

What does/could mind wandering mean/do to/for you?

Wandering through a few interpretations of mind wandering: a non-exhaustive, crude and rough guide/literature review by a rough guide-cum-mind wandering extraordinaire Kai Syng Tan

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What is mind wandering? Depending your world/discipline/field/tools/lived experience, the term seems to bear multiple interpretations, with its meaning contested and debated about. Which is precisely why #MagicCarpet wants to take it on, conflicts/ambiguity and all. After all, the 'magic' that #MagicCarpet aims for is not to provide answers but to raise questions and irritate existing assumptions about what how we understand and relate to ourselves and others (Tan and Asherson 2017). If along the way our interdisciplinary conversations/discussions/debates/arguments can challenge/complicate/even extend our respective and collective understanding of the what and how we do what we do, it would be quite 'magical' indeed. Thus, perhaps another (clumsier albeit but subjective and more nuanced?) way to frame the question could be [What does/could mind wandering mean or do to/for you?](#)

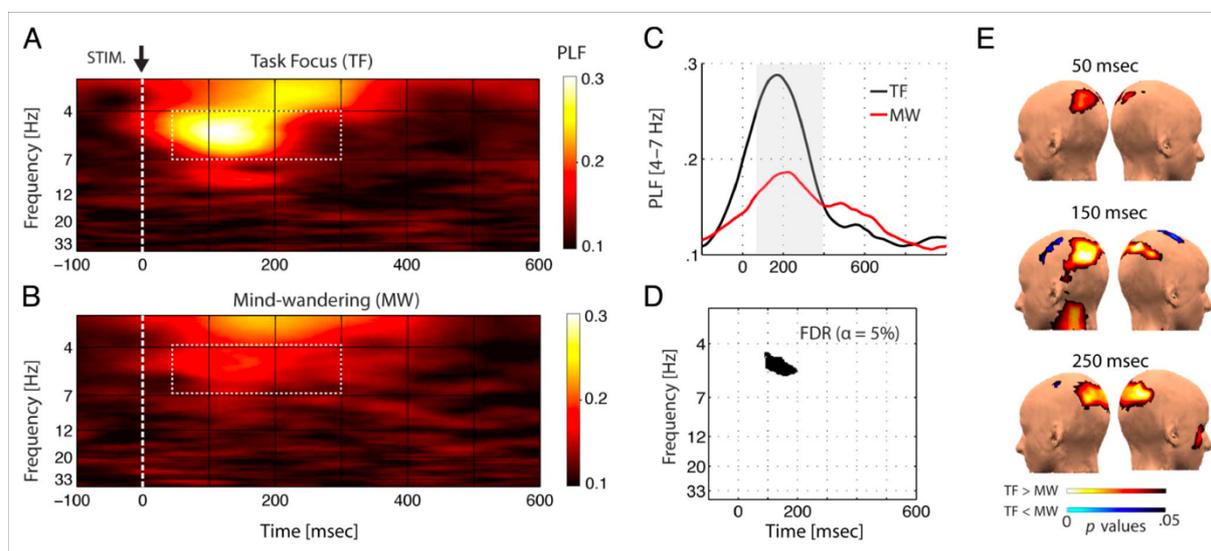


Figure 3. Phase-locking factor (PLF). Group-averaged PLF values for (A) task focus (TF) and (B) mind-wandering (MW) over the parietal scalp region are shown for 2–35 Hz and 100 msec before to 600 msec after stimulus onset (dashed white line $t = 0$). Diminished phase synchronization of the trial-to-trial brain response to visual stimuli was found during periods of mind-wandering compared with task focus for oscillations within the theta-band in 50–150 and 150–300 msec poststimulus time windows (dotted white boxes). (C) Time course of the average parietal theta-band (4–7 Hz) PLF for task focus and mind-wandering states showing a significant interaction between conditions (gray background indicates significant time windows ($p < .01$)). (D) Significant time–frequency pixels over parietal scalp site (FDR-corrected, $\alpha = .05$) contrasting mind-wandering and task focus for every point in time–frequency space (200 time points \times 200 frequencies \times 4 scalp regions). (E) Topography of the increase in theta-band (4–7 Hz) PLF during task focus compared with mind-wandering states at 50, 150, and 250 msec.

