This study investigates the prosody of Contrastive Topic (CT) in Korean, with reference to findings on CT prosody in Japanese. CT is defined as a phrase denoting what the question being addressed is about but at the same time implies other questions about different topics (Constant 2014). According to Lee (2006), CT is marked morphologically and prosodically in Korean: CT is followed by the particle -NUN, which also marks non-contrastive Topic in Korean, and is realized with a high accent ((L)H* or L+H*L-H%). CT has been discussed in relation to non-contrastive Topic (T) and Focus (F); Lee (2006) argues that Korean CT has a prosodic pattern distinct from T and F. The present study conducted an experiment to examine these observations about CT in Korean. It specifically investigated the prosody of CT not only on the target word, but in the global pitch contour. The results showed that on the target word, CT is prosodically distinct from both F and T, but showed a bigger difference with F than T. CT was found to be realized as L+H*L% accent. The global pitch contour of CT and F were similar in that both showed post-peak compression on the following prosodic word (pwd), consistent with Tomioka’s (2010) finding that both CT and F exhibit post-peak compression in Japanese.

Five native speakers (three males, two females) of Seoul Korean participated in a judgment-production experiment. In each trial, a question-answer pair appeared on the computer screen. Participants were asked to judge whether a given answer was acceptable or not considering the question. After judgment, the recording was conducted. There were three target conditions in the experiment: CT, T, and F. All of these conditions had the corresponding information structure (IS) categories in the subject of the answer sentence (i.e., sentence-initially). CT and T were followed by F, while F was followed by a given element already mentioned in the question. Below is an example QA pair eliciting CT (with A given in English).

(1) Minsu, Ian, and Taehyun, who are friends of A and B, are going shopping this weekend.
    A: What would Minsu buy?
    B: (I don’t know, but) Iani-nun kapang-ul sa-l kes kath-a
       Iani-TOP bag-ACC buy-might-DCL
       ‘Ian might buy a bag.’

All of the sentence stimuli appeared in two variants, one with the particle -nun and one without it. For each participant, 162 trials were recorded (12 for CT, 3 for each F and T, 9 fillers × 2 with/without particle × 3 repetitions = 162 trials). Measurements were conducted on the height and number of peaks and duration of the target word. The duration was measured in three regions, total target word (IS word+particle), IS word, and particle. Regarding F0 change over the utterance, the max F0 difference was calculated between pwd1 and pwd2 and between pwd2 and pwd3.

Figure 1 F0 contour of the target word. The middle line represents the mean F0 value, and the shaded area represents mean ± 1.96 × standard error. The figure is based on the average of five speakers’ data, with F0 shifted to 0 at the beginning of the target word.
The target word analyses found a significant difference between CT and F in the height and number of peaks and all duration measurements (total, IS word, particle), and CT and T in the number of peaks and the durations of total word and IS word. A mixed-effects linear regression found a significant main effect of IS category in the height of the peak ($\chi^2(1, N=427) = 28.74, p < 0.001$). Post-hoc comparisons showed that the peak height is higher in F than in CT and T (all $ps < 0.001$), but there was no significant difference between the two Topic conditions ($p > 0.05$). The number of peaks in the target word was also different in that, in the with-particle condition, F exclusively had one peak, T had either one or two peaks, and CT was in between these cases, having usually one peak but some two peak trials. In the without-particle condition, CT mostly had a single peak. With respect to duration, the durations of the total target word and IS word were significantly different in all conditions, showing T > CT > F (all $ps < 0.001$). However, with the particle, a significant difference was found only between CT/T and F, showing CT/T > F (all $ps < 0.001$).

![Figure 2](image-url) Schematic representation of the global F0 contours of the three target conditions. For each pwd, the initial, max, and end F0 values were measured. The mean F0 of the initial five samples was used as the start value, and the mean F0 of the last five samples was used as the end value in each pwd. The figure is based on all speakers’ data and includes both with- and without-particle conditions.

Analyses of the F0 contour of the entire sentence found that CT constrains the peak of the following pwd, like Focus. Between pwd1 and pwd2, the difference between the peaks was largest in F, second largest in CT, and smallest in T (all $ps < 0.001$). In condition F, F (pwd1) was followed by a given element (pwd2), and the peak of the pwd2 was significantly compressed compared to the peak of the pwd1. In condition T and CT, both were identically followed by F (pwd2), but this F was realized differently; F following T was realized with a high peak, while F following CT did not show this property. Further comparison between the peaks in pwd2 and pwd3 showed a significant difference between condition T and CT ($p < 0.001$). In condition T, the peak of the given element in pwd3 was compressed following the F in pwd2, yet in condition CT, since the F in the pwd2 was not realized with a high peak, the given element in pwd3 did not show compression. The results showed that CT in pwd1 constrains the realization of F in pwd2, and as the pwd2 is not realized as F, the peak of the pwd3 is not compressed.

In sum, the results showed that on the target word, Korean CT is more similar to T than to F. In contrast, over the global F0 contour, CT patterns similarly to F, influencing the peak of the following pwd. The results on the target word are consistent with Lee (2006), who maintained that CT has a distinct prosody; however CT was realized as L+H*L%, rather than (L)H*$ or L+H*L-H% argued for in Lee (2006). The results for the global contour show post-peak compression for both CT and F, matching what Tomioka (2010) found for Japanese. Overall, these results show that the dual semantic properties of CT are manifested in its prosodic realization. On the target word, CT shows a prosodic pattern similar to T, while in its global contour, it patterns similarly to F.
References
