

Dr. Dan Denis
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Employment

Marie Curie Senior Research Fellow

Psychology
University of York
Heslington, York
1 Jun 2022 → 31 May 2024

Lecturer

Lecturer
Psychology
University of York
Heslington, York
1 Jun 2024 → present

Postdoctoral Research Associate

Department of Psychology, University of Notre Dame
United States
2 Sept 2019 → 31 Dec 2021

Postdoctoral Research Fellow

Department of Psychiatry, Harvard Medical School
United States
3 Jan 2017 → 31 Aug 2019

Research Assistant

King's College London, MRC Social, Genetic, and Developmental Psychiatry Centre, Institute of Psychiatry, Psychology, and Neuroscience
United Kingdom
17 Oct 2016 → 17 Mar 2016

Qualifications

PhD, Department of Psychology, University of Sheffield
1 Oct 2013 → 22 Dec 2016
Award Date: 22 Aug 2017

Masters, Department of Psychology, Goldsmiths, University of London
26 Sept 2012 → 26 Sept 2013
Award Date: 26 Sept 2013

BSc, Department of Psychology, Goldsmiths, University of London
20 Sept 2009 → 20 Jun 2012
Award Date: 20 Jun 2012

Projects

MemOpt: Optimizing memory: Understanding the role of sleep in selective memory strengthening MC Individual Fellowship - Daniel Denis
Denis, D. (Principal investigator)

Research outputs

Memory deficits link trait-like EEG spectral profiles during REM and slow-wave sleep with shared symptoms of depression and anxiety

Niu, X., Sanders, K. E. G., Denis, D., Cunningham, T. J., Zhang, G., Kensinger, E. A. & Payne, J. D., 26 Feb 2026, In: Behavioural Brain Research. 498, 17 p., 115932.

Dimensions of Trauma: The Relationship Between Daytime PTSD Cluster Symptomology and Sleep Measures

Bostian, C. M., Daffre, C., Denis, D., Yuksel, C., Watford, L., Oliver, K. I., Seo, J., Moore, K., Gazecki, S., Lasko, N. B., Gannon, K. & Pace-Schott, E. F., 10 Feb 2026, (Accepted/In press) In: Psychological Trauma: Theory, Research, Practice, and Policy.

Recovery sleep after total sleep deprivation preserves neutral and enhances emotional declarative memory

Cunningham, T. J., Denis, D., Zeng, S., Bottary, R., Kensinger, E. A. & Stickgold, R., 6 Feb 2026, In: Sleep Advances. 7, 15 p., zpaf093.

Sleep and wake markers of thalamocortical functioning in early-course psychosis and first-degree relatives

Baran, B., Denis, D., Mylonas, D., Arpacı, H., Spitzer, C., Raymond, N., Talbot, C., Kohnke, E., Larson, O., Stickgold, R., Keshavan, M. & Manoach, D. S., 24 Jan 2026, (Accepted/In press) In: Schizophrenia.

Slow oscillation-sleep spindle coupling is associated with expectancy measures of fear extinction retention in trauma-exposed individuals

Denis, D., Bottary, R., Cunningham, T. J., Davidson, P., Yuksel, C., Milad, M. R. & Pace-Schott, E. F., 1 Sept 2025, (E-pub ahead of print) In: Biological Psychiatry: Cognitive Neuroscience and Neuroimaging.

No support for an effect of a daytime nap on the consolidation or generalization of fear learning

Davidson, P., Garcia, S. M., Denis, D., Kensinger, E. A. & Pace-Schott, E. F., 26 Jul 2025, (E-pub ahead of print) In: Neuropsychologia. 109241.

Intimate partner violence, mental health, and associations with self-reported and objective sleep quality in pregnancy

Park, J. E., Denis, D., Payne, J. D. & Miller-Graff, L. E., 14 May 2025, In: Sleep and Vigilance.

Both slow wave and rapid eye movement sleep contribute to emotional memory consolidation

Yuksel, C., Denis, D., Coleman, J., Ren, B., Oh, A., Cox, R., Morgan, A., Sato, E. & Stickgold, R., 23 Mar 2025, In: Communications Biology. 8, 10 p., 485.

Sleep and retrieval practice both strengthen and distort story recollection

Denis, D., DiPietro, C., Nathan Spreng, R., Schacter, D. L., Stickgold, R. & Payne, J. D., 16 Dec 2024, In: Sleep Advances. 5, 10 p., zpae083.

Sleep oscillations and their relations with sleep-dependent memory consolidation in early course psychosis and first-degree relatives

Denis, D., Baran, B., Mylonas, D., Spitzer, C., Raymond, N., Talbot, C., Kohnke, E., Larson, O., Stickgold, R., Keshavan, M. & Manoach, D. S., 1 Dec 2024, In: Schizophrenia Research. 274, p. 473-485 13 p.

Electrophysiological mechanisms of memory consolidation in human non-rapid eye movement sleep

Denis, D. & Cairney, S. A., Jun 2024, In: Current Sleep Medicine Reports. 10, 2, p. 181-190 10 p.

