studies on the grammar of Indus Kohistan-Shina. Indus Kohistan-Shina and Gilgiti-Shina are considered dialects of Shina (Eberhard, Simons and Fennig, 2023). Thus, Indus Kohistan-Shina provides insight into the degree construction of Gilgiti-Shina. The following are data on degree constructions documented by Schmidt and Kohistani (2008)^{6, 7}.

- (4) Positive
macii razaal-i-in-i. [Indus Kohistan-Shina]
 honey sweet-Fem-is-Fem.Sg.
 ‘Honey is sweet.’ (Schmidt and Kohistani, 2008: 109)
- (5) Comparative
macii ciinii-ji razaal-i-in-i. [Indus Kohistan-Shina]
 honey sugar-AbSp sweet-Fem-is-Fem.Sg.
 ‘Honey is sweeter than sugar.’ (Schmidt and Kohistani, 2008: 109)
- (6) Lack of superlatives
macii buto-ji razaal-i-in-i. [Indus Kohistan-Shina]
 honey all-AbSp sweet-Fem.is-Fem.Sg.
 ‘Honey is the sweetest of all.’ (Schmidt and Kohistani, 2008: 109)

(7) Proverb [Indus Kohistan-Shina]

bee-t-o *dice-ji* *yaa-t-i* *loi marnii-m-i.*

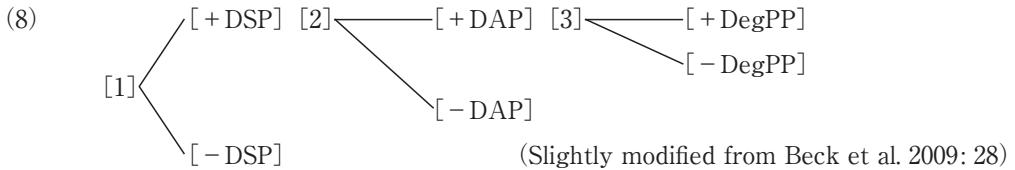
sit-PERFPPL-M.Sg leopard-AbSp walk-PERFPPL-Fem fox good-is-Fem

‘A walking fox is better than a sitting leopard.’ (Schmidt and Kohistani, 2008: 109)

Examples (4) and (5) resemble the Hindi-Urdu data documented by Beck et al. (2009). However, the lack of superlatives in (6) contrasts sharply with Hindi-Urdu. Hindi-Urdu has superlative constructions (Beck et al. 2009: 56). Relevant data of Hindi-Urdu will be presented in Section 4.

3.3 Beck et al. (2009)

Although data on Indus Kohistan-Shina are limited, studying this dialect can provide useful insight into the properties of Shina. Beck et al. (2009) present a “decision tree” to classify languages according to their degree constructions. It has three branching nodes.



(9) Degree Semantics Parameter (DSP): A language {does/does not} have gradable predicates (type <d, <e,t>> and related), i.e. lexical items that introduce degree arguments.

(10) Degree Abstraction Parameter (DAP) (Beck, Oda and Sugisaki 2004): A language {does/does not} have binding of degree variables in the syntax.

(11) Degree Phrase Parameter (DegPP): The degree argument position of a gradable predicate {may/may not} be overtly filled.

The classification process begins with node [1]. A language with degree semantics allows comparisons with degrees, differential comparatives, etc. Therefore, English is classified as [+DSP]. However, languages such as Motu do not allow such constructions and are classified as [-DSP] (Beck et al. 2009: 47).

(12) Comparison with a degree

John is taller than 180 cm.

(13) Differential comparative

John is 2 cm taller than Mary.

Languages with [+DSP] settings can be classified as either [+DAP] or [−DAP] at node [2]. Subcomparatives are typical examples requiring degree abstraction. English allows subcomparatives and is classified as a [+DAP] language. Japanese does not allow subcomparatives and is classified as a [−DAP] language. See Beck et al. (2009) for the detailed semantic calculation of subcomparatives.

(14) Subcomparative

John is taller than the bed is long.

Finally, languages with [+DAP] settings can be classified as either [+DegPP] or [−DegPP] at node [3]. English allows overtly filled direct-degree positions, as in (15) and is considered a [+DegPP] language. Romanian, for example, does not allow such constructions, as shown in (16), and is classified as [−DegPP]. Japanese is also classified as [−DegPP]. The degree expression *2 cm* in (17) does not fill the direct degree position. Instead, it fills the differential degree position. Thus, it is understood that John is 2 cm taller than a contextually provided height.

(15) Measure phrase construction

John is 180 cm tall.

