

Why do You Turn Down the Radio When You're Lost?

You're driving through suburbia one evening looking for the street where you're supposed to have dinner at a friend's new house.

You slow down to a crawl, turn down the radio, stop talking, and stare at every sign. Why *is* that? Neither the radio nor talking affects your vision.

Or *do* they?

In talking about using a mobile phone while driving, Steven Yantis, a professor in the Department of Psychological and Brain Sciences at **Johns Hopkins University**, had **this** to say:

"Directing attention to listening effectively 'turns down the volume' on input to the visual parts of the brain. The evidence we have right now strongly suggests that attention is strictly limited - a zero-sum game. When attention is deployed to one modality - say, in this case, talking on a cell phone - it necessarily extracts a cost on another modality - in this case, the visual task of driving."

He's talking about **divided attention**, or the ability to multitask and pay attention to two things at once. It's generally much harder than selective, or focused, attention. The factors that come into play are your **attentional capacity** and the **processing requirements** - essentially how much of which areas of your brain are needed to process the input.

Your attentional capacity can be taken up by inhibiting (tuning out) distractions, dividing your attention across multiple things, or even sustaining your attention on one thing (vigilance). Fatigue takes a big toll on attention. If you're tired, it's harder to concentrate.

Depression has a similar effect. In fact, many memory complaints may be actually depression- or fatigue-related reduced attentional capacity. And guess what? Getting older both reduces your attentional capacity *and* increases your processing requirements. Basically, it takes more and more inhibition skill to tune out distractions and stay focused. But all is not lost; there are steps you can take to multi- task better!

How to Divide Your Attention More Effectively

Do very different tasks. It's much harder to do two very similar tasks (read and talk) at the same time than it is to do two very different tasks (run and talk).

If you can use separate areas of the brain, that will help, but warning: the brain doesn't always segregate perceptual information as clearly as you might think.

Practice. If you're better at each task independently, you'll be better at doing them at the same time (even if you don't do them as well simultaneously as when you do each one separately).

Keep it simple. If you have to multitask, multitasking simple tasks will be more successful than trying to prove **Fermat's Last Theorem** in your head while simultaneously writing a novel.

Train your brain. Torkel Klingberg, of the **Karolinska Institute** in Stockholm, Sweden **said** "we have shown that working memory can be improved by training and that such training helps people with attention deficits and it also improves reasoning ability overall."

So, you're not crazy to turn down the volume when you're lost. By doing that, you are allowing more of your brain to focus on your mission — to find dinner!