All this information is available in Github.[1].

A Templates used in SATORI

In the following we present all the templates that we use in our experiments.

A.1 Templates to prompt the language model

To generate the prompts for BERT we use the following templates:

CountryBordersWithCountry:
    {subject} shares border with [MASK].
CountryOfficialLanguage:
    The official language of {subject} is [MASK].
StateSharesBorderState:
    {subject} shares border with [MASK] state.
RiverBasinsCountry:
    {subject} river basins in [MASK].
ChemicalCompoundElement:
    {subject} consists of [MASK], which is an element.
PersonLanguage:
    {subject} speaks in [MASK].
PersonProfession:
    {subject} is a [MASK] by profession.
PersonInstrument:
    {subject} plays [MASK], which is an instrument.
PersonEmployer:
    {subject} is an employer at [MASK], which is a company.
PersonPlaceOfDeath:
    {subject} died at [MASK].
PersonCauseOfDeath:
    {subject} died due to [MASK].
CompanyParentOrganization:
    The parent organization of {subject} is [MASK].

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[1] https://github.com/satori2023/Textual-Entailment-for-Effective-Triple-Validation-in-Object-Prediction

A.2 Templates to generate search engine queries

To generate queries for duckduckgo search engine we use the following templates:

CountryBordersWithCountry:
    {subject} shares a land border with
CountryOfficialLanguage:
    {subject} official language
StateSharesBorderState:
    {subject} shares borders with
RiverBasinsCountry:
    {subject} country basins
ChemicalCompoundElement:
    {subject} elements
PersonLanguage:
    {subject} languages spoken
PersonProfession:
    {subject} profession
PersonInstrument:
    {subject} plays instrument
PersonEmployer:
    {subject} employer
PersonPlaceOfDeath:
    {subject} place of death
PersonCauseOfDeath:
    {subject} cause of death
CompanyParentOrganization:
    {subject} 's parent organization

A.3 Templates to generate hypotheses

To generate hypotheses in entailment validation we use the templates below:

CountryBordersWithCountry:
    {subject} shares a land border with {candidate}
CountryOfficialLanguage:
    {subject} official language is {candidate}
StateSharesBorderState:
    {subject} shares borders with {candidate}
RiverBasinsCountry:
    {subject} river basins {candidate}
ChemicalCompoundElement:
    {subject} consists of {candidate}
PersonLanguage:
    {subject} speaks {candidate}
PersonProfession:
    {subject} is a {candidate}
PersonInstrument:
    {subject} plays {candidate}
PersonEmployer:
    {subject} 's employer is {candidate}
PersonPlaceOfDeath:
    {subject} 's place of death is {candidate}
PersonCauseOfDeath:
    {subject} 's cause of death is {candidate}
CompanyParentOrganization:
    {subject} 's parent organization is {candidate}

A.4 Templates to generate questions

To generate questions for QA we use the following templates:

CountryBordersWithCountry:
    What country borders with {subject}?
CountryOfficialLanguage:
    What official language of {subject}?
StateSharesBorderState:
    What state shares borders with {subject}?
RiverBasinsCountry:
    What countries in basin of {subject}?
ChemicalCompoundElement:
    What chemical elements of {subject}?
PersonLanguage:
    What languages speak {subject}?
PersonProfession:
    What is the profession of {subject}?
PersonInstrument:
    What instruments plays {subject}?
PersonEmployer:
    What company employs {subject}?
PersonPlaceOfDeath:
    Where did {subject} die?
PersonCauseOfDeath:
    What is the cause of death of {subject}?
CompanyParentOrganization:
    What is the parent organization of {subject}?

B   Mappings used for REBEL

In the following we present all the mappings between LMKBC22 dataset relations and relations extracted by the pretrained REBEL model.

CountryBordersWithCountry:
   shares border with
CountryOfficialLanguage:
   language used
StateSharesBorderState:
   shares border with
RiverBasinsCountry:
   basin country
ChemicalCompoundElement:
   has part
PersonLanguage:
   language used
PersonProfession:
   occupation
PersonInstrument:
   instrument
PersonEmployer:
   employer
PersonPlaceOfDeath:
   place of death
CompanyParentOrganization:
   parent organization
PersonCauseOfDeath: