Plotting Poetry 2025

Transforming Poetic Thought into Waka:

How to Pack the Skeleton into a 31-Syllable Closet

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thought2waka

Proect Goals

- Reverse-engineer modern interpretations into waka
- Identify compression patterns for poetic thought
- Explore constraints and expression in 31-mora form

Basics of WAKA

Japanese Song (Poem)

- WA → Japanese / Japanese style
- KA → Song

Early Established Waka

- The Man'yoshu: est. around 7-8th century in Chinese notation.
- The Kokinshu: est. ca. 905 in Japanese notation.

Style and Rhetorics

- Include only 31 syllables with 5,7,5,7,7 sounds
- Express natural views and emotions in a simple sentence.
- Use of rhetorics to create a poetic atmosphere:
- Pun (kakekotoba),
- Pillow words (makurakotoba), and
- Introductory words (o-kotoba)

Kokin Wakashū Kana Preface

やまとうたは、人の心を種として、よろづの言の葉とぞなれりける。
世の中にある人、ことわざ繁きものなれば、心に思ふことを、見るもの聞くものにつけて、言ひ出せるなり。

Japanese poetry (yamato-uta) takes the human heart as its seed, and from it
grows a myriad of words and leaves. Since people living in this world are
surrounded by countless events, they express what they feel in their hearts
by attaching it to the things they see and hear.

Kanajo: Preface of the Kokinshu

- Does not mention the 31-syllable form
  - The format is drived from the practice of poetic expression
  - Not too short, not too long, just right for expressing emotions
  - One theory suggests that the pleasantness of phonetics and rhythm (5-7 pattern),
  - The length of breath, and ease of recitation and transmission are involved.

Is 31-Syllable Form the Closet? No, it's not!

- The 31-syllable is the final form of the poem, not the initial one.
- The constraint of Waka is the construction of 5,7,5,7,7 syllables.
- Poets create a poem under the 5 segments of 5,7,5,7,7 syllables constraint.
- So, first poets seek words fitting each segment, then they combine them into a 31-syllable poem.

Poetic Rules may include:

- Omission of grammatical elements
- Inversion of word order
- Symbolic substitutionk
- Nominalization
- Manipulation of ambiguity
- Compression of meaning
- Expansion of meaning
- Reinterpretation of context

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Material

- A) Kokinshu: a collection of 1000 waka poems
- B) Modern Japanese translations: 10 sets of translations

Parallel corpus of 1000 waka and 10 modern Japanese translations

Ten kinds of the Translations

No.	Translator	Year	Pages	Manuscript	Translation Style
1.	Kaneko Motoomi	1933	1,105	Teika	Literal translation
2.	Kubota Utsubo	1960	1,449	Teika	Literal translation
3.	Matsuda Takeo	1968	1,998	Teika	Free translation
4.	Ozawa Masao	1971	544	Teika	Changes word order and grammar
5.	Takeoka Masao	1976	2,278	Teika	Literal translation
6.	Okumura Tsuneya	1978	434	Teika	Respects author's intent
7.	Kusojin Hitaku	1979	1,260	Teika	Supplements words
8.	Komachiya Teruhiko	1982	407	Teika	Unknown
9.	Kojima Noriyuki & Arai Eizo	1989	483	Teika	Unknown
10.	Katagiri Yoichi	1998	3,022	Teika	Literal translation

🌿 Steps of the Analysis

✅ Step 1: 10 kinds of translation data sets compparing with an Original poem dataset.
✅ Step 2: matching done by token codes based on WSLP (semantic principle codes)
✅ Step 3: Basic statistics and Residual patterns.
✅ Step 4: Differences between Translators / Seasonal Sections
✅ Step 5: Topological pattern lists

Computer programms

- Align waka with contemporary paraphrases
- Use phrase gloss and structured data
- Analyze rule types and transformation limits

Challenges

- Literal vs. interpretive gaps
- Compression loss in reverse mapping
- Ambiguity in source expressions

Toward a Model

- Create typology of transformation rules
- Visualize linguistic constraints
- Evaluate poetic fidelity and transformation cost

Methods

- Using a parallel corpus of waka and modern Japanese translations
- Align waka with contemporary paraphrases
- Use phrase gloss and structured data
- Analyze rule types and transformation limits
- Identify compression patterns for poetic thought

Steps

1. Calculating of the frequency of the conversion patterns
2. Clustering of the conversion patterns:
    - Grammatical, Lexical, Structural, Rhetorical etc.
3. Modeling of the conversion patterns:
    - Rule based, Statistical based etc.

