

# COMMON SALIENCE

Bart Geurts



What's the name of this flower?



In the park. A park keeper has just checked the pond and has been watched by the grandmother. The child is getting ready to go home with its grandmother.

(Bosch et al. 2011)

“The picture that emerges from our experiment lets salience appear in the role of an independent parameter that becomes relevant only *after* anaphora and uniqueness have already failed. One could speculate that salience comes in via some process of charitable interpretation, or possibly more specifically via Gricean reasoning.” (Bosch et al. 2011)

Ergo:

- Computing salience is not necessarily automatic and fast.
- It may be “Gricean”.

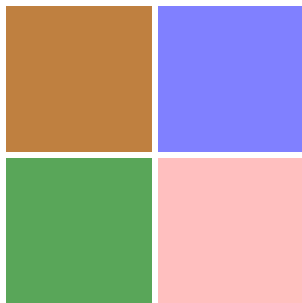
- Subjective salience: “This is salient for *me*.”
- Common salience: “This is salient for *us*.”
- Common salience is the relevant notion for understanding communication.
- What is common salience, and how is it related to subjective salience?

- Players have to coordinate their actions without communicating with one another, and sometimes without even knowing each other.
- Interests are aligned.
- People are remarkably good at finding salient equilibria (“focal points”) in this type of task.



“Pick any square.”

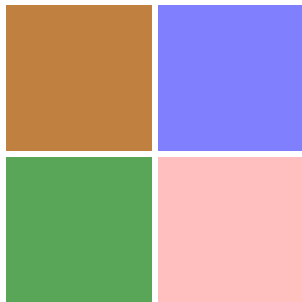
FIRST RUN:



“Pick any square.”



SECOND RUN:



“Pick any square.”

Example: “Name any flower.”

- **SUBJECTIVE CONDITION:** You may respond to these questions in any way you wish.
- **COMMON CONDITION:** You have been paired with one other person in this room. These pairings have been made at random, and you will never know who you have been paired with. [...] You may respond to these questions in any way you wish, but *your objective is to give the same answer as the person with whom you have been paired.*

SUBJECTIVE		COMMON	
Rose	35.2	Rose	66.7
Daffodil	13.6	Daisy	13.3
Daisy	10.2	Daffodil	6.7
Tulip	9.1		

“Name any flower.”

SUBJECTIVE		COMMON	
1971	8.0	1990	61.1
1990	6.8	2000	11.1
2000	6.8	1969	5.6
1968	5.7		

“Write down any year.”

SUBJECTIVE		COMMON	
Blue	38.6	Red	58.9
Red	33.0	Blue	27.8
Green	12.5		

“Write down any colour.”

SUBJECTIVE		COMMON	
7	11.4	1	40.0
2	10.2	7	14.4
10	5.7	10	13.3
1	4.5	2	11.1

“Write down any positive number.”

- 1 How do people solve pure coordination problems?
- 2 Is there a rational solution to these problems?

- Try to find a “focal point” with a uniquely identifying attribute that is the most likely to be noticed by all players.



- A and B want to make the same choice from a number of options, all of which are equally good.
- They need to align on a criterion  $c$  that will lead them to the same choice.
- So, A and B will try to choose  $c$  so that it is maximally likely that it is common knowledge between A and B that both of them have noticed  $c$ .

- This strategy doesn't require that the  $c$ -solution be subjectively salient for A or B.
- In fact, they might not have noticed  $c$  if it hadn't been for the fact that they need to align on a common criterion (cf. Bosch et al.'s finding).
- But if a solution is subjectively salient to A and B, it is likely to be selected.

An argument that it isn't (Gilbert 1989):

- Suppose that  $c$  is subjectively salient for A and B, and that this is common knowledge between them.
- The mere fact that an option is subjectively salient doesn't give one a *reason* for choosing it.
- For either player it is rational to choose  $c$  only if he has reason to believe that the other player will choose  $c$ .
- Thus A and B are drawn into an infinite regress that offers neither of them a valid basis for rational choice.

- Even if salience reasoning is not rational, it might still be correct as a psychological account.
- Gilbert's standard of rationality is too strict.
- Everyday reasoning and decision making fall short of being fully rational: our rationality is bounded.
- That being so, it is *fully* rational to take into account each other's *bounded* rationality.