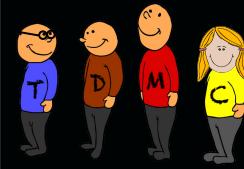


Rational Order Effects in Responsibility Attributions



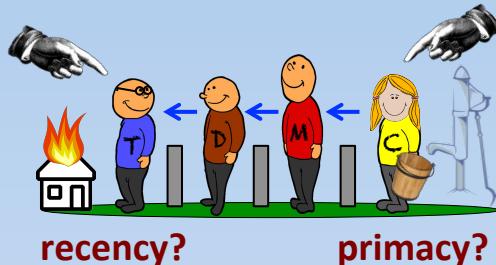
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Who is the cause? Who is responsible?



1) nature of the chain (Miller & Gunasegaram, 1990)

→ events causally dependent or not

2) "logic-based accounts" (Mandel, 2003)

→ necessary vs. sufficient conditions

3) probabilistic account (Spellman, 1997)

→ degree of change of the probability of the effect

Matching Pennies Game

	Initial	1 st Event	2 nd Event	
P(Win)	.5	.5	1 or 0	

Multiple Choice Game

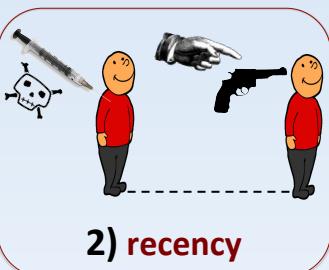
	Initial	1 st Event	2 nd Event	
P(Win)	.25	0	0	
	.25	.5	0	
P(Win)	.25	.5	1	



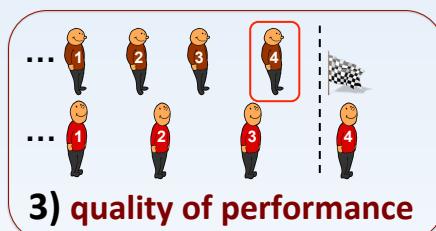
Problems with the probabilistic account



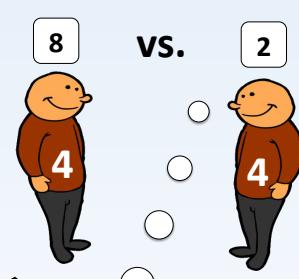
1) nature of the events



2) recency



3) quality of performance



Research Question

How do (i) quality of performance and (ii) the extent to which a contribution made a difference to the result affect people's perception of how responsible each contribution was for the eventual outcome?

Experiment

Round 1

Jolliginki	Score
1st Teammate	7
2nd Teammate	9
Do you think the team is going to qualify? definitely not <input type="滑块"/> definitely yes	
<input type="button" value="OK"/>	

Jolliginki qualified!

Jolliginki	Score	Credit
1st Teammate	7	none <input type="滑块"/> high
2nd Teammate	9	none <input type="滑块"/> high
3rd Teammate	4	none <input type="滑块"/> high
Once you are happy with your answers <input type="button" value="OK"/> please press OK to go to the next round		

Probability Rating Phase

Non-identical Scores

Result	loss				win			
	certain	uncertain	uncertain	certain	uncertain	certain	uncertain	certain
Sum of 1 st & 2 nd	2	3	4	6	7	8	11	12
Low Score	4	3	2	4	3	2	4	3
High Score	8	7	6	8	7	6	8	7

Responsibility Attribution Phase

between-subject variation:

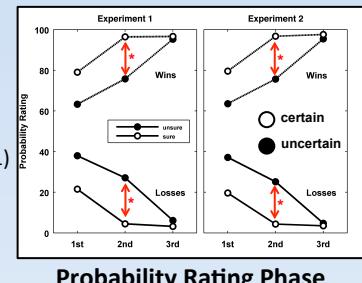
knowledge condition (Experiment 1, N = 41)

no knowledge condition (Experiment 2, N = 56)

Predictions & Results

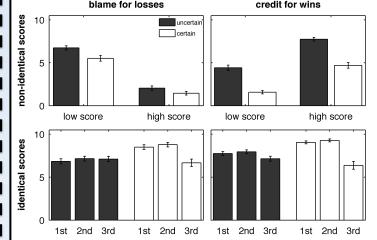
both performance and certainty of the team's outcome influence blame/credit attributions

- performance effect (Experiment 1 & 2)
- certainty of outcome effect (Experiment 1)
- performance effect even if the result is already determined?



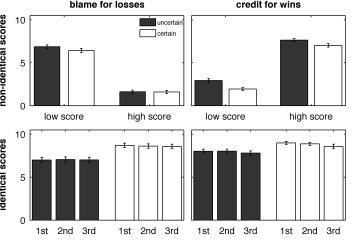
Probability Rating Phase

Experiment 1



Responsibility Attribution Phase

Experiment 2



Responsibility Attribution Phase

Discussion

Why rational? → What can be inferred from an agent's performance in a certain outcome situation?

- high score: agent is in principle capable of performing well
- low score: ambiguous evidence → did not try hard vs. is not able

Why should it matter, it doesn't make a difference?!

- not in the actual world but in many possible worlds it would have made a difference

References

- Gerstenberg, T., Lagnado, D. A., Speekenbrink, M. & Cheung, C. (2011). Rational order effects in responsibility attributions. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society, 1715-1720.
- Spellman, B. A. (1997). Crediting causality. *Journal of Experimental Psychology: General*, 126 (4), 323-348.