

USE OF KANA (仮名) IN JAPANESE NAMES: GENDER DIFFERENCE AND REASONS BEHIND

Group: TA1-2

Group Members:

CHENG Xu Ying (Max)

XU Zishen (Frank)

WU Zhenli (Lily)

WONG Sze Nga (Sear)

LEE Chun Hin (Sonic)

Outline

- Introduction
- Background Information:
 - Kana and Kanji in Japanese writing system
- Data Collection and Analysis:
 - Investigation of character names from all Japanese TV Anime 2015
 - Questionnaire about the relationship between symbol complexity and gender impression
- Conclusion

INTRODUCTION

Research Questions/Methodology/Hypotheses

Introduction

- Japanese Names: Kanji and Kana
- Kana Names (first name) in Anime/Manga:

伊波まひる (Inami mahiru)



涼宮ハルヒ (Suzumiya haruhi)



Research Questions

- Kana names are more popular among female characters
- Investigate the gender differences in use of kana names / **Is it true?**
- Explore the possible reasons behind these differences / **If it is true, why?**

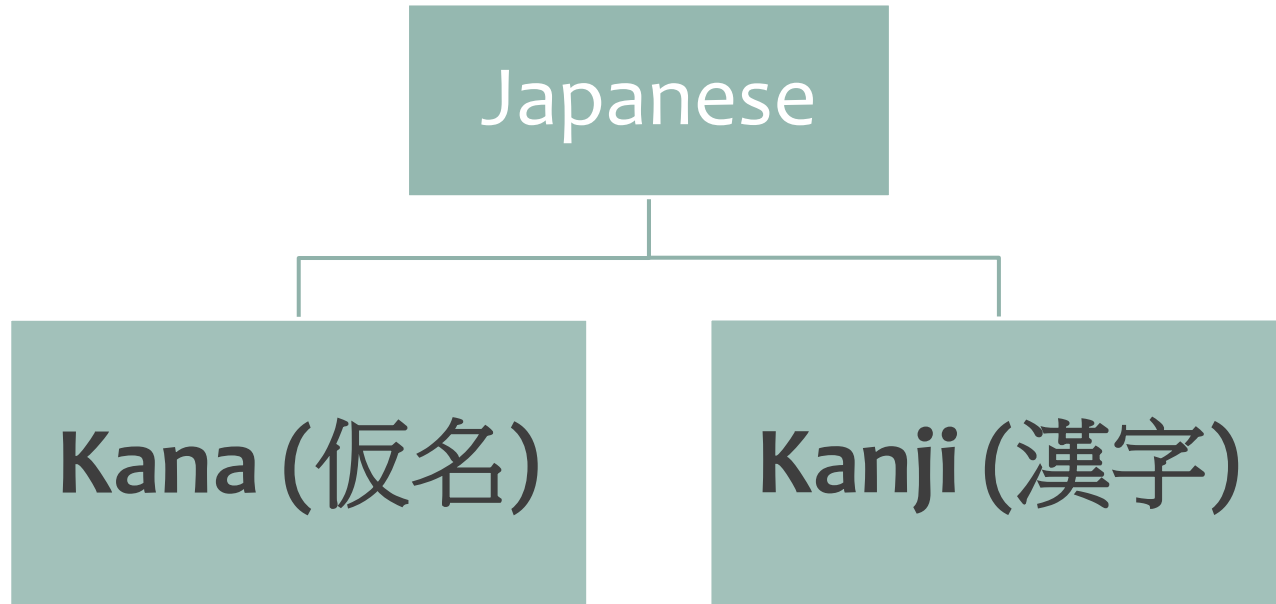
Methodology & Hypotheses

- 1 Data collection & analysis and 1 questionnaire survey
- Our hypotheses:
 - In Japanese Manga/Anime, there are more Kana names in female characters.
 - Sub: Symbol complexity is related to gender impression: simple writing symbols are more feminine.

BACKGROUND

Kana and Kanji in Japanese Writing System

Background



Japanese writing system

Kanji (漢字)

- Nouns , adjectives and verbs that written in Chinese characters
- Make reading at a much faster rate, visual cues to instantly tell you what each word is.

