

Contiguity and Contingency In Instrumental Conditioning

Recall: In Pavlovian: CS-US

In Instrumental: R-Outcome

If S* is good:

Contingency	Result
$P(S^*/R) > P(S^*/noR)$	Positive Rf.; Incr. R
$P(S^*/R) < P(S^*/noR)$	Negative punishment; Decr. R

	Give	Take
Good	Positive Reinforcement	(negative) Punishment (Time out)
Bad	(positive) Punishment	Negative Reinforcement (escape/avoidance)

If S* is bad:

Contingency	Result
$P(S^*/R) > P(S^*/noR)$	Positive Punishment.; Decr. R
$P(S^*/R) < P(S^*/noR)$	Negative Reinforcement; Incr. R

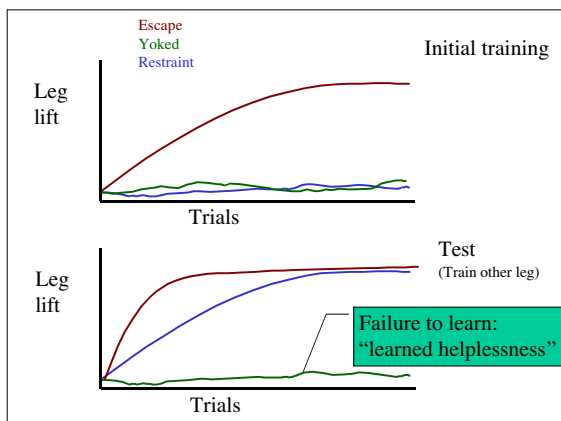
What if: $P(S^*/R) = P(S^*/noR)$?

Hypothesis: Learn that R and Outcome are independent

Learned Helplessness p. 303

Learned Helplessness Effects

Groups	Test
1. Escape lift leg, turn off shock	New Escape Task (e.g., lift other leg, turn off shock)
2. Yoked get same amount and pattern of shock as "escape" partner. Inescapable shock R—outcome independence	
3. Restraint (no shock)	



Learned Helplessness Effect:

Impairment in learning due to previous experiences when R-O were independent.

Learned Helplessness Hypothesis:

Failure to learn because learned response doesn't matter. They "give up". Don't bother trying.

Problem/Caution:

LH effect does NOT mean LH hypothesis is the reason.

e.g., the previous experiment done in spinal cord;

Get great LH effect even though info never reached the brain.

Thus, can't be a cognitive explanation such as the LH hypothesis.

Is Contiguity Sufficient?

Law of effect: S — R — S*



Superstition: The belief that some action, not related to a course of events, influences its outcome.

Perhaps a response acquired by accidental contiguity with a reinforcer (**adventitious reinforcement**).