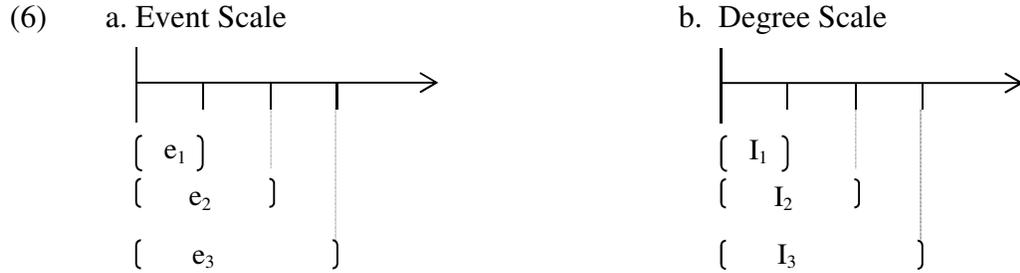


gradable verbs. This analysis is built upon the idea that events can be ordered based on the part-whole relation (<) like degree intervals on a degree scale, as shown below.



(6a) is an event scale consisting of an ordering relation, a dimension (e.g., Zhangsan's running) and events that share the same initial point, like intervals. We define a function, *Extension* (<_{ext}), to captures the relation that holds among events (and intervals) on the scales, as shown below:

(7) e' is an *extension* of e ($e <_{\text{ext}} e'$) iff e' and e share the same starting point and e is a part of e' .

We argue that *yue* is ambiguous between the semantics in (8a) and (8b). When it combines with a VP projection, it creates a set of pairs of situations ordered based on the extension relation of situations (e.g., 9b). When it combines with an adjectival or an adverbial projection, it creates a set of pairs of situations ordered based on the extension relation of degree intervals (e.g., 9d). (2) has the truth-conditions in (10e), which says: for every pair of situations of Zhangsan's running s_1 and s_2 , if s_2 is an extension of s_1 , s_2 is related to speed I_1 ; s_2 is related to speed I_2 ; I_2 is an extension of I_1 .

(8) a. $[[yue]] = \lambda P_{\langle s, t \rangle} \lambda s_1 \lambda s_2 [P(s_1) \wedge P(s_2) \wedge s_1 <_{\text{ext}} s_2]$ Non-gradable
 b. $[[yue]] = \lambda P_{\langle d, \langle s, t \rangle \rangle} \lambda s_1 \lambda s_2 \exists I_1 I_2 [P(I_1)(s_1) \wedge P(I_2)(s_2) \wedge I_1 <_{\text{ext}} I_2]$ Gradable

(9) a. $[[pao]] = \lambda x_e \lambda s_s \text{run}(x)(s)$
 b. $[[yue_1 \text{ Zhangsan } pao]] = \lambda s_1 \lambda s_2 [\text{run}(\text{Zhangsan})(s_1) \wedge \text{run}(\text{Zhangsan})(s_2) \wedge s_1 <_{\text{ext}} s_2]$
 c. $[[kuai]] = \lambda I_d \lambda s_s \text{fast}(I)(s)$
 d. $[[yue_2 \text{ kuai}]] = \lambda s_1 \lambda s_2 \exists I_1 I_2 [\text{fast}(I_1)(s_1) \wedge \text{fast}(I_2)(s_2) \wedge I_1 <_{\text{ext}} I_2]$
 e. $[[\forall \text{ Zhangsan } yue \text{ pao } yue \text{ kuai}]] = \forall s_1 s_2 [\text{run}(\text{Zhangsan})(s_1) \wedge \text{run}(\text{Zhangsan})(s_2) \wedge s_1 <_{\text{ext}} s_2] \rightarrow \exists I_1 I_2 [\text{fast}(I_1)(s_1) \wedge \text{fast}(I_2)(s_2) \wedge I_1 <_{\text{ext}} I_2]$

Our analysis predicts that in the iterative comparative the VP following *yue₁* must have cumulative reference, as the property it denotes holds for situations that stand in a part-whole relation. This prediction is indeed borne out. The example in (10) shows that a transitive verb cannot take a 'quantized' object, such as 3 apples.

(10) Zhangsan yue chi [√] pingguo/* san ge pingguo, yue gaoxing.
 eat apple 3 cl apple happy
 'Zhangsan becomes happier and happier.'

References: Li & Carlos (2011), the semantics of *yue...yue* in Mandarin Chinese, Proceedings of the 22nd North American Conference on Chinese Linguistics (NACCL-22).