

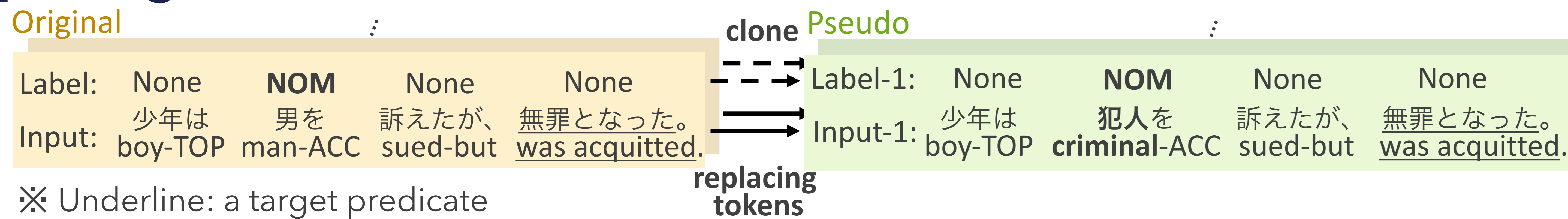
An Empirical Study of Contextual Data Augmentation for Japanese Zero Anaphora Resolution

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Summary

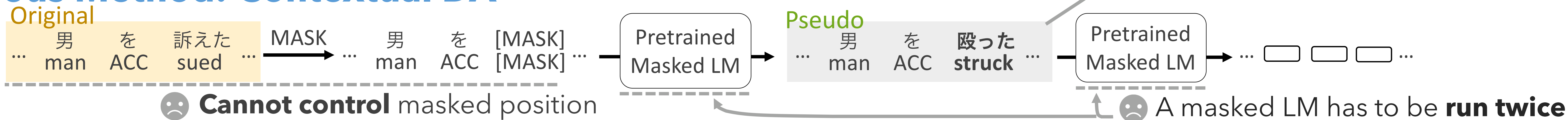
- We proposed **data augmentation (DA)** for **zero anaphora resolution (ZAR)**
- We augmented labeled data by **replacing tokens** using language model (LM)
- We **improved the performance of ZAR** and **analyzed the phenomenon** in DA

Background



※ Underline: a target predicate

Previous Method: Contextual DA



Proposed Method: MASKING



Results and analysis

① MASKING improved the performance

Table1: F1 score of ZAR on test set

Model	ALL	NOM	ACC	DAT
Matsubayashi&Inui'18	55.55	57.99	48.9	23
BASELINE	63.89	66.45	57.2	27
Contextual DA	63.87	66.16	58.5	29
MASKING (all-but-verb)	64.15	66.60	57.9	29

② Masking all POS categories except for verb is the best score

Table2: F1 score on dev set

Model (Masking target)	ZAR
BASELINE	64.08
All POS	64.89
Only verb	64.15
All POS except for verb	65.02

③ Masking verb may produce the bad instance