Targeted dream incubation at a distance: The development of a remote and sensor-free tool for incubating hypnagogic dreams and mind-wandering

Bellaïche, L., Haar Horowitz, A., McClay, M., Bottary, R., Denis, D., Chen, C., Maes, P. & Seli, P., 28 May 2024, In: Frontiers in Sleep. 3, 15 p., 1258345.

Targeted memory reactivation during non-rapid eye movement sleep enhances neutral, but not negative, components of memory

Denis, D. & Payne, J. D., 20 May 2024, In: eNeuro. 11, 5, 13 p., 0285-23.

Delineating memory reactivation in sleep with verbal and non-verbal retrieval cues

Guttesen, A., Denis, D., Gaskell, G. & Cairney, S. A., 16 May 2024, In: Cerebral Cortex. 34, 11 p., bhae183.

Age-related positivity effect in emotional memory consolidation from middle age to late adulthood

Niu, X., Utayde, M. F., Sanders, K. E. G., Denis, D., Kensinger, E. A. & Payne, J. D., 24 Jan 2024, In: Frontiers in behavioral neuroscience. 18, 13 p., 1342589.

Neural reactivation during human sleep

Denis, D. & Cairney, S. A., 6 Dec 2023, (E-pub ahead of print) In: Emerging Topics in Life Sciences. 12 p.

The influence of encoding strategy on associative memory consolidation across wake and sleep

Denis, D., Bottary, R., Cunningham, T. J., Tcheukado, M.-C. & Payne, J. D., Sept 2023, In: Learning & memory (Cold Spring Harbor, N.Y.). 30, 9, p. 185-191 7 p.

Beta spectral power during sleep is associated with impaired recall of extinguished fear

Denis, D., Bottary, R., Cunningham, T. J., Drummond, S. P. A. & Straus, L. D., 5 Aug 2023, (E-pub ahead of print) In: Sleep.

The associations between paranormal beliefs and sleep variables

Rauf, B., Perach, R., Madrid-Valero, J. J., Denis, D., Sharpless, B. A., Poerio, G. L., French, C. C. & Gregory, A. M., 1 Aug 2023, In: Journal of sleep research. 32, 4, 9 p., e13810.

The effects of cognitive reappraisal and sleep on emotional memory formation

Martinez, B. S., Denis, D., Kim, S. Y., DiPietro, C. H., Stare, C., Kensinger, E. A. & Payne, J. D., 12 Jun 2023, In: Cognition & emotion. 37, 5, p. 942-958 17 p.

Associations between sleep variables and ostensibly paranormal experiences and paranormal beliefs: A scoping review

Rauf, B., Perach, R., Madrid-Valero, J. J., Denis, D., Sharpless, B. A., Farron, H., French, C. C. & Gregory, A. M., 18 Apr 2023, (E-pub ahead of print) In: British journal of psychology. 22 p.

Isolated sleep paralysis: Clinical features, perception of aetiology, prevention and disruption strategies in a large international sample

Rauf, B., Sharpless, B. A., Denis, D., Perach, R., Madrid-Valero, J. J., French, C. C. & Gregory, A. M., 1 Apr 2023, In: Sleep medicine. 104, p. 105-112 8 p.

Changes in Sleep Regularity and Perceived Life Stress across the COVID-19 Pandemic: A Longitudinal Analysis of a Predominately Female United States Convenience Sample

Bottary, R., Fields, E. C., Ugehoke, L., Denis, D., Mullington, J. M. & Cunningham, T. J., 26 Dec 2022, In: Clocks & sleep. 5, 1, p. 1-9 9 p.

How the 2020 US Presidential election impacted sleep and its relationship to public mood and alcohol consumption

Cunningham, T. J., Fields, E. C., Denis, D., Bottary, R., Stickgold, R. & Kensinger, E. A., 8 Dec 2022, In: Sleep Health. 8, 6, p. 571-579 9 p.

Sleep preferentially consolidates negative aspects of human memory: Well-powered evidence from two large online experiments

Denis, D., Sanders, K. E. G., Kensinger, E. A. & Payne, J. D., Nov 2022, In: Proceedings of the National Academy of Sciences of the United States of America. 119, 44, 8 p., e2202657119.

Slow oscillation-spindle coupling is negatively associated with emotional memory formation following stress

Denis, D., Kim, S. Y., Kark, S. M., Daley, R. T., Kensinger, E. A. & Payne, J. D., 1 May 2022, In: European Journal of Neuroscience. 55, 9, p. 2632-2650 19 p.

Sleep Power Spectral Density and Spindles in PTSD and Their Relationship to Symptom Severity

Denis, D., Bottary, R., Cunningham, T. J., Zeng, S., Daffre, C., Oliver, K. L., Moore, K., Gazecki, S., Kram Mendelsohn, A., Martinez, U., Gannon, K., Lasko, N. B. & Pace-Schott, E. F., 19 Nov 2021, In: Frontiers in psychiatry. 12, 14 p., 766647.