Example :

In Japanese: 葉(は/ha) and 齒(は/ha)
meaning: (leaf) (teeth)

In Japanese: 雨(あめ/a me) and 飴(あめ/a me)
meaning: (rain) (candy)

Example for Names



木野 まとこ (ma ko to)
From Sailor Moon



剣崎 真琴 (ma ko to)
From Doki Doki Pretty Cure



伊藤 誠 (ma ko to)
From School Days

Comparison

Japanese

```
graph TD; Japanese[Japanese] --- Kana["Kana (仮名)"]; Japanese --- Kanji["Kanji (漢字)"]; Kana --- KanaList["- Simple<br/>- Fewer number of strokes"]; Kanji --- KanjiList["- Complex<br/>- More number of strokes"];
```

Kana (仮名)

- Simple
- Fewer number of strokes

Kanji (漢字)

- Complex
- More number of strokes

DATA COLLECTION AND ANALYSIS

Investigation of character names from Japanese Anime

Criteria of valid data

- Data of 2015
- Character has Japanese Family name
- Character is one of the main characters of the anime

Criteria of valid data

- Data of 2015
 - Scale of project
- Character has Japanese Family name
- Character is one of the main characters of the anime

Criteria of valid data

- Data of 2015
- Character has Japanese Family name
 - Foreign characters has another naming system
 - アセイラム・ヴァース・アリュースシア from **ALDNOAH.ZERO** is a example of invalid data
- Character is one of the main characters of the anime



Martian

Criteria of valid data

- Data of 2015
- Character has Japanese Family name
- Character is one of the main characters of the anime
 - 堂島 銀 from 食戟のソーマ is a example of invalid data



Data

- After filtered the data as the criteria mentioned
- Total of 639 sample in anime of 2015
 - 369 female characters
 - 270 male characters
- For kana name characters
 - 73.33% is a female characters
 - Only 26.67% is a male characters

Data Analysis

Summary	First Name in Kana	First Name in Kanji	Total
Female Character	132	237	369
Male Character	48	222	270
Total	180	459	639

Summary	First Name in Kana (%)	First Name in Kanji (%)
Female Character	73.33333333	51.63398693
Male Character	26.66666667	48.36601307
Total	100	100

E	First Name in Kana	First Name in Kanji
Female Character	103.94	265.06
Male Character	76.06	193.94

X	First Name in Kana	First Name in Kanji
Female Character	7.57	2.97
Male Character	10.35	4.06

X ²	24.95
df	1.00
a	0.001
Critical	10.83
Conclusion	Dependent

The SAS System

The FREQ Procedure

Frequency Expected Percent Row Pct Col Pct	Table of Gender by KanaORKanji		
	Gender	KanaORKanji	
		Kana	Kanji
Female	132	237	369
	103.94	265.06	
	20.66	37.09	57.75
	35.77	64.23	
Male	73.33	51.63	
	48	222	270
	76.056	193.94	
	7.51	34.74	42.25
Total	17.78	82.22	
	26.67	48.37	
	180	459	639
	28.17	71.83	100.00

Statistics for Table of Gender by KanaORKanji

Statistic	DF	Value	Prob
Chi-Square	1	24.9511	<.0001
Likelihood Ratio Chi-Square	1	25.8538	<.0001
Continuity Adj. Chi-Square	1	24.0697	<.0001
Mantel-Haenszel Chi-Square	1	24.9120	<.0001
Phi Coefficient		0.1976	
Contingency Coefficient		0.1939	
Cramer's V		0.1976	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	132
Left-sided Pr <= F	1.0000
Right-sided Pr >= F	<.0001
Table Probability (P)	<.0001
Two-sided Pr <= P	<.0001

Sample Size = 639

Data

- Main Hypothesis Supported:
 - In Japanese Manga/Anime, there are more Kana names in female characters.
- How about the sub-hypothesis?
- Symbol complexity is related to gender impression: simple writing symbols are more feminine.

