True Referring Segmentation Data: refCOCO(+/g)



A man in a green shirt on the left elephant



A brown and black bird perching

LLM-based Augmentation



A cat on the chair

(a) Augmented false-premise expression containing similar objects, attributes or relations

An orangutan in a green shirt on the left elephant

A man in a green shirt **under** the left elephant

A **yellow and red** bird perching

A brown and black **bear** perching

A cat below the chair

A dog on the desk

(b) Prior non-LLM Augmentation: Randomly sample instances and sentences from COCO

An mug in a green shirt on the left elephant

A giraffe eating together

A pink and blue bird perching

A brown and black plate on the table

A cat behind the people

A pizza on the chair