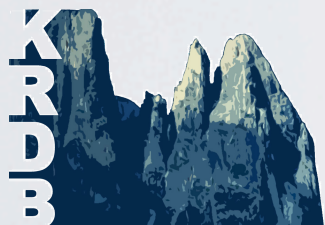




QUELO

a general purpose agent to deal with the CMC

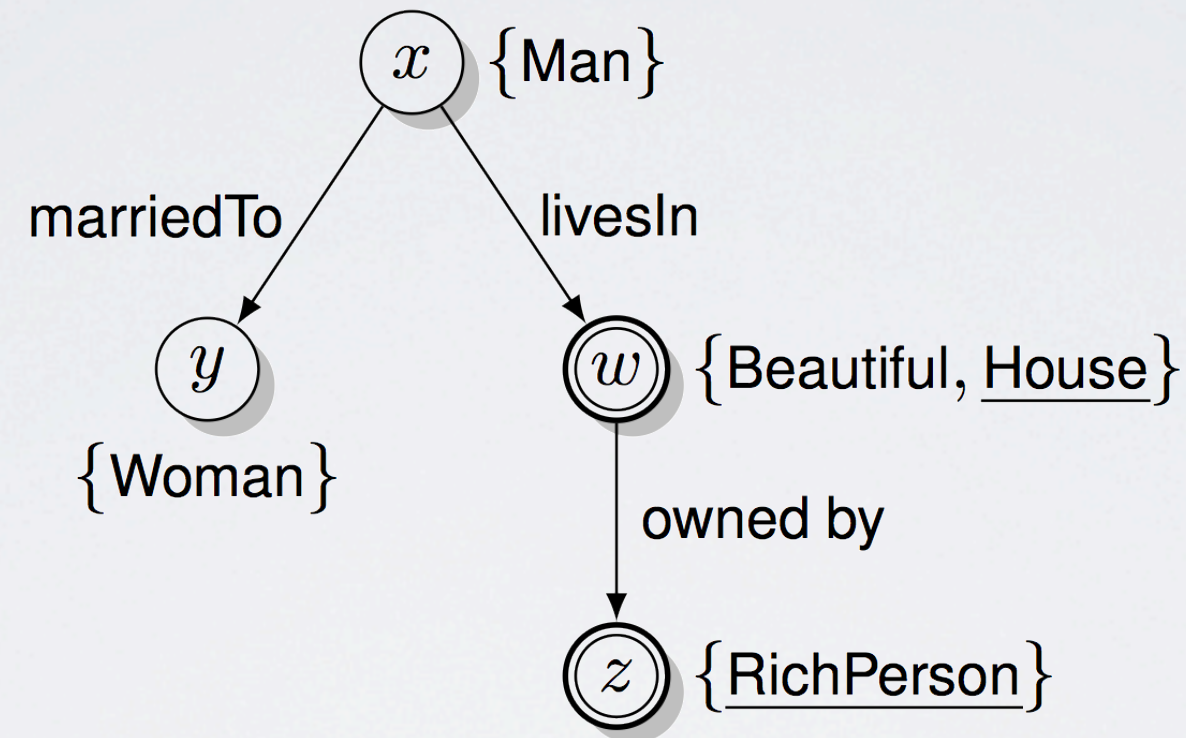


Enrico Franconi, Paolo Guagliardo, Marco Trevisan (Free University of Bozen-Bolzano, Italy)

THE BIG PICTURE

- Which logical language
 - $\{\exists, \wedge\}$
 - theory of **contextual knowledge**
- Which HCI functionality
 - manipulate logical form
 - independent on realisation of CNL
- Which CNL
 - *corpus* from logical forms to devise a general grammar
 - general corpus of relations
 - lexicon from contextual knowledge
 - non-linguistic clues (still linear)
 - generation of phrases
 - coherence at discourse level
 - distinct realisations

