



Human behavior in

emergencies: three

common misconceptions

Imagine a fire detector makes the sirens wail or the gas warning system triggers an alarm – how will employees react and respond? Will they remember what to do in a crisis and will they handle a case of emergency according to practiced rules and moves?

“It is more effective to find out how people normally respond to an alarm and then base an emergency plan on that than to design a plan and expect people to follow it.”

Erik auf der Heide ¹

Operational safety may be better today than ever before, alas the "human factor" remains difficult to calculate in the event of an alarm. And yet, operational emergency plans are still based on some basic long-standing assumptions about how we respond to threatening situations. Many of them are acquired and passed on during safety training and rarely questioned. And although some of these beliefs have since been disproved by behavioral psychology, some misconceptions about human behavior in emergency situations still persist.

Misconception No. 1 **Employees respond to an alarm immediately**

This is the case as long as it is obvious to employees that there in fact is immediate danger to life and limb. However, this is rarely the case. In many scenarios, valuable time is lost before those on site correctly assess the situation and take action. Instead of getting to safety as quickly as possible, they wait for further signals, discuss with colleagues about the nature of the alarm, look for signs such as smoke or flames - and thus waste precious seconds which in the worst case can decide upon life and death.

For an immediate and speedy evacuation, clarity about the situation and the measures to be taken is essential. This can be enhanced in advance, for instance by:

- More hands-on training, where employees simulate a variety of emergency scenarios and the necessary rescue measures

- A critical review of the company's own alarm system: can the various signals be unmistakably assigned to a hazard and are there clear instructions for each hazardous situation? Too many different signals are confusing and can overwhelm people. Too few may leave room for interpretation about the cause of the danger.
- Instalment of warning devices (e.g. gas detectors) with as low a false alarm rate as possible.

Misconception No. 2: **As soon as people realize that an alarm is real, they panic.**

We are all familiar with the movie and television images: Out-of-control, irrationally acting individuals or crowds of people panicking. It's a vision of nightmare for everyone involved in security and safety. Panic, after all, is anything but a normal or typical reaction in an emergency. Especially not in an industrial working environment, where the risk of possible unforeseen incidents is explained to every employee on a regular basis in corresponding training courses. In fact, experts believe that panic only occurs, if at all, whenever three factors come into play:

- Awareness of a great danger to oneself or to other affected persons
- Presumption that rescue is possible, but that escape routes and options are limited and cannot be followed without restriction
- Overall feeling of helplessness and inability to avoid the danger by other means

“Fear, despite being a powerful motivator, does not necessarily lead to panic behaviours in disaster and emergency situations.”

Paul und Ron Gantt ²

¹ 1 auf der Heide, Erik. Common Misconceptions about Disasters: Panic, the Disaster Syndrome, and Looting. In: O'Leary, M. 2004. The First 72 Hours: A Community Approach to Disaster Preparedness. Lincoln, Nebraska, iUniverse Publishing. Source: http://www.atsdr.cdc.gov/emergency_response/common_misconceptions.pdf, Dec. 2014)

² Gantt, P. + R. 2012. Disaster Psychology. In: Professional Safety, August 2012

Misconception 3:**In an emergency, everyone thinks only about saving themselves.**

On the contrary, it is precisely in extreme situations that people reveal themselves to be fundamentally social beings. Those who have experienced emergencies or disasters unanimously report of an overwhelming solidarity, willingness to help and generosity on the part of those affected.

89,9 % are generally willing to help³

Real-life observations and scientific studies also show that positive social behavior prevails in collectively experienced dangerous situations. This is all the more true, when the fellow victims are not strangers but familiar people, such as colleagues.



The "social factor" can therefore certainly become a supporting pillar of a company's safety culture - and there are numerous approaches to positively strengthen it. Here's how:

- Expand safety training to include interactive elements and team tasks.
- Build role reversal into training: This allows employees to take on different perspectives, e. g. that of a contractor who is unfamiliar with the plant's safety equipment.
- Practice acting together, including in simulated hazardous situations.
- Implement a buddy system in safety procedures, such as donning personal protective equipment.
- Establish roles and responsibilities for emergencies and communicate them clearly.
- Encourage open communication about mistakes and near misses and jointly analyze the causes of incidents with "how would I have done it" exercises.

Learn more about Escape and Rescue Solutions for the industry [click here](#) or scan:



³ Quelle: Ensure Studie (Schulze, Lorenz, Wenzel, Voss 2015a)