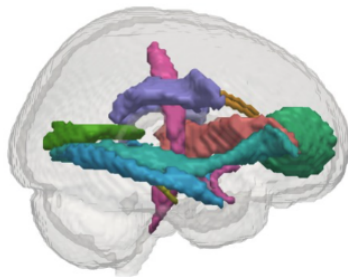
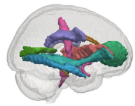


# Lab Manual

Lifespan Cognitive Dynamics Lab



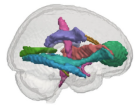
**Radboudumc**  
university medical center



This document represents the lab manual for the Lifespan Cognitive Dynamics lab, led by Rogier Kievit at the Donders Institute (for more about lab manuals, see [here](#)). These guidelines are always in flux. If you are a current lab member, you can make edits, suggestions or modifications. If you are unsure about amendments or extensions, please contact Rogier or add it as a 'suggestion', or consult the lab 'general' channel.

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# 1. Lab philosophy

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## 1.1 Science and Mission

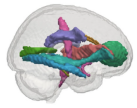
In the Lifespan Cognitive Dynamics lab, based at the Donders Institute/RadboudUMC in Nijmegen, we are interested in how, and why, cognitive abilities change across the lifespan. To study these questions we use a range of multivariate methods in large samples to examine how cognitive abilities affect each other, how brain structure and function supports changes in cognitive abilities, and how cognitive functioning interfaces with lifestyle factors such as physical and mental health, social and intellectual engagement and environmental factors. Our research is supported by the RadboudUMC, NWO, the ESRC and MRC, the Wellcome Trust and the European Union. [The lab website](#) is maintained by one individual (Post-doc or PhD) from our group. You'll find our newest papers and preprints here. In the lab, we practise Open Science to the greatest extent possible (an excellent primer is to be found [here](#)). We strive to do the best science we can, using rigorous methods and approaches. I care about us contributing 'true', rigorous and reproducible knowledge to the field, whatever the nature of our findings.

## 1.2 Code of conduct

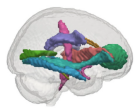
We want to ensure that every member of the lab, visiting or longer term, has an enjoyable and fulfilling experience. Accordingly, everyone who participates in any LCD Lab project or activity is expected to show respect and courtesy to other community members at all times. We are dedicated to a **harassment-free experience for everyone**, regardless of gender, gender identity and expression, sexual orientation, disability, physical appearance, body size, race, age or religion. **We do not tolerate harassment by and/or of members of our community in any form.** We are particularly motivated to support new and/or anxious collaborators, people who are looking to learn and develop their skills, and anyone who has experienced discrimination in the past.

- All communication - online and in person - should be appropriate for a professional audience including people of many different backgrounds. Sexual language and imagery is not appropriate at any time.
- Be kind to others. Do not insult or put down other contributors.
- Behave professionally. Remember that harassment and sexist, racist, or exclusionary jokes are not appropriate.

Harassment includes offensive verbal comments related to gender, sexual orientation, disability, physical appearance, body size, race, religion, sexual images in public spaces, deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption of discussions, inappropriate physical contact, and unwelcome sexual attention. If you have any concerns about the above, you can always contact Rogier. Of course, it may be that you



would like external input. If you feel unsafe, are exposed to undesirable behaviour, are involved in a dispute, are worried about academic integrity, or there is something else you would like to speak to a confidential advisor with, please see [this](#) page for confidential advisors and/or contact [vertrouwenspersonen@ru.nl](mailto:vertrouwenspersonen@ru.nl). PhDs and postdocs can also contact the DCCN's confidential contact person for a low-threshold conversation and help: Esther Aarts ([esther.aarts@donders.ru.nl](mailto:esther.aarts@donders.ru.nl)).



## 2. Day to day in the lab

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### 2.1 Getting started

To get started in the lab, 1) read the lab manual, 2) join the lab Slack account (ask Rogier/Emma if you get stuck) and 3) ensure you are part of the lab calendar. As a member of the lab, I expect you to contribute constructively and actively. Most lab members will have a desk on the 2nd floor of the Trigon building (Kapittelweg 29). Many will go for lunch in the canteen (Betty and Mora), a good place to get to know people within and beyond the lab.

