

## Chapter 2: Scientific inference

- Biologists tell us that we are closely related to chimpanzees.
- How did they reach this conclusion?
- Scientists arrive at beliefs by a process of reasoning or inference.

### Deduction and Induction

#### Deductive inference

All Frenchmen like red wine  
Pierre is a Frenchman

} Premises

Therefore, Pierre likes red wine

} Conclusion

This inference has the following property: if the premises are true, then the conclusion must be true too.

- Of course the premises of this inference are almost certainly not true — there are bound to be Frenchmen who do not like red wine. But that is not the point. What makes the inference deductive is the existence of an appropriate relation between premises and conclusion, namely that the truths of the premises guarantees the truth of the conclusion.

#### Inductive inference

- The first five eggs in the box were good.
- All the eggs have the same best before date stamped on them.

Therefore, the sixth egg will be good too

wk	February 2024							wk	March 2024						
	Mo	Tu	We	Th	Fr	Sa	Su		Mo	Tu	We	Th	Fr	Sa	Su
05								09							
06	5	6	7	8	9	10	11	10	4	5	6	7	8	9	10
07	12	13	14	15	16	17	18	11	11	12	13	14	15	16	17
08	19	20	21	22	23	24	25	12	18	19	20	21	22	23	24
09	26	27	28	29				13	25	26	27	28	29	30	31