Image extracted from (Baird et al. 2014) Explanation by Natali Bozhilova, a King's College London researcher: These are EEG analyses of **oscillatory patterns**. The author used a **vigilance task** (the task asks the participants to observe a series of stimuli and respond to only infrequent stimuli). As a result, the participant had to spend a lot of time looking at frequent, repetitive stimuli in order to respond accurately once an infrequent stimuli appears (20% of the time). The authors asked the participants to report whether they were focused on the task or mind-wandering while they were performing the vigilance task. When the participants were focused on the task, their brain oscillatory patterns also indicated that they were **on-task** (increased theta which is a biological marker of active cognitive processing, or in other words, one is doing the task). In contrast, when the participants reported that they were **mind-wandering**, the **brain oscillatory patterns showed absence of this theta** (or the brain also showed **no active task engagement**).

'THE SCIENCES'

Let's start with *some* of the science out there. **Psychologists** define mind wandering as moments when 'attention **switches** from a current task to unrelated thoughts and feelings'. While a universal human experience, *excessive* mind wandering can be unproductive, and research is emerging from the field of **psychiatry** to identify mind wandering as a key feature of ADHD ([Franklin et al. 2014](#)). At the same time, it has been pointed out that self-generated thought '**allows consciousness freedom from the here and now**', thus 'reflecting a **key evolutionary adaptation** for the mind'; in allowing us to '**connect our past and future selves together**', mind wandering can 'provide a **source of creative inspiration**' ([Smallwood and Andrews-Hanna 2013](#)). It has thus been proposed that using mind wandering to frame ADHD enables us to not only view it as a disorder associated with impairment, but open up discussions about its 'positive traits such as creativity' ([Mowlem 2017](#)), and a scale named Mind Excessively Wandering Scale or MEWS ([Mowlem et al. 2016](#)) that attempts to elucidate 'how far is too far' ([Tan and Asherson 2017](#)) has also been developed as part of this new pathway of research. ☛ *Which parts of the brain are activated when mind wandering happens? This is where the exciting new work of PhD student [Natali Bozhilova](#) comes in...*

FINE ART AND RELATED FIELDS

Wander beyond the world of science, and we will run into yet more varied discourses and trajectories. In the **art world**, there are strong lineages for artists to use and indeed actively generate



spontaneous thoughts as part of the creative process. Think **Surrealism, Breton, Woolf's, Beckett's** and **Stan Brakhage's** stream of consciousness. Think **El Greco, Bosch, Goya** (left, *The Giant* 1808-12), **Jodorowsky, Svankmejer, Matthew Barney, Maya Deren, Tarkovsky, Chagall, Darger** and so-called 'outsider artists' and many more whose work create such specific 'worlds' with accompanying laws and lexicon that seem to have born from their inner vision (and then perhaps subsequently very precisely developed, cultivated, built etc). Then there are techniques like **chance, improvisation** (Cage et al). (Equally, there are rich traditions of precision, of mathematical calculation, causality and linearity. Think Bach, Structuralist film and music, patterning, Kubelka, Paul Sharits). Then there is the

Situationists' dérive, and prior to and after that, the range of notions crossing fine art and literature and film including that of wandering lonely as a cloud, flaneuring with a tortoise, digital roaming, gallivanting, drifting, rambling. ☛ All that said, it has to be pointed out/argued that any discussion

of mind wandering in the arts (and elsewhere?) must recognise that spontaneous thoughts and thought processes that are 'less spontaneous' and 'more calculated' are **not binary** opposites, and that any/most creative processes necessarily involves an oscillation of both and other/different thought processes at various stages of the production of a work. ☛ And this is without mentioning how people in the creative fields have often pursued **mind-altering experiences** through artificial means. Think Coleridge/opium, Hemingway/Bukowski/Pollock/alcohol, Baudelaire/hashish, Velvet Underground/heroin and so on and so forth (whereas runners' poison is the endocannabinoid and the elusive runner's high... another story, eg, a certain PhD thesis ([Tan 2014](#))).

