NEW DIRECT-READING JAPANESE-ENGLISH CHARACTER DICTIONARY
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ABSTRACT

This paper describes a project that presents the Japanese written language characters (Kanji) using a new concept to organize, define, and indicate various functions and interrelationships among the characters.
KEYWORDS: Japanese Language, Kanji, dictionary, JUN, SKIP.

With the increasingly important role Japan is playing in world affairs, the Japanese language is rapidly becoming an indispensable tool for a growing number of people. Because of the complexities of the Japanese script, the number of foreigners to have truly mastered the language is still very small. It has therefore become necessary to devise an effective way to overcome the formidable language barrier confronting Japan.

Kanji (Chinese characters as used in Japanese) form a systematic body of symbols that function as an effective medium for conveying meaning in a concise manner. That is, kanji is an integrated system, not an arbitrary set of signs. Though this is vaguely recognized by educators, it has been practically disregarded in the development of kanji teaching programs and the compilation of kanji dictionaries. The traditional approach has been, and still is, to teach kanji more or less by rote, character by character, in the order in which they appear in the textbook lessons, based on vague notions about their frequency of use.

Although one or two Japanese-English character dictionaries do exist, they are not based on linguistic analysis of how kanji actually functions as a system. These dictionaries fail to define the basic meanings contributing to the build-up of the several hundred thousand compounds in Japanese, leaving the reader with the enormous task of learning countless words without understanding their formation and interrelatedness. Despite the enormous growth of Japanese language studies worldwide, a comprehensive kanji dictionary based on linguistic principles has never been compiled.

New Concept Dictionary
The NEW DIRECT-READING JAPANESE-ENGLISH CHARACTER DICTIONARY is a totally new work compiled with the aid of modern lexicographic techniques and computer editing. It is designed to serve as an effective tool for gaining an in-depth, systematic understanding of the Japanese writing system.

It is the only dictionary that defines concise core meanings for each character, clearly indicating word-building function. Thoroughly researched character definitions are systematically grouped in an order that makes it easy to see the logical interrelationship between them. Carefully selected illustrative compounds are arranged so as to show how they are formed from their constituent parts.

A complete analysis of kanji synonyms (correlated characters) is presented for the first time. Synonym groups are listed for the principal senses of each entry, allowing the user to grasp the fine differences between closely related characters. Also for the first time, a full analysis of the word-building function of native Japanese (KUN) words is presented, along with usage notes that discriminate the meanings of KUN homophones by listing detailed definitions.

A new indexing system, based on the direct identification of visual patterns, allows the reader to retrieve entries as quickly as in alphabetical dictionaries. Various other features distinguish this work as the most comprehensive, in-depth kanji dictionary ever compiled.

Work of National and International Import
The new work has attracted much attention because it is the first systematic treatment of kanji based on semantic analysis and modern linguistics. Recognized Japanese language authorities in the U.S., Japan, China, and Germany, such as Professor E. Jorden of Cornell University, Foreign Service Institute (a U.S. Government Agency) Director B. Park and renowned kanji scholar Professor A. Todo have confirmed its scholarly accuracy and lent their enthusiastic support and recommendation.

Japan's Prime Minister Yasuhiro Nakasone has recognized the import of the dictionary and offered his support. The

project has also been fortunate to obtain the wholehearted support of Provisional Council on Educational Reform Vice Chairman Sohei Nakayama and First Subcommittee Chairman Naohiro Amaya, as well as various scholars from, including the former head of, the National Japanese Language Research Institute (an agency of the Japanese Ministry of Education).

Upon publication, this dictionary is sure to become a standard reference work for the study of Japanese. Since it offers an effective tool for mastering the complexities of the Japanese script, it will make a major contribution to improving communications between Japan and the West.

Aims and Scope

This dictionary is designed to meet the needs of a broad range of users, including the beginning and advanced student, the teacher, the scholar and the developer of teaching programs. Various design features facilitate each user to retrieve the information suited to his/her requirements. The aims of the dictionary can be divided into four broad categories: understanding, reading, writing, and reference. The dictionary has been carefully designed to meet each of these requirements in an effective manner.

The principal aims of the dictionary are as follows:
1. To provide the student with an in-depth understanding of the meanings and function of kanji in modern Japanese.
2. To enable the user to look up characters and high-frequency compounds with speed and facility.
3. To provide full guidance on reading and writing.
4. To provide a full range of reference data on the Japanese writing system.

The approximately 4800 character entries in this dictionary include the following: all the characters approved in the official Joyo Kanji (characters in common use) and Jinmei Kanji (characters for use in proper names) lists, phonetic substitute characters (kakikae kanji), high-frequency unapproved characters, radicals and their variants, old variant forms for main-entry characters and cross-reference entries for rapid retrieval. Character entries and the approximately 45,000 illustrative compounds have been selected by making a detailed analysis of the latest statistical data on frequency of use.

Principal Features

Core Meaning

An exhaustive analysis of the lexical meaning and word-building function has led to the assignment of a core meaning to each character. This is a concise English equivalent that provides an instant grasp of the central concept that links the multiple meanings of a character into an integrated whole.

The core meaning is a concise thought package that leaves a lasting impression on the mind, and thus serves as a powerful learning aid (see Figure 1).

