Toward Digital Archive of Daoism Charms – Analysis of Fus in “Dao Fa Hui Yuan”

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1. Introduction

“Dao Fa Hui Yuan (道法会元)” is a compilation of charms and their descriptions of Daoism. It includes many charms used in Daoism ceremonies. A charm is expressed as a Fu in Chinese. (Note. Plural form of Fu is expressed Fus in this paper.)

It is a very time-consuming task for Daoism researchers to understand a Fu in details – its meaning, relationships to other Fus, backgrounds, and so on. Matsumoto says that meanings of many Fus is not well known [1]. In our study, we build a Fu database and an analysis method of Fu in order to systematically find out the structures and the meanings of Fu in Daoism. The goal of this study is not only to provide Daoism researchers with the results of the analysis but also to understand an innovative usage of the digital archives of Daoism resources and also to design a new visualization technology for the Daoism resources which are usable for the researchers.

Figure 1 shows a charm titled ”Tian Huang Fu (天皇符)”. The general description structure of a Fu in “Dao Fa Hui Yuan” has two components – Juxing-Fu (聚形符) and Sanxing-Fu (散形符). Juxing-Fu shown at the left edge of this figure is composed of several components. Each of these components is associated with its explanation shown on the right of the Juxing-Fu. The set of components with their explanatory descriptions is called Sanxing-Fu. In the rest of this paper, Fu means either Juxing-Fu or Sanxing-Fu.
One elementary component of Fu appears in one or more Fus, which means that the meaning of the component is shared among those Fus. However, it is also known that in some cases a single elementary component expresses different meanings depending on the Fu in which the component is included. In general, it is assumed that the difference of the meaning of a single component came from difference of Daoism groups, time of creation of the Fus, and some other unknown factors[1]. It is useful for Daoism researchers to see relationships among the Fus and their components and statistical analysis of the relationships to find characteristics—what differences may exist depending on volumes or portions of “Dao Fa Hui Yuan.”

In this study, the authors have tried to find a new way to organize the Fus of “Dao Fa Hui Yuan” based on their components. We designed a metadata schema for Fus and developed a database of the Fus in this study.

2. Database of Fus and their Components

The study described in this paper is based on the two previous studies shown in [2] and [3]. 2157 Fus of “Dao Fa Hui Yuan” were digitized and organized as a database in a previous study [2]. The database has three major tables - Positions, Shape, and Meaning. Position stores page number, charm identifier, and components in the charm. Shape stores classification of a component of a Fu, where the shape classification of Fu component was carried out manually. Meaning stores a text associated with a component, which is taken from “Sanxing-Fu”. Following the result of the study, Hayakawa et al. [3] classified shape of components into four classes, e.g., a component
which is indivisible is Simple class.

In this paper, we assume that a component has one meaning. This assumption is primarily for simplifying the analysis procedure of Fus and that for the relationships among Fus and their components. However, there are some cases that a component identified by the shape may have more than one meaning, i.e. two or more different explanatory texts in Sanxing-Fu associated with components which have identical graphical appearance. On the other hand, there are some cases that two or more components of different shapes have an identical meaning.

The feature mentioned in the previous paragraph is well known among Daoism researchers, i.e. a component cannot be uniquely identified only by the shape or by the meaning. Therefore, we have augmented the database by adding a table which stores the shape and meaning of a component.

The augmentation was done in two aspects – grammatical and structural aspects. In the grammatical aspect, a component was classified as objective, verbal, adjective and other based on the meaning. In the structural aspect, a component was classified as linear, symmetric or complex based on the shape, e.g. a component whose meaning is “Have the left eye as sky, Have the right eyes as earth. (左眼為天, 右眼為地)” is classified as “symmetric shape”.

In this way, we have enriched the database. The database is useful not only for Daoism researchers who want to know the meaning of a component from shape or location in “Dao Fa Hui Yuan” but also for statistical analysis mentioned in the next section.

As we referred in section 1, meaning of a Fu is obviously related with the meaning of its components. We think that statistical analysis of the relationships among Fus using the Fu-components relationships stored in this database is useful for Daoism researchers to find new relationships among Fus and new meanings of Fus.

3 Discussions

This database is useful to compare the differences of components from the viewpoints of meanings and shapes. Until now we have manually selected 50 components for evaluation of the data. We are going to use the database to statistically analyze the relationships between the Fus and between two components. Our primary goal is to measure semantic distance between Fus which share components - the larger
the number of shared components is the smaller the distance between the meanings of the Fus is. Similarly, we think that we can evaluate semantic distance between components.

This research is based on the cooperation of computer information analysis with Daoism researchers. We hope that the statistical analysis will bring new and rich data to Daoism researchers to promote their research and that the cross-disciplinary study will bring a new area of study.

References