### **Plan Overview**

A Data Management Plan created using DMPonline

Title: RADAR

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#### **Project abstract:**

RADAR (Research on Adolescent Development And Relationships) is a longitudinal study that started in 2005. RADAR focuses on the interactions and conflicts of adolescents with parents and peers, their emotional state, personality, identity, and internalizing and externalizing problem behavior. RADAR investigates the development of 800 participants from early adolescence to adulthood. Additionally, their parent(s), intimate partner, brother or sister, and (best) friend also participate in the study.

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#### **Copyright information:**

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### **General Information**

#### Name applicant and project number

#### Susan Branje

RADAR was founded by W. Meeus and consists of two cohorts: RADAR Old which started in 2001 and RADAR Young which started in 2005. RADAR has been financially supported by main grants from the Netherlands Organisation for Scientific Research (GB-MAGW 480-03-005, GB-MAGW 480-08-006), Stichting Achmea Slachtoffer en Samenleving (SASS), the Netherlands Organisation for Scientific Research to the Consortium Individual Development (CID; 024.001.003), a grant of the European Research Council (ERC-2017-CoG - 773023 INTRANSITION), and various other grants from the Netherlands Organisation for Scientific Research, VU University Amsterdam, and Utrecht University. The funders had no role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript.

### Name of data management support staff consulted during the preparation of this plan and date of consultation.

n.a.

### 1. What data will be collected or produced, and what existing data will be re-used?

### 1.1 Will you re-use existing data for this research?

#### If yes: explain which existing data you will re-use and under which terms of use.

• Yes

To study the development of adolescents, RADAR examines different developmental areas. RADAR includes information about feelings, personality, self-image, empathy, stress resiliency, depression, anxiety, school/study/work experience, parenting, family relationships, peer relationships, partner relationships, but also aggressive behavior, delinquency, and substance use (alcohol, smoking, and drugs).

It is important to not only look at the adolescent, but also at their environment. Therefore, from 2005 to 2010, adolescents, their parent(s), brother or sister, and (best) friend were assessed annually, using questionnaires, interviews, interaction tasks, internet measurements, and lab tasks. This allows to look at social relationships from diverse perspectives, such as relationships between parent and adolescent, relationships between parents, relationships between brothers and sisters, and reciprocal friendships.

From 2010 onwards, the frequency of assessments was changed from annual to biannual assessments. The focus shifted to the young adult and their romantic partner. The study now concentrates on the development from adolescence to (young) adulthood and the relationship

between the young adult and their romantic partner.

At the end of 2014, a new part of RADAR has started: RADAR: The Third Generation (RADAR G3).In RADAR G3, we focus on RADAR participants who will soon become a parent or who have a child. Parents of a step-, adoption- or foster child are also welcome to participate in RADAR G3. As we have collected valuable information about the first generation (the parents of the RADAR participants) and the second generation (the RADAR participants and their brother/sister), we include children of RADAR participants and their brother/sister in the RADAR study as well. This creates a unique opportunity to study the development of three generations and how they influence each other.

In 2023, in RADAR G1 we are again focusing on the parents of RADAR participants. This is because we would like to know how parent(s) are doing now, as well as what the relationship between parents and children looks like in adulthood. As more and more RADAR participants and siblings have children of their own, we are also interested in grandparents' involvement with any grandchildren.

#### https://www.uu.nl/en/research/radar

Data of previous waves can be reused under conditions of the publication protocol by sending a data request to the data manager. Information about the data and details about reuse can be found at several places:

Branje, S. (2024). RADAR-Old (Research on Adolescent Development And Relationships old cohort), <u>https://doi.org/10.17026/SS/RWDNJS</u>, ODISSEI Portal, V1

Branje. S. J. T., & Meeus, W. H. J. (2018) Research on adolescent development and relationships (young cohort). Data Archiving and Networked Services. <u>https://doi.org/10.17026/dans-zrb-v5wp</u> Meeus, W.H.J., & Branje, S. (2001). CONAMORE (CONflicts And Management Of RElationships). <u>https://doi.org/10.17026/dans-z33-krgr</u>

Metadata from the Individual Development Data Catalogue on the ODISSEI portal: <u>https://portal.odissei.nl/dataverse/cid</u>

### **1.2** If new data will be produced: describe the data you expect your research will generate and the format and volumes to be collected or produced.

So far, 12 to 15 measurement waves of data have been collected among RADAR participants. Currently, only RADAR G3 is still running with ongoing data collection. This includes questionnaire data in limesurvey when the G3 child is 3 months, 2.5, 5 or 7.5 years old and video observations during home assessments at age 2.5 years.

RADAR data is saved at the O drive of FSBS UU, O:\Research\FSW\Research\_data\JG\RADAR.

#### 1.3. How much data storage will your project require in total?

• >1000 GB

RADAR raw data: 399 GB, 858 Files RADAR Young questionnaire data: 30,9 GB, 10.527 Files RADAR Old questionnaire data: 46 MB, 2045 files RADAR G3 questionnaire data: 107 MB, 1502 Files RADAR G1: 412 MB, 983 Files RADAR observations: 233 MB, 3128 files RADAR G3 observations: 1,11 TB, 2579 files

### 2. What metadata and documentation will accompany the data?

### 2.1 Indicate what documentation will accompany the data.

Documentation includes codebooks, description of the radar design and data collection procedures, data request form and publication protocol.