### 2.2 Working hours

I expect you to work the hours stipulated in your contract. In general, you can structure those hours in a way that works best for you – some work better in the evening, others in the morning. As long as you can reconcile your hours with more centralized events (e.g. labmeetings, departmental talks) you are free to structure them according to your preference. It is good for the lab and the Donders more generally to regularly see people in person too. The guidelines are to come in ‘in person’ 3 days a week - this is not an iron rule, but a good target. The optimal days to be present are Mondays (Bring your Lunch), Tuesdays and Thursdays (Lab meeting, theme events). For the labmeeting, attendance in person is expected unless you are only able to join online.

The nature of academia is such that there will be occasional deadlines with a burst of additional work – and other weeks where you take some (extra) time off to recharge. In general, what I care about is that you can do rigorous and creative work, and finish projects in a timely manner, whilst maintaining a healthy work-life balance for the duration of your membership of the lab. If you feel you are struggling, reach out to me or your mentor to see what can be done.

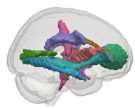
### 2.3 Roles

Different individuals in the lab will have different roles, each of which comes with a set of expectations. Below I briefly summarize each role and any unique challenges, although every person will be different.

- **PI**

*Role.* Rogier Kievit is the PI of the LCD lab. The PI of the lab is responsible for the scientific vision of the lab, the sustained funding, etc. He oversees all projects (exceptions exist) and holds annual meetings with all lab members.

*Unique challenges.* The PI's calendar and to-do list is always fuller than possible. It's good to announce ahead of time if an important draft or code is headed my way so I can block out time to look at it. Also don't be shy to tell me clearly about deadlines, and don't be afraid to send a reminder if the deadline is close. A more specific challenge for me is that I live in Utrecht and have a son with a range of special needs, necessitating occasional last minute cancellations and changes.



## ▪ Postdocs

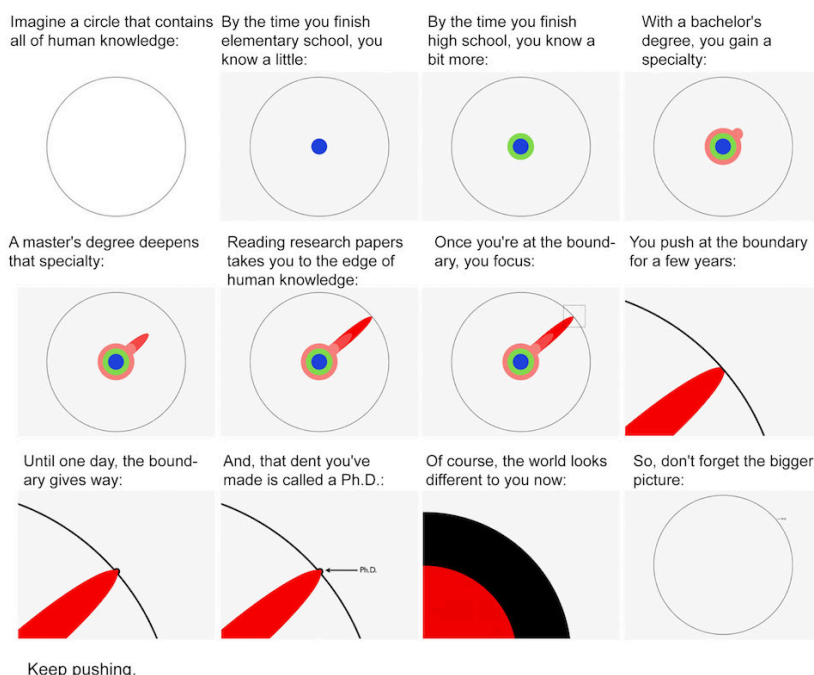
*Role.* 'Postdoc' is a broad term for academic post past a PhD, but prior to a 'faculty' post (assistant/associate/full professor). The scope, autonomy and responsibilities of a postdoc will vary depending on whether they are funded through fellowships, hired on specific projects or some other arrangement. Many will be quite far along on a path to independence, be able to set their own research agenda, supervise and mentor more lab members and stand in for Rogier whenever necessary.

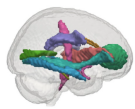
*Unique challenges.* The postdoc is often a challenging time when postdocs consider or are actively pursuing a further career in academia, either through independent fellowships or applying for faculty positions.

