

Designing Language Games

Kazuko SHINOHARA
Tokyo University of Agriculture and
Technology

Abstract

This paper shows that traditional language games are governed by linguistic principles and thus speakers avoid deviating too much from their linguistic knowledge. We also show that speakers can consciously challenge part of linguistic systems and rules by designing a novel language game. Two of the traditional language games in Japanese, *dajare* and *shiritori*, will be described to illustrate the effect of linguistic principles on language games. We will then introduce a hitherto undescribed language game designed as a conceptual art, and see how it is created through the balance and tension between creativity and unexpectedness on the one hand and grammatical well-formedness and meaningfulness on the other. Designing language games-or studying designs of language games-may tell us a lot about the nature of our creativity.

1. Introduction

People play with their language(s) all the time, a practice referred to as “language games”. People enjoy finding out similarities in sounds of words (punning), recalling words with similar meanings or sounds (*rensoo geemu* ‘association game’), trying to utter phrases that are difficult to pronounce (tongue twister), creating new phrases by changing the order of letters or sounds, etc. Language games are widespread among different language communities, and different language communities have different language games. Some of them are traditional, and some of them are innovative. In Japanese, we have, for example, *shiritori* (the players say a word which begins with the final mora of the previous word), *kaibun* (palindrome), *dajare* (puns), *goroawase* (puns especially for numbers, often used as mnemonic or just for fun), to name just a few. In this paper, we show that traditional language games are governed by linguistic principles and thus speakers avoid deviating too much from their linguistic knowledge. However, we also show that speakers can consciously challenge part of linguistic systems and rules by designing a novel language game.

In the rest of this paper, we develop our discussion as follows. Section 2 describes two of the traditional language games in Japanese, *dajare* and *shiritori*, to illustrate the effect of linguistic principles on language games. Section 3 introduces a hitherto undescribed language game designed as a conceptual art, and see how it is created through the balance and tension between creativity and unexpectedness on the one hand and grammatical well-formedness and meaningfulness on the other. Section 4 concludes the paper.

2. Traditional language games in Japanese

2.1. *Dajare* (puns)

Dajare is very common among Japanese speakers. In typical cases, speakers compose *dajare* by creating sentences or phrases using identical or similar words, as in (1) and (2).^{*1}

(1) Arumikan-no ue-ni aru mikan.
aluminum can-GEN top-LOC exist orange
‘An orange on an aluminum can.’

(2) Aizu-san-no aisū.
Aizu-from-GEN ice-cream
‘Ice cream from Aizu.’

The example in (1) involves an identical sequence of sounds, [arumikan]. The second example on the other hand involves a pair of two similar phrases, [aizu] and [aisū], where the corresponding consonantal pair [z]–[s] involves non-identical–yet similar–consonants.

In my previous projects with Shigeto Kawahara, we have investigated linguistic principles that govern Japanese puns,

^{*1} Speakers can also change an underlying form to make it more similar to the corresponding word. For example, in *Hokkaido-wa dekkai do* ‘Hokkaido is big’, speakers change the sentence-final particle /zo/ to [do] to make /dekkai zo/ more similar to [hokkaido]. Other types of *dajare* include those that hide the first element and let hearers guess what it is. Many of this type of *dajare* are made by replacing a part of proper names, clichés, or famous phrases with a similar sounding word. For instance, we find a pun like *Maccho-ga uri-no shoojo* ‘A girl who’s proud to be a macho’, which is based on *Macchi uri-no shoojo* ‘The Little Match Girl’.

especially cases like (2) which involve non-identical pairs of sounds (imperfect puns) (see [1] for a review). By way of corpus analysis and experimentation, we have found that in making puns, Japanese speakers attempt to maximize the similarity between the corresponding words. This principle holds true both in terms of vocalic similarity [2] as well as consonantal similarity [3]². Another study of ours has also found that both psycholinguistic and phonetic prominences affect the measure of similarity deployed in the formation of Japanese puns [6]. These results show that speakers do not necessarily randomly combine words to make funny sentences, but they care about the phonetic/phonological aspects of pun sentences.³

2.2. Shiritori

Shiritori (literally “bottom taking”) is a language game in which the players need to come up with a noun that begins with the final mora of the previous noun [9]. Participants take turns, and the person who says a word ending with a coda [N] or repeats a noun that has been already said loses. An example of a series of words produced in *shiritori* is : *risu* (squirrel) => *suzume* (sparrow) => *medama* (eye ball) => *maruta* (log) => *tatami* (room mat) => *mikaN* (orange). The person who said *mikaN* loses.

