Kepner-Tregoe

WHEN THE COFFEE MAKER "BROKE":

A 5-Minute Problem-Solving Lesson

The best troubleshooting lessons come from everyday frustrations. Like when a simple request for after-dinner coffee turned into a masterclass in systematic problem-solving.

The Crisis

Saturday evening, 7 PM. Everyone had finished dinner when our host asked, "Does anyone want coffee?" After such a hearty meal, caffeine sounded perfect.

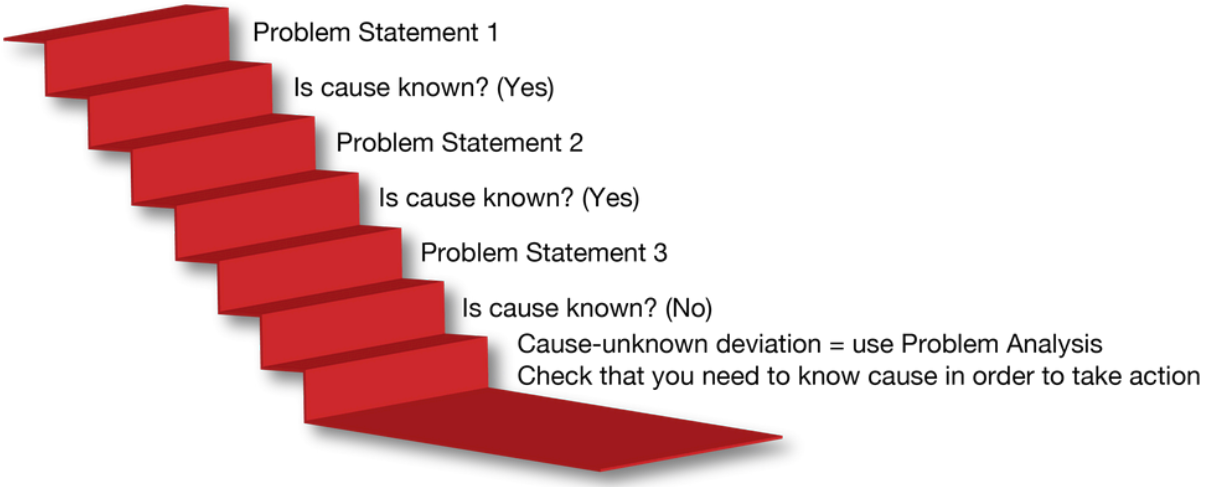
Minutes passed. No coffee. Then the dreaded announcement: "Sorry everyone, we are having technical issues with the coffee maker." Every attempt to turn it on shut down the power.

Frustrated voices declared: "The coffee maker is broken!" But my friend and other guests instinctively began applying systematic logic, the same approach we teach in Kepner-Tregoe problem-solving classes.

The KT Problem Analysis Approach

Kepner-Tregoe Problem Analysis finds the cause of performance deviations using data, not assumptions. It starts with a clear problem statement where cause is unknown.

We use the "5 Why" technique to drill down through symptom layers:



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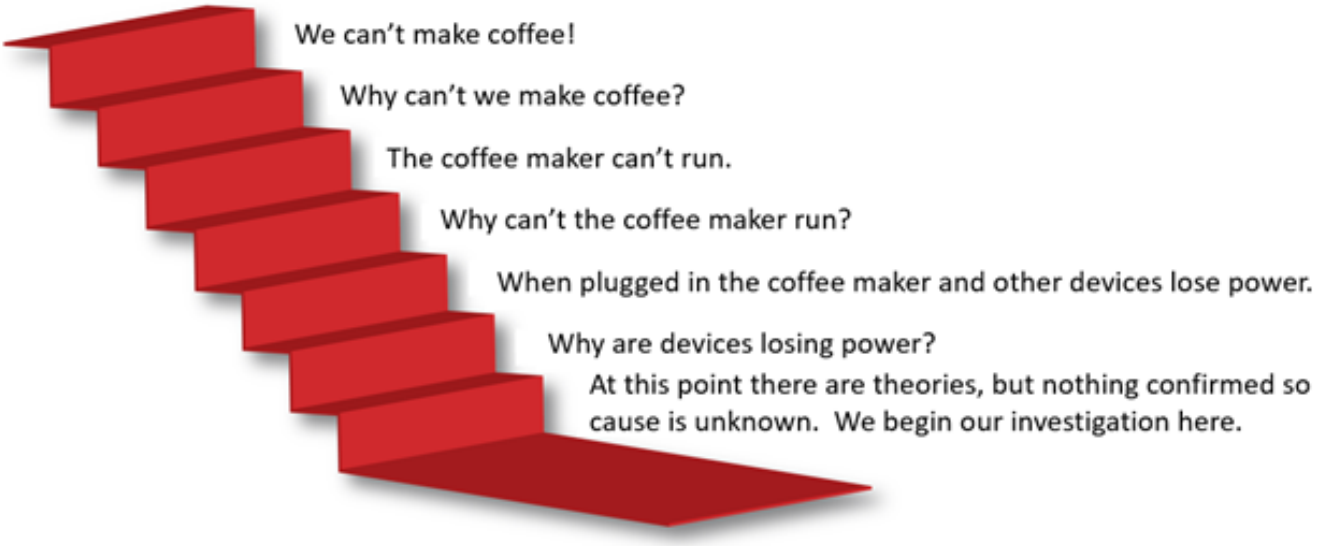
WHEN THE COFFEE MAKER "BROKE"