(16) **Maria e înaltă 1.70 m.* [Romanian]

Maria is tall 1.70 m

‘Maria is 1.7 m tall.’

(Beck et al. 2009: 51)

(17) *John-wa 2 cm segata kai.* [Japanese]

John-Top 2 cm tall

‘John is 2 cm taller.’

A table will be useful for summarizing the discussion. The four languages are ordered according to their degree properties. English has the richest degree semantics among the four, whereas Motu’s is limited. See Beck et al. (2009: 26–28) for a table with more languages.

(18) Languages\Parameters	DSP	DAP	DegPP
English	+	+	+
Romanian	+	+	-
Japanese	+	-	-
Motu	-	-	-

Regarding Shina, unfortunately, neither Bailey (1924) nor Schmidt and Kohistani (2008) provided the necessary data. Thus, the next section reviews a new data set obtained through fieldwork.

4. Degree constructions in Gilgiti-Shina

The data of Gilgiti-Shina presented in this section were collected during fieldwork in February 2023. The interviews were conducted face-to-face as well as using Zoom with two informants. Both of them were native speakers of Gilgiti-Shina and Urdu and spoke fluent English. They were male persons in their 20s and 30s. All the interviews were conducted in English. The spellings of Gilgiti-Shina in the Latin alphabet were provided by the informants. Information for the sound recordings of the data in this section by one of the informants is provided in the Appendix for data clarification.

Overall, the basic properties of the comparatives in Gilgiti-Shina resemble those in Hindi-Urdu described by Beck et al. (2009). Nevertheless, there is a significant difference in superlatives: Hindi-Urdu uses superlatives, whereas Gilgiti-Shina does not. The corresponding Hindi⁸⁾ data are also provided in this section from Beck et al. (2009: 40-42) whenever possible for comparison with Gilgiti-Shina.

4.1 Positives

A prototypical positive sentence is provided in (19): Adjectives and copula agree with the gender and the number of the subject noun.

(19) Positive

<i>ano</i>	<i>chuno</i>	<i>han.</i>	[Gilgiti-Shina]
he	thin.M	copula.M.Sg	
'He is thin/small/young.'			

- (20) *Sangeeta lambi hai.* [Hindi]
 Sangeeta tall.Fem is
 Sangeeta is tall.

4.2 Phrasal comparatives

In phrasal comparatives, *jo* plays the role of a standard marker like *than* in English. Bailey (1924) paraphrases it as “from,” and Schmidt and Kohistani (2008) glossed it as an ablative superessive (AbSp). In this paper, however, *jo* will be glossed as “than” for simplicity.

- (21) Phrasal comparative
machii shakkar-e-jo ispai hin. [Gilgiti-Shina]
 honey sugar-E-than sweet.Fem copula.Fem.Sg
 ‘Honey is sweeter than sugar.’
- (22) *ano ma jo chuno han.* [Gilgiti-Shina]
 he me than thin.M copula.M.Sg
 ‘He is thinner/smmaker/younger than me.’
- (23) *Sangeeta Ramesh se lambi hai.* [Hindi]
 Sangeeta Ramesh SE tall.Fem is
 ‘Sangeeta is taller than Ramesh.’

Phrasal comparatives of quantity are also possible.

- (24) Phrasal comparative of quantity
Sageeta-s Ramesh jo body kitabi likhigin. [Gilgiti-Shina]
 Sageeta-Gen Ramesh than more book.Pl wrote
 ‘Sageeta wrote more books than Ramesh.’
- (25) *Sangeeta ne Ramesh se zyadaa kitaabe likhi.* [Hindi]
 Sangeeta Erg Ramesh SE more book.Pl wrote
 ‘Sangeeta wrote more books than Ramesh.’

Interestingly, Gilgiti-Shina allows unexpected phrasal comparatives, as shown in (26). Although the literal translation “Saeed’s number is more than Raji” is odd in English, it is

acceptable in Gilgiti-Shina. Corresponding Hindi data has not yet been investigated.

- (26) *anay muqabila maja, Saeed-e-number Raji-jo bodo han.* [Gilgiti-Shina]
 this competition between Saeed-E-number Raji-than more copula.M.Sg
 Lit. 'In this competition, Saeed's number is more than Raji.'
 (In this competition, Saeed's number is more than that of Raji.)

4.3 Degree arguments

Degree arguments are visible in the constructions given below. First, it is possible to make comparisons with a degree. In (27), *guz* means "an open arm's length."

