

## 【Grant-in-Aid for Scientific Research (S)】

### Broad Section A



#### Title of Project : Cross-Sectional Review of Intellectual Property Laws from the Viewpoint of Fostering and Securing Public Domain

Yoshiyuki Tamura  
(Hokkaido University, Graduate School of Law, Professor)

Research Project Number : 18H05216 Researcher Number : 20197586

Keyword : Intellectual Property, Public Domain, Patent, Copyright, Trademark

#### 【Purpose and Background of the Research】

In the world of conventional intellectual property law studies, contrary to many concepts of intellectual creations and creators which are placed at the core of intellectual property, public domain is rarely at the spotlight, beyond being negatively defined as unsuitable object of intellectual property rights. However, as the intellectual property law encourages creation and aims to develop industries and culture, its ultimate goals should be to enrich public domain and to allow enjoying its use by the public, and the creators' right to their creations should be only a means to realize it. This research thus aims at constructing a public-domain-centered intellectual property law from the viewpoint of enriching public domain and ensuring its use.

#### 【Research Methods】

With respect to disputes on the boundaries of public domain, there are limits to applying all-or-nothing methodology to granting rights upon the satisfaction of their subsistence requirements. Therefore, the intellectual property rights, being action regulations, establish a general methodology for solving by processes connected to dealing with each scenario of right subsistence, protection scope, remedies and the like by the approach realizing desirable behavior regulations through appropriately judging various relevant circumstances by a particular institution in a series of processes leading from the right subsistence, through decision on infringement, to remedies.



#### 【Expected Research Achievements and Scientific Significance】

Intellectual property rights, as opposed to property rights towards tangible things, are easy to become the object of lobbying due to the high

degree of freedom in system design with regard to what kind of action can be regulated. As the nature of the right, which allow a small number of rightholders to regulate the uses of numerous individuals, produces considerable benefits to rightholders, while the users' benefits, contrary to the rightholders' ones, tend to be dispersed and small, the intentions of the rightholders enthusiastic in lobbying are strongly reflected in policy making, and thus the rights tend to be excessively strengthened (minoritarian bias). However, the conventional arguments starting with intellectual creations and creators work in a direction to rather promote this bias.

This research, which places into the center the position of seeking to foster and secure public domain as the purpose of intellectual property rights, has significance in providing the foundation for overcoming such bias of policy making by arguing for setting the position of those, for whom it is hard to participate in the policy making processes, as default for mind setting.

#### 【Publications Relevant to the Project】

- Yoshiyuki Tamura, "Muddling Through" of Patent System Towards Innovation (1)-(5), IPLP J. Vol. 35, 27-50, Vol. 36, 153-179, Vol. 39, 293-315 (2011-2012), Vol. 46, 269-292 (2015), Vol. 50, 175-254 (2018)
- Yoshiyuki Tamura, Thinking about the Menu of Regulations on Exploiting Copyrighted Materials, 42 Copyright Law Journal 22-68 (2016)
- Yoshiyuki Tamura, Copyright Reform in Japan: An Analysis of "Structural Problems" in the Digitized and Internet Age, 44 IPLP J. 25-140 (2014)

【Term of Project】 FY2018-2022

【Budget Allocation】 110,700 Thousand Yen

#### 【Homepage Address and Other Contact Information】

<https://www.juris.hokudai.ac.jp/riilp/>  
<http://lex.juris.hokudai.ac.jp/~ytamura/>

## 【Grant-in-Aid for Scientific Research (S)】

### Broad Section A



Title of Project : Central Bank Communication Design

Tsutomu Watanabe

(The University of Tokyo, Graduate School of Economics, Professor)

Research Project Number : 18H05217 Researcher Number: 90313444

Keyword : Macroeconomics, game theory, central banks, monetary policy, transparency, credibility, attention

#### 【Purpose and Background of the Research】

Central banking is undergoing a major shift from secretiveness to active information disclosure. However, there is no academic consensus on the best way for central banks to communicate with the private sector, so that individual central banks have had to use trial and error, leading to economic instability as epitomized by the global economic crisis following the Lehman shock. Against this background, the aim of this research project is to empirically examine whether central bank communication has been able to gain the attention of and credibility with consumers, businesses, and investors, and if not, why this is the case. Moreover, using macroeconomic and game theory, we aim to construct models in which, under a setting in which the acquisition and processing of information is costly, the type of information that people obtain (what they pay attention to) and its accuracy (how much attention they pay) is endogenously determined, in order to examine the determinants of public attention to messages from central banks. Based on the theoretical and empirical results, we then aim to design a central bank communication system that helps to raise economic welfare.