Results

- Identify and classify poetic strategies
- Analyze how poetic thought is transfigured
- Uncover underlying rules (overt and covert)
- Explore the implications of compression
- Simulate the transformation process:

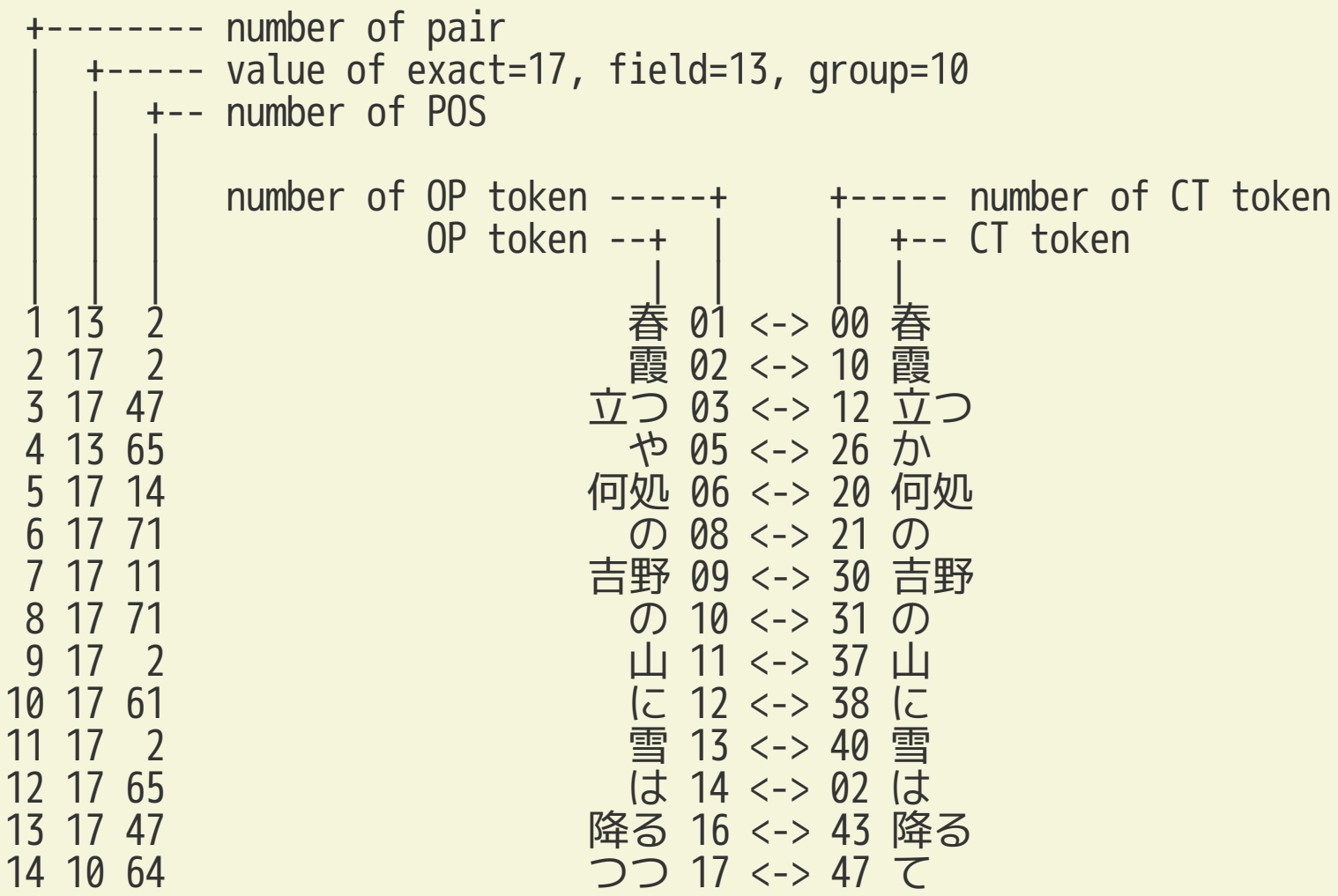
Original poem: Kokinshu No.3

```
1 KW000003 111 1 02 00 00 BG-01-5152-09-040-A はるがすみ はるがすみ 春霞 spring haze
1 KW000003 111 3 02 00 00 BG-01-1624-02-010-A -- はる 春 spring
1 KW000003 111 3 02 00 00 BG-01-5152-09-010-A -- かすみ 霞 haze
1 KW000003 211 0 47 25 04 BG-02-1513-01-010-A たて たつ 立つ
1 KW000003 212 0 74 68 20 BG-09-0010-03-030-C る り り
1 KW000003 213 0 65 00 00 BG-08-0065-14-010-C や や や
1 KW000003 221 0 14 00 00 BG-01-1700-02-100-C いづこ いづこ 何処
1 KW000003 311 0 11 00 00 CH-29-0000-20-010-A みよしの みよしの 御吉野
1 KW000003 312 0 71 00 00 BG-08-0071-01-010-A の の の
1 KW000003 411 0 11 00 00 CH-29-0000-20-010-A よしの よしの 吉野
1 KW000003 412 0 71 00 00 BG-08-0071-01-010-A の の の
1 KW000003 421 0 02 00 00 BG-01-5240-05-010-A やま やま 山
1 KW000003 422 0 61 00 00 BG-08-0061-05-010-A に に に
1 KW000003 511 0 02 00 00 BG-01-5153-07-010-A ゆき ゆき 雪
1 KW000003 512 0 65 00 00 BG-08-0065-07-010-A は は は
1 KW000003 521 0 47 28 03 BG-02-1540-10-010-A ふり ふる 降る
2 KW000003 521 2 47 28 03 BG-02-5150-03-010-A ふり ふる 降る
1 KW000003 522 0 64 00 00 BG-08-0064-15-010-A つつ つつ つつ
```