- (27) Comparison with degrees [Gilgiti-Shina]
ano ek guz jo uthalo han.
 he one guz than tall.M copula.M.Sg
 'He is taller than one guz.' (*guz* is an open arm's length.)
- (28) *Sangeeta 5'4" se zyaadaa lambi hai.* [Hindi]
 Sangeeta 5'4" SE more tall.Fem is
 'Sangeeta is taller than 5'4'.'

Measure phrases appear overtly in direct and differential degree positions in Gilgiti-Shina. In (31), *ek hath* refers to a hand length. Degree questions for direct degrees are also possible.

- (29) Measure phrase construction [Gilgiti-Shina]
ano ek guz uthalo han.
 he one guz tall.M copula.M.Sg
 'He is one guz tall.' (*guz* is an open-arm length.)
- (30) *Sangeeta 5'6" lambi hai.* [Hindi]
 Sangeeta 5'6" tall.Fem is
 'Sangeeta is 5'6" tall.'
- (31) Differential comparative [Gilgiti-Shina]
ano ma-jo ek hath uthalo han.
 he me-than one hand tall.m copula.M.Sg
 'He is one hand taller than me.'

- (32) *Sangeeta Ramesh se 2 cm zyadaa lambi hai.* [Hindi]
 Sangeeta Ramesh SE 2 cm more tall.Fem is
 ‘Sangeeta is 2 cm taller than Ramesh.’
- (33) Degree question
Sangeeta kachak uthali hin? [Gilgiti-Shina]
 Sangeeta how.much tall.Fem is.Fem.Sg
 ‘How tall is Sangeeta?’
- (34) *Sangeeta kitni lambi hai?* [Hindi]
 Sangeeta how.much tall.Fem is
 ‘How tall is Sangeeta?’

4.4 Clausal comparatives

Clausal comparatives were not confirmed in Gilgiti-Shina. When asked to provide an equivalent of “Honey is sweeter than sugar is” or “He is thinner than I am” in Gilgiti-Shina, the informants reported that they could not translate the gradable predicate or copula in the than-clauses, and (21) and (22) were the only options.

Naturally, subcomparatives were not confirmed. For equivalents of “He is taller than the bed is long” in Gilgiti-Shina, one of the informants provided (35) and (36). In (35), *bodo* ‘more’ is optional. Clausal comparatives are also not observed in Hindi; Beck et al. (2009) did not test subcomparatives because of the lack of clausal comparatives in Hindi.

- (35) Lack of subcomparatives
anu bistara-jo-ga (bodo) baro han. [Gilgiti-Shina]
 he bed-compare-more (more) big.M copula.M.Sg
 ‘He is bigger than the bed.’
- (36) *anu baro han bistra chunu han.* [Gilgiti-Shina]
 This bigger copula.M.Sg bed small copula.M.Sg
 ‘This person is big, the bed is small.’

Nevertheless, the following expression with “than I thought” is possible in Gilgiti-Shina: According to one of the informants, *kayak/jo* are interchangeable: Hindi allows similar expressions.

- (37) *ash bodo taato han kayak/jo mas soch thigasus.* [Gilgiti-Shina]
 today more hot is much I think past
 'It is warmer today than I thought.'
- (38) *aaj us se zyaadaa garam hai jitnaa maine socha tha.* [Hindi]
 today that SE more hot is how I think past
 'It is warmer today than I thought.'

4.5 Superlatives

Gilgiti-Shina does not seem to have superlatives, and their superlative meaning is expressed in the form of comparatives, as shown in (39). This finding confirms Bailey's (1924) report in (2).

- (39) Lack of superlative
machii poru-jo baski ispai hin. [Gilgiti-Shina]
 honey all-than more sweet.Fem copula.Fem.Sg
 'Honey is sweeter than all.'

Therefore, the notions of "best" and "worst" are expressed as "better than all" and "worse than all," respectively.

- (40) *puro-jo sam han* [Gilgiti-Shina]
 all-than good copula.M.Sg
 'better than all' (best)
- (41) *puro-jo khacho han* [Gilgiti-Shina]
 all-than bad copula.M.Sg
 'worse than all' (worst)

In contrast, Beck et al. (2009) observed superlatives in Hindi.

- (42) Superlative
Sangeeta apne klass mein sab se lambi chatra hai. [Hindi]
 Sangeeta her.own class in SUP SE tall.Fem student is
 'Sangeeta is the tallest student in her class.'

