



Shaping the image of stem cell research: Dynamic discourse analysis of Dutch TV media

Applicants

Supervisor Name	Department/Group	Faculty
1. Dr. Elena V. Syurina	Athena Institute	Earth and Life Sciences (FALW)
2. Prof. Dr. Henk W. de Regt	Department of Philosophy	Humanities (FGW)

Project description

(300 words; max. 300 words)

Stem cell research is a rapidly developing field of science, investigating new possibilities for treating a wide range of serious health conditions. However, it is also highly controversial from the ethical, legal and social point of view (e.g. use of human embryonic stem cells, high investment needs). The role of media and press in the agenda building and framing of stem cell research is undeniable and has been discussed in numerous papers (but none regarding The Netherlands). However, media representation of stem cell research isn't static but appears to change over time.



Figure 1. Expert – to – Public translation with the use of media

The aim of proposed research project is to investigate changes in how stem cell research and its results have been presented in television media in The Netherlands. Drawing on data gathered from the museum *Beeld en Geluid*, we will examine how public discourse on stem cell has changed in the last 10 years, and which factors have played a role in this development. The Academy Assistants will analyse the dynamics of the discourse from two perspectives. First, a health-science perspective, focusing on how scientific developments affect the presentation of stem cell research in the media. Second, a philosophical perspective, focusing on the interaction between epistemic, social and moral values in public discourse.

During the data collection stage, we will identify television programs from the major broadcasting agencies in The Netherlands that feature extensive discussion of stem cell research (15 minutes or longer). As this is an investigative study, we will only use talk shows and documentaries, excluding shorter news reports. The data will be analysed using the discourse analysis approach. The project will result in a

dynamical analysis of expert-to-public communication (Figure 1) of stem cell research, that sheds light on how scientific developments interact with social and moral values in shaping the public image of controversial science.

Project Organization

(298 words, max. 300 words)

The project consists of two lines of investigation, carried out by the Academy Assistants under the supervision of, and in collaboration with, the applicants. The project is highly cross- and transdisciplinary, integrating perspectives from health sciences, social sciences, ethics, and philosophy of science. The combined knowledge and expertise of the supervisors guarantees the project's success. Elena Syurina has a background in policy analysis, translational research in health care, sociology and psychology. Henk de Regt is a philosopher of science, working on the nature of scientific understanding and public understanding of science.

To analyse the dynamics of public discourse around stem cell research, the Academy Assistants will have to implement knowledge from fundamental science, sociology, ethics and philosophy of science. Ideally, one Assistant has a more fundamental science/healthcare background, while the other is acquainted with both ethics and philosophy of science. The Assistants will require experience with analysis of qualitative data. The project will draw on material collected in the museum *Beeld and Geluid*. Both Academy Assistants will be involved in the collection of data. Subsequently, they will analyze these data from different perspectives, addressing the following research questions:

General:

- 1) How has the public discourse about stem cell changed in the last 10 years?
- 2) Is there a difference among the discourse within different types of media (size, views, frames)?

Health-science perspective:

- 3) How does the quality and level of detail of scientific knowledge covered by the media influence the public discourse?
- 4) Which scientific developments have influenced the presentation of the discourse, and how?

Philosophical perspective:

- 5) What is the role of epistemic and non-epistemic (social, moral) values in the discourse, and how different values interact?
- 6) More specifically, are particular moral stances (of media and/or researchers) correlated with particular (epistemic, scientific) representations of stem cell research?

Collaboration

(283 words, max. 300 words)

This project combines philosophical and sociological approaches to content analysis with insights from biomedical and healthcare studies. The proposed research will help the involved disciplines to gain better understanding of each other's stands on, and understanding of, the topic of stem cell research. In particular, becoming acquainted with a philosophical outlook on the problem can help health-science researchers see research issues from a broader perspective, to understand how the public image of stem cell research is constructed and how a general audience perceives its scientific and societal impact. The health-science perspective will help philosophy researchers to get a better grasp of the character of fundamental research in the life sciences, and understand the contrast between actual scientific practice and its public image.

The project provides an opportunity to combine varied approaches to framing and conceptualizing modern problems within the field of public understanding of science. The research methodology of the project combines empirical, data-driven health-scientific research with a social- and human-scientific (esp. philosophical) approach to understanding scientific development and public understanding of science. Combination and integration of the two perspectives will allow for a novel view on public understanding of science. It will look at the factors that influence research representation in media and how such representations are dynamically changing over time.

Additionally, this research project will contribute to research collaborations not only across different faculties/departments at VU University, but also with the National Research University in Moscow, which is interested in investigating international aspect of the changes in discourse regarding medical innovations. Moreover, we plan to start research collaborations with the University of Antwerp and the University of Leuven, where contacts have been established with post-doctoral researchers in the Departments of Philosophy.

Deliverables

(197 words; max 200 words)

The project has several groups of outcomes:

1. Scientific outcomes
 - a. Two Master's theses: one in public health (MPA: Management, Policy Analysis), the other in philosophy (PBH: Philosophy, Bioethics and Health)
 - b. Journal article, co-authored, to be submitted to an international peer reviewed journal
 - c. Conference talks - abstracts for international conferences, e.g. Sixth Biennial Conference of the European Philosophy of Science Association (Exeter, September 2017), European Sociological Association conference (Athens, August 2017), and 10th European Public Health Conference (Stockholm, autumn 2017).
 - d. The study will serve as a basis for a more ambitious research proposal (including PhD projects). It has great potential to attract attention of national/international research funds and institutions.
2. Societal outcome – the outcomes of the research will be of paramount interest for the general public, thus the results of this project will be communicated to the media (online, paper, television and radio) and published on social media websites: Facebook and LinkedIn. A short public summary of the research will be posted for discussion in key national/international public groups. Examples of the groups are: Science, Technology and Innovation (20,000+ members), International Society for stem cell research (11,000+) and Science, Technology and the Future (8,000+).

Planning

(149 words; max 150 words)

- *Prior to start:*
Contacting Museum *Beeld en Geluid*.
- *September/October 2016: start of the project.*
Selection of Academy Assistants, planning and organization.
- *October-November 2016: theory forming and literature review*
The Assistants will familiarize themselves with the field by doing a joint literature review of the current state of knowledge regarding a) approaches to discourse analysis, b) presentation of stem cell research in non-scientific sources.
- *December–April 2017: data collection and analysis*
Collecting and transcribing TV segments on stem-cell research. The preliminary analysis will be done by assistants independently (one from a philosophy of science perspective, the other from the health approach perspective). The follow-up in-depth analysis will be executed by both Assistants in collaboration (to enhance their understanding of both disciplines).
- *May-June 2017: writing reports and theses*
- *June/July 2017 (and further on):* presentation of results at conferences, submission of research papers, writing follow-up grant proposals.