Although this principle of *shiritori* is simple, some groups of people use different local rules, because different interpretations are possible with regard to what counts as “the bottom”. If the last letter (in Japanese orthography) is taken as the bottom, *kaisha* (company) => *yakyuu* (baseball) is allowed because in Japanese writing system, the last letter of *kaisha* is the same as the letter representing *ya*. If the last syllable (or the mora) is taken as the bottom, *kaisha* => *shachoo* (president) is allowed. If the last mora is the bottom but the last syllable is not, *shachoo* => *oni* (goblin) is possible but *shachoo* => *choori* (cooking) is not allowed. Each group playing *shiritori* can adopt one or more of these local rules. Although we observe a variety of options, these rules are all based on linguistic principles ; Japanese writing system or Japanese phonology.

Some people add further restrictions on *shiritori* as well, some of which are semantic. Some players for example like to limit the nouns to be of a specific genre or associated with a specific topic. Limits can also be imposed on lexical aspects :

proper nouns are usually not allowed, and compound nouns are largely restricted except when they are fully conventionalized or lexicalized. One of the other intriguing phenomena is the fact that nouns used in *shiritori* are very frequently those belonging to so-called “basic-level categories” [10-12].

In summary, both *dajare* and *shiritori* are governed by linguistic principles. Some of the principles are unconscious (the similarity restrictions on punning) : others may be conscious but easy to understand and follow (the local rules in *shiritori*). This property of language games does not come as a surprise because if the principles and the rules are complex—or against our linguistic intuition—playing such games would require too much effort and participants may not have fun. For this reason, traditional language games tend to be intuitively understandable, easy, while allowing for much freedom.

Now we would like to raise the following question : can we consciously design a language game that is substantially different from traditional language games? Although it is quite easy to modify the rules of traditional language games or add optional rules to them, is it possible to create a novel language game? The answer to this question is ‘yes’. In the next section, we will look at a different kind of language game, i.e., a novel language game designed by a particular person or a group.

3. Hiragana kookan (Hiragana exchange)

3.1. The system of *hiragana kookan*

Taiichi Uchiyama, a Japanese modern music composer and conceptual artist, designed a language game called *hiragana kookan* (hiragana exchange). The system of this game is similar to the traditional Japanese literary game *renga* (two or more people write lines of a poem in turn), but unlike *renga*, the unit in *hiragana kookan* is designed to be as small as possible—participants can write only one hiragana at one time (a hiragana represents a mora or in most cases a syllable consisting of one vowel or a consonant plus a vowel ; one hiragana can represent, for example, [ka] or [bo], which requires two letters in alphabet, or a single vowel like [a], [i], or [u]).

The rules of *hiragana kookan* are simple : two or more people participate, one of them writes one hiragana on a sheet of paper and passes it to another person, who adds one hiragana to make a meaningful phrase, and then participants go on in the same way in turn. In so doing, participants are not allowed to tell other participants what words or phrases they

² English pun patterns show similar properties [4,5]

³ Previous studies have argued that linguistic principles govern other kinds of language games, such as *zuoja-go* (Japanese musicians’ argot) [7] and the *babibu* language [8].

are thinking of when and after they write their own hiragana, although when a text is finished, participants discuss what they intended and how they interpret the text. Since this “silence rule” makes it impossible to communicate one’s intention to the others while creating the text, the result of this activity usually becomes a very unexpected one for the participants. For example, imagine that three people are participating in *hiragana kookan*. One participant writes *wa*, and then a second participant adds *ta*. At this point, a meaningful word *wata* ‘cotton’ emerges. The third person may adopt this interpretation and continue a sentence, or try to think of some other word that begins with *wata* such as *wataridori* ‘migratory bird’ or *watashi* ‘I’. Imagine the third person writes *ri*, and the sheet returns to the first person. What actually happened was that the first person could not think of any words or phrases that make sense starting with *watari* but only an actor’s name ‘Watari Tetsuya’ came up to his mind, so he wrote *te* after *ri*. The second person sees *watarite*, but he did not understand it at all. Situations like this often occur and participants sometimes have a tough time trying to continue a phrase. One interesting aspect of this game is that we experience how different words/phrases other people come up with given the same sequences of sounds.

The following example (3) is a part of a result of *hiragana kookan* played by three people. [13, p.7] A, B, and C represent the three participants; hyphen separates each hiragana’s sounds.