4.6 Equatives

Equative constructions have not yet been confirmed in Gilgiti-Shina. Alternative expressions are provided in (43) and (44). They both use *brabr* ‘equal.’ They have slightly different from each other, which appears to be the reason for the different measurements in the comparison; (43) compares heights, and (44) compares weights. Beck et al. (2009) list (45) as an example of an equative in Hindi. The wh-phrase *jitna lambi* ‘how tall’ suggests some kind of abstraction over degree. Thus, (45) in Hindi seems to have much richer degree semantics than (43) or (44) in Gilgiti-Shina.

- | | |
|--|-----------------|
| (43) <i>Sugeeta Ramashai brabr hin.</i> | [Gilgiti-Shina] |
| Sugeeta Ramash.AI equal copula.Fem.Sg | |
| ‘Sugeeta is equal to Ramash.’ (same height) | |
| (44) <i>Sugeeta ga Ramash brabr han.</i> | [Gilgiti-Shina] |
| Sugeeta and Ramash equal copula.M.Sg | |
| ‘Sugeeta and Ramash are the same.’ (same weight) | |
| (45) <i>Sangeeta Ramesh jitna lambi hai.</i> | [Hindi] |
| Sangeeta Ramesh how tall.Fem is | |
| ‘Sangeeta is as tall as Ramesh.’ | |

5. Discussion

This section discusses the classification of Gilgiti-Shina based on the data presented in Section 4. It also discusses examples of phrasal comparatives that cannot be captured by standard compositional analysis of phrasal comparatives. The possibility of contextual comparison (Beck et al. 2004, Hohaus 2015) in Gilgiti-Shina is suggested.

5.1 Gilgiti-Shina by Beck et al.’s (2009) classification

We have revised the table by including Gilgiti-Shina as in (46). The settings of Hindi-Urdu cited by Beck et al. (2009: 28) have also been added. From the data of comparison with degrees and differential comparative presented in (27) and (31) respectively, Gilgiti-Shina is categorized as a [+DSP] language. In addition, data on the measure phrase construction in (29) suggests that Gilgiti-Shina has a [+DegPP] setting. If this is correct, Gilgiti-Shina is expected to have a [+DAP] setting, according to Beck et al. (2009), but it is tentatively presented as n/a in the table for reasons discussed shortly.

(46) Languages\Parameters	DSP	DAP	DegPP
English	+	+	+
Hindi-Urdu	+	+	+
Gilgiti-Shina	+	n/a	+
Romanian	+	+	-
Japanese	+	-	-
Motu	-	-	-

Gilgiti-Shina is listed below Hindi-Urdu in the table because it has fewer degree constructions. As discussed in Section 4.5, Gilgiti-Shina does not use superlatives, whereas Hindi-Urdu does. Equative expressions in Gilgiti-Shina seem less degree-based than those in Hindi, as discussed in Section 4.6.

Regarding the DAP parameter setting, Gilgiti-Shina is expected to have a [+DAP] setting owing to [+DegPP]. However, as this requires further investigation, it is retained as n/a in (46). Given the lack of a normal clausal comparative and subcomparative setting, as discussed in Section 4.4, Gilgiti-Shina may appear to have a [-DAP] setting. However, such a lack of clausal comparatives could stem from the property of *jo* ‘than,’ which can be argued to take only noun phrases (See Bhatt and Takahashi (2008) for a similar argument about Hindi-Urdu). Additional data must be investigated to confirm the DAP parameter setting in Gilgiti-Shina. For instance, the wide-scope reading of a comparative morpheme is an indication of [+DAP]. An example in English is provided in (47). English allows abstraction over degrees ([+DAP]). Thus, (47) a has the semantics given in (47) b, where the interpretation of *-er* takes scope over the necessity modal in the main clause required. Relevant interpretations are provided in (47) c, d.

(47) (This paper is 10 pages long.)

a. *The paper is required to be exactly 5 pages longer than that.*

b. $\max(\lambda d. \forall w' [R(@, w') \rightarrow \text{the paper is } d\text{-long in } w']) = 10\text{pp} + 5\text{pp}$

c. The length that the paper reaches in all situations meeting the requirements is 15pp. = the minimum length required for the paper is 15 pages.

(Beck et al. 2009: 14)

In fact, Hindi provides relevant data, as shown in (48). Therefore, Hindi can be considered a [+DAP] language. Whether Gilgiti-Shina allows relevant constructions requires further

research.

- (48) Context: The minimal requirement for the length of the paper is 25 pages. The draft is 20 pages long.

ise theak 5 page aur lamba hona chahiye. [Hindi]

It exactly 5 page more long.m be should

‘It (the paper) has to be 5 pages longer.’