Sleep spectral power correlates of prospective memory maintenance

Cunningham, T. J., Bottary, R., Denis, D. & Payne, J. D., 1 Sept 2021, In: Learning & memory (Cold Spring Harbor, N.Y.). 28, 9, p. 291-299 9 p.

Sleep Spindles Preferentially Consolidate Weakly Encoded Memories

Denis, D., Mylonas, D., Poskanzer, C., Bursal, V., Payne, J. D. & Stickgold, R., 5 May 2021, In: Journal of neuroscience. 41, 18, p. 4088-4099 12 p.

Using EEG microstates to examine post-encoding quiet rest and subsequent word-pair memory

Poskanzer, C., Denis, D., Herrick, A. & Stickgold, R., 1 May 2021, In: Neurobiology of learning and memory. 181, 10 p., 107424.

Exploding head syndrome: clinical features, theories about etiology, and prevention strategies in a large international sample

Sharpless, B. A., Denis, D., Perach, R., French, C. C. & Gregory, A. M., 1 Nov 2020, In: Sleep medicine. 75, p. 251-255 5 p.

A paradoxical effect of sleep for emotional reactivity in insomnia disorder?

Bottary, R. & Denis, D., 3 Feb 2020, In: Sleep. 43, 7, 4 p., zsa005.

Is digital cognitive behavioural therapy for insomnia effective in treating sub-threshold insomnia: a pilot RCT

Denis, D., Eley, T. C., Rijdsdijk, F., Zavos, H. M., Keers, R., Espie, C. A., Luik, A. I., Badini, I., Derveeuw, S., Hodsoll, J. & Gregory, A. M., 1 Feb 2020, In: Sleep medicine. 66, p. 174-183 10 p.

The roles of item exposure and visualization success in the consolidation of memories across wake and sleep

Denis, D., Schapiro, A. C., Poskanzer, C., Bursal, V., Charon, L., Morgan, A. & Stickgold, R., 2020, In: Learning & memory (Cold Spring Harbor, N.Y.). 30, 7, p. 451-456 6 p.

Associations between exploding head syndrome and measures of sleep quality and experiences, dissociation, and well-being

Denis, D., Poerio, G., Derveeuw, S., Badini, I. & Gregory, A. M., 2019, In: Sleep. 42, 2, zsy216.

Associations between pre-sleep arousal and insomnia symptoms in early adulthood: a twin and sibling study

Schneider, M. N., Denis, D., Buysse, D. J., Kvas, Y. & Gregory, A. M., 2019, In: Sleep. 42, 5, zsz029.

A systematic review of variables associated with sleep paralysis

Denis, D., French, C. C. & Gregory, A. M., 2018, In: Sleep Medicine Reviews. 38, p. 141-157

Relationships between sleep paralysis and sleep quality: current insights

Denis, D., 2018, In: Nature and Science of Sleep. 10, p. 355-367

Subjective sleep-related variables in those who have and have not experienced sleep paralysis

Denis, D., French, C. C., Schneider, M. N. & Gregory, A. M., 2018, In: Journal of sleep research. 27, 5, e12650.

Externalizing Behaviors and Callous-Unemotional Traits: Different Associations With Sleep Quality

Denis, D., Akhtar, R., Holding, B. C., Murray, C., Panatti, J., Claridge, G., Sadeh, A., Barclay, N. L., O'Leary, R., Maughan, B., McAdams, T. A., Rowe, R., Eley, T. C., Viding, E. & Gregory, A. M., 2017, In: *Sleep*. 40, 8, zsx070.

Sleep Treatment Outcome Predictors (STOP) Pilot Study: a protocol for a randomised controlled trial examining predictors of change of insomnia symptoms and associated traits following cognitive-behavioural therapy for insomnia in an unselected sample

Denis, D., Eley, T. C., Rijsdijk, F., Zavos, H. M., Keers, R., Espie, C. A., Luik, A. I., Badini, I., Derveeuw, S., Romero, A., Hodson, J. & Gregory, A. M., 2017, In: *BMJ Open*. 7, 11, e017177.

Terror and bliss? Commonalities and distinctions between sleep paralysis, lucid dreaming, and their associations with waking life experiences

Denis, D. & Poerio, G., 2017, In: *Journal of sleep research*. 26, 1

The role of cortical sensorimotor oscillations in action anticipation

Denis, D., Rowe, R., Williams, A. M. & Milne, E., 2017, In: *Neuroimage*. 146, p. 1102-1114

A twin and molecular genetics study of sleep paralysis and associated factors

Denis, D., French, C. C., Rowe, R., Zavos, H. M., Nolan, P. M., Parsons, M. J. & Gregory, A. M., 2015, In: *Journal of sleep research*. 24, 4, p. 438-446

Activities

Frontiers in Sleep (Journal)

Denis, D. (Guest editor)

26 Aug 2022 → 21 Aug 2023