

# Inductive Bias

Some of the hypotheses are impossible to exist.

ex //

1	S	W	N	S	C	C	(+)
2	C	W	N	S	C	C	(+)
3	R	W	N	S	C	C	(-)

↳ sadece bu farklı

eliminated en

spec set  $\rightarrow \langle ?, W, N, S, C, C \rangle$

↳ çok genel ve (-) i de kapsıyor.

An Unbiased Learner

↓  
biased learner

**Inductive Bias:** Set of all assumptions made by an ML algorithm to perform induction.

↳ generalization

Inductive bias of candidate elimination: target concept  $c$  is contained in given hypothesis space  $H$ .

**Rule Learner:** Store examples, classify  $x$  iff it matches previously observed example (training data)

**Candidate elimination:** Assumes target concept can be explained in hypothesis space.

**Find-S:** Assumes all instances are negative unless the opposite is given. (Datadaki (+) örnekler dışında hepsi (-))

↓  
weakest  
to  
strongest  
bias