## ▪ PhD students

*Role.* PhD students undertake a (usually) four year trajectory towards a PhD thesis: A coherent piece of scholarship led by the student. A good (approximate) guideline for a PhD student is to work towards approximately one publishable project per year. It is good practice to aim to publish papers during your thesis, to increase your exposure and experience with academia and share your ideas with the world - although the process of publication can be unpredictable. The content of the thesis will be developed together with Rogier and other co-supervisors.

*Unique challenges.* PhD trajectories are a challenging but often rewarding journey towards gaining skills, becoming an independent scientist and developing your own thinking. Many experience it as quite a challenging process with ups and downs. A crucial aspect towards success and enjoyment is finding support within but also beyond the lab, so that you can navigate the ups and downs together with fellow PhD students. The Donders organizes Thursday drinks (Thirsty Thursday at the Cultuurcafe), and many other avenues for interaction in person and online exist.





- **Research Assistants**

*Role:* Research assistants are employed either in a fixed or flexible (a '0 hours contract' to allow more flexibility around exams). Their expertise may range from organization to testing to task development and validation to ethics drafting.

*Unique challenges.* Many RA's perform their role in less than a full time setting, meaning they are likely also studying or working alongside their project tasks, requiring good logistical management. Also, RA's over time can become just as knowledgeable as other lab members in more traditional academic trajectories, blurring the lines of expertise and experience. Discuss with Rogier if you want to gain more experience and responsibility and develop specific skills further, or, for instance, contribute as a co-author towards a manuscript. A lot is possible as long as we can combine it with your core responsibilities.

- **Interns and lab rotations**

*Role:* We regularly have interns and lab rotations, ranging from relatively short (6 week rotations) to long (yearlong internships). Each comes with different goals and expectations. The general guideline is that for the duration of your lab membership, you are a fully fledged member of the lab, and welcome (always) and expected (if compatible with your other duties and schedule) at lab events.

*Unique challenges.* Every internship and lab rotation has different goals and expectations (i.e. what you need to do or achieve by the end). If you are the intern/visitor make sure to tell us what you need to gain so we can build your visit around that goal. A shorter period in the lab can mean it's a bit harder to get to know everyone, so make sure you jump right into the slack, regular meetings and local events.

- **Visitors**

*Role:* We regularly have visitors from other labs and countries, ranging from PhD students doing part of their project at the lab to full professors spending some or all of their sabbatical with us.

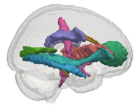
*Unique challenges.* Finding accommodation in Nijmegen.

## 2.4 Communication

We have a lab slack channel. This is an active place which is useful for anything from stats and career advice to arranging lunch at the Donders. Use it liberally - it's a good way to have our lab be a community even for those physically elsewhere.

## 2.5 Meetings

- **One on one meetings**



I'll generally meet with PhD students and visiting students once a week at a regular time. The meeting frequency for postdoctoral fellows is governed by their preferences: either arrange a regular slot or email/slack Rogier when needed. You can always send me a Slack message for additional meetings. If we arrange a meeting please add it to the lab calendar.

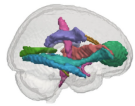
### ▪ **Labmeetings**

Labmeetings are generally held once a week on Thursday mornings. To allow us to schedule around any other commitments, please add any away time/days to the lab google calendar. If you don't have access to the Gmail calendar yet, just send Rogier an email.

#### A quick guide to lab meetings:

- We usually meet once a week for a one-hour lab meeting.
- We usually alternate update meetings with journal/methods clubs.
- In *update meetings* all lab members give a brief overview of what they have been working on since the last update meeting and discuss problems, ideas for new projects etc. We usually have a couple of slides each, but it's really up to you. If you do have slides, please send them to the labmeeting coordinator (currently Emma Meeussen) by the evening before the meeting or save them to the lab folder. At the beginning of each term, we usually do one meeting where we discuss what we are planning to achieve during the term (and revisit these targets at the end).
- In *journal clubs* we take turns to present a paper. Usually we cover an empirical study, but reviews can be presented, too. When it is your turn, you can choose a paper yourself, or someone else in the lab may send you a suggestion. It's usually a good idea to prepare a few slides giving an overview of the paper and a slide with a few discussion points. Please send around your chosen paper at least two working days before the meeting so that everyone can read it. We regularly have guest speakers from all over the world – Sometimes they present their own work, other times they join in for the discussion section only. Either can work – If there's someone who you'd like to hear speak, let me know and we can invite them.
- In *methods clubs*, we take turns to present a shiny new (or old) software tool, method, approach, R package, way to write papers – whatever is useful for our work and tickles your fancy. You can also approach other lab members with requests if they have used a method you would like to use. Whenever possible, try to prepare a hands-on tutorial for everyone to do that teaches the method (or find a suitable tutorial someone else has prepared). Please send around any technical requirements (e.g. bring laptops, install a software ) two working days before the lab meeting. We have organised a wide range of other one-off lab meetings, ranging from 'how to review a paper' to 'how to present', 'how to answer questions at talks' and discussions on career progression.
- *Labmeeting organizer* - Different lab members will take on the role of organizing lab meetings. At present, Emma Meeussen organizes the labmeetings. This entails:





