

L5 OWL continues

Transitive property

$\text{mr}(\text{hasMaker}(a, b))$   
 $\text{producesLine}(b, c)$

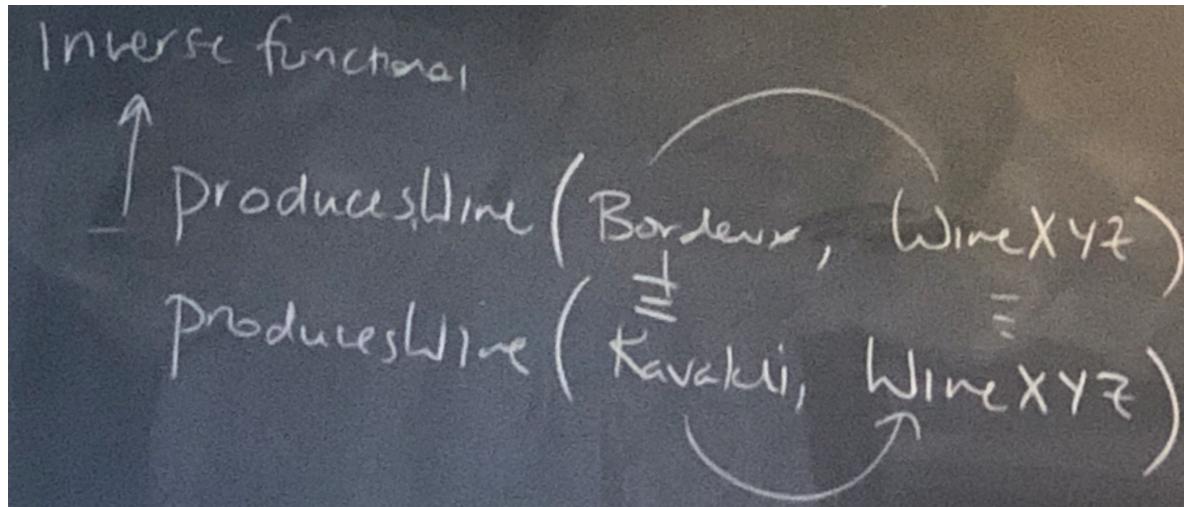
Symmetric property

$\text{hasCourseId}(\text{Inte Agent}, \text{IAG})$   
 $\text{hasCourseId}(\text{Inte Agent}, \text{IAG2})$   
 $\text{IAG} = \text{IAG2}$

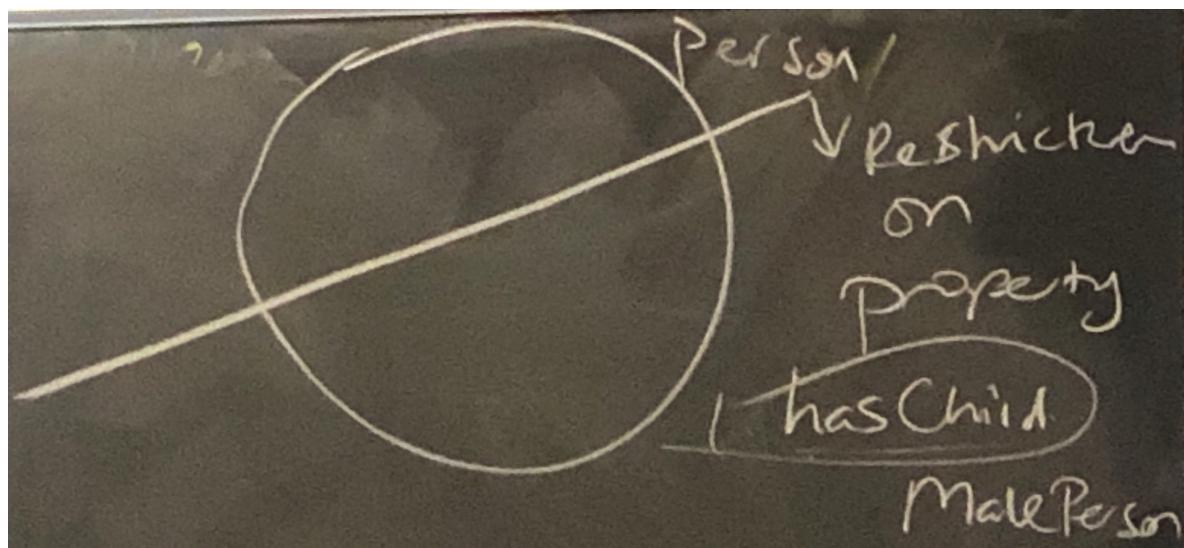
Functional property

$\text{hasCourseId}(\text{Inte Agent}, \text{IAG})$   
 $\text{hasCourseId}(\text{Inte Agent}, \text{IAG2})$   
 $\text{IAG} = \text{IAG2}$

Inverse functional property



Restriction



Restriction example

inv( hasMaker (c, b) Wine ⊑ PotableLiquor T ) { LocatedInRegion }

producesWine (b, a)

Example: White wine

(curly brackets as "White" is not a class, we are enumerating a set with the curly braces and "White" is the only element in that set in this example; also, set has to be always defined, be it a class or not)

$\text{White Wine} \equiv \text{Wine} \cap \text{HasColor}\{\text{White}\}$

Example: All wines

$\text{Wine} \subseteq \text{HasColor}\{\text{White}\}$

Example: Non-sweet white wine

$\text{White Non Sweet Wine} \equiv \text{White Wine} \cap \text{HasSugar.}\{\text{Dry, Off Dry}\}$

Example: Zinfandel

Made from 1 grape from set of (zinfandelgrape)

$\text{Wine} \cap \subseteq 1 \text{ madeFromGrape.}\{\text{Zinfandel(Grape)}\}$

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I left the lecture at this point so no more pictures for L5