

About PT

NOTES FROM THE EDITOR

Patrick McGreevy

This issue concludes Volume III of JPT. A subscription renewal reminder is enclosed with this issue. Please note that the individual/agency subscription price is now \$16.00. The rate for full time students and libraries has also increased. These increases are necessary in order to cover past and present deficits. In order to receive the next issue on time, send in your renewal notice now. Encourage your friends and colleagues to subscribe. Volumes I, II and III are still available.

Please note the Charles Merrill ad. This instrument was developed by Precision Teachers. Mata Kay Morehead tells me that it includes practice sheets (probes) that can be used for timings.

The **Journal** needs formal manuscripts and Chart-sharing articles. Pencils ready . . .

Personally, I want to thank all of you for your support and your suggestions. The **Journal** is the effort of many and it's nice to be one of them. Please continue to offer your suggestions; they can only help improve the **Journal**.

TERMINOLOGY

Say Reward, Relief, Punishment
or Penalty

Ogden R. Lindsley
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Experimental psychologists of the thirties and forties used reinforcement to mean pairing the conditioned stimulus (bell) with the unconditioned stimulus (food powder) in order to strengthen or reinforce the conditioned reflex (salivation to the bell alone). Examples are seen in Hull's theoretical book, 1943, page 71, and Hilgard's textbook on learning, 1948, page 55. The word reinforcement had been taken from 1927 and 1928 translations of Pavlov's work.

Positive or Negative Reinforcement

Skinner in his 1938 classic "The Behavior of Organisms," extended reinforcement from pairing stimuli to cover a second type of conditioning he called type "R" or operant behavior. He also introduced positive and negative reinforcing stimuli in the following quotation:

In the present example of pressing a lever the strength may increase if S1 is, for example, food, and it may decrease if it is, for example, a shock. Thus there are two kinds of reinforcing stimuli--positive and negative. The cessation of a positive reinforcement acts as a negative, the cessation of a negative as a positive. (Skinner, 1938, p. 66)

Skinner saw positive and negative reinforcers as two alternative kinds of behavior strengtheners, what a layperson would call reward and relief. Positive reinforcers increased response rates when their presentations were contingent, and negative reinforcers increased response rates when their withdrawals were contingent. Positive meant reinforce by adding or a plus sign, and negative meant reinforce by subtracting or a minus sign. Skinner's meaning came from arithmetic, rather than the popular usage of personal feeling.

Although neither positive nor negative reinforcement were in the index of what we called "the B of O," they both appeared in the index of "Science and Human Behavior" which Skinner published in 1953. By then the use of positive and negative reinforcers to be two different kinds of rewards was clear in Skinner's and in other operant writing. For example, see Keller and Schoenfeld's 1950 college psychology textbook.

All this is very fine except for the fact that negative reinforcement meant the opposite of relief to everyone else . . . it meant . . . and still means, punishment! Positive reinforcement meant reward and negative reinforcement meant punishment, not only to the public, but also to behavioral scientists who were beginning to use Skinner's operant terms. Bijou and Baer made this error in their child development text in 1961. This is surprising when you realize that Bijou was on the same psychology faculty with Skinner at Indiana. The problem was not the ignorance or sloppy scholarship of Bijou and Baer; they were certainly trying to learn operant language. The problem was that Skinner chose meanings for his words that were opposite to the most common meanings for those words in the English language. Skinner chose

counter-meanings. Skinner's meanings for positive or negative were arithmetic add or subtract, and the public's meanings were feeling good or bad. So the confusion went on. It still goes on. About the only value to come from Skinner's counter-meanings was that if you wanted to be an academic snit, you could tell a well-trained from a poorly-trained operant conditioner by merely asking, "what is an example of negative reinforcement?" If the poor soul answered, "spanking a child for stealing candy" he or she was poorly trained!

Reward, Relief, Punishment or Penalty

What does all this have to do with us? Precision Teachers and Standard Celeration Charters have inherited much free-operant language, but we will create confusion using the words positive and negative reinforcement. We have a greater problem with these terms than the behavioral scientists do, because we deal directly with the public who use the counter-meanings.

The solution is to talk plain English.

Let's look at some school examples. If when we give a child a point for each letter spelled correctly, and the letters spelled correctly accelerate, the points were a reward. If when we give a child one minute off from clean-up duty for each help to other students in the classroom, and the helps accelerate, the minute off was a relief. Both rewards and relief accelerate behavior--people will work to get them.

If when we give a child one additional minute of clean-up duty for each aggression towards classmates, and the aggressions decelerate, then the minute added was a punisher. If when we deduct one point from the score for each letter spelled incorrectly, and the incorrectly spelled letters decelerated, then the point loss was a penalty. Both punishers and penalties decelerate behavior--people will abstain to avoid them.

Things that accelerate behavior when presented contingently are rewards, ones that accelerate behavior when removed are reliefs. Contingent events that decelerate behavior when presented are punishers, and those that decelerate behavior when removed are penalties. Clear and simple. No confusion between scientist and public. No confusion between teacher and parent. A slight problem is that the scientist has lost the dazzling jargon so dear to academics. But that is a small price to pay for clarity.

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