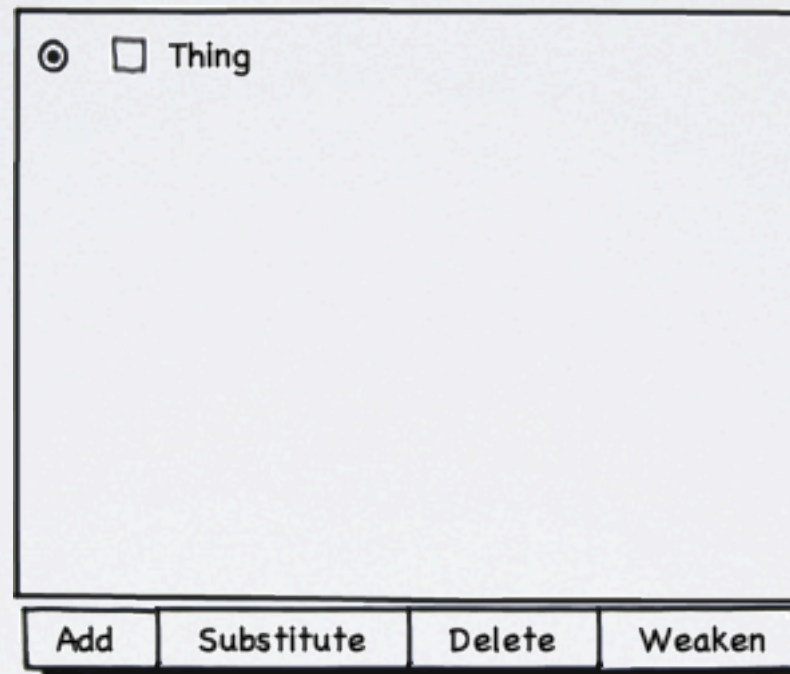
THE LOGIC LANGUAGE: $\{\exists, \wedge\}$



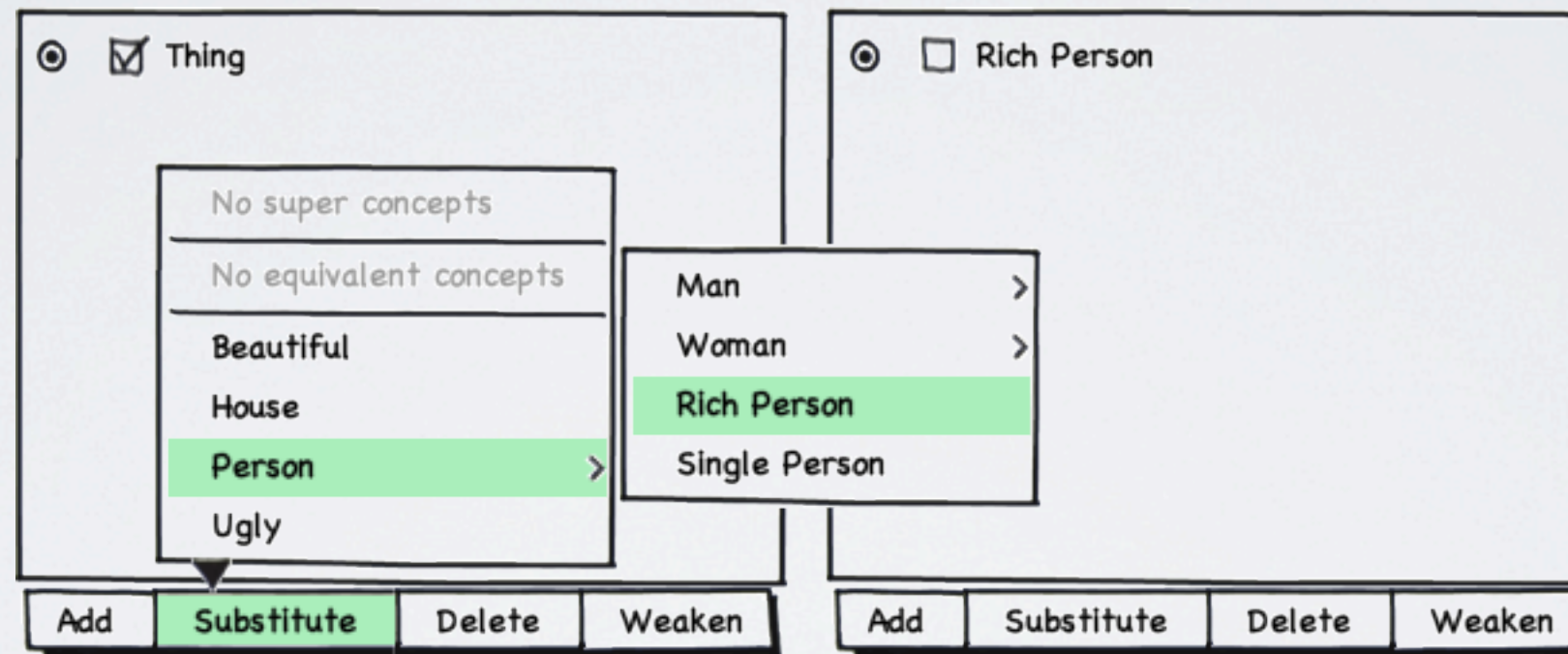
$\exists x, y, w, z. \text{Man}(x) \wedge \text{marriedTo}(x, y) \wedge \text{Woman}(y) \wedge \text{livesIn}(x, w)$
 $\wedge \text{Beautiful}(w) \wedge \text{House}(w) \wedge \text{ownedBy}(w, z) \wedge \text{RichPerson}(z)$