Coffee maker will not turn on - Why?

1. Power goes out when we try to turn it on - Why?
2. Circuit is getting overloaded - Why?
3. Too many devices drawing power at once - Why?
4. Devices are losing power ← Our problem statement



Organizing the Data We Know: What IS Happening

With "Devices are losing power" as our problem statement, we ask specific questions to organize what we observe:

- What devices are losing power? -> Coffee maker, TV, Google Home, Sonos speaker
- Where is this happening? -> Left side of kitchen only
- When did it start? -> Around 4 PM when we tried to make coffee
- How much power loss? -> Four devices, complete power loss, one area affected

Problem Statement: Devices are losing power.		
	IS	
WHAT	TV, coffee maker, Google home, Sonos speaker	
	Lose power and turn off	
WHERE	At friend's house; Downstairs in the kitchen; Along the left side of the kitchen	
WHEN	17 March Around 4PM	
	During the St. Patty's party; After plugging in the coffee maker	
EXTENT	1 room in the house; 4 out of 4 devices	
	Part of the kitchen loses power	

The Power of IS NOT

Here is the key: Most people focus only on what IS wrong. True systematic troubleshooting demands equal attention to what IS NOT affected. This creates boundaries that eliminate false causes.

Critical IS NOT questions revealed:

- What related devices have NOT lost power? -> Refrigerator, oven, all other appliances could have lost power but did not
- Where is power working normally? -> Right side of kitchen, all other rooms
- When was power last working? -> Before 4pm to our knowledge
- What could have been the extent of power loss but did not happen in this case? -> Only one, two, or three circuits could have been impacted as opposed to all four. More rooms as opposed to just the kitchen could have been impacted.

Problem Statement: Devices are losing power.		
	IS	IS NOT
WHAT	TV, coffee maker, Google home, Sonos speaker	Refrigerator, Oven, Other Appliances
	Lose power and turn off	
WHERE	At friend’s house; Downstairs in the kitchen; Along the left side of the kitchen	Other rooms of the house; Along the right side of the kitchen
WHEN	17 March Around 4PM	Prior to 17 March Before 4PM
	During the St. Patty’s party; After plugging in the coffee maker	Before the party, during the morning; Before plugging in the coffee maker, when running other devices
EXTENT	1 room in the house; 4 out of 4 devices	More than 1 room in the house; 1, 2, or 3 specific devices only
	Part of the kitchen loses power	Whole kitchen loses power

The Breakthrough Test

My friend moved the coffee maker to the family room. It worked perfectly, no power issues. This revealed the critical distinction: location mattered.

WHEN THE COFFEE MAKER "BROKE"

New questions now emerged:

- What made the kitchen different from other rooms?
- What separated the left side of the kitchen from the right side?
- What was different about 4 PM versus the morning when everything worked?

The Answer

Every affected device (coffee maker, TV, Google Home, Sonos) ran on the same circuit breaker. The refrigerator and oven had separate breakers. In the morning, only the coffee maker used that circuit. By afternoon, multiple devices were running simultaneously.

The verdict: circuit overload, not equipment failure. The coffee maker was never broken—it was the final device that pushed an already strained circuit past its limit.

The Fix

My friend replaced the faulty breaker. Problem solved. He did not need to determine why the original breaker kept tripping—just that it needed replacement.

The Lesson

This simple example demonstrates systematic troubleshooting:

1. Clarify the actual problem
2. Compare what IS working to what IS NOT
3. Use that data to logically deduce the most probable cause and what you need to do next, whether that is a quick fix or requires a more careful decision

For complex problems, IS and IS NOT data lets you test proposed causes by asking: "If this is the cause, how does it explain both what IS and IS NOT happening?"

The next time you face an "obvious" equipment failure, step back. Apply IS and IS NOT thinking. Your "broken" device might simply be the messenger alerting you to a deeper system issue.

Before you blame the poor coffee maker (or your latest 'broken' system), remember: the real problem might be hiding elsewhere. Problem Analysis helps you find the grounds for the issue — not just the spillover. Learn more here!