

Multitasking -- not so bad for you after all?

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Our obsession with multiple forms of media is not necessarily all bad news, according to a new study by Kelvin Lui and Alan Wong from The Chinese University of Hong Kong. Their work shows that those who frequently use different types of media at the same time appear to be better at integrating information from multiple senses - vision and hearing in this instance - when asked to perform a specific task. This may be due to their experience of spreading their attention to different sources of information while media multitasking. Their study is published online in Springer's *Psychonomic Bulletin & Review*.

To date, there has been a lot of publicity about the detrimental aspects of media multitasking - using more than one form of media or technology simultaneously. Especially prevalent in young people, this could be instant messaging, music, web surfing, e-mail, online videos, computer games or social networking. Research has demonstrated impairments during certain cognitive tasks involving task switching, selective attention and working memory, both in the laboratory and in real-life situations. This type of cognitive impairment may be due to the fact that multitaskers tend to pay attention to various sources of information available in their environment, without sufficient focus on the information most relevant to the task at hand.

But does this cognitive style have any advantages? Lui and Wong's study explored the differences between media multitaskers' tendency and ability to capture information from seemingly irrelevant sources. In particular, they assessed how much two different groups (frequent multitaskers and light multitaskers) could integrate visual and auditory

information automatically.

A total of 63 participants, aged 19-28 years, took part in the experiment. They completed questionnaires looking at their media usage - both time spent using various media and the extent to which they used more than one at a time. The participants were then set a visual search task, with and without synchro-nous sound, i.e. a short auditory pip, which contained no information about the visual target's location, but indicated the instant it changed color.

On average, participants regularly received information from at least three media at the same time. Those who media multitasked the most tended to be more efficient at multisensory integration. In other words, they performed better in the task when the tone was present than when it was absent. They also performed worse than light media multitaskers in the tasks without the tone. It appears that their ability to routinely take in information from a number of different sources made it easier for them to use the unexpected auditory signal in the task with tone, leading to a large improvement in performance in the presence of the tone.

The authors conclude: "Although the present findings do not demonstrate any causal effect, they highlight an interesting possibility of the effect of media multitasking on certain cognitive abilities, multisensory integration in particular. Media multitasking may not always be a bad thing."

More information: Lui FH & Wong ACN (2012). Does media multitasking always hurt? A positive correlation between multitasking and multisensory integration. *Psychonomic Bulletin & Review*. [DOI 10.3758/s13423-012-0245-7](https://doi.org/10.3758/s13423-012-0245-7)

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