- Planning the schedule ahead in Google calendar - What will we be doing (journal club, updates), who is speaking etc.
- Sending reminders at the start of the week and on the day through Slack
- Be in the meeting room (usually Brenda Milner) a few minutes in advance to set up the screen/zoom/owl
- Inviting external speakers for journal clubs
- Solicit ideas for future topics (e.g. one offs such as 'how to review a paper' or 'how to prepare a talk')
- Assign slots (e.g. journal clubs)
- Check everyone who should be invited is invited
- To book a room (e.g. if the time/day changes), email [secretariaat.cns@radboudumc.nl](mailto:secretariaat.cns@radboudumc.nl)

#### ▪ **Shut up and write**

During Shut Up And Write we sit together in a space and Shut Up and Write. At the start of the session you share your goal (what will you write and how much) and at the end tell everyone how it went. The key is to not work on anything else. SUAW sessions may also be virtual (start and end on zoom) but are most productive in person. A SUAW can be initiated by anyone, usually on the SUAW slack channel.

#### ▪ **Eat the Frog**

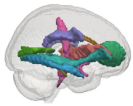
*'If it's your job to eat a frog, it's best to do it first thing in the morning. And if it's your job to eat two frogs, it's best to eat the biggest one first.'* - Mark Twain

Every lab member, from RA to PI, will have admin jobs they should have done last week but never get round to. During Eat The Frog sessions (usually 14-15 on Thursday) we sit together in one space and (only!) work on these tasks, writing what you will finish on the whiteboard at the start. Some examples include updating your CV, filling out paperwork, updating an online profile or finishing the references in your paper. Use this hour productively so that these endless small tasks don't affect you the rest of your week.

## 2.6 *The Department*

As a member of the LCD lab, you are also a member of the Cognitive Neuroscience (CNS) Department at CNS, of the Donders Institute more generally, and of one or more Donders themes (often theme 2 or 3). It is important to be a 'good citizen' of the department, by attending events, volunteering for various roles or committees, and taking an active role whenever you can. This will make the department a nicer and more valuable place to be, expand your network and skill set and get the most out of your time here.

*Mattermost* is a similar tool to Slack, used for communication and connection by



the Donders Institute and DCCN. You can sign up/sign in and then join various channels: [https://tsgdoc.socsci.ru.nl/index.php/Mattermost\\_Social\\_Sciences](https://tsgdoc.socsci.ru.nl/index.php/Mattermost_Social_Sciences)

## 2.7 Papers and publications

### ▪ Authorship guidelines

It is good practice to think about co-authors and collaborators early on for a new project. The general assumption is that if you lead on a project, you will be the lead (i.e. first) author on the resulting paper, regardless of your seniority. This role, of lead author, comes with the responsibility of seeing a paper through to publication – this includes the original submission, but if necessary also the resubmissions, revisions and adaptations required in the publication process. If you are not able to fulfil these latter roles due to new circumstances (e.g. starting a new job, a different post), we will endeavour to arrange a solution that does justice to both the work of the person who took the lead, but also the large amount of work someone who might take on board the unfinished project – possible solutions include, for instance, shared first authorships. This can also be necessary if someone who leaves the lab becomes unresponsive for prolonged periods (for whatever reason), in which case shared authorships may also be the best (only) solution to ensure work does not become ‘stuck’.