(Tell me about) a man who is married to a woman, and living in a beautiful house owned by a rich person.
Tell me the place where he is living and who is owning it.

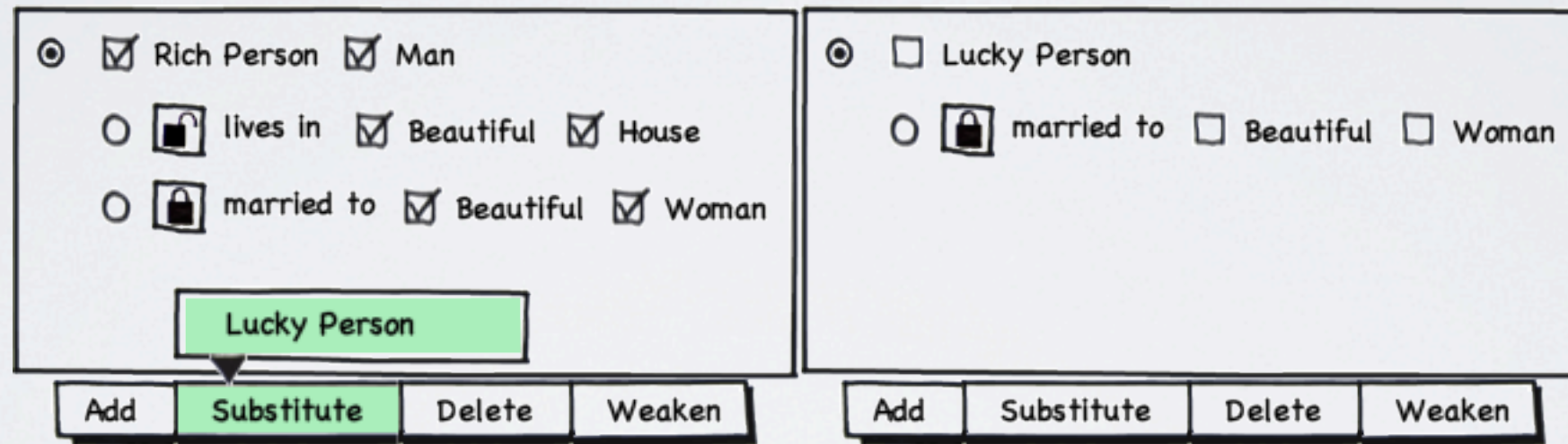
ABSTRACT FUNCTIONALITIES



SUBSTITUTE



STICKY PATH



ADD - CONCEPT

Rich Person

Beautiful
Man
Woman
Single Person
Ugly

lives in House
married to Person >

Add Substitute Delete Weaken

Rich Person Single Person

Add Substitute Delete Weaken

ADD - RELATION

Rich Person Single Person

Beautiful
Man
Woman
Ugly

lives in House

Add Substitute Delete Weaken

Rich Person Single Person

lives in House

Add Substitute Delete Weaken

WEAKEN

Rich Person Man

lives in House

married to Beautiful Woman

Add Substitute Delete Weaken

Man

lives in Thing

married to Woman

Add Substitute Delete Weaken

DELETE

Rich Person Man

lives in House

married to Beautiful Woman

Add Substitute **Delete** Weaken

Man

married to Woman

Add Substitute Delete Weaken