STudent REseArch Mobility Programme (STREAM)
Project proposal

Host University:
Utrecht University

Field:
Social sciences, journalism and information

Specified field, subject:
Psychologie

Research project title:
Our predictive mind and its role in agency processing

Possible starting month(s):

<table>
<thead>
<tr>
<th></th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>

Possible duration in months:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Suitable for students in:  ☐ Bachelor level   ☒ Master level

Prerequisites:
Excellent skills in programming (at least 2 of the following: E-prime, MatLab, Presentation), experimental designs, and methods & statistics; interest in basic science of human behavior

Restrictions:
Good command of the English language

Description:
Humans are able to experience control over their own actions and resulting consequences. This sense of agency arises from predictive processes that can cause self-produced sensations to be perceived as less intense and earlier in time than externally produced sensations. For instance, we cannot tickle ourselves to the same extent as we can be tickled by others. Also, we tend to perceive tones that we produce ourselves by pressing a key to occur earlier in time compared to when someone else produces the tones. Despite its seemingly straightforward nature, this so-called sensory anticipation effect has far-reaching implications. Without sensory anticipation of self-produced effects, our ability to distinguish between self-produced and externally produced effects would be disrupted. This ability serves as an important building block for self-awareness, free-choice and social responsibility. The establishment of sensory-anticipation effect thus constitutes a core aspect of human social communication in particular, and our society in general. Nevertheless, surprisingly little is known about its underlying mechanism.

In this project we offer students an environment for experimental research where they can acquire hands-on experiences in our social cognition laboratory. Furthermore, as a member of our lab, you will have the opportunity
to design and conduct studies that follow up on our earlier work. There are many directions you can take, as our paradigms and earlier findings open new possibilities for studying the emergence of the sense of agency.

We are looking for versatile students who like an interdisciplinary view, as our investigation bridges the disciplines of experimental psychology, neuroscience, philosophy of mind and social science, and has significant implications for social, affective, cognitive and neurosciences.

**Faculty and/or Department:**

Faculty of Social Sciences, department Psychology

**Contact person, including position:**

Kim Zunderdorp, coordinator Honours College

**Contact email:**

honourscollege@uu.nl

**Deadline for nomination to reach host university:**

ongoing

**Notification of admission given by the end of:**

Three weeks after application