

Problem Solving In A Crisis!

The following story appeared in **Made To Stick** (Heath & Heath, © 2007). It was originally published in Gary Klein's book, **Sources of Power**. This is an excellent example of how systematic thinking can both prevent a wrong action from occurring and lead into the right action being taken. In this instance, a life was saved.

The Story

The nurse was working in the neonatal intensive-care unit ... She'd been watching one particular baby for several hours ... His color, a key indicator of potential problems, had been fluctuating, wavering between a healthy shade of pink and a duller, more troublesome hue. Suddenly, within a matter of seconds, the baby turned a deep blue-black. The nurse's stomach fell. Others in the ICU yelled for an X-ray technician and a doctor.

The gathering medical team was operating on the assumption that the baby's lung had collapsed – a common problem for babies on ventilators. The team prepared for the typical response to a collapsed lung, which involves piercing the chest and inserting a tube to suck the air from around the collapsed lung, allowing it to re-inflate.

But the nurse thought it was a heart problem. As soon as she saw the baby's color-that awful blue-black-she suspected a pneumopericardium, a condition in which air fills the sac surrounding the heart, pressing inward, and preventing the heart from beating. The nurse was terrified, because the last time she witnessed a pneumopericardium the baby died before the problem could even be diagnosed.

The nurse tried to stop the frantic preparations to treat the lung. "It's the heart!" she said. But in response, the other medical personnel pointed to the heart monitor, which showed that the baby's heart was fine; his heart rate was bouncing along steadily, at the newborn rate of 130 beats per minute. The nurse, still insistent, pushed their hands away and screamed for quiet as she lowered a stethoscope to check for a heartbeat.

There was no sound. The heart was not beating.

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She started doing compressions on the baby's chest. The chief neonatologist burst into the room and the nurse slapped a syringe in his hand. "It's pneumopericardium," she said. "Stick the heart." The neonatologist guided the syringe into the heart area and slowly released the air that had been strangling the baby's heart. The baby's life was saved. His color slowly returned to normal.

Later, the group realized why the heart monitor misled them. It is designed to measure electrical activity, not actual heartbeats. The baby's heart nerves were firing, telling the heart to beat at the appropriate rate but the air in the sac around the heart prevented the heart from beating.

BPI Analysis

The rest of the medical team quickly assumed that a collapsed lung was the cause of the trouble. They jumped to this conclusion based on their past experiences with babies on ventilators. Without first testing their assumption to verify the true cause, they began taking action that would have failed to save the baby's life.

The nurse, however, was a good critical thinker. First, she objectively identified the problem (baby turned blue-black.) Next, she realized that the actions of others were based on an assumed cause of the problem (lung collapse) that she did not agree with and that the risk of being wrong was too high to pay (death.) She devised a quick and easy test (listening for a heartbeat) to verify the true cause of the problem (air around the heart) after rejecting an invalid dis-confirming test (electronic heart monitor readout.) Effective action was taken (releasing the air) based on the known true cause and the baby is alive!

Summary

BPI has been teaching critical thinking [Workshops](#) for 35+ years. We have many stories of jobs saved, people helped, products improved, revenue created, problems solved, bad decisions avoided, If you want your people to think better, collaborate, and become more fully engaged with root cause solutions, please [contact](#) us.