

The First Baby Tender

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[B.F. Skinner provided this short article to introduce a 1987 book by Stephen F. Ledoux and Carl D. Cheney that described their building of Aircribs (*Grandpa Fred's Baby Tender, or Why and How We Built Our Aircribs*). The Aircrib design in this book followed a design that Dr. Skinner had made and modeled but not actually constructed. While that book is out of print, the introduction is reprinted here with permission as a service to bring to the attention of new generations of readers this long-standing behaviorological contribution to childcare, a regular topic of these pages.—Ed.]

I designed what we called the baby tender as a laborsaving device. We wanted to have a second child, but my wife said she rather hated the chores of the first year or two. I suggested that we simplify the care of a baby. All that was needed during the early months was a clean, comfortable, warm, and safe place for the baby, and that was the point of the baby tender. I started to build it about the same time we started the baby, and in spite of war-time shortages finished it just before our daughter Deborah was born.

As soon as she came home from the hospital, we put her in the baby tender. We discovered immediately that the labor we saved was far less important than the advantages for her. She slept on a tightly stretched canvas covered with a sheet (later replaced with a single plastic cloth that felt rather like linen). There were no nightclothes, sheets, or blankets, and she wore only a diaper. There was no danger that she would smother, as there occasionally is in a standard crib. She breathed clean air, which was humidified and maintained at just the right temperature. She was free of colds for many years, and I am inclined to think that it due primarily to the warm humid air she breathed as a child. In the winter in a northern climate a house is about 30 degrees below body temperature, and the air the baby breathes is chilled further by evaporation from moist surfaces in the air passages. It is possible that the superficial layers of the bronchi and lungs grow as much as 40 degrees below body temperature, and that could make a great difference. The species originated in the tropics, where warm, moist air was standard, and there may not have been enough time for further evolutionary changes.

The space was quiet, and Deborah was free to move about and take comfortable positions at any time of day or night. She soon began to exercise much more vigor-

ously than would have been possible in a standard crib, and she grew very strong. Our pediatrician commented on her unusual strength. Her skin stayed dry, and she never had any diaper rash. She never objected to being put into the baby tender and almost never cried.

Her rapid physical development was matched by behavioral gains. She was free to explore all parts of the space and there was a large window through which she could watch life around her. At one point she seemed to pass through a phase in which she used her feet prehensilely. Another couple who made and used a baby tender sent us a photograph of their baby holding its bottle with its feet while it drank. I made toys which Deborah used very early. By pulling a ring that hung from the ceiling, she produced a whistle. By twisting a T-bar that hung from the ceiling, she made small banners spin. Later, by pulling a ring she operated a music box, tone by tone.

She was not socially isolated. She was taken out for feeding and play, of course, and we could allow the neighborhood children to talk and gesture to her through the window without passing on their viruses. The labor we saved not only made it easy for us to treat her affectionately but encouraged us to spend more time with her. She spent a lot of time outside the baby tender, especially as she grew older. Eventually she slept in it only at night and for naps.

During her second and third years, when we could predict her bowel movements, she slept without clothing. Urine passed through the plastic cloth (which could be quickly washed and dried) into a tray to be thrown out the next morning. She learned to postpone urination, in part, I think, because of the consequences. Urination in a diaper is immediately followed by a pleasurable warmth; it is only after several minutes that a damp diaper grows cold and uncomfortable. Without a diaper urination immediately moistens the skin and chills it. Deborah began to go for long periods of time without urinating, and by the time she first slept in a bed she had learned to keep herself dry and never wet her bed. All the supposed psychological problems connected with toilet training were avoided.

I have seen many young people who spent part of their first years in similar spaces, and most of them were rather tall and strong. It would be extraordinary if those first years of rapid growth could have made that kind of difference, but it is certainly something worth exploring further.

The response to my article in *The Ladies Home Journal*, written when Deborah was nine-months-old, drew hundreds of letters asking where a "baby tender" could be purchased or how one could be made. I sent out hundred of crude instructions. There were only a very few critical letters. I have never found anyone who, upon seeing a baby in an Aircrib, did not immediately think it was a wonderful idea. But misunderstandings began to spring

up and were widely circulated. The *Journal* had given my article the title “Baby In A Box” and some of the misunderstanding came from a confusion with the equipment used in operant research. Misunderstandings are still common. Here is a sample from an article published by a reputable psychologist: “In the late ’40s, Professor Skinner invented the ‘aircrib,’ a Skinner box for babies. It was a large, soundproof, germproof, air-conditioned box for giving children mechanical care for the first two years of life.” Every statement in the passage is wrong. I designed and build the box in 1944. It is not an experimental apparatus. It is not soundproof; Deborah was shielded from loud noises, but we could hear her at all times. It is not germproof, although it was a kind of shield against sudden large doses of infection. “Air-conditioned” suggests cooling, but the air was only warmed. It is no more mechanical than a standard crib, and there was nothing mechanical about the care we gave our child. Deborah may have spent a bit more time in the Aircrib than she would have spent in a standard crib, because she was freer and more comfortable there, but in her second year she merely slept in it, at night and for naps. (Perhaps I should add that rumors that she committed suicide or became

psychotic are equally wrong. Now 43 [in 1987—Ed.], she is a happily married, talented artist and writer.)

It is possible to build a better world for a baby and the baby tender was a step in that direction.

B.F. Skinner
January, 1987.✻

References

Skinner, B.F. (1945, October). Baby in a box. *The Ladies Home Journal*. [Also in Skinner, B.F. (1999). *Cumulative Record—Definitive Edition* (pp. 613-620). Cambridge, MA: B.F. Skinner Foundation.]

Editor’s note (included in the 1987 book): The Skinners’ first daughter, Julie, is also happily married, is engaging in a successful career as a Behaviorologist, and has used an aircrib with all of her own children.

Editor’s note (**not** included in the 1987 book): March 20, 2004, is the 100th anniversary of B.F. Skinner’s birth.☪

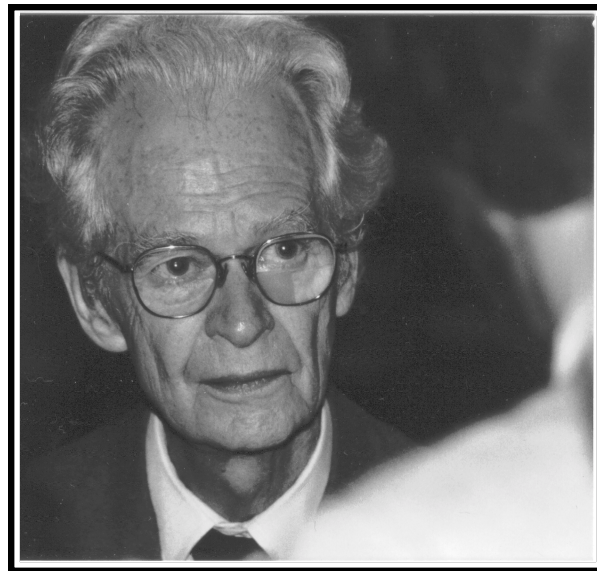


Photo by Stephen F. Ledoux

Burrhus Frederic Skinner

The original behaviorological scientist (1904-1990)
(Shown here in conversation at the 1982 ABA convention.)