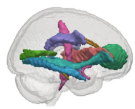
### ▪ Co-authorship

Co-authorship entails a) a substantive contribution to the manuscript, a willingness to share responsibility for the content, and a commitment to responsiveness around the time of submission. It can be hard to quantify co-authorship roles, but this set of guidelines is a good way to think about it. When embarking on a project, it can be useful to discuss the plan for co-authorship at the start to set expectations and ensure commitment.

In projects where Rogier takes a supervisory role (most projects in the lab), he will generally be last (‘senior’) author. However, this is certainly not an iron rule (e.g. if my contribution is not sufficient to warrant authorship, if you conduct a collaborative project where another scholar takes a supervisory role, or if you publish legacy projects from previous posts that have no direct connection to the lab). Given the complexity and multifaceted nature of our projects, we will often benefit from the expertise and input of specific individuals within and beyond the lab, whose contributions regularly rise to the level meriting co-authorship. If you are unsure about authorship, or inviting collaborators, you can always discuss informally with Rogier.

### ▪ Submission

For submission of a paper, including resubmission, it is crucial you get consent from all co-authors, especially for the very first round of submission. If you are



worried about particular deadlines, discuss with Rogier and he can help ensure those are met. However, always ensure your co-authors are aware of the status of the paper. If, for example, you want to maximize efficiency in case of a desk reject, then simply ask the co-authors in advance ('If X desk rejects it, I plan to submit to Y').

## 2.8 Conferences, talks and posters

### ▪ Which conferences?

The lab has diverse interests and applications. This has many benefits but also means we don't have a particular conference as 'home base'. However, some we often favour are OHBM, Flux, APS and ICPS. You can ask Rogier or other lab members which conferences might best suit your interest. It is up to you to think of conference plans and plan accordingly. Many conferences are in the May-July period of the year.

### ▪ Process

If you are a funded lab member we have resources to cover registration, travel and accommodation. The general guideline is that I can cover approximately 1 'proper' (multi day, outside the Netherlands) conference per year. In general you should go to a conference to present your work from the lab as either a poster, talk or symposium, and of course to attend other talks and posters of interest. For more local conferences (Netherlands or nearby) more is certainly possible. The general process is that you a) discuss with Rogier your plans or options and then b) book your own travel and reimburse it through Declaree. This is a suboptimal process as it puts undue financial strain on early career scholars. If the finances for a trip are a problem, come speak to me to see what we can do - it is possible to receive an advance from the RadboudUMC.

### ▪ Climate responsibility.

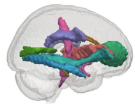
In the lab, we recognize the climate emergency and try our best to be mindful of our carbon footprint. That means to take the train whenever you can, even if it costs a bit more. That does not mean flying for conferences is necessarily out of the question, but we have to do so deliberately: it has to be a really valuable opportunity, and we should plan ahead to make the most of it (including a workshop, other local talks or events etc.). Maps like this one from UU are a good starting point:



## The Train Zone map

For students





## 2.9 Outreach and science communication

In the lab, we believe in sharing knowledge. Not only with other scientists such as at conferences or in talks, but also with potential stakeholders and the general public. We therefore encourage lab members to translate their findings into understandable language and to think about non-academic outlets for their work. We believe sharing knowledge works best when members choose an outlet they feel comfortable with. Examples are [posts on the lab website](#) (see 2.10 Lab blog), [Pint of Science](#), contributions to the [Donders Wonders blog](#), child-friendly presentations as organised by the [Wetenschapsknooppunt](#), participation in the [Hoe?Zo! Show](#), or exhibitions with the [Donders Citylab](#). You can also keep an eye out for events and workshops on science communication such as previously organised by the [Radboud Postdoc Initiative](#) and [Young Neurolab](#). If you have fun ideas relating to science communication, you are also encouraged to apply for funding: in the Netherlands, yearly calls come up by the [KNAW](#) and the [NWO](#).

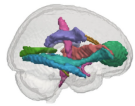
## 2.10 Lab blog

On our lab website, you can find the section "Blog". Here, you can read about the latest news and views from our group. Every month, one group member is tasked with writing a blog for the website and the accompanying schedule can be found in our slack channel #website. At the beginning of each month, the website coordinator will schedule a meeting to discuss potential outputs and explain the website tutorial to the individual designated with writing a post. Topics may be chosen as you seem fit, some examples could be: science communication, workshops you organised, interesting code snippets, anything related to open science, statistical analysis, writing in any form, etc.