5.2 Contextual comparison in Gilgiti-Shina

Sentence (26), repeated as (49) below, provides interesting data. Its literal translation, “In this competition, Saeed’s number is more than Raji,” is odd in English. However, this is acceptable in Gilgiti-Shina. Thus, this sentence seems to be made possible by something other than regular compositional mechanisms of comparatives.

- (49) *anay muqabila maja, Saeed-e-number Raji-jo bodo han.*

this competition between Saeed-E-number Raji-than more copula.M.Sg

Lit. ‘In this competition, Saeed’s number is more than Raji.’

(In this competition, Saeed’s number is more than that of Raji.)

Similar cases have been observed in Korean (Park 2016, An 2020), Samoan (Hohaus 2015), Japanese (Hohaus 2015, Oda 2021), and Chinese (Oda 2020). A Samoan example is given below: The direct translation, “The book which Mary read is longer than Temukisa,” is odd in English. Nevertheless, (50) is well-formed. Hohaus argues that the sentences should be paraphrased as “Compared to Temukisa, the book which Mary is longer.”

- (50) Samoan example

[*E umi atu le* [_{NP} *tusi* [_{RC} *na faitau e*
TAM long Dir Det book TAM(past) read Erg
Malia]] [*i lo Temukisa*]].

Mary Prep Comp Temukisa

Lit. ‘This book which Mary read is longer than Temukisa.’

‘Compared to Temukisa, the book which Mary read is longer.’ (Hohaus 2015: 136)

To the best of the author’s knowledge, two lines of research have been conducted to

account for such problematic data for standard compositional analysis of comparatives. The first is a syntactic analysis of An (2020), which assumes some type of deletion. For instance, An would assume a deletion in the than-phrase in (49) as in “Raji’s” If so, English-like compositional semantic calculations are possible in Gilgiti-Shina.

Another analysis is a semantic one. Hohaus (2015) adopts the research direction of Beck et al. (2004) and calls constructions such as (50) “indirect comparisons.” In this study, this is referred to as contextual comparisons, meaning that its mechanism is more context-dependent than standard compositional analysis. Hohaus points out that the literal translation in English is odd because it ends up with a comparison of the length of the book that Mary read with the length of Temukisa herself. The LF structure and semantics of the odd meaning by standard analysis are given in (52).

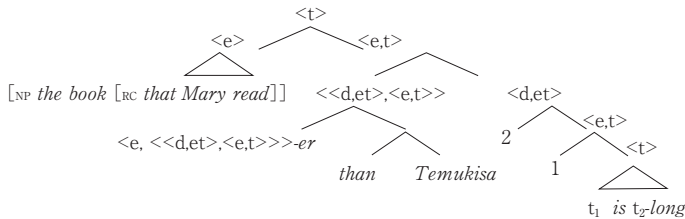
(51) More-than comparison

The book that Mary read is longer than Temukisa.

(52) Available but odd reading of (51)

a. Paraphrase: The length of a book that Mary read is longer than the length of Temukisa herself.

b. LF



c. $\llbracket \text{-er} \rrbracket = \lambda y_{\langle e \rangle} \lambda p_{\langle d, et \rangle} \lambda x_{\langle e \rangle} . \text{MAX}(\lambda d . p(d)(x)) > \text{MAX}(\lambda d . p(d)(y))$

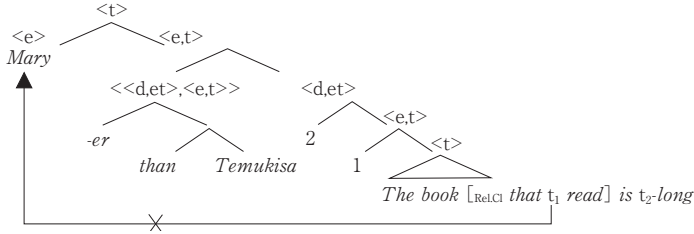
d. $\llbracket \text{long} \rrbracket = \lambda d_{\langle d \rangle} \lambda x_{\langle e \rangle} . x \text{ is } d\text{-long}$

e. $\llbracket (52) \rrbracket = 1 \text{ iff } \text{MAX}(\lambda d . \text{the book that Mary read is } d\text{-long}) > \text{MAX}(\lambda d . \text{Temukisa is } d\text{-long})$

A sensible comparison of the lengths of the books that Mary and Temukisa read is not available in (51). This is because the relevant LF structure for such reading involves movement out of the relative clause, as shown in (53) b, which violates island constraints.