SPORT, AND PHILOSOPHY



The Monkey God from Daoist mythology, Journey to the West: always lithe, nimble, mischievous. Image from a comic book series Adventures of the Monkey God from (Yeo 2012)

Speaking of sport, we find notions of **association and dissociation** associated with performance. In fact, Team GB sport psychologist Professor **Steve Peters'** analogy of the **limbic/emotional system** to a **mischievous chimp** ([Peters 2012](#)) seem to run hand-in-hand with **Guatama Buddha's** conceptualisation of the 'monkey mind' that is capricious, whimsical and restless, manifested for instance in the legendary **monkey god**. But how does this monkey relate to the **Hanuman**? While Buddha didn't approve of the unsettled mind (the Chinese word for meditation literally means 'quiet sitting', 静坐), how does he reconcile that with the wandering body that he himself undertook in order to finally attain his enlightenment? (And if Buddha were into dichotomies, would he have placed **mindfulness** as an 'opposite' of mind wandering?) Buddha aside, there is a large assortment of characters from all walks and worlds who wandered. They run the gamut of the ancient Chinese philosopher-cum-hobo **Lao Zi** through to the fantasist **Don Quixote** and 20th century British essayist **Bruce Chatwin**, who romanticises about the importance of 'journeys of mind and body', without which we 'rot', in his appropriately entitled collection of essays, the *Anatomy of Restlessness* (1996, 100–106). This then makes you think quotes by Lao Zi and others equating motion with life, stillness with death:

*'We are soft and nimble when alive, firm and rigid when dead'. — Lao Zi, 500BCE
(Lao Tzu and Lau 1963, chap. 76)*

'Man's unhappiness springs from his incapacity to stay quietly in one room. [...] Our nature consists in motion; complete rest is death'. — Blaise Pascal, 1669 (Pascal 1999 Thought 142)

'[Running] is an example of being alive. If you think of death as perfectly still, and so the opposite of death would be to move as fast as you possibly can'. — Martin Creed (Tate 2008)

And Buddha thought that the wandering mind has to be tamed (and that we should cease desire etc), Lao Zi celebrated 'muddy thinking'. Daoist philosophy (which Lao Zi founded) foregrounded '**wuwei**', which refers to 'spontaneity' and 'playful freedom' (Girardot 2009, 210). Lao Zi's own name referred to 'old child' and he lived up to it:

*'Like a child that has not yet learnt to smile, restless as if I have no home to return to. Everybody seems satisfied; I alone am insatiable. My mind is that of a fool – ignorant and stupid! **Other people are clear; I alone am mixed-up.** [...] Other people have their reasons for acting; I alone am foolish and crude'. (Lao Tzu and Lau 1963, chap. 20)*

To help grasp the Daoist thinking, early sinologists philosophised it as 'poetic thinking', 'analogical thinking', which has since been developed into what has been called 'correlative thinking'. Its characteristics include being non-linear, processual, restless and open to possibilities (Hall and Ames 1995; Miller 2003; Graham 1986). This is an area that interests me vastly: the restless thinking mind in relation to the restless, moving (specifically running) body. Plagiarising from my own literature review form a previous body of research:

This is a 'spatial way of thinking', a way of 'mapping the relationships between things that do not exist in a linear cause-and-effect sequence' (Miller 2003, p.60). [Hall and Ames additionally] refer to it as 'aesthetic order', vis-à-vis the dominant order of what has been variously described as the rational, causal or logical thinking. According to the philosophers, instead of the analytical, abstract and formal, correlative thinking emphasises the aesthetic and imaginative, as well as the spontaneous, experiential and concrete. Additionally, elements governed by the rational order are 'replaceable and substitutable'; since the same form is repeatable, and the contents are 'ultimately irrelevant'. However, as form is inseparable from contents in a correlative order, each mapping is specific, unique, 'ad hoc' and 'irreplaceable'. In other words, rather than being absolute structures from which substances may simply be replaced, correlativity is processual, and is open to endless possibilities. This, according to Hall and Ames, underlies the Chinese pluralistic view of the world as '10,000 things'. (Tan 2014, 63)

While the figure of '10,000' is meant to be metaphorical, that is exactly, or more or less, the number of things in my mind at any one time! ...

THE PLOT THICKENS

It is not #MagicCarpet's task to re-present, illustrate or survey or even sample what is 'out there' regarding mind wandering. It is however its/my task to try to work through some of these concepts, draw out zones of contact and conflict, and map and pull out areas that are 'striking' academically, personally, aesthetically, politically and so on, and can open up potential spaces for creative collisions and productive antagonisms (Latham and Tan 2016).

The plot thickens... To be continued....

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