Goal9 Realization of a mentally healthy and dynamic society by increasing peace of mind and vitality by 2050. Maximizing well-being and agency on the basis of interpersonal comparison of brain indicators

#### R&D item

# 1. Specifying and updating of well-being and agency in society

# Progress until FY2023

## 1. Outline of the project

The task of this assignment is to conceptualize a pretheory to guide the fact-finding study (survey and experiment). Specifically, we will construct a list and hypothesis concerning welfare and subjectivity, and define the concept of "city capability" (Task 1-1). In addition, we will utilize full-text digital data from the National Diet Library to analyze data related to the concept of welfare and subjectivity (Task 1-2). This year, (1) based on the deciphering of key literature, we envisioned a methodological framework for extracting the "capability for well-being" of individuals. (2) In parallel with the work of collecting and organizing large-scale textual data, we conducted a preliminary analysis to identify the main axes of welfare and subjectivity using the geometry of culture approach and the word embedding model.

### 2. Outcome so far

(1) Extending Sen's original formulation, and using the two concepts of "group" (a group of individuals with similar resources and capacities to use them) and "type" (differences in combinations of independent and exclusionary behaviors; behavioral characteristics), we propose a method to approximate individual capability

by aggregating the achieved functionings of individuals different of types in а given group.



(2) Comparative scrutiny of previous studies suggested that highly abstract lists with weak correspondence to actions or situations have a prescriptive character and that implicit assumptions about goodness may influence responses.

This study proposes a model that links the experience of going out/home activities with the difficulties encountered and the functionings realized.



4 categories & 10 functionings 3 categories & 12 utilization abilities

(3) Implementation of Data Collection and Organization Regarding Concepts of Well-being and Agency: During the fiscal year, we collected and organized large-scale text data for analysis in and after the fiscal year of 2023. For the large-scale text data, we considered the availability and the relevance to our goal of identifying the key axes of well-being and agency. As a result, we decided to use the full-text data of the National Diet Library (which includes all books published from the

Meiji era to 1968, and all magazines published up to 1989 that are in the library's collection). In this fiscal year, we organized the data by the year of publication and constructed metadata (including publication year, author, genre, etc.), as well as conducted cleaning of the main text data (conversion from old Japanese character forms to modern forms, removal of English numerals, morphological analysis using MeCab, conversion to text files segmented by morphemes).

Here begins our new MIRAI

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#### 3. Future plans

(1) Clarify the concept of "city capability," which is composed of multidimensional groups. (2) In collaboration with neuroscience and animal psychology, we will elucidate the logic linking medical intervention and social support to enhance "capability for well-being. (3) Conduct an analysis of the National Diet Library's full-text data based on the geometric approach to culture, and examine the philosophically and normatively proposed concepts of well-being and agency in line with the actual thoughts and attitudes of people. (GOTOH Reiko: Teikyo University TAKIKAWA Hiroki: University of Tokyo)