(3) すみをすりおえふとふでをとってもちにくいをさわがしく
さすよ。

Su-mi-o-su-ri-o-e- fu-to-fu-de-o- to-t-te

A B C A B C A B C A B C A B C

mo-chi-ni-ku-i-o-sa-wa-ga-shi-ku-sa-su-yo-(period)⁴⁴

A B C A B C A B C A B C A B C

By its nature, *hiragana kookan* does not necessarily produce interpretable sentences. In this example, however, one possible reading may be; ‘Having finished making ink, I am picking up a large writing brush and sticking a stake noisily into a rice cake.’ Several other interpretations are possible. The

⁴⁴ An optional rule allows players to put a comma or a period instead of a hiragana letter. The original members of *hiragana kookan* (Taiichi Uchiyama, Kazuko Shinohara, Shin-ichi Yamamoto) adopt the exceptional rule that one can write a hiragana followed by a comma or a period at one time but not a comma or a period followed by a hiragana [14, p.20].

phrase *futo-fude* ‘a large writing brush’ can be broken down into two phrases *futo* ‘unconsciously, absent-mindedly’ and *fude* ‘a writing brush’, and this changes the meaning of the sentence: ‘Having finished making ink, I am picking up a writing brush absent-mindedly, and sticking a stake noisily into a rice cake.’ This kind of ambiguity or the possibility of multiple parsing is an ordinary phenomenon even in daily use of language, so it may be uninteresting. The latter part of (3) gives us more implication. The part *mochinikui* can be interpreted as ‘hard to hold’ if it is not followed by *-o* (accusative marker). This interpretation is contextually natural because the first half of the text says that the person is picking up a writing brush. Thus, if we see only the first half of this text up to *mochinikui*, we will not ordinarily think of sticking a stake into a rice cake. The person who wrote *-o* destroyed this whole context, and it was intentional (the participants discussed what they did after finishing this text and the person who wrote *-o* confessed that he did it intentionally, while the other two were imagining that the phrase would continue like *mochinikui-to tsubuyaku/omou/kanjiru* ‘say/think/feel that it is not easy to hold’). This is a typical phenomenon that occurs in *hiragana kookan*: a participant can change the whole context or destroy the grammatical well-formedness, semantic consistency, or contextual naturalness totally by putting only one letter, and nobody can predict who will or will not do this until it actually happens.

(4) is another example, which was written by four people [13, p.5]. The sequence of hiraganas produced by the players is shown in (4 a); English gloss and rough translation is shown in (4 b).

(4) a . ゆくえのしれぬぼうふらは、きのりのしるし。

yu-ku-e-no-shi-re-nu-bo-u-fu-ra-wa-(comma)

A B C D A B C D A B C D A

ki-no-ri-no-shi-ru-shi-(period)

B C D A B C D D

b. yukue-no shirenu boofura-wa, kinori-no shirushi.

whereabouts-GEN unknown wriggler-TOP ‘kinori’-GEN sign

‘The wriggler whose whereabouts is unknown is the sign of kinori.’

The hardest part of this text is the phrase *kinori-no shirushi*. There is a word *kinori* in Japanese, but it is used negatively as in *kinori-no shinai* ‘don’t feel like doing/reluctant/halfhearted’.

Thus, three of the four participants, A, B, and D, expected the phrase *kinori-no shi* to continue as *kinori-no shinai*. Only C did not hit upon this phrase but he interpreted *kinori* as *ki* 'tree' plus *nori* 'glue', and imagined some kind of pitch-like substance on the surface of a tree. C thus added *ru* after *shi* to make a word *shiru* 'liquid/juice'. For C, this was a natural association given the word *boofura*, i.e., mosquito larvae, which grow in sewage. However, D could not make sense of *kinori-no shiru*, and in perplexity, she put an end to the phrase by adding *shi* to make *shirusi* 'sign' and a period, according to the rule they used (see footnote 3). The phrase in (4) was created in this way.

In *hiragana kookan*, accidents like this not only occur within a word, a phrase, a sentence or in a line, but also discourse may get disturbed due to such miscommunications. Participants try to "read" other people's mind and try to make sense of the text. Nevertheless the outcome sometimes only becomes ill-formed or incomprehensible, or sometimes extraordinarily funny. The funniness of the texts produced by *hiragana kookan* is something a person cannot create intentionally; it is a very strange strangeness. It may be because this system is designed to prohibit each person from controlling even one word at his/her own will, and to incorporate "other minds" even in determining the boundary of one word.

