I am intrigued by the abstract formulation of 'language' as a set of symbols and rules that allow us to communicate and reason about the world or specific aspects of it. One of my other classes (theory of computation) is also starting with an abstract look at language, albeit from the perspective of trying to understand computation and derive computing machines.

From Wednesday's class, I was somewhat unsure why we deduced the equivalence of A only if B to $A \leftarrow B$. I am 'if' and 'if and only if' but had never encountered 'only if' on its own — but after reading through the material again, I now understand the equivalence.

On the assigned reading, Given any set of sentences τ, we say that $\varnothing \models \tau$ (on page 23). Is it also logically valid to say that $\tau \models \varnothing$? (Since if we have a valid set of rules and add no further restrictions, the rules remain valid)? Could we therefore say any set of rules τ is *tautologically equivalent* to the empty set?