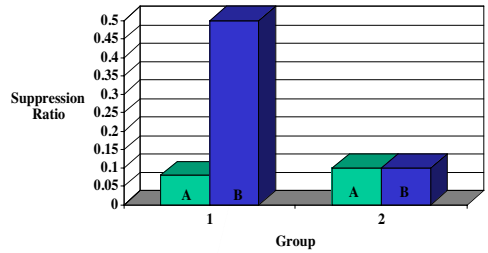
Blocking

Prior conditioning to one element of a compound reduces (blocks) learning to other elements.

	pretrain	Compound conditioning	Test
Group 1	A–US	AB–US	A? B?
Group 2	——	AB–US	A? B?



Pretraining to A reduced learning to B

	pretrain	Compound conditioning	Test
Group 1	A–US	AB–US	A, B?
Group 2	——	AB–US	A, B?

Kamin: Memory Scan Hypothesis

Active memory search only when US is surprising

Blocking: Contiguity not sufficient. Must be surprising US.

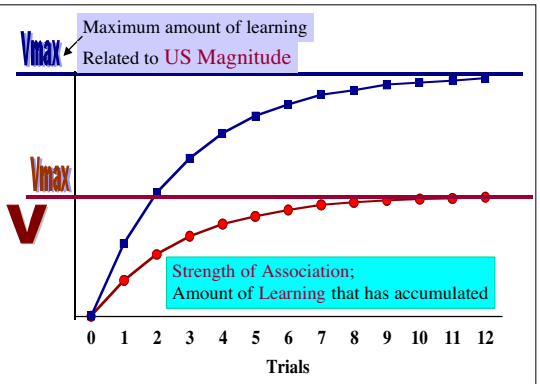
	pretrain	Compound conditioning	Test
Group 1	A–US	AB–US	A, B?
Group 2	——	AB–US	A, B?

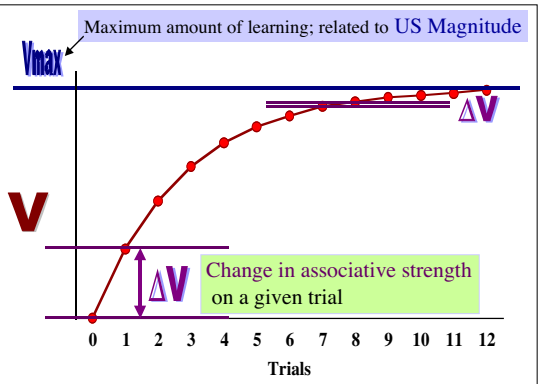
The widespread influence of the Rescorla–Wagner model

SHEPARD SIEGEL and LORRAINE G. ALLAN
McMaster University, Hamilton, Ontario, Canada

The theory of Pavlovian conditioning presented by Robert Rescorla and Allan Wagner in 1972 (the Rescorla–Wagner model) has been enormously important in animal learning research. It also has been applied in a variety of areas other than animal learning. We summarize the contribution of the Rescorla–Wagner model to research in verbal learning, social psychology, human category learning, human judgments of correlational relationships, transitive inference, color aftereffects, and physiological regulation. We conclude that there have been few models in experimental psychology as influential as the Rescorla–Wagner model.

Psychonomic Bulletin & Review, 1996





Recall: Learning only when US is surprising (Kamin)

So, Learning on a given trial $\propto$ Surprise

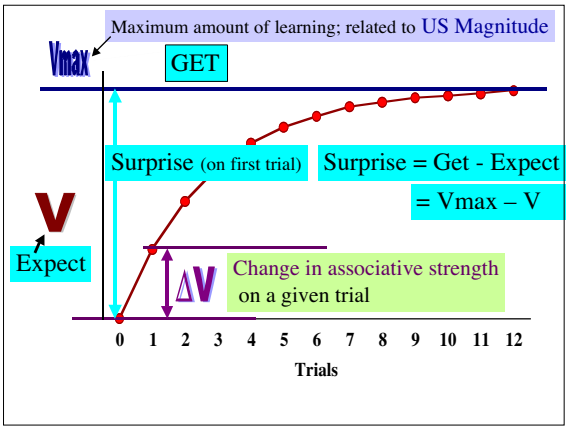
Define Surprise ?

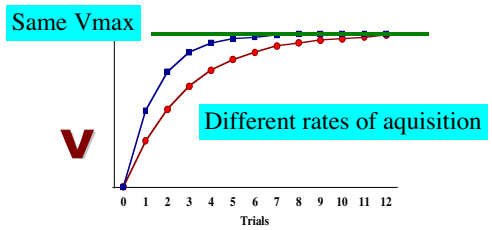
Surprise = Get - Expect

Putting it together….

Learning on a given trial $\propto$ Get -Expect

Change in learning $\propto$ US – what you learned so far





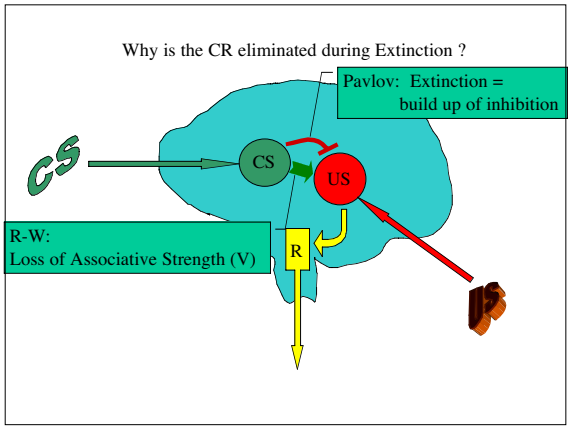
Rate parameter, "c", related to salience of the CS

$0 \leq c \leq 1$

$\Delta V = c\,(V_{max} - V)$

2 Parameters (mathematical constants)

Vmax (US amplitude)
c (CS salience)

These are estimated

Can make qualitative, not quantitative predictions