

Who's slowing you down?

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Solitary workers may be faster workers, according to research by neuroscience investigator Dr. Timothy Welsh. Welsh has demonstrated that individuals given a specific task are slowed when witnessing someone perform a different task nearby, suggesting that workers may perform better if they are in isolation. His latest results were published in the December, 2007 issue of the *Journal of Human Movement Science*.

You may not be aware of it - they might not be aware of it, but the people in your work environment might be slowing you down.

New research by University of Calgary, Faculty of Kinesiology researcher Dr. Tim Welsh says that regardless of their intentions, having an individual working on a different task - within your field of vision - could be enough to slow down your performance.

“Imagine a situation like a complex assembly line,” said Welsh. “If you are doing a particular task and the person across from you is doing a different task, you’ll be slowed down regardless of their performance.”

The reason for this is a built-in response-interpretation mechanism that is hard-wired into our central nervous systems. If we see someone performing a task we automatically imagine ourselves performing that task. This behaviour is part of our mirror neuron system.

The findings from Welsh’s latest work on the topic are founding a paper titled “Seeing vs. believing: Is believing sufficient to activate the processes of response co-representation?” published in the December,

2007 issue of the *Journal of Human Movement Science*.

His set-up involved an individual performing a simple computer task alone, then with a partner performing a different but related task, and alone again after being told that the partner was going to continue to perform the task in another room.

“When an individual could see their partner actually performing the task, the partner’s performance interfered with their own performance, causing them to perform more slowly,” Welsh explained. “When the partner left the room and the individual could only see the results of the partner’s action - not the action itself - the interference effect was no longer observed and performance improved. We believe it’s because the individual no longer represented - or modeled – their partners’ actions, even though they could see the results of these actions.”

Welsh says his research could have implications for some industrial work settings.

“In a situation where speed and accuracy in performing a certain task are important, I think an argument could be made for a work setting in which people work in isolation – or at least with people who doing very similar tasks,” he said. “That will remove the involuntary modeling of another's behaviour, potentially improving speed and likely accuracy.”

Source: University of Calgary

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