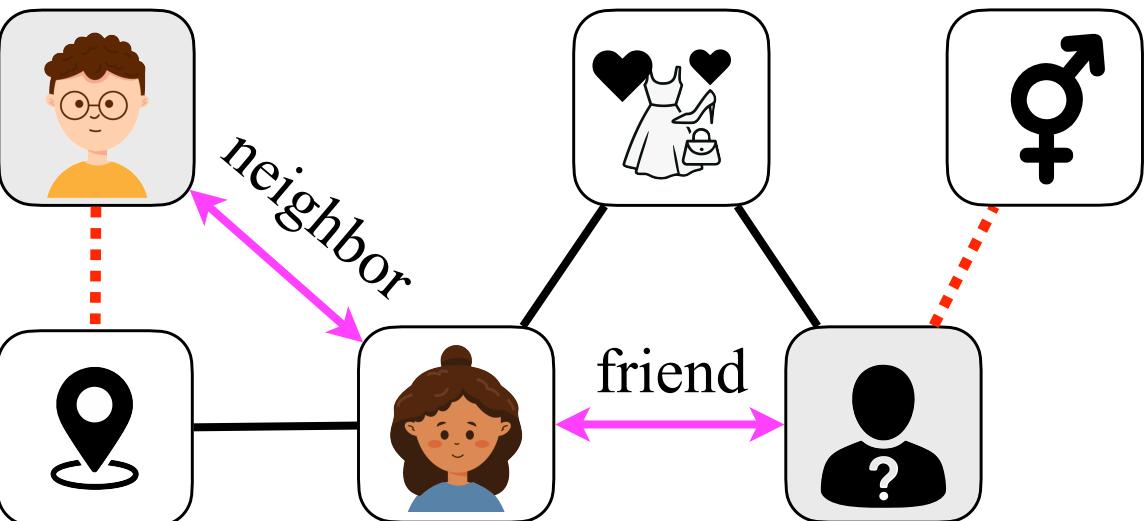
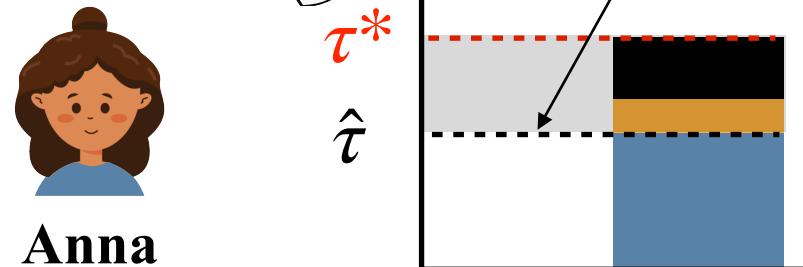


How much the delivery of a fashion show video increase the user engagement time ?

a) Missing-data Scenario

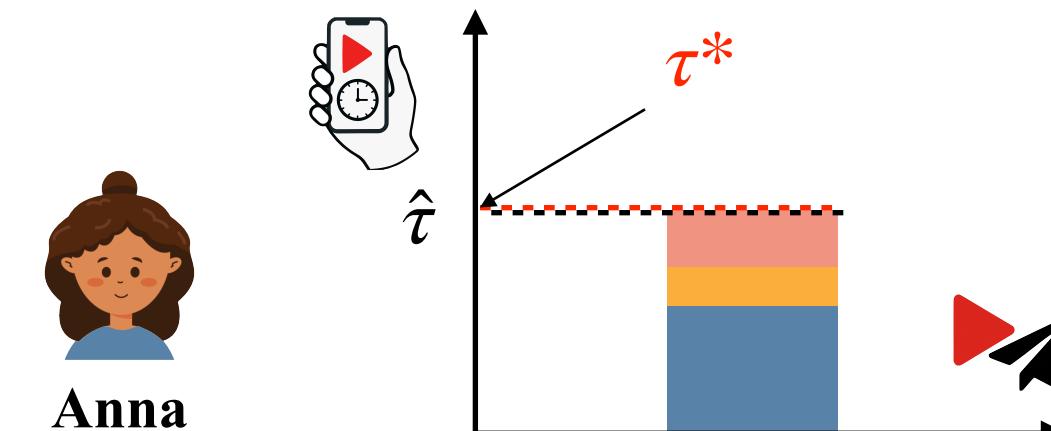
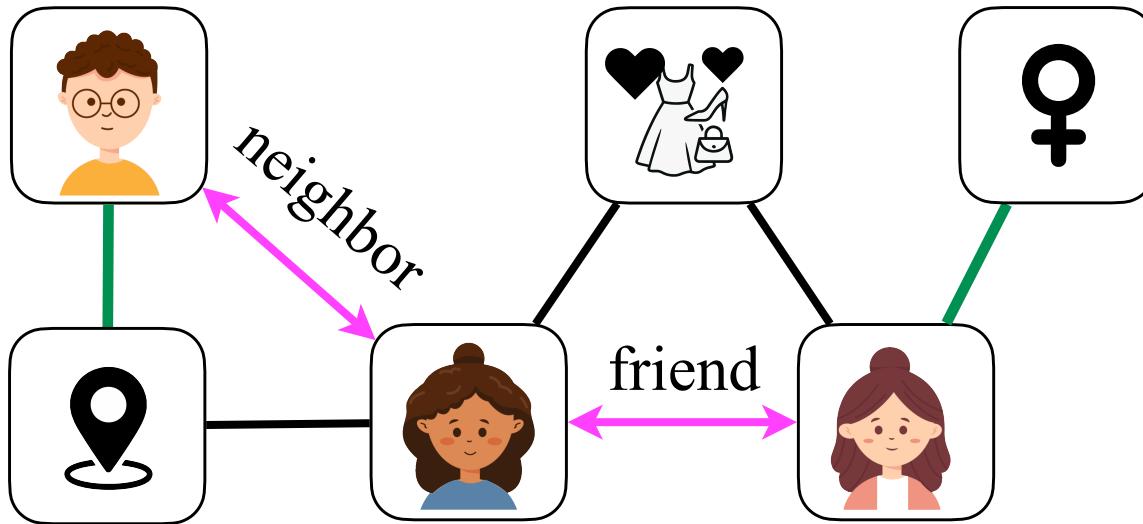


Underestimated Treatment Effect



Anna

b) After Data Imputation



Anna

 Relationships

 Observed Attributes

 Missing Attributes

 Imputed Attributes

 Excluded User due to Missing Attributes

 Treatment

 Outcome

 τ^* Ground Truth Treatment Effect

 $\hat{\tau}$ Estimated Treatment Effect