#### 【Research Methods】

The work to examine central bank communication is organized into four groups. The Theoretical Models Group conducts model analyses using both macroeconomic and game theory. The Survey Group examines the response of consumers and businesses to central bank signals and the causes of such response (or lack of it). The Unstructured Data Group explores the current state of central bank-private sector communication using textual information such as policy decision documents and governor speeches released by central banks. The Case Study Group will conduct case studies on information transmission focusing on communication by the Bank of Japan from 2000 onward.

The topic of this research is communication between the central bank and the private sector,

and communication takes the form of documents, speeches, and statements, so that it is necessary to convert such unstructured data into a manageable form to analyze it. Specifically, we will construct three types of datasets consisting of (1) written information released by central banks, (2) central bank-related written information released by economic news agencies such as Bloomberg, (3) and central bank-related written information released by financial institutions, and apply text mining techniques such as LDA (Latent Dirichlet Allocation) to them.

#### 【Expected Research Achievements and Scientific Significance】

As the first country worldwide to grapple with the zero lower bound on nominal interest rates and the attendant policy challenges, Japan has been forced to undertake much trial and error in central bank communication. Using Japan's experience as a rich case study, this research project seeks to gain universal academic insights on central bank communication in order to share them worldwide. A famous example where academic insights have led to real-world institutional changes is central bank independence, and the aim of this project is to make a similar contribution to central bank transparency.

#### 【Publications Relevant to the Project】

- [1] “Novel and Topical Business News and Their Impact on Stock Market Activity,” T. Watanabe, T. Mizuno, T. Ohnishi, EPJ Data Science (2017) 6: 26.
- [2] “Characterizing Social Value of Information,” T. Ui, Y. Yoshizawa, Journal of Economic Theory (2015) 158: 507–535.

【Term of Project】 FY2018-2022

【Budget Allocation】 144,500 Thousand Yen

#### 【Homepage Address and Other Contact Information】

<http://www.centralbank.e.u-tokyo.ac.jp/en/>

## 【Grant-in-Aid for Scientific Research (S)】

### Broad Section A



**Title of Project : Towards a global standard of dignity as a philosophical concept: theoretical approaches, conceptual histories, and cross-cultural comparisons**

Yasushi Kato  
(Hitotsubashi University, Graduate School of Social Sciences,  
Professor)

Research Project Number : 18H05218 Researcher Number : 90183780

Keyword : dignity, human dignity, human rights, dignity of life, autonomy, theory of value, philosophy, applied ethics

#### 【Purpose and Background of the Research】

After WWII, the concept of dignity was adopted as one possible answer to the unprecedented catastrophe brought about by totalitarianism. Since, it has been incorporated in numerous foundational treaties and constitutional agreements, from the Charter of the United Nations and the Japanese Constitution to the EU Constitution and the Convention on the Rights of Persons with Disabilities.

Moreover, the social acceptance of medical and other advanced technologies (e.g. ES and iPS cell research, AI etc.), as well as various pressing social issues, such as the refugee crisis and social polarization, are directly or indirectly linked to the problem of dignity (and the violation of dignity). Thus, the normative concept of dignity has become one of the keywords of the present age.

