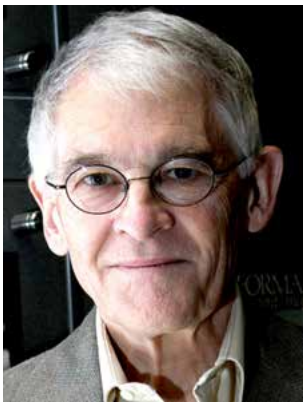
The Connection Between Your PJs and the History of Behavior Analysis

Andy Lattal



The next time you put on your PJs, or maybe a blouse or shirt, you very well could be making contact with a relative of one of the most important pieces of apparatus in the history of behavior analysis. If your apparel item has a little protruding nub on one side of the clothing item that snaps (literally with that same sound) into a metal receptacle sewn to the other side of the item (Figure 1, top photograph), then you indeed have made contact. A very similar snap connector could, until the 1990s (but for some of us, still can) be found in virtually every behavior analysis laboratory in the world. These snaps (Figure 2) were located on either end of a length of wire that enabled an electrical connection between the two items thus connected. A snap-on connector is an ancient idea, but its modern iteration is credited to British button manufacturer Benjamin Sanders. It was the Newey Company of Birmingham, England, established in 1798, however, that improved the design and made them popular among clothing manufacturers in the 19th century.

During the Victorian era (1800s), snap connectors from the same company were used to secure carpets to the floors of homes (Figure 1, middle photograph). Still later, in the 20th century, a Scotsman, James d'Argaville Clark, got the bright idea to use them as a means of connecting batteries to the devices they were to power (Figure 1, bottom photograph). The snap connectors were a faster and more flexible connection than either soldering the wires to the device or attaching the wires with screws. At some point around the Second World War, the U. S. Army Signal Corps found use for these connectors as a means of quickly setting up communications equipment. A signalman-soldier named Norman Guttman (Figure 3) found himself after his military service as a graduate student of B. F. Skinner's at Indiana University. When looking for a better way to connect the electrical modules that controlled Skinner's experiments, Guttman introduced Skinner to the snap connector, giving rise to the earliest use of snap leads in the experimental analysis of behavior. (Guttman is well known for his research on stimulus generalization.) From there, snaps and snap leads proliferated and became an essential component of the programming equipment -early versions of digital computers – which were used to build programs that controlled operant conditioning experiments (an example of their use appears in Figure 4). Because the snap leads were easily moved from one module to another, quickly altering contingencies to follow interesting observations, they contributed significantly to the practice of the inductive method so strongly advocated by Skinner.

Figure 1. Three historic functions of snaps. Top: beginning in the early 19th century, for holding clothes together. Middle: in the 19th century, carpet holders. Bottom: in the 20th century, electrical connectors.

Across my long tenure at West Virginia University, I have found other uses for the noble snap lead besides patching together the ancient apparatus I use to control my experiments. When, some time back, one of my students was looking for an unusual venue for her campus wedding, I suggested my lab. She and her spouse-to-be jumped on the idea. So, there it was held. The lovely bride topped her wedding trousseau with a Tierra made of, yep, snap leads.

Figure 2. In the lower right, a pair of snap connectors, labeled Nu-Way. These connectors could be soldered to a length of wire to create the snap lead shown in the center of the photograph.

For many years, a seasonal tree that graced our lab during the month of December was decorated with brightly colored snap leads and topped with a likeness of B. F. Skinner, crafted by one of my graduate students.

Finally, the student achieving the highest point accumulation each year in my graduate Experimental Analysis of Behavior course is inducted into the exclusive and highly secret "Order of the Green Snap Lead." Each inductee receives, of course, a well-used green snap lead, suitable for wearing around one's neck or framing for one's trophy wall. A singular honor indeed.

For a more complete history of the snap lead, see Escobar, R., & Lattal, K. A. (2014). Nu Way snaps and snap leads: An important connection in the history of behavior analysis. *The Behavior Analyst, 37*, 95-107.

Figure 3. Norman Guttman, the man credited by Skinner with introducing the snap connector to behavior analysis.

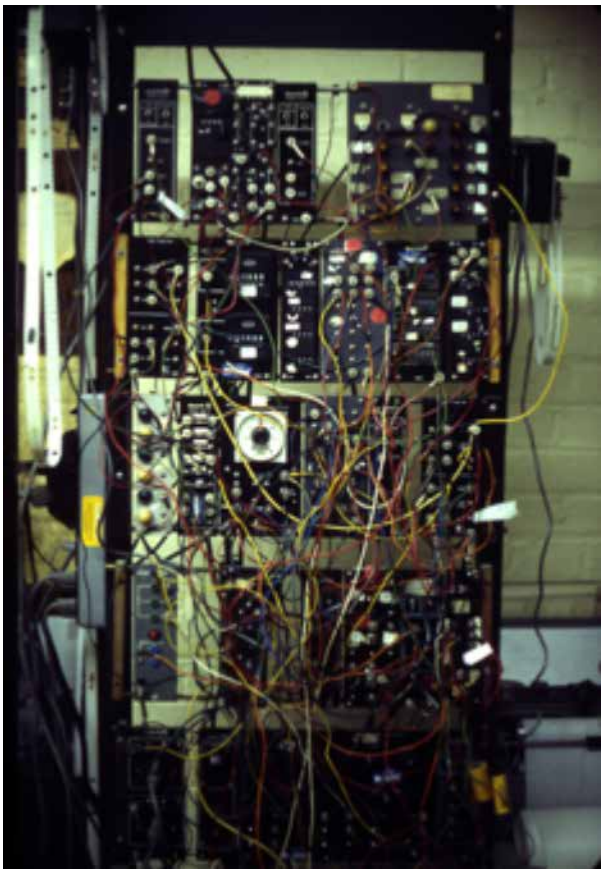


Figure 4. A relay rack with programming modules connected to one another by snap leads (the colored wires) to create a program controlling an operant conditioning experiment.