

LEARNING FROM SURPRISE: A CASE STUDY FROM TREE CARE

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Abstract

Surprise is ubiquitous yet seldom acknowledged nor prepared for in ordinary work situations. In this talk, I explore the practical application of fundamental Resilience Engineering premises “surprise will happen” and “work is variable” to the tree industry. I will help translate Resilience Engineering theories into practical actions. This is a story about early steps on a journey to transform from traditional, Behavior Based Safety to Safety II-Safety Differently focused on learning from surprise and managing variable work to create safety in the high-risk jobs of removing trees near power lines.

Work related to trees has by far the highest fatality rate of any work in the US. It is commonly said by those who do tree work that every tree is different. The parallel in healthcare is that every body is different. How does the acknowledgement of this variability influence how safety is perceived and accomplished in everyday work? I will share examples of how we’ve better understood work as done then modified policies and practices to account for, and even embrace, variability. Surprise is omnipresent in the most serious events, which are being struck-by pieces of a tree or falling from a tree. I will share how better understanding the shape of this surprise can be used to manage these risks.

Views on how to achieve safety span a spectrum from Fredric Taylor’s ideas of standardizing and mechanizing work on the left, to Behavior Based Safety with interventions to stop “at risk behaviors” somewhere toward the middle, to, on the far right, Sidney Dekker’s “Safety Differently” which advocates freeing the worker and removing controls to an extent that makes some uncomfortable. Resilience Engineers claim that the controls we put in place can come at the cost of adaptive capabilities.

I trace our journey and share insights, shift in narratives, learnings, and perspectives from a Resilience Engineer, executive leadership, a Cognitive Systems Engineer, and the safety team. I take a step back and share overall strategies and tactics for guiding senior management then step in describe how Resilience Engineering shifts our view and management of critical work related to a climber coordinating with grounds-man (scenario relating to the struck-by incidents which result in serious injuries).