The Typology of Anti-Causatives Denoting Externally Caused Event from the Viewpoint of the Voice-Bundling Parameter: Evidence from Japanese Anti-Causatives

**Background:** Alexiadou, Anagnostopoulou and Schäfer (2006) observe a typological difference in the availability of anti-causatives denoting externally caused event (e.g. *destroy*) between English and Greek: English does not allow the anti-causative of *destroy*, whereas Greek allows that of *katastrefo* ‘destroy’, as in (1). Although the morphology (i.e. *Nact* in (1b)) of the anti-causative and the passive of *katastrefo* are indistinct in Greek, they can be distinguished by the occurrence of causer PPs. Because passives do not allow causer PPs, *katastrafike* in (1b), which occurs with a causer PP, is considered an anti-causative.

**Purpose:** The purpose of this paper is to show that this typological difference follows from the Voice-Bundling (VB) parameter (Pylkkänen (2008)). Pylkkänen assumes that Voice is the head introducing an external argument and Cause is the head introducing causing event. Voice and Cause are bundled together in English (VB), as in (2a), whereas they are separated in Japanese (Non-Voice-Bundling (non-VB)), as in (3a). I propose that Greek also employs non-VB. This parameter explains the cross-linguistic difference in (1). Because *destroy* and *katastrefo* denote externally caused event, their causing event must be syntactically represented by Cause. In English, Cause is combined with Voice, so *destroy* requires an external argument. In Greek, on the other hand, Cause is independent of Voice, so *katastrefo* does not necessarily require an external argument. Hence the contrast in (1).

**Prediction:** The VB parameter allows us to predict that Japanese, which employs non-VB, also has anti-causative counterparts of transitives denoting externally caused event such as *hakaisuru* ‘destroy’. This prediction is confirmed by the following three pieces of evidence.

**Evidence:** I assume that *hakaisar eru* ‘destroy-Sareru’, which includes the morphology *Sareru*, is ambiguous between the anti-causative and passive, in parallel fashion with Greek (as well as Albanian and Latin (Kalluli (2007))). Assuming this isomorphism, the first piece of evidence comes from the compatibility of *hakaisar eru* with a causer PP. Observe the examples in (4) and (5). The anti-causative *kowareru* ‘break’ is compatible with a causer PP, as in (4a), whereas the passive *kowasareru* ‘be broken’ is not, as in (4b). The compatibility of *hakaisar eru* with a causer PP in (5) is in parallel with the Greek anti-causative in (1b).

Second, the pro-form *sonaru* ‘become so’, which is an anaphor of an intransitive verb (Himeno (2001)), can replace the verb *hakaisar eru*, as in (6a). The sentence in (6b), on the other hand, shows that this verb cannot be replaced with the pro-form *sosar eru*, which is an anaphor of a passive verb.

Third, *hakaisar eru* can occur in a sentence that indicates causality. In English and Japanese, anti-causatives but not passives can appear in such a sentence, as in (7). The verb *hakaisar eru*, on the other hand, is compatible with such a sentence, as in (8). All the evidence shows that *hakaisar eru*, though isomorphic with a passive, can be an anti-causative.

**Consequence:** It is well known that anti-causative formation in Japanese is freer than that in English (Kageyama (1996)). For example, the verb *plant* lacks an anti-causative counterpart in English, but *ueru* ‘plant (causative)’ has one in Japanese (*uwaru* ‘plant (anti-causative)’). This cross-linguistic difference can be attributed to the different settings of the VB parameter.
a. * The manuscript destroyed.

b. To hirografo katastrafike apo / me tin pirkagia
   the manuscript destroyed-Nact by / with the fire
   ‘The manuscript got destroyed by the fire’

(Schäfer (2008))

(2)

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<th>Anti-causative</th>
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<td>a.</td>
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<td>x</td>
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<td>[Voice, Cause] VP</td>
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<td>Voice Cause VP</td>
<td>(Non-Voice Bundling)</td>
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(4) a. Kabin-ga zisinde wareta
   vase-NOM from the earthquake break-PAST
   ‘The vase broke from the earthquake’

b. ?? Kabin-ga zisinde kowasareta
   vase-NOM from the earthquake break-PASS-PAST
   ‘The vase was broken by the earthquake’

(5) Tatemono-ga zisinde hakaisareta
   building-NOM from the earthquake destroy-Sareru-PAST
   ‘The building was destroyed by the earthquake’

(6) a. Gakkoga zisinde hakaisare, byoinmo zisinde sonatta.
   ‘The school got destroyed by the earthquake, and the school did so, too’

b. * Gakkoga zisinde hakaisare, byoinmo zisinde sosareta.
   ‘The school was destroyed by the earthquake, and so was the hospital’

(7) a. The vase fell onto the floor and it { broke / *was broken }.

b. Kablinga yukani otite { wareta / *warareta }/
   ‘the vase fell onto the floor and it { broke / was broken }’

(8) Kurumaga tanizokoni otite hakaisareta.
   ‘the car fell to the bottom of a ravine and it got destroyed’