

Parents and Science: When Desires Trump Data

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Many young couples face some version of this dilemma today: They've decided they want to have children in the near future—they're not on the fence about that—but the financial reality is that they both have to work. They need both their earnings, not for a fancy lifestyle but just to pay the bills and save a bit. So when the day comes that they do become parents, they will almost certainly have to send their young child to some kind of day care, so that they both can continue to work. That's their world.

But in their hearts they believe that children are better off raised at home, by a stay-at-home parent. So they're conflicted emotionally, and as decision time nears, they do what young prospective parents do: They read. They read the best that scientific studies can tell them about the effectiveness of early child care, both in the home and outside. They're not wavering on the big issue of having children; they simply want to be conscientious and well-informed parents.

So let's follow the young couple through this hypothetical: The first study they come across is the so-called Thompson study, which compares kids randomly assigned to either home care or child care. But that's just one study, so they find a second study, known as the Cummings experiment: This study also compares children in day care with stay-at-home kids, but in this research project the kids have been statistically matched on several variables. They are both reputable studies, but with different kinds of designs, and—here's the frustrating part for the young couple—the two studies come to opposite conclusions. The results of the Thompson study favor day care, while the Cummings findings strongly support home care.

What's a young parent-to-be to make of this?

This hypothetical scenario—including the imaginary scientific studies—is part of real scientific study, conducted by psychological scientist Eric Luis Uhlmann of HEC Paris. Uhlmann and his colleagues wanted to explore the potential conflicts among parental desires and beliefs and scientific reality, to see if parents can be objective consumers of ambiguous research—or if hopes and fears lead inevitably to wishful thinking. To study this, Uhlmann recruited young volunteers who were much like the couple above. That is, they all considered themselves “very likely” to have children in the future, and all started out with the belief that home care is a better choice than day care for a young child.

Like the hypothetical couples, these prospective parents read the Thompson and Cummings studies—but with two twists. First, only half the volunteers were conflicted—believing home care was superior but needing to use day care. The others also believed home care to be superior—but they intended to use that option when the time came. Their beliefs were in sync with their intentions.

The volunteers also had different experiences in sifting through the scientific evidence. Half of them read that the Thompson study—the randomized study—favored day care, and half read that it favored home care. Similarly, half read that the Cummings study—the statistically matched study—favored home

care, and half read that it favored day care. In other words, Uhlmann deliberately created a life-like dilemma in which even the best science available to the most conscientious of parents is ambiguous and inconclusive.

Then they asked the parents-to-be lots of questions about the scientific studies, including: Which research design would lead to the most valid conclusions? What are the strengths and weaknesses of each study? How convincing is each of the studies overall? They also asked all the volunteers which form of child care they (now) believed would most benefit their future child. They wanted to see which of the prospective parents were swayed by the science, if any, and in what way.

The results were, well, ambiguous—but a few key findings were clear and intriguing. As described online in the journal *Psychological Science*, the parents who were conflicted over their future child care plans evaluated the science in a way that was consistent with their desires—but not their beliefs. That is, they viewed the Cummings study positively (compared to the Thompson study) only when its findings supported day care—not when the study favored home care. What’s more, the conflicted volunteers responded to the new scientific evidence by dramatically changing their beliefs about the superior form of child care; they no longer believed that day care was markedly inferior to home care. They wanted to believe that their plans would not be harmful to their children, so they read the ambiguous science in a way that bolstered that view. The prospective parents without a conflict, by contrast, remained unchanged in their strong commitment to home care.

These experimental results say absolutely nothing about the relative merits of day care or stay-at-home care. But they do send a warning to parents who see themselves as objective and rational decision makers. Parenting is an emotional business, where even the lessons of science can be trumped by fears, needs and hopes.

Wray Herbert’s book, [*On Second Thought: Outsmarting Your Mind’s Hard-Wired Habits*](#), is an in-depth exploration of irrational decision making. Excerpts from his two blogs—“We’re Only Human” and “Full Frontal Psychology”—appear regularly in *Scientific American Mind* and *The Huffington Post*.