

Punishment and Penalties are Necessary, O. R. Lindsley, University of Kansas  
 in Panel: Is Punishment Necessary?  
 ABA, Atlanta, 24 May 1991. - Handout Page 1 of 2

Pun & Pen Necessary

**OVERVIEW**

- Brief deceleration history.
- Well-meaning myths that don't always work.
- Comparing effects of different procedures with standard charts.
- Monitoring punishment to watch for adaptation due to under-punishment.

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**BRIEF DECELERATION HISTORY**

	Acceleration	Deceleration
1938-Reward	+Sr	Extinction
Relief	-Sr	(no consequence)
1960-Reward		Punishment
Relief		Penalty

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**MYTHS DON'T ALWAYS WORK:**

- DRI, DRO, DRL fail with small portion of clients.
- Punishment hierarchies case-harden clients.
- Deceleration from 20 per min. to .5 per minute seldom continues to .001 per minute.

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**WHAT WE CAN DO:**

- The power of the free operant lab of the 50's and 60's was standard recording.
- I believe standard charting can once again open up research between animal and human labs and applied clinics.
- Our magic key is the universal rate of response or frequency.

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**STANDARD CELEATION™ CHARTS**

A standard chart set with:

- Frequencies up the left on 6 cycle X 10 scale.
- Calendar time on bottom synchronized on + scale.
- 8 x 5.25 " grid fits screens.
- 34° angle is doubling each Celeation Period™.

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**SCC TERMS**

Frequency = no / min  
 Celeration = no / min / week  
Acceleration or Deceleration  
 Bounce: Up, Down, Total = factor  
 Spread: Up, Down, Total = x or /  
 Effects:  
 Jump: Up or Down = factor  
 Turn: Up or Down = x or /

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**SCC EFFECTS CLASSIC STUDIES**

	Jump Turn
Lovaas & Simmons 69	
Self Injur Beh - shock / 220	—
Kogel & Covert 72	
Self Stimul - Nol slap / 30	—
Bostow & Bailey 69	
Aggression - DRO+TO / 3 / 2	
Sajwaj & Agras 74	
Ruminate - Lemon J. / 3	—

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**REVIEWS CANNOT COMPARE EFFECTS ACROSS ARTICLES**

- Repp and Singh 1990: 533 pages  
 6 of 33 chapters (1/6) had data.  
 16 Figures - 8 percent of interval  
     - 7 frequency + scale  
     - 1 reward per demand

Authors argue over power of their procedures, each clinging to their own unique chart.

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**RELATIONSHIPS FROM SCC COLLECTIONS**

- Magnitude and direction of effects independent of base frequency.
- " " base celeration.
- Type effect (JD,TD,JDTD) not related to Beh, Rx, base F, C, B.
- Jump Down (/ 4) no greater alone or combined with Turn (/ 3.5).
- Narrative research reviews yield unreliable quantitative sorts.

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**CRUCIAL TO MONITOR PUNISHMENT FOR ADAPTATION**

- About 30% of published effects are counter turns:  
     either jump-up and turn down,  
     or jump down and turn up.
- This means it is crucial to monitor punishment for early adaptation (jump down followed by turn up).
- What conditions produce and prevent adaptation?

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**COUNTER TURNS**

	JABA Interv	JABA Freq	PT SCC
Jump Up -			
Turn Down:	96	3	38
Jump Down -			
Turn Up:	43	10	43
SubTotal:	139	13	81
Total Cases:	466	84	282
Counter -			
Turns:	30%	15%	29%

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**CONCLUSIONS**

- Recharting published results will permit unbiased quantitative comparisons across studies.
- Behavior frequencies should be daily monitored to watch for a turn-up signalling adaptation.
- Researchers can now study how many days rest between sessions would prevent adaptation.

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