

PSYC 420  
Studying ongoing thoughts W22.  
Professor Jonathan Smallwood  
Winter Semester: Jan 10<sup>th</sup> 2022

As a result of the ongoing pandemic, Weeks 1

Christoff, K., Mills, C., Andrews-Hanna, J. R., Irving, Z. C., Thompson, E., Fox, K. C., & Kam, J. W. (2018). Mind-wandering as a scientific concept: cutting through the definitional haze. *Trends in cognitive sciences*, 22(11), 957-959.

Wednesday. Christoff, K., Irving, Z.C., Fox, K.C.R., Spreng, R.N., Andrews-Hanna, J.R. (2016). Mind-wandering as spontaneous thought: a dynamic framework. *Nature Reviews Neuroscience*, 17, 718-730, doi:10.1038/nrn.2016.113

### Week 3. Relationship to conscious experience

Monday. Smallwood, J. et al., (2021). The neural correlates of ongoing thought. *IScience*, 24. doi.org/10.1016/j.isci. 2021.102132

Wednesday. Gonzalez-Castillo, J., Kam, J.Y., Hoy, C.W., Bandettini, P.A. (2021). How to interpret resting-state fMRI: Ask your participants., *The Journal of Neuroscience*, 10, 41(6): 1130-1141.

### Week 4. Executive control

Monday. Executive failure: McVay, J. C., & Kane, M. J. (2010). Does mind wandering reflect executive function or executive failure? Comment on Smallwood and Schooler (2006) and Watkins (2008).

Response: Smallwood, J. (2010). Why the global availability of mind wandering necessitates resource competition: reply to McVay and Kane (2010).

Wednesday. Turnbull, A., Wang, H. T., Murphy, C., Ho, N. S. P., Wang, X., Sormaz, M., ... & Vatansever, D. (2019). Left dorsolateral prefrontal cortex supports context-dependent 3prioritization of off-task thought. *Nature communications*, 10(1), 1-10.

### Week 5. Dreaming

Monday. Horikawa, T., Tamaki, M., Miyawaki, Y. & Kamitani, Y. (2013). Neural decoding of visual imagery during sleep. *Science*, 340, 639-642. DOI: 10.1126/science.1234330

Wednesday. Siclari, F, Baird, B, Perogamvros, L., Bernardi, G., LaRocque, J.L., Riedner, B., Boly, M., Postle, B.R., Tononi, G. (2017). The neural correlates of dreaming. *Nature Neuroscience*, 20, 6, 872-878.

### Week 6. Association with creativity

Monday. Gable, S. L., Hopper, E. A., & Schooler, J. W. (2019). When the muses strike: Creative ideas of physicists and writers routinely occur during mind wandering. *Psychological science*, 30(3), 396-404.

Wednesday. Beaty, R. E., Kenett, Y. N., Christensen, A. P., Rosenberg, M. D., Benedek, M., Chen, Q., ... & Silvia, P. J. (2018). Robust prediction of individual creative ability from brain functional connectivity. *Proceedings of the National Academy of Sciences*, 115(5), 1087-1092.

### Week 7- Reading Week

### Week 8 - Ongoing thought in daily life

Monday. Ho, N. S. P., Poerio, G., Konu, D., Turnbull, A., Sormaz, M., Leech, R., ... & Smallwood, J. (2020). Facing up to the wandering mind: Patterns of off-task laboratory

thought are associated with stronger neural recruitment of right fusiform cortex while processing facial stimuli. *NeuroImage*, 116765.

Wednesday. McKeown, B., Poerio, G.L., Strawson, W.H., Martinon, L., Riby, L.M., Jefferies, E., McCall, C & Smallwood, J. (2021). The impact of social isolation and changes in work patterns on ongoing thought during the first COVID-19 lockdown in the United Kingdom. *Proceedings of the National Academy of Sciences*, 118(4), e2102565118 <https://doi.org/10.1073/pnas.2102565118>

#### Week 9 Dynamics of ongoing thought

Monday. Zanesco, A.P. (2020). Quantifying streams of thought during cognitive task performance using sequence analysis. *Behavioral Research Methods*, 52, 2417-2437, DOI: [10.3758/s13428-020-01416-1](https://doi.org/10.3758/s13428-020-01416-1).

Wednesday. Karapanagiotidis, T., Vidaurre, D., Quinn, A.J., Vatansever, D., Poerio, G.L., Turnbull, A., Ho, N.S.P., Leech, R., Bernhardt, B.C., Jefferies, E., Margulies, D.M., Nichols, T.E., Woolrich, M.W., Smallwood, J. (2020). The psychological correlates of distinct neural states occurring during wakeful rest. *Scientific Reports*, 10, 21121, <https://doi.org/10.1038/s41598-020-77336-z>

#### Week 10. Relationship to well being

Monday.





## Overall Grade Composition

Weekly Participation	20%
Discussion Board comments	20%
Presentations	20%
Research proposal Draft	10%
Final Research paper	30%
Total	100%

### Suggested Time Commitment

In this course, you should expect to invest on average 8 to 10 hours per week. This will include the time you spend in class or lab/tutorial, studying course material, and completing weekly homework or preparing for your larger assignments and exams. You are encouraged to use a term at a glance and a weekly study schedule (visit [SASS](#)) that distributes the 8-10 hours per week and avoid 'cramming'. This way you will be more likely to complete the course successfully and remember what you learned longer.

### Grading Scheme and Grading Method

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Official Grade Conversion Scale:

Grade	Numerical Course Average (Range)
A+	90-100
A	85-89
A-	

All course announcements will be made on the on-Q site associated with the class and via email to the class.

### Accommodations for Disabilities

Queen's University is committed to achieving full accessibility for people with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all their academic activities. The Senate Policy for Accommodations for Students with Disabilities was approved at Senate in November 2016. If you are a student with a disability and think you may need academic accommodations, you are strongly encouraged to contact the Queen's Student Accessibility Services (QSAS) and register as early as possible. For more information, including important deadlines, please visit the QSAS website.

### Academic Consideration for Students in Extenuating Circumstances

Academic consideration is a process for the university community to provide a compassionate response to assist students experiencing unforeseen, short-term extenuating circumstances that may impact or impede a student's ability to complete their academics. This may include but is not limited to:

- f* Short-term physical or mental health issues (e.g., stomach flu, pneumonia, COVID diagnosis, vaccination, etc.)
- f* Responses to traumatic events (e.g., Death of a loved one, divorce, sexual assault, social injustice, etc.)
- f* Requirements by law or public health authorities (e.g., court date, isolation due to COVID exposure, etc.)

Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances. For more information, please see the Senate Policy on Academic Consideration for Students in Extenuating Circumstances.

Each Faculty has developed a protocol to provide a consistent and equitable approach in dealing with requests for academic consideration for students facing extenuating circumstances. Arts uc gr ua st dent



For more information on the Academic Consideration process, what is and is not an