## 2.11 Working on projects

- **Synced sharing**

All project folders will be hosted on surfdrive, GDPR compatible alternative to dropbox. This will sync your work across suitably protected computers, and will automatically back up your work. This folder should contain your code, manuscript drafts and presentations. The location of the data depends on the nature of the data (anonymous, pseudonymous, sensitive). It may or may not be



part of the same folder depending on storage restrictions (see 2.13). A good way to think of it is that we should be able to reproduce your findings (without your help) for any paper if you leave the lab. Please share your project folders with Rogier from within Surfdrive (Donders)– This makes it easy for me to provide feedback on code and manuscripts. If other lab members are collaborators on projects too, please add them. Having shared folders is safer, less error prone than emailing back and forth drafts. All lab resources (including this document) will be kept in a shared network folder called ‘LCD lab’ – feel free to add or suggest additions.

- **Data access and storage**

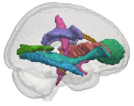
Although we engage in some ongoing data collection for various projects, we largely rely on access to public or collaborative databases. In the lab folder, we have a continuously growing database of datasets, how easy they are to access, what measures they have and any other experiences we may have through the years. Note, your projects should always be question led – think about what data you would need, and we can think of potential candidate data sets or collaborators who can help us.

In the lab we use many different data sources, from publicly accessible data to individual collaborations and of course data we collected ourselves. Different datasets and projects will have different data storage requirements, from fully anonymous, publicly downloadable data (which can be stored anywhere) to pseudonymous data of vulnerable groups (e.g. raw data of children brain scans). It is your responsibility to make sure data is stored in a compliant manner (the Donders project workspace is always the safest option) - check with Rogier or the Donders/Radboud Data managers if you are unsure.

- **Open Science and Reproducibility**

In the lab, we practise Open Science whenever we can. We use open source tools, published our papers as preprints and (ultimately) Open Access manuscripts, share our data, code and materials and preregister our papers as much as possible. Preregistration entails pre-specifying your core hypotheses and analysis in a public manner prior to actually conducting the analyses, or ideally, having access or knowledge to the data. There are various routes available, including OSF. However, as our labs’ work will often use existing datasets, we find <https://aspredicted.org/> to provide an efficient and versatile solution. There’s an example preregistration in the lab documents folder. As we will mostly be preregistering existing datasets, [this paper](#) has some useful guidelines.

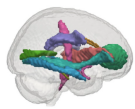
I have very many projects/analyses to look at and comment on, so I greatly value efficiency when I am able to make time to do so. In other words, make sure your projects are synced and up to date, and that it is easy for me to run your code. If you have a data preparation script, make sure that that also outputs a fully cleaned/munged data object that I or others can run right away.



Any project analysis script should be reproducible by other lab members with ease. Write your code under the assumption that someone else has to reproduce your analysis without your help. One guideline to this end is to structure your (for example) R analysis file with the following three key steps

- 1) Pointer to the location of the raw data/.Rdata files
- 2) Syntax to load the prepared .Rdata object, so that analyses can be run right away
- 3) Analysis script itself

One possible approach is to write papers as a single Rmarkdown file. This has many benefits including reproducibility, although it can be more challenging to collaborate on documents – ultimately it is up to you. Such a file generates the full manuscript based on a script, which contains the manuscript as well as the analyses.



## 3. Tools and resources

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### 3.1 R and python

In the lab we tend to use R. It is free, open source, versatile, and can do almost everything we need. This is not a rule but a convention. If whatever project you are working on is better suited by languages such as Python or Matlab, then use those. If you have only ever used e.g. SPSS, no need to be ashamed, just let me/us know and we can get you up to speed. To get started with R, the below can be useful. If you've written some R code you think others might use, save it in the 'R code snippets' lab folder.

A quick guide to getting started with R:

- Watching this video: <https://www.youtube.com/watch?v=IVKMsaWju8w>
- Installing R <https://cran.r-project.org/>
- Installing Rstudio <https://www.rstudio.com/products/rstudio/#Desktop>
- Installing 'swirl stats': <http://swirlstats.com/students.html>
- Go through the swirl tutorial. This is an immensely useful interactive tutorial which runs entirely within R, teaching you the basics of R. It probably takes a few hours or two to run through the whole thing but even if you just do the first one or two modules you've got enough of an idea to no longer be daunted. There are some excellent resources here:
  - <https://rstudio-education.github.io/hopr/>
  - If you want a refresher of foundational statistics in R, this book is very accessible – We have copies in the unit, and there will likely also be copies at your college (if you are affiliated with a college).

