

Constructions for measurement and comparison in Japanese and English

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This study attempts to account for measurement and comparison expressions in Japanese and English in terms of the combined *constructicon* and *lexicon* developed by FrameNet. In English, measurement is expressed by a measurement expression followed by some (not all) ‘neutral’ scalar adjectives indicating the parameter: *2 inches thick*, *5 inches wide*, *6 feet tall*, *3,000 feet high* (but not **3 feet short*, **1,000 feet low*, or **20 kg heavy*, **\$9 expensive*). The corresponding Japanese expressions use nouns indicating the dimension, followed by the measurement: e.g. *nagasa 100 peeji* ‘length 100 pages’. The topic-comment construction is used for describing the dimensions of an object.

- (1) *kono hon wa nagasa hyaku peeji da.* ‘This book is 100 pages long.’
 this book TOP length 100 page COP-NPST

While scalar adjectives behave similarly in Japanese and English, e.g. (2a), significantly different interpretations result when such adjectives are juxtaposed with a measurement expression, e.g. (3).

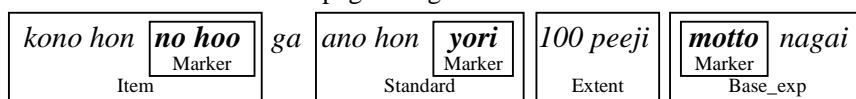
- (2) a. *kono hon wa naga-i.* b. *kono hon wa hyaku peeji da.*
 this book TOP long-NPST 100 page COP-NPST
 ‘This book is long.’ ‘This book is (consists of) 100 pages.’
 (3) *kono hon wa hyaku peeji naga-i.* ‘This book is 100 pages longer.’
 100 page long-NPST

While (2a) translates ‘this book is long’, (3) does not mean ‘this book is 100-page long’. Rather, it renders only ‘this book is 100 pages longer’. The comparison reading is neither a property of the measurement expression itself, cf. (2b), nor of the adjective itself, cf. (2a). Therefore, the comparison reading should be considered a property of the construction, not compositionally derived from the meaning of its component(s). Despite the fact that Japanese comparison constructions have attracted considerable attention in recent years, to our knowledge, this construction has never been discussed in relevant literature.

In FrameNet, the Comparison construction has two types of construction elements (CEs): inner and outer. The inner CEs consist of Marker (e.g. *more*, *-er*) and Base_expression (e.g. *tall*, *fond of grapes*). The construct composed by the two inner CEs evokes the Comparison frame in FrameNet. It has as its frame elements (FEs) Item, Standard, Scale, and Extent. The formal realization of these elements is determined by the construction, e.g. [*She* Item] is [*three feet* Extent] [*taller* Scale] [*than her father* Standard]. The Item and Standard are compared with respect to their values on a Scale (e.g. height, intelligence). The lexical identity of the Marker determines the nature of comparison (greater/less than, equal to).

In Japanese, three comparison Markers are identified:

- (4) *kono hon no hoo ga ano hon yori hyaku peeji motto naga-i.*
 this book GEN side NOM that book than 100 page more long-NPST
 ‘This book is 100 pages longer than that book.’



Any one of the markers is sufficient to evoke the Comparison frame:

- (5) a. *kono hon no hoo ga nagai.* b. *ano hon yori nagai.* c. *motto nagai.*
 ‘This book is longer.’ ‘It’s longer than that book.’ ‘It’s longer.’

As shown in (3), the mere juxtaposition of a measurement and a scalar expression retaining only Extent and Base_expression without any comparison marker nonetheless forces a comparison interpretation. This line of analysis allows us to perspicuously describe similarities and differences between Japanese and English measurement and comparison constructions without an ad hoc stipulation.