Fact: If $a, b$ are interdefinable \( \mathcal{A} \) then $\text{SU}(a/b\mathcal{A})$ is even interdefinable.

\[
{\text{SU}(a/b\mathcal{A}) = \text{SU}(b/a\mathcal{A}) = \text{SU}(b/a\mathcal{A})} = 0
\]

(This follows from laxar inequalities $\text{SU}(a/b\mathcal{A}) = \text{SU}(b/a\mathcal{A}) = 0$.)

We may assume $g \nleq h$ (only care about type of $h$).