<https://www.amazon.co.uk/Discovering-Statistics-Using-Andy-Field/dp/1446200469>

### 3.2 Structural Equation Modelling

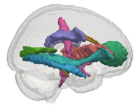
We use a particular multivariate technique, Structural Equation Modelling (SEM), a lot. It is an extremely general technique, which can encompass simple approaches such as t-tests and linear regression to complex longitudinal models. Below are some resources to get you started. The lab folder also has a folder with 'intro to SEM' slides. It is certainly not *necessary* for you to use SEM – If you have another technique more suitable to addressing your question, by all means use it and teach us.

To fit SEM models, we often use Lavaan, an R package that is free and open source. It has a very nice tutorial to get started here:

<http://lavaan.ugent.be/tutorial/>

Some good SEM books:

- 2) Beaujean. We have the book in the library but you can do a surprising amount with just the stuff on the website



<https://blogs.baylor.edu/rlatentvariable/> - it's very hands on and not very mathsy

- 3) Kline  
<https://www.amazon.co.uk/Principles-Practice-Structural-Equation-Methodology/dp/1606238760> - Includes more mathematics
- 4) Newsom <http://www.longitudinalsem.com/> This is specifically about longitudinal SEM but is very good and includes R examples for every single model - quite mathematical at times but very clear
- 5) This book on longitudinal SEM is a bit more accessible  
<https://www.guilford.com/books/Longitudinal-Structural-Equation-Modeling/Todd-Little/9781462510160>
- 6) My former colleague (who wrote semPlot) has a nice multi-week conference on SEM. Notably he also includes the math in a generally clear manner and includes exercises:  
<http://sachaepskamp.com/SEM2018>

#### ▪ **Asking questions about SEM/Lavaan:**

- Lavaan questions: lavaan forum  
<https://groups.google.com/forum/#!forum/lavaan>
- R questions: stack exchange <https://stats.stackexchange.com/>
- SEM questions: SEMNET (<http://www2.gsu.edu/~mkteer/semnet.html>) - You can sign up for 'daily digests' and search the archive. The debates can get a bit heated but you will get the most up to date thinking

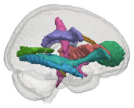
#### ▪ **Miscellaneous SEM**

- Youtube videos on Lavaan and SEM are surprisingly good
- The SEM journal <https://www.tandfonline.com/toc/hsem20/current>
- The Ballad of the Casual/Causal Modeller (Mp3) - Written and performed by David Rogosa, a prof of SEM - The lyrics might help you get through tough times

#### ▪ **Miscellaneous resources**

- There is an amazing array of podcasts relevant for, ranging from (academic) psychology.
- Quantitude (accessible and funny descriptions of method)
- Within and Between (Developmental psychology, metascience, academia)
- Everything Hertz (open science, metascience)
- The Black Goat (academia, careers in psychology, open science. No new episodes but excellent back catalog)
- Two psychologists four beers (psychology, academia)
- Learning bayesian statistics (self explanatory)
- Nullius in Verba (metascience)





### 3.3 Navigating the Donders/RadboudUMC

Like every department, there are many logistical and admin procedures and steps to learn. Whenever you are unsure, just ask, either the lab (general/random channel) or CNS admin.

#### **Printers**

Jordy used to be the only lab member who knew how to print anything at the Trigon. This ancient knowledge had been passed on only to him, but he has now shared his ultimate wisdom with us in the form of a tutorial:

Inside the Trigon building, on your Donders laptop:

1. Connect to the WiFi
2. Connect to EduVPN
3. Go to the application '(DCCN) software center'
4. Inside the application type in search bar: 'printer'
5. Select any printer of your choice (e.g., DCCN-1FW-BW) and download it onto your Donders laptop

DCCN = Trigon building

1 = 1st floor

FW = front wing

BW = black and white

There are about 12 printers to choose from (basement, ground floor, 1st floor, 2nd floor).

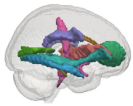
Once installed, the printer should be added to your Donders laptop under Devices and Printers.

6. Open the document you want to print
7. Go to print
8. Select the previously downloaded printer (e.g., DCCN-1FW-Color)

Happy printing and collect your document at the designated printer.