(53) Unavailable reading of (51)

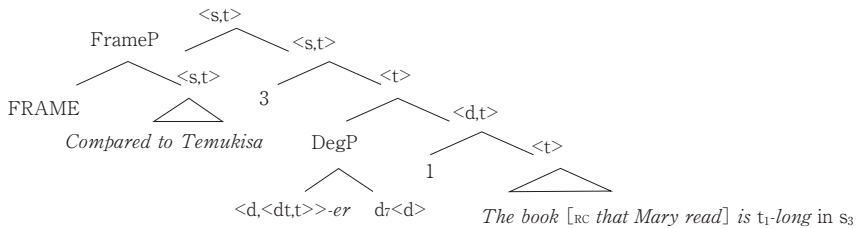
- a. Paraphrase: The length of a book that Mary read is longer than the length of the book that Temukisa read.
- b. LF (ruled out by island constraints)



Hohaus analyzed (50) in Samoan as something more like a *compared to*-construction in English. In fact, the paraphrase of the sentence in English *Compared to Temukisa, the book which Mary read is longer* given in (54) has a sensible reading of a comparison between the two books, one read by Mary and the other by Temukisa. The question is how such an interpretation is made possible. The gist of Hohaus’s analysis is as follows: (54)c is the LF, based on Hohaus (2015). *Compared to Temukisa* is part of a frame phrase (FrameP) that adds a presupposition that there is a comparison with a degree related to Temukisa. The comparison by *-er* is made with d_7 , a free variable of degree, whose value is given by a variable assignment function. To satisfy the presupposition, this value is naturally restricted to the length of the book read by Temukisa.

(54) Contextual comparison

- a. *Compared to Temukisa, the book that Mary read is longer.*
- b. Available reading: Comparison between the lengths of two books.
- c. LF

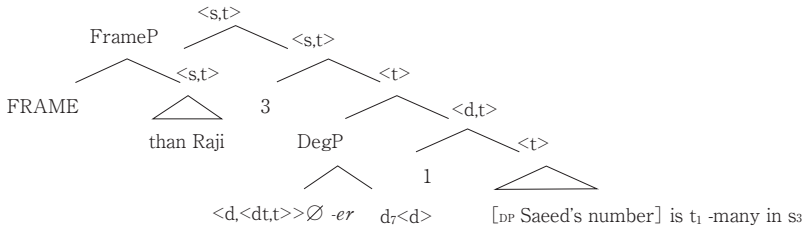


- d. $\lambda s : s \in \text{MIN}(\lambda s^* . \exists x_{\langle e \rangle} . \exists \mu_{\langle s, \langle e, d \rangle \rangle} [\mu(s^*)(x) \geq \mu(s^*)(\text{Temukisa})]) . \text{MAX}(\lambda d . \text{the book Mary read is } d\text{-long}) > g(7, \langle d \rangle)$.

Importantly, this meaning is made possible without violating island constraints, as shown in (54)c. Applying essentially the same analysis to the Gilgiti-Shina data in (49) results in (55). Notice that the semantics is made possible without extracting “Saeed” out of the subject island.

(55) Contextual comparison for (49) in Gilgiti-Shina with English gloss

a. LF



b. $\lambda s: s \in \text{MIN}(\lambda s^*. \exists x_{\langle e \rangle}, \exists \mu_{\langle s, \langle e, d \rangle \rangle} [\mu(s^*)(x) \geq \mu(s^*)(\text{Raji})])$.
 $\text{MAX}(\lambda d. \text{Saeed's is number is } d\text{-many}) > g(7, \langle d \rangle)$.

5.3 Toward a bigger picture

If (49) is made possible in Gilgiti-Shina by contextual comparison, what would that mean? What kind of language allows contextual comparisons? Let us gather the contextual comparison information. According to Hohaus (2015), *mehr als*-comparatives in German do not allow contextual comparison. Hohaus (2015) and Oda (2021) argued that contextual comparison is available in *yorimo*-comparatives in Japanese. Oda (2020) analyzed some Chinese *bi*-comparatives using Hohaus’s style of contextual comparison. The table in (56) displays the results.

(56) Languages \ Parameters	DSP	DAP	DegPP	Contextual comparison
English <i>more than</i> -comparatives	+	+	+	not available
German <i>mehr als</i> -comparatives	+	+	+	not available
Gilgiti-Shina <i>jo</i> -comparatives	+	n/a	+	available
Chinese <i>bi</i> -comparatives	+	-	-	available
Japanese <i>yorimo</i> -comparatives	+	-	-	available
Samoan <i>i lo</i> -comparatives	+	-	-	available

It is too early to draw conclusions. However, these data indicate that contextual com-

parison tends to be available in languages whose comparatives have less degree semantics, namely languages such as Gilgiti-Shina, Chinese, Japanese, and Samoan. In fact, none of the four languages has the same variations of clausal comparatives as English. Therefore, the availability of contextual comparisons in these languages makes intuitive sense. When degree semantics by compositional calculation is limited, one way to express intended interpretations is to place a burden on the context. This line of analysis should be investigated further in future studies.