3.2. Implication of hiragana kookan to collaborative art

As we have seen in section 2, traditional language games are fundamentally governed by linguistic principles and intuitively easy to understand. *Hiragana kookan* is not an exception in that it relies on players' linguistic intuition. The unit exchanged in this game is hiragana, which represents a mora in Japanese. In this way, it relies on players' ability to control moras. However, *hiragana kookan* is a novel language game in that it exchanges elements that basically do not have meanings in themselves. Moras are bigger units than phonemes, but they are not meaningful. Putting one hiragana cannot totally control the meaning of the text, even a word or a phrase, nor can it totally control the grammatical structure of a sentence.⁴⁵ This imposes a strong restriction on the players' control over the text they are producing, and this restriction of control can induce unexpected results that go beyond a person's imagination or association, or of course a person's intentional deviation from grammaticality as a rhetorical technique. Grammatical well-formedness is often destroyed or shaken in a curious way, and in this sense too, *hiragana kookan* is different from traditional

language games.

Uchiyama designed an exchange system like this first as a way of experimental musical composition, where each one of two persons writes only one note on a music sheet in turn. He noticed that this method produced very strange music that a single person could not imagine by him/herself. He saw what happened when "other minds" came to interplay in a process of creation. Then he extended this idea to writing, and Shinohara employed it as a system of experimental poetry [15, p.32–34].

Collaborative poetry writing like *renga* has a long history in Japanese literature, but in *hiragana kookan*, the unit is made as small as possible (there are smaller linguistic units such as phonemes, but hiragana seems to be the smallest possible unit that can be used without much stress, since ordinary speakers of Japanese will have difficulty in thinking of and writing phonemes or alphabets). By making the unit small enough, it becomes easy for "other minds" to be incorporated and thus more unexpectedness can be induced. The unexpectedness induced by this game includes breakdown of grammatical well-formedness: sometimes participants cannot rescue the text from collapsing grammatically. Even in such cases, grammatical rips in the text can be fun and enjoyable because they are often unexpectedly strange.

Another interesting effect of *hiragana kookan* in poetry writing is that author's identity is shaken in this language game. In *renga*, the authors are well aware which part of the poetry they wrote and with what intention or feeling. On the other hand, in *hiragana kookan*, we cannot identify who wrote which word or phrase, since players collaboratively write even one word. Even when an uninteresting, poor text is produced, it cannot be attributed to a single person. Actually, participants in *hiragana kookan* tend not to feel that the text they wrote are *their* original text. They feel as if some other person(s) wrote it. This is a curious experience especially for those who are obsessed by the idea of self-identity.

4. Concluding remarks

Linguistic principles govern conventional as well as innovative language games. At the same time, speakers can consciously challenge part of linguistic systems and rules by designing a

⁴⁵ Some hiraganas have more grammatical information than others: since *-o* (を) is an accusative marker, it has more grammatical information than most other hiraganas. Particles like *-ha*, *-he*, *-ni*, *-ga*, and others can also convey grammatical information if put in a proper place.

novel language game. Designing language games—or studying designs of language games—may tell us a lot about the nature of our creativity.

Appendix : Sample texts of *hiragana kookan*.

1. A poetry line produced by four poets

(February 6, 1988, by Manabu Okayasu, Seiko Naradate, Naoko Shinozawa, Ben Kurao.)

われかかあのみを、あつめぼうぼうくるひのこみたつせいせんが、
やみいるもうもくをしいらぬ。

2. A passage produced by two players

(January 8, 1989, by Kazuko Shinohara and Shin-ichi Yamamoto)