#### **Surfdrive**

Surfdrive is our local equivalent of dropbox. It is very useful to share drafts, code, and presentations. If you also want to store data there, it is your responsibility to ensure this is permissible given the nature of the data agreement. Never include any identifying information (PID) in a surfdrive folder. Surfdrive is useful, but it is key to assume it may suddenly malfunction - always ensure you have backups of your work.



## Holiday applications

Please ensure you take up your holiday hours - not only because it will keep you healthy, happy and productive, but because a backlog of holiday hours soon becomes problematic in terms of administration. You can apply for holiday/leave hours through Mijntijd. When navigating Mijntijd, bring water and something to read, you may be in there some time.

## Timetell

Several of you will be funded on our ERC project (CODEC) or other externally funded projects (DMPL, CERES) which may necessitate writing hours in timetell.

### *3.4 Arriving at the Lab from outside the Netherlands*

To be finalized

Many lab members will arrive from abroad, landing in Nijmegen and the Netherlands perhaps for the first time. We have an 'undutchables' slack channel with resources.

### *3.5 ValidSign*

With the ValidSign application, documents can be digitally signed. This method of signing is legally valid. Starting from January 2024, all documents (contracts, letters, time declarations etc.) requiring the signature of the Head of the Department (Barbara Franke) and/or the Managing Director CNS (Arthur Willemsen) should be submitted via ValidSign. The secretariat monitors the process.

To have documents signed

Please follow the steps below to have your document signed:

1. Send the document that needs to be signed (without (your) signature (if applicable)) via email to the CNS Secretariat Mailbox: [secretariaat.cns@radboudumc.nl](mailto:secretariaat.cns@radboudumc.nl)

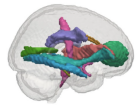
2. In this email, specify:

Who needs to sign the document

The signing order (in case multiple persons need to sign)

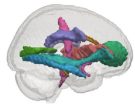
If you also need to sign the document yourself, please indicate your name first. You will then receive an email (from ValidSign) to sign, after which the document will be automatically forwarded to the next signer (e.g. Barbara or Arthur).

Optionally specify if Valorization and/or the Board of Directors also need to sign. They will be placed last in the (internal) signing order.



If there are external relations who also need to sign the document, provide their full name and email in the email.

Deadline for the document to be signed by all parties.



## 4. The Lab, careers and beyond

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All of you will, at some point, move on to other jobs or opportunities which may require references. For some people and projects, this may be earlier than originally planned (e.g. halfway through your PhD or before the end of the contract). If that is the case, start the conversation with me (or others) early to make the transition smooth (or see what might need to change).

### 4.1 Grants and fellowships

Many of you will apply for grants or fellowships, either to keep working in the lab or pursue an academic career elsewhere. [Here](#) is an overview of some relevant fellowships. Make use of your lab colleagues by sharing and shaping your ideas early and often, presenting pitches and discussing during labmeeting.

### 4.2 Reference letters

In general I am happy to provide you with a reference, so do not hesitate to ask (or to send reminders!). It helps if you can be quite detailed about the format, the deadline and where/how to send it. Needless to say, I can only provide references for the skills and abilities I have had exposure to. If you know in advance of your stay you will be needing certain skills or experience, let me know at an early stage so we can integrate that into your training.

### 4.3 Prizes, awards, nominations

If you see a prize you think you are eligible for and that requires an external nomination, do let me know and I will be happy to support you. It helps if you tell me exactly where, by what time/date, and how to submit whatever I need to submit, and what you will be judged on. Ideally you'd provide some examples I can draw on in case I am unaware or forgot.

### 4.4 Internships within and beyond academia

Several lab members (e.g. Sophia Borgeest, Michael Aristodemou) have embarked on very successful internships. Internships allow you to broaden your horizon, within but especially also beyond academia, and will likely benefit you and the lab. In general, I am fully supportive of those: provided we can figure out a way that it doesn't preclude achievement of urgent goals (e.g. PhD submission) they can enrich you as a scientist, and provide a much better perspective on future careers. If you are interested in internships, look around and contact me early on. I will likely be able to help arrange lab visits to other labs – Internships at companies or governments or NGO's will require more exploration from you.

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Written by Rogier Kievit with input from current and previous lab members. Updated: February 2024