6. Conclusion

This study presented novel data on degree constructions in Gilgiti-Shina. The parameter settings for [+DSP] [+DegPP] were confirmed based on the language classification of degree constructions proposed by Beck et al. (2009). Gilgiti-Shina is expected to have [+DAP] settings; however, conclusive data are yet to be obtained. Overall, Gilgiti-Shina has degree constructions similar to those in Hindi-Urdu. However, significant differences were observed between the Hindi-Urdu and Gilgiti-Shina. Hindi-Urdu has superlatives, whereas Gilgiti-Shina does not. Equatives in Gilgiti-Shina appear to involve less degree semantics.

An interesting piece of data was found, which suggests that Hohaus's (2015) contextual analysis of comparison seems applicable to Gilgiti-Shina. If this is the case, an interesting picture emerges. Languages with more limited degree semantics than English tend to allow contextual comparison. This line of analysis is worth investigating in future research.

Acknowledgments

This study was supported by JSPS KAKENHI (Grant Number JP20K00582). I thank the organizing members, teachers, and students at the Outliers Secondary School in Minawar, Gilgit, Pakistan. I would also like to thank the informants of Gilgiti-Shina for their patience. My thoughts go to the villagers of Minawar and Sakwar. All errors are my own.

Appendix

Sound recordings are available from the following link for the Gilgiti-Shina data in Section 4.

• Oda, Toshiko. Sound recordings of Gilgit-Shina

https://drive.google.com/drive/folders/1J2kgeYSgpv_0iasnv8OJ164YHq_CqOWy?usp=sharing

Data	Data numbers of recordings
(19) <i>ano chuno han.</i>	[1]
(21) <i>machii shakkar-e-jo ispai hin.</i>	[2]
(22) <i>ano ma jo chuno han.</i>	[3]
(24) <i>Sageeta-s Ramesh jo body kitabi likhigin.</i>	[4]
(26) <i>anay muqabila maja, Saeed-e-number Raji-jo bodo han.</i>	[5]
(27) <i>ano ek guz jo uthalo han.</i>	[6]
(29) <i>ano ek guz uthalo han.</i>	[7]
(31) <i>ano ma-jo ek hath uthalo han.</i>	[8]
(33) <i>Sangeeta kachak uthali hin?</i>	[9]
(35) <i>anu bistara-jo-ga (bodo) baro han.</i>	[10]
(36) <i>anu baro han bistra chunu han.</i>	[11]
(37) <i>ash bodo taato han kayak/jo mas soch thigasus.</i>	[12]
(39) <i>machii poru-jo baski ispai hin.</i>	[13]
(40) <i>puro-jo sam han</i>	[14]
(41) <i>puro-jo khacho han</i>	[15]
(43) <i>Sugeeta Ramashai brabr hin.</i>	[16]
(44) <i>Sugeeta ga Ramashbrabr han.</i>	[17]

Notes

- 1) Though the Shina language does not have any officially recognized writing system, speakers of Shina in Pakistan can somehow write it down either in Arabic or Latin alphabet. See Rajapurohit (2012) for a suggested method of writing with Devanagari scripts for speakers in India.
- 2) See Lorimer (1927), Schmidt (1985), Radloff (1992), and others for dialects of the Shina language. Radloff (1992: 98) has a list of dialects mentioned by major studies on the Shina language. They are *Gilgiti*, *Kuhi*, *Puniali*, *Chilasi*, *Tangiri*, *Dareli*, *Astori*, *Guresi*, *Drasi*, and *Brokskat*.
- 3) Radio Pakistan has a website, and some program recordings are available in Shina. <https://www.radio.gov.pk/> (accessed on August 10, 2023)
- 4) This is a secondary school for girls with about 50 students. The photo in Figure 3 does not show any students because the local culture discourages women from being photographed.
- 5) Summarized by the author. Apparent grammatical errors are corrected. It was meant to be an anonymous survey, but most wrote their names on questionnaire sheets.
- 6) Note that Schmidt and Kohistani (2008) documented the data with diacritics. They are omitted in this paper for simplicity.
- 7) The following abbreviations are used throughout the paper. Upper/lower cases are mostly adopted from the source papers.
AbSp: Ablative Superessive