Figure 1: Core Meaning Entry

Word-Building Function

Precisely-worded character definitions, researched with the aid of semantic analysis techniques, show exactly how each character functions as a word element in the generation of numerous character compounds. The function of each character as a prefix, suffix, abbreviation, phonetic substitute, etc., is clearly indicated, while the meanings of independent ON and KUN words (free forms) are clearly distinguished from the meanings of word-building elements (bound forms). Alt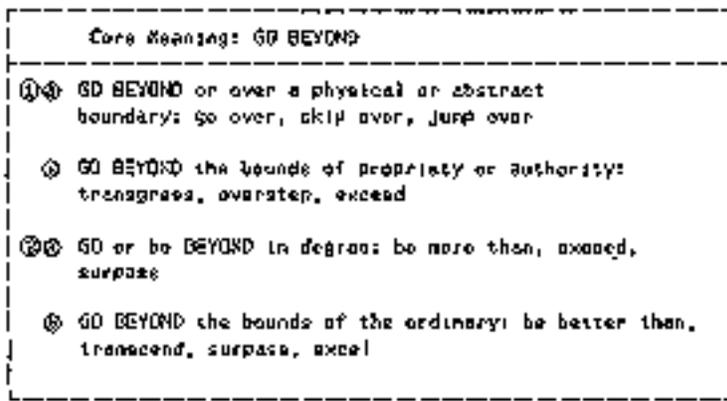hough meanings are given up to the advanced level, typographical differences and other devices indicate which definitions are basic, which are advanced, which are rare, and which are archaic. For this reason the beginner and advanced student can use the dictionary with equal facility.

Structured Definitions

Since the range of meaning represented by a single character often branches out into apparently unrelated directions, it would be a great burden to memorize the many meanings and usages of each character without understanding the logical interrelationship between them. The logically structured character definition subdivides the various meanings of a character into the respecting ON, KUN, independent and word-building elements, and uses numbered divisions and subdivisions to present the various senses of the character in a logical order.

In the logically structured definition in Figure 2, it is clear at once how the various senses of 越 , are interrelated through the central concept GO BEYOND.

Illustrative Compounds

Illustrative compounds have been carefully selected on the basis of frequency lists and their ability to illustrate the character definition in question. They are grouped by meanings and arranged in a manner that clearly shows how they

Figure 2: Logical Structure Definition Entry

are formed from their constituent parts.

Rapid Retrieval

The lack of an efficient kanji indexing system has long been a source of frustration to learners and even native speakers of Chinese and Japanese. Looking up by traditional radicals is a time-consuming, laborious process, while alternative systems each have their own shortcomings.

This dictionary introduces a new method of ordering characters, the System of Kanji Indexing by Patterns (SKIP), that can be learned in a few minutes and be used to locate entries as quickly and as accurately as in alphabetical dictionaries. The system is based on the direct identification of geometrical patterns, and unambiguously assigns a unique position to each character. The user need only identify the geometrical pattern formed by visual elements, and does not require prior knowledge of the character or its constituents (see Figure 3).

A simple example of how this system works is the character 相, which fits pattern 1, left-right. In the shaded area, the character contains four strokes, in the nonshaded area, five strokes. So this character would be found in the dictionary under pattern 1, subsection 4-5.

Tests on beginners have shown that after only ten to fifteen minutes of learning they can look up characters with an accuracy of 90 to 100 percent. The trained user can locate entries in five to ten seconds.

Other Features

➔A full analysis of kanji synonyms (correlated characters) is presented for the first time, enabling the user to understand the similarities as well as fine differences between characters.

➔A feature of enormous value for the student is the discrimination of KUN homophones (words which have the same native Japanese pronunciation but are written with different kanji).

➔A full analysis of the word-building function of KUN words and word elements is presented for the first time.

➔The heading for each main entry lists a full range of character readings, including Mandarin.

➔The stroke order is shown for each main entry.

➔A full range of character forms (including simplified Chinese) and calligraphic styles are presented.

➔Three kinds of indexes and a variety of appendices, frequency charts and historical tables are included.

Figure 3   SYSTEM OF KANJI INDEXING BY PATTERNS (SKIP)

Compilation Project

Work on this dictionary was begun by the author while residing in Kobe in 1974. In the initial stages he worked on the project alone, but in 1975 and 1976 the help of two assistants was enlisted. During this period the project was financed mostly by the author's private funds and loans. In 1977 the author moved to Tokyo, and for three years the project was discontinued due to lack of funds.

In 1980 a donation by Konosuke Matsushita made it possible to resume the project. This was followed by grants from Sowa Women's College and Toyota Foundation, and donations from many private individuals and organizations.

In June 1981, the author became a research fellow at the Institute for the Study of Modern Culture of Showa Women's College, and thereafter the college has been providing assistance and cooperation.

The above funds were used to employ a staff of about seven or eight, later expanded to thirteen, full and part-time workers at an office in Niizashi, Saitama Prefecture. The office is equipped with three kanji processing personal computers and about 1000 kanji dictionaries and reference works of various kinds. Some of the staff engage in semantic analysis while others are in the clerical work and office administration areas. It costs about 1,200,000 yen per month to maintain the office. As of February 1985, the project has cost a total of about 55 million yen (approx. $210,000). The project is now coming to a standstill due to lack of funds, but the work is now (March 1985) in the final stages of proofreading and computer editing.

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