Investigating the source of the passive ellipsis clause penalty in VP ellipsis

Previous research on VP ellipsis (VPE) has revealed a mismatch asymmetry [1]. When the voice of the elided VP does not match that of the antecedent, ellipsis of a passive VP (1d) is less acceptable than that of an active VP (1c). However, recent studies [2,3] found that this asymmetry is not only limited to the mismatch case, but also when the antecedent and elided VPs match in their voices (1a-b). They suggested that there is a general passive ellipsis clause penalty (PECP) instead of the mismatch asymmetry. [2] attributed the PECP to the clash between the **information-structural** properties of passive and elliptical constructions: while VPE requires the VP meaning (*was read by the judge* in 1c) to be topical, the passive construction indicates that the remnant subject (*the confession*) is topical. As VPE and passive voice require different things to be topical, the acceptability of passive ellipsis worsens.

We suggest that there is another possible account: the PECP roots from the **syntactic** difference between the passive and the active. Certain theories of ellipsis licensing [5,6] posit a focus condition, which states that VPE is licensed only if there is an antecedent VP whose meaning matches that of the elided VP. Crucially, the focus condition requires the patient arguments of the verbs (*the confession* in (1b,d), elided in (1a,c)) in both VPs to match in meaning, unless one of them is focused. In order for the elided VP to pass the focus condition, the object must be present in it to be available for inspection in the first place. While an active VP contains its object, a passive VP doesn't, as the object has moved out from it. Thus, a passive elided VP needs to have its patient argument (*the confession* in (1b,d)) reconstructed into its VP-internal position for the VP to meet the focus condition, while an active VP meets the focus condition without such reconstruction. This reconstruction incurs processing cost for passive ellipsis regardless of the antecedent voice, and may worsen the acceptability judgement, leading to the PECP. Disentangling the two accounts is crucial for understanding to what extent pragmatics and syntactic structure play a role in interpreting ellipsis.

Predictions To distinguish the two accounts, we vary the syntactic complexity of (1) and see if the acceptability of VPE is affected. Specifically, we removed the by-phrase of the antecedent, resulting in the items in (2). As the conflict between the topicality requirements of passive and elliptical constructions persists, by-phrase removal should not affect acceptability if the PECP can be fully explained by the conflict. The syntactic account predicts that an active ellipsis with an passive antecedent (2c) degrades with the by-phrase removal, as the remnant subject of the elided VP (*the lawyer*) has no correspondent in the antecedent sentence, preventing the antecedent and elided VPs from appropriately contrasting, failing the focus condition.

Experiment (N = 40) We conducted a 5-point scale acceptability judgment task as in Exp.1 of [2]. We modified the stimuli from Exp.1 to obtain [2], such that the by-phrases in the VP antecedent in their stimuli were removed. This resulted in a 2 x 2 design that manipulates the voice of the elided VP (active vs. passive) and whether the antecedent and elided VPs match in voice (match vs. mismatch). The raw acceptability score was analyzed in a cumulative Bayesian regression model with weakly informative priors and a maximal random structure. Figure 1 plots the results of our experiments and Exp.1 from [2]. There was a main effect of voice mismatch (95% CrI = [2.50,3.92]), and an interaction effect between mismatch and ellipsis voice (95% CrI = [0.07,1.48]). Nested analyses provided no evidence for an effect of ellipsis voice within the match (95% CrI = [-0.12,1.13]) and the mismatch conditions (95% CrI = [-0.92, 0.37]). This shows that while voice mismatch worsens the acceptability as shown in previous studies, the passive ellipsis penalty disappeared after removing the by-phrase. Our findings suggest that syntactic complexity plays a role in PECP, and deny a pure information-structural account. To see whether pragmatic factors play a role in PECP, ongoing experiments further test the interaction between the removal of the by-phrase and the effect of presupposition triggers as reported in mismatch asymmetry [1],

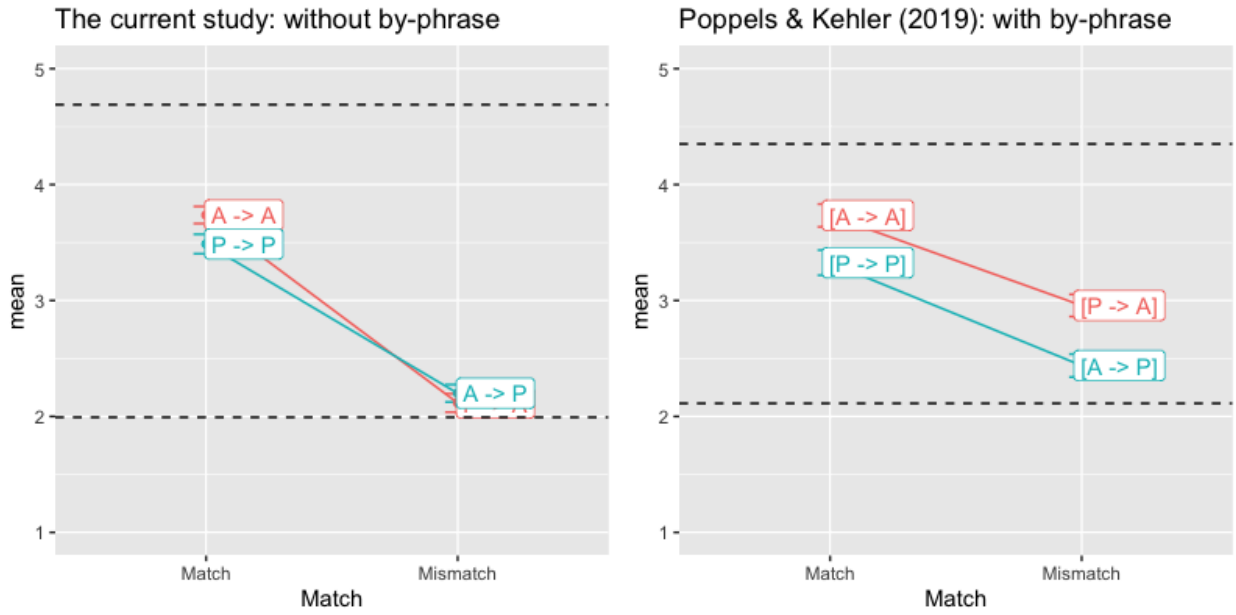
(1) Mismatch asymmetry (stimuli in Poppels and Kehler (2019))

a. The judge read the report first, and then the lawyer did too. [active, match]
b. The report was first read by the judge, and then the confession was too. [passive, match]
c. The report was first read by the judge, and then the lawyer did too. [active, mismatch]
d. The judge read the report first, and then the confession was too. [passive, mismatch]

(2) Our stimuli

a. The judge read the report first, and then the lawyer did too. [active, match]
b. The report was read first, and then the confession was too. [passive, match]
c. The report was read first, and then the lawyer did too. [active, mismatch]
d. The judge read the report first, and then the confession was too. [passive, mismatch]

Figure 1. Raw acceptability score in the current study and Poppels & Kehler (2019; Exp.1). [A->A] refers to the active antecedent - active ellipsis condition, and so on. The dashed lines indicate the average acceptability scores in upper bound and lower bound fillers.



References. [1] Arregui et al. 2006. *JML*. [2] Poppels & Kehler. 2019. *Glossa.* [3] Clifton et al. 2019. *Journal of Psycholing Res*. [4] Levy, R. 2008. *Cognition* [5] Rooth, M. 1992. *Natural Lang. Sem.* [6] Tancredi. 1992. *MIT diss.*