All documentation is available via the following repositories:

Branje, S. (2024). RADAR-Old (Research on Adolescent Development And Relationships old cohort), <u>https://doi.org/10.17026/SS/RWDNJS</u>, ODISSEI Portal, V1

Branje. S. J. T., & Meeus, W. H. J. (2018) Research on adolescent development and relationships (young cohort). Data Archiving and Networked Services. <u>https://doi.org/10.17026/dans-zrb-v5wp</u> Meeus, W.H.J., & Branje, S. (2001). CONAMORE (CONflicts And Management Of RElationships). <u>https://doi.org/10.17026/dans-z33-krgr</u>

### 2.2 Indicate which metadata will be provided to help others identify and discover the data.

RADAR is part of the CD2: a project that harmonizes data from six of the largest child developmental cohort studies in the Netherlands collaborating in the <u>Consortium on Individual Development</u> (<u>CID</u>). This will allow researchers to find available data across these cohorts studies. Metadata from the Individual Development Data Catalogue on the ODISSEI portal: <u>https://portal.odissei.nl/dataverse/cid</u>

### 3. How will data and metadata be stored and backed up during the research?

## **3.1** Describe where the data and metadata will be stored and backed up during the project.

• Institution networked research storage

Data will be stored at the O drive of FSBS UU, O:\Research\FSW\Research\_data\JG\RADAR. Data on this server have regular automatic backup, provided by IT support services of UU.

### **3.2** How will data security and protection of sensitive data be taken care of during the research?

• Additional security measures (please specify)

Data and personal information are stored in separate folders on the O drive. The sensitive data, such as contact information and genetic data, are stored with additional password protection and with limited access to the data.

The access file with personal data to contact participants is stored at a separate location with additional password protection, O:\FSW\JG\RADAR092014, and can only be accessed by the PI and data coordinator.

## 4. How will you handle issues regarding the processing of personal information and intellectual property rights and ownership?

### 4.1 Will you process and/or store personal data during your project?

### If yes, how will compliance with legislation and (institutional) regulation on personal data be ensured?

• Yes

We comply with GDPR/ Dutch AVG data protection laws.

We gained informed consent for preservation and sharing of personal data.

We pseudonymised personal data for preservation and sharing. Participant names and addresses are stored separately from the collected data. Data on DANS cannot be directly downloaded for ethical and GDPR reasons, and instead need to be requested by the data manager.

For student projects, ID numbers are deleted to prevent merging of subsets of data.

We comply with the UU policy on information security management.

### 4.2 How will ownership of the data and intellectual property rights to the data be managed?

The data are owned by UU. When collaborating with national or international consortia, we will draw upon a consortium agreement.

### 5. How and when will data be shared and preserved for the long term?

#### 5.1 How will data be selected for long-term preservation?

• All data resulting from the project will be preserved for at least 10 years

See also above, data will be stored both at the UU servers and at the DANS Data station SSH.

# 5.2 Are there any (legal, IP, privacy related, security related) reasons to restrict access to the data once made publicly available, to limit which data will be made publicly available, or to not make part of the data publicly available?

If yes, please explain.

• Yes

Due to ethical and GDPR restrictions, the data are not publicly available. Although they are stored at DANS, they contain pseudonymized yet sensitive data that could potentially be traced to individuals when combining many data points. Therefore, cannot be directly downloaded. Instead, the dataset can be obtained upon reasonable request and with permission from the RADAR management team. Because of the high costs in making the data available, the data are not available for master theses.

### 5.3 What data will be made available for re-use?

• All data resulting from the project will be made available

### 5.4 When will the data be available for re-use, and for how long will the data be available?

• Data available as soon as article is published

Most of the data of RADAR are already deposited at DANS. All data are available for (re)use upon request and in line with the publication protocol. Data requests will be screened for overlap with publications or ongoing publication plans, and ongoing plans are protected.

### 5.5 In which repository will the data be archived and made available for re-use, and under which license?

Data will be stored at the DANS Data Station Social Sciences and Humanities. Branje, S. (2024). RADAR-Old (Research on Adolescent Development And Relationships old cohort), <u>https://doi.org/10.17026/SS/RWDNJS</u>, ODISSEI Portal, V1

Branje. S. J. T., & Meeus, W. H. J. (2018) Research on adolescent development and relationships (young cohort). Data Archiving and Networked Services. <u>https://doi.org/10.17026/dans-zrb-v5wp</u> Meeus, W.H.J., & Branje, S. (2001). CONAMORE (CONflicts And Management Of RElationships). <u>https://doi.org/10.17026/dans-z33-krgr</u>

### 5.6 Describe your strategy for publishing the analysis software that will be generated in this project.

n.a.

#### 6. Data management costs

### 6.1 What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

Data collection, cleaning and coding, development of codebooks and metadata, and management of the data takes continuous efforts and is a fulltime job for at least one person. So far these efforts have been shared by the core RADAR team members, PhD students, research master students and (when budget allowed) student assistants.

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