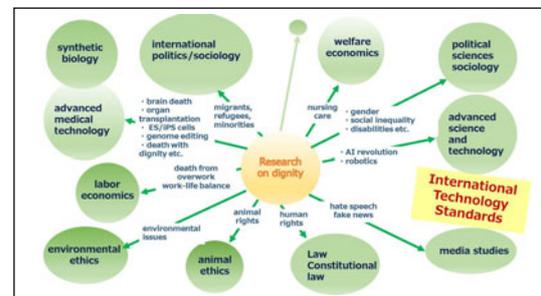


Through an exhaustive analysis, the project will aim at proposing a universally valid concept of dignity which can accommodate diversity and at the same time serve as a global standard for the advancement of democratization and social pluralization.

#### 【Research Methods】

An international research group divided into six sub-groups will be formed to study the concept within the Western, Japanese, Chinese and Korean, Islamic, Buddhist and Indian traditions. Research will be guided by (1) a value-theoretical approach, it will (2) thoroughly reexamine the Western concept of dignity, (3) uncover the understanding of dignity within non-Western societies, and establish a

comprehensive history of the concept, and ultimately (4) formulate a new understanding of dignity by contrasting, comparing and integrating Western and non-Western discourses.



#### 【Expected Research Achievements and Scientific Significance】

By including non-Western perspectives, the project promises a paradigm shift in the research on dignity, prompting a theoretical revision of the hitherto prevailing Western anthropocentric research. At the same time, it also promises to give answers to various contemporary social problems. The research results will be published and made available to the public in the form of a collection of articles.

#### 【Publications Relevant to the Project】

- Kato Yasushi, Kojima, Schönrich, Waldron et al. (2017) *Songen gainen no akuchuariti* (The Actuality of Dignity), special issue of the journal *Shisô* (No. 1114), Iwanami, 184pp.
- Kato Yasushi, Usami, Birnbacher, Quante et al. (2017) *Songen no dinamizumu* (The Dynamism of Dignity), Hosei University Press, 436pp.

#### 【Term of Project】 FY2018-2022

#### 【Budget Allocation】 130,500 Thousand Yen

#### 【Homepage Address and Other Contact Information】

[http://www.soc.hit-u.ac.jp/~kato\\_yasushi/index.html](http://www.soc.hit-u.ac.jp/~kato_yasushi/index.html)

## 【Grant-in-Aid for Scientific Research (S)】

### Broad Section A



#### Title of Project : A Study on the historical Development of the Sino-Tibetan Languages and their Typological Geography

Takumi Ikeda

(Kyoto University, Institute for Research in Humanities, Professor)

Research Project Number : 18H05219 Researcher Number : 90259250

Keyword : Sino-Tibetan Languages, Old Chinese, Nomad's Type and Farmer's Type, Typological Geography

#### 【Purpose and Background of the Research】

The aim of our research is: to investigate the geographical diversity and continuity among Sino-Tibetan languages, and search common features to trace the historical development reflected in their gradual change of structures distributed in Asia.

We also try to clarify the genealogical correlation of Sino-Tibetan languages including written languages such as Old Chinese and Tangut (Figure 1). We will conduct field research on undescribed languages, analyze the deep structure of their components, and compare with written language data. If there exists any similarity among them, we investigate if the similarity is inherited from parent languages, or a result of language contact, or of shared innovation.

Our research background is the theory of the geographical typology of Asian languages proposed by Prof. M.HASHIMOTO, we will refine and develop this theory and contribute to the descriptive and historical study on Asian languages reinforcing the critical application of a comparative method.

#### 【Research Methods】

Our investigation plans are: (1) Field research on unrecorded languages in Sino-Tibetan. (2) Research on formation of Written Tibetan and its basic languages. (3) Grammatical analysis of the languages written in Ethnic Documents. (4) Study



Figure 1

on the Old Chinese based on excavated documents. (5) Areal transfiguration of the Chinese Dialects. And we organize semiannual workshops in spring

and autumn to investigate the diversity and preserved features among S-T languages. Our topics to analyze are: Structure of noun phrase, Causative, Transitivity, Ergativity, Prosody, Directional system, Verb affixes, Evidentiality, etc. We select and order these subjects based on the accumulation of language data.

