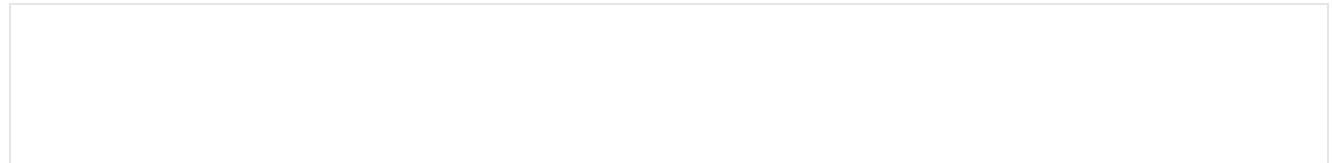


## MIND &amp; BRAIN

## A Wandering Mind is an Unhappy One

New research underlines the wisdom of being absorbed in what you do

By Jason Castro on November 24, 2010



We spend billions of dollars each year looking for happiness, hoping it might be bought, consumed, found, or flown to. Other, more contemplative cultures and traditions assure us that this is a waste of time (not to mention money). ‘Be present’ they urge. Live in the moment, and there you’ll find true contentment.

Sure enough, our most fulfilling experiences are typically those that engage us body and mind, and are unsullied by worry or regret. In these cases, a relationship between focus and happiness is easy to spot. But does this relationship hold in general, even for simple, everyday activities? Is a focused mind a happy mind? Harvard psychologists Matthew Killingsworth and Daniel Gilbert decided to find out.

In a recent study published in *Science*, Killingsworth and Gilbert discovered that an unnervingly large fraction of our thoughts - almost half - are not related to what we’re doing. Surprisingly, we tended to be elsewhere even for casual and presumably enjoyable activities, like watching TV or having a conversation. While you might hope all this mental wandering is taking us to happier places, the data say otherwise. Just like the wise traditions teach, we’re happiest when thought and action are aligned, even if they’re only aligned to wash dishes.

The ingredients of simple, everyday happiness are tough to study in the lab, and aren’t easily measured with a standard experimental battery of forced choices, eye-tracking, and questionnaires. Day to day happiness is simply too fleeting. To really study it’s causes, you need to catch people in the act of feeling good or feeling bad in real-world settings.

To do this, the researchers used a somewhat unconventional, but powerful, technique known as experience sampling. The idea behind it is simple. Interrupt people at unpredictable intervals and ask them what they're doing, and what's on their minds. If you do this many times a day for many days, you can start to assemble a kind of quantitative existential portrait of someone. Do this for many people, and you can find larger patterns and tendencies in human thought and behavior, allowing you to correlate moments of happiness with particular kinds of thought and action.

To sample our inner lives, the team developed an iPhone app that periodically surveyed people's thoughts and activities. At random times throughout the day, a participant's iPhone would chime, and present him with a brief questionnaire that asked how happy he was (on a scale from 1-100), what he was doing, and if he was thinking about what he was doing. If subjects were indeed thinking of something else, they reported whether that something else was pleasant, neutral, or unpleasant. Responses to the questions were standardized, which allowed them to be neatly summarized in a database that tracked the collective moods, actions, and musings of about 5000 total participants (a subset of 2250 people was used in the present study).

In addition to awakening us to just how much our minds wander, the study clearly showed that we're happiest when thinking about what we're doing. Although imagining pleasant alternatives was naturally preferable to imagining unpleasant ones, the happiest scenario was to not be imagining at all. A person who is ironing a shirt and thinking about ironing is happier than a person who is ironing and thinking about a sunny getaway.

What about the *kinds* of activities we do, though? Surely, the hard-partyers and world travelers among us are happier than the quiet ones who stay at home and tuck in early? Not necessarily. According to the data from the Harvard group's study, the particular way you spend your day doesn't tell much about how happy you are. Mental presence - the matching of thought to action - is a much better predictor of happiness.

The happy upshot of this study is that it suggests a wonderfully simple prescription for greater happiness: think about what you're doing. But be warned that like any prescription, following it is very different from just knowing it's good for you. In addition to the usual difficulties of breaking bad or unhelpful habits, your brain may also be wired to work against your attempts stay present.

Recent fMRI scanning studies show that even when we're quietly at rest and following instructions to think of nothing in particular, our brains settle into a conspicuous pattern of activity that corresponds to mind-wandering. This signature 'resting' activity is coordinated across several widespread brain areas, and is argued by many to be evidence of a brain network that is active by default. Under this view our brains climb out of the default state

when we're bombarded with input, or facing a challenging task, but tend to slide back into it once things quiet down.

Why are our brains so intent on tuning out? One possibility is that they're calibrated for a target level of arousal. If a task is dull and can basically be done on autopilot, the brain conjures up its own exciting alternatives and sends us off and wandering. This view is somewhat at odds with the Killingsworth and Gilbert's findings though, since subjects wandered even on 'engaging' activities. Another, more speculative possibility is that wandering corresponds to some important mental housekeeping or regulatory process that we're not conscious of. Perhaps while we check out, disparate bits of memory and experience are stitched together into a coherent narrative – our sense of self.

Of course, it's also possible that wandering isn't really 'for' anything, but rather just a byproduct of a brain in a world that doesn't punish the occasional (or even frequent) flight of fancy. Regardless of what prompts our brains to settle into the default mode, its tendency to do so may be the kiss of death for happiness. As the authors of the paper elegantly summarize their work: "a human mind is a wandering mind, and a wandering mind is an unhappy mind."

On the plus side, a mind can be trained to wander less. With regular and dedicated meditation practice, you can certainly become much more present, mindful, and content. But you'd better be ready to work. The most dramatic benefits only really accrue for individuals, often monks, who have clocked many thousands of hours practicing the necessary skills (it's not called the default state for nothing).

The next steps in this work will be fascinating to see, and we can certainly expect to see more results from the large data set collected by Killingsworth and Gilbert. It will be interesting to know, for example, how much people vary in their tendency to wander, and whether differences in wandering are associated with psychiatric ailments. If so, we may be able to tailor therapeutic interventions for people prone to certain cognitive styles that put them at risk for depression, anxiety, or other disorders.

In addition to the translational potential of this work, it will also be exciting to understand the brain networks responsible for wandering, and whether there are trigger events that send the mind into the wandering or focused state. Though wandering may be bad for happiness, it is still fascinating to wonder why we do it.

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