New Study Shows Humans Are on Autopilot Nearly Half the Time

Humans are mentally checked out, unhappily, nearly half the time.

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A new book by Daniel Gilbert and Matthew Killingsworth, confirms something we've all suspected: most of us are 'mentally checked out' a good portion of the time.

It turns out that just under half the time, 46.9% to be exact, people are doing what's called 'mind wandering'. They are not focused on the outside world or the task at hand, they are looking into their own thoughts. Unfortunately, the study of 2,250 people proposes, most of this activity doesn't make us feel happy.

The study was designed to find out what kind of activities people did throughout a day, and which made them happiest. Mindwandering was just one of 22 possible activities people could list.

Researchers found that people were at their happiest when making love, exercising, or engaging in conversation. They were least happy when resting, working, or using a home computer.

People reported that they mind wandered no less than 30% of the time, during everything except love making. And here's the kicker: people report being unhappy during mind wandering.Something that we do nearly half the time makes us unhappy! No wonder there are so many spiritual and religious traditions trying to implore people to 'live in the present'.

Whether people are mind wandering turns out to be a better predictor of happiness than the actual activies people are engaged in. Think about just one implications of this finding: it explains why one person's hell on earth (say, filling in forms) can be another person's heaven, if they find themselves focused on the task.

This finding, for me, connects back to the whole idea of the 'narrative' circuitry, versus the circuitry for 'direct experience', that I wrote about in an earlier post,

called the neuroscience of mindfulness. I think it's worth reposting some of this here, as it's so relevant.

Mindfulness and the brain A 2007 study called "Mindfulness meditation reveals distinct neural modes of self-reference" by Norman Farb at the University of Toronto, along with six other scientists, broke new ground in our understanding of mindfulness from a neuroscience perspective.

Farb and his colleagues worked out a way to study how human beings experience their own moment-to-moment experience. They discovered that people have two distinct ways of interacting with the world, using two different sets of networks. One network for experiencing your experience involves what is called the "default network", which includes regions of the medial prefrontal cortex, along with memory regions such as the hippocampus. This network is called default because it becomes active when not much else is happening, and you think about yourself. If you are sitting on the edge of a jetty in summer, a nice breeze blowing in your hair and a cold beer in your hand, instead of taking in the beautiful day you might find yourself thinking about what to cook for dinner tonight, and whether you will make a mess of the meal to the amusement of your partner. This is your default network in action. It's the network involved in planning, daydreaming and ruminating.

This default network also become active when you think about yourself or other people, it holds together a "narrative". A narrative is a story line with characters interacting with each other over time. The brain holds vast stores of information about your own and other people's history. When the default network is active, you are thinking about your history and future and all the people you know, including yourself, and how this giant tapestry of information weaves together. In this way, in the Farb study they like to call the default network the 'narrative' circuitry. (I like the 'narrative circuit' term for every-day usage as it's easier to remember and a bit more elegant than 'default' when talking about mindfulness.)

When you experience the world using this narrative network, you take in information from the outside world, process it through a filter of what everything means, and add your interpretations. Sitting on the dock with your narrative circuit active, a cool breeze isn't a cool breeze, it's a sign than summer will be over soon, which starts you thinking about where to go skiing, and whether your ski suit needs a dry clean.

The default network is active for most of your waking moments and doesn't take much effort to operate. There's nothing wrong with this network, the point here

is you don't want to limit yourself to only experiencing the world through this network.

The Farb study shows there is a whole other way of experiencing experience. Scientists call this type of experience one of direct experience. When the direct experience network is active, several different brain regions become more active. This includes the insula, a region that relates to perceiving bodily sensations. The anterior cingulate cortex is also activated, which is a region central to switching your attention. When this direct experience network is activated, you are not thinking intently about the past or future, other people, or yourself, or considering much at all. Rather, you are experiencing information coming into your senses in real time. Sitting on the jetty, your attention is on the warmth of the sun on your skin, the cool breeze in your hair, and the cold beer in your hand.

A series of other studies has found that these two circuits, narrative and direct experience, are inversely correlated. In other words, if you think about an upcoming meeting while you wash dishes, you are more likely to overlook a broken glass and cut your hand, because the brain map involved in visual perception is less active when the narrative map is activated. You don't see as much (or hear as much, or feel as much, or sense anything as much) when you are lost in thought. Sadly, even a beer doesn't taste as good in this state.

Fortunately, this scenario works both ways. When you focus your attention on incoming data, such as the feeling of the water on your hands while you wash up, it reduces activation of the narrative circuitry. This explains why, for example, if your narrative circuitry is going crazy worrying about an upcoming stressful event, it helps to take a deep breath and focus on the present moment. All your senses "come alive" at that moment.

Let's recap these ideas. You can experience the world through your narrative circuitry, which will be useful for planning, goal setting, and strategizing. You can also experience the world more directly, which enables more sensory information to be perceived. Experiencing the world through the direct experience network allows you to get closer to the reality of any event. You perceive more information about events occurring around you, as well as more accurate information about these events. Noticing more real-time information makes you more flexible in how you respond to the world. You also become less imprisoned by the past, your habits, expectations or assumptions, and more able to respond to events as they unfold.

In the Farb experiment, people who regularly practiced noticing the narrative

and direct experience paths, such as regular meditators, had stronger differentiation between the two paths. They knew which path they were on at any time, and could switch between them more easily. Whereas people who had not practiced noticing these paths were more likely to automatically take the narrative path.

This isn't just a theory. A study by Kirk Brown found that people high on a mindfulness scale were more aware of their unconscious processes. Additionally these people had more cognitive control, and a greater ability to shape what they do and what they say, than people lower on the mindfulness scale. If you're on the jetty in the breeze and you're someone with a good level or mindfulness, you are more likely to notice that you're missing a lovely day worrying about tonight's dinner, and focus your attention onto the warm sun instead. When you make this change in your attention, you change the functioning of your brain, and this can have a long-term impact on how your brain works too.

Why we need to keep being reminded about mindfulness John Teasdale, recently retired, was one of the leading mindfulness researchers. Teasdale explains, "Mindfulness is a habit, it's something the more one does, the more likely one is to be in that mode with less and less effort... it's a skill that can be learned. It's accessing something we already have. Mindfulness isn't difficult. What's difficult is to remember to be mindful." I love this last statement. Mindfulness isn't difficult: the hard part is remembering to do it.

Practice, but you don't have to sit down and breathe. So practicing mindfulness is important, as you're more likely to then remember to do it. The key to practicing mindfulness is just to practice focusing your attention onto a direct sense, and to do so often. It helps to use a rich stream of data. You can hold your attention to the feeling of your foot on the floor easier than the feeling of your little toe on the floor: there's more data to tap into. You can practice mindfulness while you are eating, walking, talking, doing just about anything, with the exception of drinking a beer in the sun, which works for only a limited time before your attention leaves to go and party (the neuroscience of all that will have to wait for another book.)

Building mindfulness doesn't mean you have to sit still and watch your breath. You can find a way that suits your lifestyle. My wife and I built a 10 second ritual into the evening meal with my kids, which involves just stopping and noticing three small breaths together before we eat. The added bonus is it makes a great dinner taste even better.

What ever practice you do develop, practice it. The more mindful you become, the better decisions you will make, and the more you will achieve your own goals, rather than other people's goals for you.

And, it turns out, the more mindful you are, the less you mind wander, and the happier you are too.