#### 【Expected Research Achievements and Scientific Significance】

We compile new data of unrecorded languages, analyze their structure and components, unravel the mechanism of development. To start with individual analysis of S-T languages, we will find out any significant relationship among them, and reconstruct the process to make up the diversity

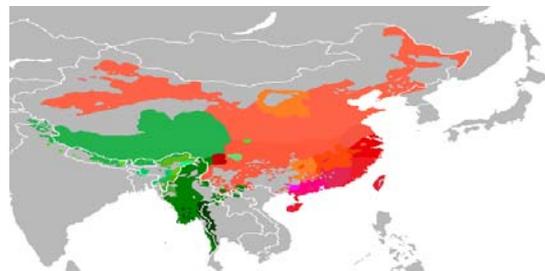


Figure 2

and distribution today (Figure 2). These activities lead us to understand how the geographical gradation of the language structure has been formed over S-T languages, which reflect the process of historical development.

#### 【Publications Relevant to the Project】

IKEDA Takumi(ed.) *Grammatical Phenomena of Sino-Tibetan Languages 1 The Structure of Noun Phrases*. Institute of Research in Humanities, Kyoto University. 2016.

【Term of Project】 FY2018-2022

【Budget Allocation】 130,400 Thousand Yen

#### 【Homepage Address and Other Contact Information】

[Under Construction]

## 【Grant-in-Aid for Scientific Research (S)】

### Broad Section A



#### Title of Project : The Interdisciplinary Study regarding Conserving and Utilize Methods of the Mongol Shipwrecks

Yoshifumi Ikeda

(University of the Ryukyus, Faculty of Global and Regional Studies, Professor)

Research Project Number : 18H05220 Researcher Number : 40150627

Keyword : Mongol Invasion, Mongol shipwrecks, Conserving Artifacts, trehalose

#### 【Purpose and Background of the Research】

The members of this project have been involved in conducting studies focusing on field research methodologies, conservation of raised artifacts, and *in situ* preservation of an underwater archaeological remains at Takashima Underwater Site (at Nagasaki Prefecture, Matsumura City), the archaeological site closely associated with the Mongol Invasion of Japan. Prior projects at the site were successful in locating two Mongol vessels, and in identifying a number of locations with anomalies likely to be a sunken vessel.

To better preserve the underwater site, both of the discovered Mongol shipwrecks are being preserved *in situ*. However, there is almost no related case studies, and thus the methodology to best preserve the site underwater is still being developed. Although there is a strong voice that the hull should be raised and utilized for the public benefit, the site is covered and cannot be seen by the public.

Considering the current environment, this project aims to develop a proper method for preserving the discovered Mongol shipwrecks, raise a wreck if an important discovery were to be made, and invent techniques to conserve and to display the remains for the public to view.

#### 【Research Methods】

This project is to conduct systematic studies on discovered shipwrecks and all excavated artifacts from Takashima Underwater Site. Specific goals are set for the project: 1) establish methodology for preserving the Mongol shipwrecks *in situ*, 2) collect information regarding the discovered hull remains and study the methodology for dissemination, 3) invent methodology for conserving artifacts raised from previous research.

#### 【Expected Research Achievements and Scientific Significance】

Currently, Japanese Government (The Agency for Cultural Affairs) has organized a committee to discuss how Japan should manage Underwater Cultural Heritage within the country. The study of

Underwater Cultural Heritage in Japan has been limited to sporadic or isolated projects, conducted by individual researchers from various fields. Including studies of particular underwater sites by researchers interested in underwater archaeology, analysis of acoustic images for identifying an underwater site by marine scientists, investigation of new methods for conserving waterlogged artifacts by conservators, and investigation by historians or archaeologists of artifacts from underwater sites and historical documents related to historical events such as the Mongol invasions.

This project focused on the study of the Mongol Shipwrecks - establishing methodologies for preserving the site *in situ* and the conservation techniques of large remains of waterlogged wood, and the creation of various contents for dissemination for the public - will be the leading examples of the field. The successful publication of this project will illustrate to the world how underwater cultural heritage is being managed and research in Japan.

