1 Entailment

1.1 sim:Marge rdf:type foaf:Person

1. fam:hasSpouse rdfs:domain foaf:Person — P
2. sim:Marge fam:hasSpouse sim:Homer — P
3. sim:Marge rdf:type foaf:Person — rdfs2, 1, 2

1.2 fam:hasSister rdfs:subPropertyOf fam:isRelativeOf

1. fam:hasSister rdfs:subPropertyOf fam:hasSibling — P
2. fam:hasSibling rdfs:subPropertyOf fam:isRelativeOf — P
3. fam:hasSister rdfs:subPropertyOf fam:isRelativeOf — rdfs5, 1, 2

1.3 sim:Marge rdf:type fam:Woman

Marge is only referred to as being a spouse and having a spouse. Like we saw in 1.1 this makes her a Person but we can not know if this person is a Woman.

1.4 sim:Herb rdf:type fam:Man

1. [ ] fam:hasBrother sim:Herb — P
2. fam:hasBrother rdfs:range fam:Man — P
3. sim:Herb rdf:type fam:Man — rdfs3, 1, 2

1.5 sim:Lisa fam:isRelativeOf sim:Homer

1. sim:Lisa fam:hasFather sim:Homer — P
2. fam:hasFather rdfs:subPropertyOf fam:hasParent — P
3. fam:hasParent rdfs:subPropertyOf fam:isRelativeOf — P
4. fam:hasFather rfds:subPropertyOf fam:isRelativeOf — rdfs5, 2, 3
5. sim:Lisa fam:isRelativeOf sim:Homer — rdfs7, 1, 4

1.6 sim:Lisa fam:hasMother sim:Marge

There does not seem to be a way to connect Lisa to Marge. Lisa has a blanknode parent but there is no way to verify that this is Marge

1.7 sim:Patty rdf:type foaf:Person

1. [ ] fam:hasSister sim:Patty — P
2. fam:hasSister rdfs:subPropertyOf fam:hasSibling — P
3. fam:hasSibling rdfs:subPropertyOf fam:isRelativeOf — P
4. fam:hasSister rdfs:subPropertyOf fam:isRelativeOf — rdfs5, 2 , 3
5. [ ] fam:isRelativeOf sim:Patty — rdfs7, 1, 4
6. fam:isRelativeOf rdfs:range foaf:Person — P
7. sim:Patty rdf:type foaf:Person — rdfs3, 5, 6