AI: connecting morpheme *ai*

Comp: comparison marker

Det: dative case marking

Dir: directional particle

E: connecting morpheme *e*

Erg: ergative preposition

Fem: feminine

Gen: genitive case

M: masculine

Prep: default preposition

PERFPPL: perfect participle

pl: plural

sg: singular

TAM: tense-aspect marker

- 8) In their appendix, Beck et al. (2009) have data from Hindi, which should be basically understood as Hindi-Urdu. In this paper, I follow their notation. Note that diacritics are omitted for the purpose of simplification. Number agreements are not mentioned in their original Hindi data.

References

- An, D.-H. (2020) "Reduced NP comparatives in Korean and their implications," *Journal of East Asian Linguistics* 29 (3), 337–364.
- Bailey, T. G. (1924) *Grammar of the Shina (Ṣinā) Language: Consisting of Full Grammar, with Texts and Vocabularies of the Main or Gilgiti Dialect and Briefer Grammars (with Vocabularies and texts) of the Kohistani, Guresi and Drasi dialects*. The Royal Asiatic Society.
- Beck, S., Oda, T. and Sugisaki, K. (2004) "Parametric variation in the semantics of comparison: Japanese vs. English," *Journal of East Asian Linguistics* 13, 289–344.
- Beck, S., Krasikova, S., Fleischer, D., Gergel, R., Hofstetter, S., Savelsberg, C., Vanderelst, J., and Villalta, E. (2009) "Crosslinguistic variation in comparison constructions," *Linguistic Variation Yearbook* 2009, 1–66.
- Bhatt, R. and Takahashi, S. (2008) "When to reduce and when not to: crosslinguistic variation in phrasal comparatives," *GLOW* 2008.
- Biddulph, J. (1880) *Tribes of the Hindoo Koosh*. Karachi: Indus Publication.
- Eberhard, M., Simons, G. and Fennig, C. (eds.) (2023) *Ethnologue: Languages of the World. Twenty-sixth edition*. Dallas, Texas: SIL International. Online version: <http://www.ethnologue.com>.
- Hohaus, V. (2015) *Context and composition*, Ph.D. dissertation, Tübingen University.
- Lorimer, D. L. R. (1927) "The Conjugation of the Transitive Verb in the Principal Dialects of Shina." *Journal of the Royal Asiatic Society of Great Britain and Ireland*, no. 4, 717–64.
- Oda, T. (2020) "Pragmatic Phrasal Comparison in Mandarin Chinese," *Proceedings of the 19th*

- Meeting of the Texas Linguistics Society*, 43-61.
- Oda, T. (2021) Indirect comparisons as a last resort by Interpretive Economy. *Japanese and Korean Linguistics* 28, 1-14.
- Park, S.-Y. (2016) "Arguments for NP-ellipsis in Korean," *Korean Journal of Linguistics* 41, 289-311.
- Rajapurohit, B.B. (2012) *Grammar of Shina Language and Vocabulary (Based on the dialect spoken around Dras)*. Tokyo University of Foreign Studies.
- Radloff, C. F. (1992) "The dialects of Shina," In P. C. Beckstrom and C.F. Radloff (eds.), *Sociolinguistic Survey of Northern Pakistan Volume 2 Languages of Northern Areas*, 89-203.
- Radloff, C. F. (1999) *Aspects of the Sound System of Gilgiti Shina*. National Institute of Pakistan Studies and Summer Institute of Linguistics.
- Schmidt, R.L. and Zarin, M.M. (1981) "The phonology and tonal system of Palas /kohis'tyō: / Shina," *Münchener Studien zur Sprachwissenschaft* 40, 155-185.
- Schmidt, R.L. (1985a) "Morphological criteria for distinguishing categories of transitivity in Shina," *Proceedings of the Conference on Participant Roles: South Asia and Adjacent Areas*, 33-47.
- Schmidt, R.L. (1985b) "Where have the Shina speakers come from? Some linguistic clues," *Journal of Central Asia* 8 (1), 17-26.
- Schmidt, R. and Kohistani, R. (2008) *A grammar of the Shina language of Indus Kohistan*. Wiesbaden: Harrassowitz.
- Stassen, L. (1985) *Comparison and Universal Grammar*. Oxford: Blackwell Publishers.
- von Stechow, A. (1984) "Comparing semantic theories of comparison," *Journal of Semantics* 3, 1-77.

Toshiko Oda
toda@tku.ac.jp