どれみふあそーそふあみれどしらしらないよ、くらべてみたら、
のっぽのおじさんがにこっとわらってびえろのようなかおをだ
した。ぬんぼうといしぼうと、いまごぼうとへちぼうが、こや
のなかでいっしょにうどんをたべながらせいばつにでかけよう
とそうだんしていた。きびだんごもひとつずつくにぶらさげ、
あかいまえかけをつけて、あしおとがるくどらをならし、どう
ぶつたちをかどわかし、おまいりもすませてさあしゅぱつ！
げんじぼたるがいっぴきすかしたひもをひっぱると、くらいよ
ぞらもぱつとあかるくなった。あまのじゃくなぐんじんが、そ
れをみていじわるをしようたくらみ、まえばをむきだしてお
っかないかおをした。ぬっ、こいつめ！やつとあかるいよぞら
からにげだせば、こばんざめがでてくるじかんとした。せぶん
もひまをもてあまし、べつのほしからやってきた。だいきぼ
なせんとうがくりひろげられ、せいふもかいにゆうし、せかい
てきなげんじぼたるぶりとなった。ああ、いつもこんなことを
よくやっているな。いまごろは、せいじかもびっくりしている
ことだろう。なみだながらにうさぎのだんすをおどっています
と、のべのしらべがつたわってきます。ぬすつとのしらをきる
すがたに、あきれはててしづかにたちばをまげるのを、つたの
からまるちゃべるでけんがくしているうさぎさんも、れいぎた
だしくおそろしく、みんかんじんからたのもしくおもわれてい
ました。こばんざめといっしょに、でっぱつりあげ、よのなか
をひいてきこみみたいとおもいだすのは、きょくたんなか
んがえかたかもしれない。のっぽのびえろも、いっばつじぶん
のみちをふみしめて、ゆっくりとあゆむようにとさとされた
ようである。

Acknowledgements

I would like to thank Taiichi Uchiyama, who introduced me the language game *hiragana kookan* and have worked with me

practicing it for a long time. I would also like to thank late Shin-ichi Yamamoto for his cooperation in the game and moral support. Mitsuru Yoshiura has been an important member practicing the game and contributed to create interesting, unique poetry texts. I am grateful to Shigeto Kawahara, a principle co-investigator of our previous projects on Japanese imperfect puns, for his cooperation and detailed comments on earlier versions of this draft. Section 2 of this paper is based on the projects with Shigeto Kawahara. Further information of our investigation on Japanese imperfect puns is on his website.

References

1. Kawahara, S. (2009) "Probing knowledge of similarity through puns." In T. Shinya (ed.) *Proceedings of Sophia University Linguistic Society 23*. Tokyo : Sophia University Linguistics Society.
2. Kawahara, S., Shinohara, K. (2008) *Calculating vocalic similarity through puns*. ms.
3. Kawahara, S., Shinohara, K. (2009) "The role of psychoacoustic similarity in Japanese puns : A corpus study." *Journal of Linguistics* 45(1) ; 111–138.
4. Fleischhacker, H. (2005) *Similarity in Phonology : Evidence from Reduplication and Loan Adaptation*. Doctoral dissertation, UCLA.
5. Zwicky, A., Zwicky, E. (1986) "Imperfect puns, markedness, and phonological similarity : With fronds like these, who needs anemones?" *Folia Linguistica* 20, 493–503.
6. Kawahara, S., Shinohara, K. (to appear) "Phonetic and psycholinguistic prominences in pun formation." In M. den Dikken and W. McClure (eds.) *Japanese/Korean Linguistics 18*. CSLI.
7. Itô, J., Kitagawa, Y., Mester, A. (1996) "Prosodic faithfulness and correspondence : Evidence from a Japanese argot." *Journal of East Asian Linguistics* 5(3), 217–294.
8. Haraguchi, S. (1991) *A Theory of Stress and Accent*. Dordrecht : Foris.
9. Katada, F. (1990) "On the Representation of Moras : Evidence from a Language Game." *Linguistic Inquiry* 21, 641–645.
10. Brown, R. (1958) "How shall a thing be called?" *Psychological Review* 65, 14–21.
11. Brown, R. (1965) *Social Psychology*. Free Press : New York, .

12. Rosch, E., Mervis, C., Gray, W., Johnson, D., Boyes-Braem P. (1976) "Basic Objects in Natural Categories." *Cognitive Psychology* 8, 382-439.
13. Shinohara, K. (1987) "Hiragana kookan-ni okeru kyoodooshi-no kuukan : hiragana kookan-no shookai-to kaisetsu (The world of collaborative poetry by hiragana kookan: an introduction and commentary)." Seiko Naradate (ed.) *Bag-Lady* 4, 2-7.
14. Shinohara, K., Naradate, S. (1989) "Hiragana kookan ten L'89." In K. Shinkawa and S. Yoshihara (eds.) *La Mer* 24. Tokyo : Shoshi Suizokukan, 20-23.
15. Shinohara, K. (1987) "Hiragana kookan-to gendai-shi (Hiragana kookan and modern poetry)." Seiko Naradate (ed.) *Bag-Lady* 12, 32-38.