#### 【Publications Relevant to the Project】

Ed.Makoto Sato "History of the Underwater site"  
Yamakawa Shuppansha Ltd 2018

【Term of Project】 FY2018-2020

【Budget Allocation】 82,600 Thousand Yen

#### 【Homepage Address and Other Contact Information】

In progress



**Title of Project : Development of Integrated Knowledge through Establishment of an Interactive Research Scheme based on the Open-Data of Research Resources for Wooden Tablets and Related Topics**

Hajime Baba  
(National Institutes for Cultural Heritage, Nara National Research Institute for Cultural Properties, Department of Imperial Palace Sites Investigations, History Section, Chief)

Research Project Number : 18H05221 Researcher Number : 70332195

Keyword : Wooden Tablets, Open Data, Writing System, Japanese History

**【Purpose and Background of the Research】**

Wooden tablets are important primary historical sources in various researches. That said, they are extremely fragile and difficult to display thus need to be made more available for detailed research. As the national center of research on wooden tablets, Nara National Research Institute for Cultural Properties (Nara Institute) has developed and published online a set of databases.

However, research concerning wooden tablets has greatly evolved. Databases developed individually by separate institutes no longer apply to current research needs. A new approach is needed.

The goal of the current research is to prompt a paradigm shift of the accessibility of research resources from “unilateral provision” to “bilateral sharing” and create an environment of knowledge sharing, through which to pioneer research on wooden tablets and written historical sources (particularly on historical characters) in East Asia and the rest of the world.

**【Research Methods】**

The current research hopes to achieve its goals through steps A)–C) below:

- A) Increasing the “quantity” of resources
  - a. Making protocols of open-data on historical characters.
  - b. Imaging the Nara Institute’s research resources in a format that complies with IIIF
  - c. through b, Establish the context for coordination
- B) Achieving “greater variety” of resources
  - a. Developing tools encouraging participation
  - b. Archiving empirical knowledge
  - c. Enhancing annotation on historical scripts
- C) Developing new research
  - a. Studies involving techniques of big data
  - b. Spurring, furthering, and publicizing interdisciplinary and international research

**【Expected Research Achievements and Scientific Significance】**

Nara Institute owns the largest collection of data on wooden tablets. Formatting those in accordance with IIIF will facilitate inter-institutional and

international coordination and collaboration.

Empirical knowledge will be directly archived by utilizing information technology in steps from unearthing to archiving, and compiled “knowledge” will be disseminated via instant messaging.

Analysis of recently archived empirical knowledge and observations

should lead to diverse results.

The current research seeks mainly to identify specific aspects of ways in which characters were written when written culture emerged in Japan.

**【Publications Relevant to the Project】**

- Hajime, BABA "The Study for Japanese Ancient Wooden Tablets "Yoshikawakobunkan, 2018
- Supervised by Harumichi ISHIZUKA, Edited by Tomokazu TAKADA, Hajime BABA, Shoichi YOKOYAMA, "The Study for Kanji character font history" Bensei-shuppan, 2016

**【Term of Project】** FY2018-2022

**【Budget Allocation】** 96,100 Thousand Yen

**【Homepage Address and Other Contact Information】**

<http://mokkanko.nabunken.go.jp/en/>

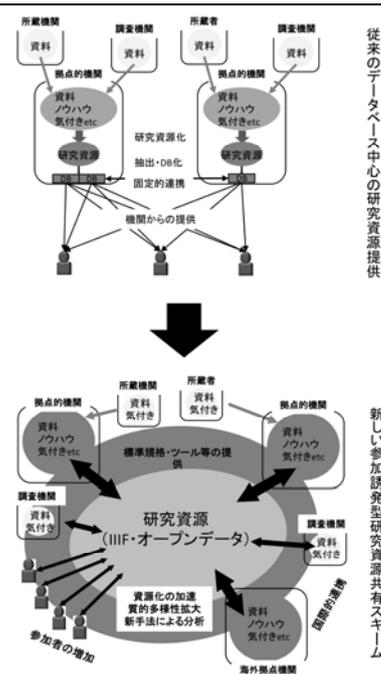


fig1 Our new scheme