Translation: Kaneko No.3

```
1 kaneko 0003 0 02 00 00 BG-01-1624-02-010-A 春 はる 春 spring
1 kaneko 0003 0 61 00 00 BG-08-0061-05-010-A に に に
1 kaneko 0003 0 65 00 00 BG-08-0065-07-010-A は は は
1 kaneko 0003 0 47 17 06 BG-02-1220-01-030-A 成っ なる 成る
1 kaneko 0003 0 74 54 01 BG-09-0010-04-010-A た た た
1 kaneko 0003 0 64 00 00 BG-08-0064-04-010-A が が が
1 kaneko 0003 0 79 00 00 BG-16-0079-01-010-A 、 、 、
1 kaneko 0003 1 18 00 00 BG-03-3010-02-140-A 長閑 のどか 長閑
1 kaneko 0003 2 18 00 00 BG-03-5150-02-040-A -- のどか のどか
1 kaneko 0003 0 74 55 06 BG-09-0050-01-030-A な だ だ
1 kaneko 0003 0 02 00 00 BG-01-5152-09-010-A 霞 かすみ 霞 haze
1 kaneko 0003 0 61 00 00 BG-08-0061-07-010-A の の の
1 kaneko 0003 0 47 13 05 BG-02-1513-01-010-A 立っ たつ 立つ
2 kaneko 0003 2 47 13 05 BG-02-1521-06-020-A 立っ たつ 立つ
3 kaneko 0003 2 47 13 05 BG-02-3330-11-020-A 立っ たつ 立つ
4 kaneko 0003 2 47 13 05 BG-02-3391-02-110-A 立っ たつ 立つ
1 kaneko 0003 0 64 00 00 BG-08-0064-16-010-A て て て
```

Matching Diagram



Performance

```
OP(valid number of items)                = 16
E (ratio of exact agreement)     11/16 = 0.688
F (ratio of field agreement)      2/16 = 0.125
G (ratio of group agreement)      1/16 = 0.062
T (ratio of total agreement)     14/16 = 0.875
U (ratio of unmatched)           1 - T = 0.125

CT(valid number of items) = 39
W (ratio of original word use) 11/39 = 0.282
A (ratio of annotation) 1 - W = 0.718

- breakdown of the annotation -
P1(ratio of FG paraphrased) (F+G)/V = 0.077
P2(ratio of U paraphrased) (A-P1)\*U = 0.080
D (ratio of purely added) A-(P1+P2)= 0.561
H (theoretical value) 1-16/39 = 0.590
Gap: fabs(D-H)= 0.029
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Discussion

- Explore poetic compression in modern Japanese
- Analyze constraints in poetic expression
- Discuss implications for translation and interpretation
- Consider cultural and linguistic factors

Conclusion

- Waka as a lens for poetic thought
- Compression as a creative constraint
- Future research directions
- Implications for translation studies

Conclusion

- Content of the work is impressive
- Author's skill is impressive as well