DATA COLLECTION AND ANALYSIS

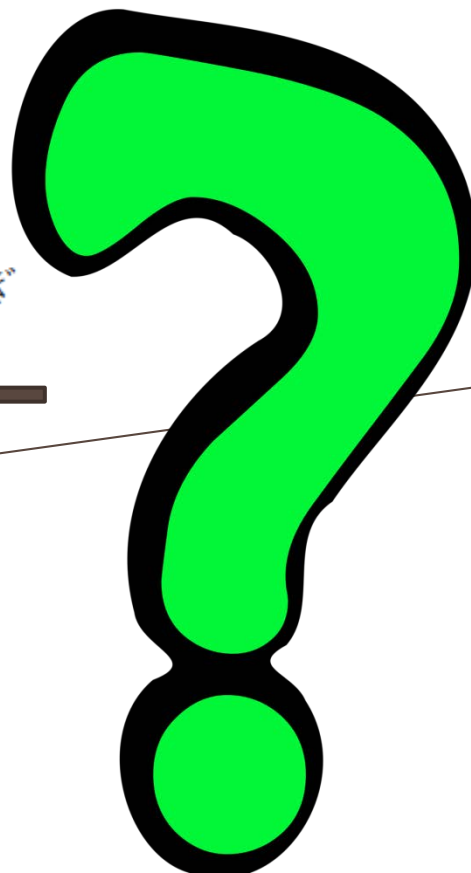
Questionnaire about the relationship between
symbol complexity and gender impression

Kana Names

朝比奈 みくる
高町なのは
種島 ぽぷら
宮内 れんげ
戦場ヶ原 ひたぎ
田村 ゆかり



Female



遊馬崎ウォーカー
黒子 テツヤ



Male

Hypothesis:

- In Japanese Manga/Anime, there are more Kana names in female characters.

かな

VS

漢字



← みくる

幽助 →



*From: 涼宮ハルヒの憂鬱

*From: 幽☆遊☆白書

Sub-hypothesis (Specified, for test):

- People tend to name cute, moe female with relatively simple characters which consist of fewer strokes, and name cool, strong/powerful male with relatively complex characters which consist of more strokes.

Questionnaire - Design

• Artificial Characters

➤ Simple: ≤ 5 strokes



夕 方 久 么 巾 巾 乙
川 夕 夕 正 止 卡 乙
乙 又 久 白

➤ Complex: ≥ 10 strokes



商 隼 炭 率 烈 似 造
儻 鬲 烟 鎬 匱 擘 珪
濕 虜 彗 襍

Questionnaire - Design

• Questions

4. Which first name would you choose for this female character? They have same pronunciation.

A. 烟 B. 麟 C. 久 D. 夕

A.

B.

C.

D.

5. Which first name would you choose for this female character? They have same pronunciation.

A. 猿 濕

B. 止 方

A.

B.

C. 儼 掣

D. 子 平

C.

D.



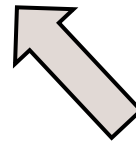
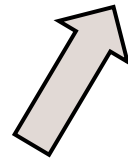
Questionnaire - Design

• Recording



Total Score

- ✓ Female: 2
- ✓ Male: 1



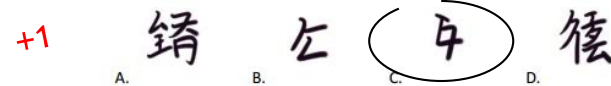
7. Which first name would you choose for this male character? They have same pronunciation.



8. Which first name would you choose for this male character? They have same pronunciation.



1. Which first name would you choose for this female character? They have same pronunciation.



2. Which first name would you choose for this female character? They have same pronunciation.



Expectation:

- If the overall score (total number of choices with simple characters) for the female character is higher than the male character, then the sub-hypothesis is supported.

Questionnaire - Conduct

- Randomly distributed to CityU students;
- Have some knowledge of Chinese character or Japanese Kanji;
- 50 copies were answered and received;
- Data had been input and stored in the computer;



Questionnaire - Result

- **Total score**

- Female: 200
- Male: 77

- **Average (mean)**

- Female: 4
- Male: 1.54

- **Variance**

- Female: 2.08
- Male: 1.76

- **Percentage**

- Female: 72.20%
- Male: 27.80%

Number of simple first name chosen		
No.	Female character	Male character
1	6	0
2	2	4
3	5	0
4	6	0
5	6	0
6	6	0
7	2	4
8	5	0
9	2	2
10	4	1
11	5	0
12	4	1
13	1	1
14	1	1
15	3	3
16	4	1
17	4	0
18	1	3
19	4	0
20	2	2
21	3	2
22	5	1
23	3	1
24	3	2
25	2	3
26	3	1
27	3	2
28	1	1
29	1	2
30	3	1
31	6	0
32	6	5
33	3	2
34	4	2
35	6	2
36	4	2
37	5	0
38	5	2
39	3	0
40	4	0
41	5	3
42	5	2
43	4	4
44	4	1
45	4	4
46	5	3
47	4	3
48	4	2
49	3	1
50	4	1
Total	200	77
Mean	4.00	1.54
Var	2.08	1.76
Percent	72.20%	27.80%

