Cormac **Monaghan**

PhD Researcher · Data scientist

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Profile

Data science PhD researcher at Maynooth University funded by Research Ireland. Focusing on applying advanced statistical analysis and causal inference techniques to the study of procrastination, particularly within older adult populations.

Experience

Teaching Assistent   *Sept 2023 - Present*

Maynooth University

- Providing teaching support in advanced statistical methods in psychology to undergraduate and postgraduate students.
- Providing teaching support in statistical theory and linear algebra to undergraduate students.
- Providing lecturing support in statistical theory to undergraduate student

Quantitative Risk Analyst   *June 2023 - Aug 2023*

Grant Thornton

- Designed and implemented a decision making toolkit for binary classification problems in R Shiny.
- Aided in research on the use of AI and machine learning in the financial sector.

Research Intern   *Feb 2021 - May 2021*

Connolly Counselling Centre

- Carried out several literature reviews surrounding mental health and treatment.
- Designed various infographic leaflets for distribution to center's staff and clients.

Research Intern   *Oct 2020 - Dec 2020*

Maynooth University

- Conducted a literature review on the brain regions associated with autobiographical memory.
- Responsible for designing an interactive statistical decision tree.
- Carried out a qualitative analysis of audio transcripts on autobiographical reminiscence in older adults.

Education

Ph.D. Data Science   *Sept 2022 - Present*

Hamilton Institute, Maynooth University

- Focused on the application of advanced statistical methods to study procrastination in aging populations.
- Developed an R package for cognitive function classification using Health and Retirement Study data.
- Disseminated research in various journals and international conferences.

BSc. Psychology   *Sep 2018 - May 2022*

Department of Psychology, Maynooth University

- Final Grade：72%.
- Ranked 4th out of a class of 21.
- Thesis Title：Academic Procrastination and Perfectionism – The Mediating Role of Temporal Thought.

Publications

JOURNAL ARTICLES
- McHugh Power, J, Homeniuk, R, **Monaghan, C,** Bantry-White, E, & O'Reilly, A. (2025). Loneliness Research in Ireland: What Should we Prioritise? *ALONE*
- **Monaghan, C,**, de Andrade Moral, R, & McHugh Power, J. (2025). Procrastination and preventive health-care in the older U.S. population. *Preventive Medicine*. 108185. 10.1016/j.ypmed.2024.108185
- **Monaghan, C,**, Avila-Palencia, I., Han, S. D., & McHugh Power, J. (2024). Procrastination, depressive symptomatology, and loneliness in later life. *Aging & Mental Health*, 1-8. 10.1080/13607863.2024.2345781
- Allen, A. P., Doyle, C., Doyle, C. M., **Monaghan, C,**, Fitzpatrick, N., & Roche, R. A. (2021). What we talk about when we talk about the past: Discursive psychological analysis of autobiographical reminiscence in older Irish adults. *Psychobiographical illustrations on meaning and identity in sociocultural contexts*, 327-344. 10.1007/978-3-030-81238-6_15

CONFERENCE PROCEEDINGS
- **Monaghan, C.**, de Andrade Moral, R, & McHugh Power, J. (2024). Modelling the Non-linear Associations between Age and Health: Implications for Care, *Age and Ageing*, Volume 53, Issue Supplement_4. 10.1093/ageing/afae178.084
- **Monaghan, C.**, & Moral, R. A., & Power, J. M. (2024). The health risks of procrastination in older adult populations. [Poster Presentation]. European Health Psychology Society 38th Annual Conference, Cascais, Portugal.
- **Monaghan, C.**, & Power, J. M. (2023). Age, procrastination, depressive symptomatology, and loneliness: a structural equation modelling approach. *Age and Ageing*, 52(Supplement_3), 10.1093/ageing/afad156.066
- **Monaghan, C.** (2021). Academic procrastination and perfectionism - the mediating role of temporal thought. [Poster Presentation]. Annual Student Psychology Conference 2022. Waterford Institute of Technology, Ireland. 10.13140/RG.2.2.19926.3232

R PACKAGES
- **Monaghan, C.**, de Andrade Moral, R, & McHugh Power, J. (2024). *lwc2022: Langa-Weir Classification of Cognitive Function for 2022 HRS Data*. R package version 1.0.0. https://github.com/C-Monaghan/lwc2022

Skills

Data Analysis

Data wrangling; Data visualisation; Statistical modelling; Time series; Mixed models; Structural equation modelling

Programming Languages

R, R Shiny, NetLogo

Markup Languages

Markdown, Quarto, LaTeX