

Pay Attention! Critical But Incomplete Advice

Do you ever fail to notice signposts on the road? Do you ever bump into things or other people? How about forgetting whether you've turned off the coffeepot or locked the door? Or in the supermarket, how often have you had trouble locating an item that's right in front of you? These are all attention problems that might lead to an injury if they happen at the wrong time.

A recent large-scale study by the National Highway Traffic Safety Administration found driver inattention to be the leading cause of serious traffic crashes. Safety pros are well aware of the critical role insufficient attention plays in slips, trips, and falls. Let's consider this problem and some ways to address it.

Inattentive Blindness

You're cruising down a familiar highway, dividing your attention between oncoming vehicles and the vehicles observed in your rear-view mirror. Suddenly, a deer appears in the middle of the road. You slam on your brakes, but not fast enough. You crash into the animal. When asked why you didn't stop in time, you say, "I just didn't see him."

Does this scenario seem far-fetched? Perhaps you can't see yourself striking a deer with your vehicle, but I bet you have missed seeing something that was right in front of you. "If it were a snake it would've bitten you" was the refrain from my mother whenever I couldn't find a belonging that was right in front of me. Actually, I heard that statement frequently, and I often thought I had a special visual problem that glasses couldn't fix.

Today I realize my problem was not visual and was not unique. The problem is a common attentional deficit psychologists term “inattention blindness”. Studies of perception have demonstrated people's inability to detect unexpected objects in their field of vision when their attention is focused elsewhere.

For example, seminal research in 1998 by Drs. Arien Mack and Irvin Rock showed that participants missed seeing a brightly colored rectangle that appeared periodically on a computer screen. This happened when their attention was focused on evaluating the size of a small cross displayed next to the rectangle. Similarly, Drs. Daniel Simms and Christopher Chabris found that participants watching videotape of a basketball game didn't notice a woman walking across the court when they were asked to count the number of times a basketball was passed between the members of one team.

Blinded by Our Agenda

You're probably familiar with the term “selective attention”. You realize that our visual experiences are biased by previous life events, especially those that influence what we expect to see. Now consider how our current job or attentional focus can create inattention blindness.

Successful, hard-working people focus on the task at hand, sometimes to the exclusion of all other life events. In this case, it's not the past, but our present selective attention that's biasing perception. What can we do about this potential cause of an injury?

Obviously, changing one's attentional focus can prevent inattentive blindness. But this is easier said than done. When we're busy focusing on an important task, it's difficult and seemingly nonproductive to divert attention elsewhere. Nevertheless, this is the recommended intervention approach, and should be a planned strategy for situations with potential distracters that put people at risk for personal injury.

When focusing attention on details, step back intermittently and take a wider view of the situation. Scan for possible risks and safety-related consequences. Competent workers know where to focus their attention and what to tune out. They also know when to take a wide-angle view of their environment. We call this "scanning".

Plan to Scan

Some tasks require more attention scanning than attention focusing. Take driving, for example. Sustained focus on one aspect of driving is quite risky, as when giving inappropriate attention to a cell phone or vehicle entertainment system. Competent drivers systematically divert their attention from the road and oncoming traffic to adjacent vehicles and vehicles behind them, and they occasionally check the speedometer. In other words, they continually scan the visual fields observed through their windshield, side windows, and rear-view mirror.

Lack of periodic scanning or excessive focusing contributes to a number of workplace injuries. For example, many slips, trips, and falls are caused by narrowly-focused attention without sufficient environmental scanning. Blinded by

their current agendas, people can fail to see trip hazards. Likewise, many harmful contacts between body parts and machinery occur because of insufficient environmental scanning for moving objects.

Also, some injuries occur because people become unaware of the location of a body part in relation to an environmental hazard. For example, it's not uncommon for a foot to be crushed by the wheel of a vehicle because of insufficient attention focused on the location of one's feet. Thus, it's often critical to vary attention from scanning to focusing. The development of a critical behavior checklist (CBC), as I discussed in my April and May 2003 *ISHN* contributions, should include a discussion of when and how often to scan versus focus one's visual attention during the performance of a particular task. The appropriate use of a CBC in an interpersonal coaching session can increase the kinds of ongoing attention strategies needed throughout a particular job.

An Illustration Anecdote

Coincidentally, I experienced attentional deficiencies in the midst of preparing this paper. My experience illustrates the challenge of attention management, and shows that awareness is obviously not enough. Let me explain.

I drafted this paper while traveling to Erie, PA to present an ASSE workshop on safety leadership. After landing in Erie, I turned on my cell phone and noted I had a few messages. Instead of focusing my attention on walking safely to a taxi, I called my voice mail. But before I could retrieve my messages, I reached the cab stand and told the driver my hotel destination. Still dividing my

attention between my cell phone and my current transportation needs, I got into the cab and buckled up. Finally, I could relax and focus attention on my voice mail. However, while I was listening to a message, the cab driver asked me where I traveled from and the nature of my business. I had no trouble diverting my attention briefly to answer these questions, but the driver received my undivided attention when he asked about the Virginia Tech football team.

I put down my cell phone and talked football until reaching the hotel. When I got to my room I focused my attention again on listening to my phone messages. I reached in my backpack for my cell phone and was shocked. It wasn't there. After frantically searching my only bag, I concluded I must have left my cell phone on the backseat of the cab. Now my attention was narrowly focused on getting my cell phone back. I called the cab driver, and he verified my suspicions. I then waited outside the hotel entrance for the return of my cell phone.

These difficulties at the start of my Erie trip were actually surpassed by attention-contributing problems when returning home the following night. I got to my car at the Roanoke Airport about 11:30 pm only to find a dead battery. I soon noted that the headlight switch, attached to the turn signal lever, had been accidentally turned on.

I eventually located a battery charger and proceeded to connect the leads to my battery. Now my impatience and inattention contributed to the most serious problem of the trip. Without a flashlight, I could not detect the positive and negative labels on the battery poles. But I noted a black cover over one

connection, and incorrectly assumed it was the negative pole. You can imagine the rest of the story. I fried my battery, blew a main fuse, and at 2:00 am was towed 40 miles to Blacksburg, VA.

In Conclusion

These problems at the start and end of my recent consulting trip illustrate the critical role of attention in accomplishing daily routines. They also show how readily our attention can be diverted and lead to at-risk behavior and negative consequences. Moreover, these personal experiences demonstrate that it's not enough to know the critical role of attention in safely accomplishing daily activities.

There's obviously no easy, quick-fix solution to managing our attention for effective injury prevention. Awareness of inattention blindness and the availability of two basic attention strategies is just the beginning. We need to plan when to use a particular attention strategy, and we need ongoing feedback regarding excessive or inappropriate focusing or scanning. This is facilitated by the appropriate use of a critical behavior checklist, as I've discussed in earlier *ISHN* articles.

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