Overall Selection of simple character: Female > Male

Questionnaire - Result

The SAS System

The GLM Procedure



The SAS System

The GLM Procedure

Tukey's Studentized Range (HSD) Test for Score

Note: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	98
Error Mean Square	1.922653
Critical Value of Studentized Range	2.80646
Minimum Significant Difference	0.5503

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	Gender
A	4.0000	50	F
B	1.5400	50	M

Gender	1	151.2900000	151.2900000	78.69	<.0001
--------	---	-------------	-------------	-------	--------

Result:

- We have 95% confidence that the selection of simple characters for the female is larger than the male.

Sub-hypothesis (Specified, for test):

- People tend to name cute, moe female characters with relatively simple characters which consist of less strokes and name cool, strong/powerful male with relatively complex characters which consist of more strokes.

Supported

Sub-hypothesis (General):

- Symbol complexity is related to gender impression: simple writing symbols are more female

Supported

CONCLUSION

Hypotheses/Limitations

Hypotheses

- 1) There are more Kara names in female characters in Japanese manga.
- 2) Symbol complexity is related to gender impression: simple writing symbols are more feminine.
- Based on our results, we have observed that there are indeed more kana names in female characters in Japanese manga. In addition, the less complex the writing symbol, the more likely that the name belongs to that of a feminine character. Hence, our hypotheses are proven correct.

Limitations

- Scale of questionnaire survey
- Other factors such as meaning and pronunciation of words
- Human error during questionnaire

Scale of Questionnaire Survey

- We distributed 50 copies of the questionnaire to students in CityU.
- *perhaps a larger scale with more copies might be more favourable
- *probably could have sent to people across different age groups, not just students in CityU
- *equal distribution between male and female respondents might bring a fairer result

Other factors

- Pronunciation, meaning...
- For example, the Chinese word 「力」
- Few number of strokes, but conveys a meaning of strength and authority.

Human error

- Human error in any type questionnaire is inevitable.
- Some of the respondents might have misunderstood the instructions of the questionnaire.
- They might have also rushed through the questions without thinking through the questions carefully.

References

- 伊波まひる,
[Online] Available: http://bbs.hltm.cc/attachments13/month_1110/11100108368e4786d92c4doc1f.jpg
(April 12,2016)
- 涼宮ハルヒ, [Online] Available: <http://comic.qq.com/images/comic/2008/03/06/april/bg/02.jpg>
(April 12,2016)
- 堂島 銀,
[Online] Available: <http://imgsrc.baidu.com/forum/w%3D580/sign=e3a88698d409b3deebbfef46ofcbd6cd3/e4a85cdf8db1cb13fcb21de3d854564e93584b63.jpg> (April 12,2016)
- アセイラム・ヴァース・アリュース,
[Online] Available: <http://imgsrc.baidu.com/forum/w%3D580/sign=57648120fefaaf5184e381b7bc5594ed/8ec58b2dd42a2834ade41f0d58b5c9ea14cebf97.jpg> (April 12,2016)
- 朝比奈みくる,
[Online] Available: <http://imgsrc.baidu.com/forum/w%3D580/sign=b21dd96bdd54564ee565e43183df9cde/878770310a55b319108d670d43a98226cffc1712.jpg> (April 12,2016)
- 浦飯幽助, [Online] Available: <http://n1.itc.cn/img8/wb/recom/2015/11/21/144806844799842710.jpeg>
(April 12,2016)
- 木野 まとこ, 美少女戦士セーラームーン, 1997
- 剣崎 真琴, ドキドキ！プリキュア, 2013
- 伊藤 誠, スクールデイズ, 2007
- Mayumi Azuma, EREMENTAR GERAD, 2009, Tong Li Publishing Group Limited, Vol.1:28
- Mayumi Azuma, EREMENTAR GERAD, 2009, Tong Li Publishing Group Limited, Vol.1:38

Q&A

Thank you for listening!