The gamer in your life isn't ignoring you, they're blind to your presence

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Dinner's in the dog. David Blackwell, CC BY-ND

It's irritating when you try to talk to someone playing a videogame. You tell them dinner is ready and they completely ignore you. Their eyes are glued to the screen, their fingers frantically pushing buttons. We find it rude and it has led to many an argument in the family home.

But research suggests that your children, partner or parent may not be simply ignoring you when they're plugged in to World of Warcraft – they may be experiencing something called "inattentional blindness.". This is when a person chooses to focus on one thing and as a result they are blind to everything else around them.

Psychologists say that our lives would be pretty chaotic if we didn't selectively attend to things in our environment in this way. Every noise, every sight, every smell, would distract us from our goals. We would simply feel overwhelmed with incoming information and we wouldn't be able to get anything done.

This is, in fact, a common experience of people who are diagnosed with attention deficit disorder. They feel overwhelmed because they are unable to focus their attention. People selectively attend to some things over others all the time to avoid this feeling. It's a natural process.

But there are some activities that absorb your attention more than others. When sports players or musicians feel extremely focused on what they are doing, they might say they are "in the zone" or "in full flow". Videogame players describe themselves as feeling "immersed" when they're focusing. They are fully engaged in a new reality, as though submerged in water.

In our research at the UCL Interaction Centre, we have been investigating immersion for several years now, following on from studies on inattentional blindness carried out by psychologists in the 1950s and 1960s. We ask our participants to focus on one source of information while ignoring others. But where older studies had participants staring at screens or listening to sounds, we asked ours to play a video game.

In one study we asked participants to play a driving game until they were told to stop but we didn't tell them how they would be told. Part way

through the game, a small pop-up box appeared on the bottom right of the screen saying "End of experiment – click here." Participants who performed well in the game were slower to click on the pop-up box. These were the players who rated themselves as highly immersed in our immersive experience questionnaire.

In another study we asked participants to play a spaceship game. They were told that several distracting sounds would be broadcast into the room but that they should ignore them and continue playing. Some of the sounds related to the game, such as a voice saying "space games are boring" while others were person-relevant, such as a voice saying "London is boring". Others, such as a voice saying "collecting stamps is boring", were simply irrelevant. At the end of the study, participants were asked to remember as many of the distracting sounds as possible. We found that participants who performed well in the game recalled fewer auditory distracters, particularly the irrelevant ones.

Our findings share quite a few similarities with traditional psychology experiments. People are less aware of visual distractions when they are highly focused on a videogame. They are less aware of auditory distractions too, with only the most relevant breaking through to their conscious attention.

Feedback and immersion

There is another a key difference between our work and those of traditional psychology experiments because unlike watching a screen, you get feedback when you play a videogame. We found that a person's immersive experience and the extent to which they were less aware of their distracters is related to the feedback they received. Positive feedback and positive perceptions of performance are essential for keeping a person's attention during gaming.

But even when an indicator of performance is clearly unrelated to their true performance, players are unable to prevent themselves from interpreting it as meaningful. In another version of our spaceship experiment, we rigged the game so that no matter how well the player controlled the spaceship, they would either score really well or score really badly. Despite it being obviously rigged we found the same results. Participants who scored high in the game rated themselves as more immersed and recalled fewer auditory distractions. What seems to be important for immersion then is not that players actually perform well, but that they are able to perceive themselves as performing well.

These results reveal the powerful impact that feedback has on people's immersive experiences and their motivation to continue with an activity. Receiving regular feedback that you are doing well is pleasurable. It might even be viewed as addictive in some ways, as it motivates the player to keep coming back for more.

This in part helps us explain why the gamer in your life ignores you when you tell them it's dinnertime. Game designers have clocked that providing feedback as part of the game encourages us to keep on playing. This same feedback encourages inattentional blindness in the player. And given that children are more prone to inattentional blindness than adults it's a wonder that they hear anything you say.

Source: The Conversation