A Comparative Study of Humour between Japanese *Manzai* and English Stand-up Comedy

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Abstract

This paper compares English stand-up comedy and Japanese *Manzai* from the viewpoint of cognitive linguistics, especially using the concepts of Fauconnier and Turner (2002). In my opinion, the existence of *Tsukkomi* would make some difference between two humors, so this paper pays attention to how *Tsukkomi* plays a role and why a humor (*Manzai*) requires it. To offer some clues of revealing such a difficult issue, this paper makes use of brain scientific ideas in addition to cognitive linguistics views.

1. Introduction

In the long history of humor, English and Japanese have each established unique styles of humor, and provided the public with them as merchandise. Although such a long history proves the demand for commercial humor, there are countless things that have not been revealed about humor. One of the reasons why studying humor is difficult is because we cannot define what humor is and what is included in the category. For instance, when it comes to Japanese humor, we can see a variety of humors: *Manzai, Rakugo, Conto, Shinkigeki,* and so on. All of them are types of humor, but we cannot find a common definition which covers all types, which makes studying humor complex. To avoid the confusion and think of one aspect of humor, this paper pays attention only to limited humors: Japanese *Manzai* and English stand-up comedy. Why this paper chooses these humors is because each humor is similar and common in public. According to Katayama (2009: 125), "In the U.S., stand-up acts are comprised of solo comedian's narrative performance, while stand-up comic narrative in Japan is performed in the form of dialogue between two comedians." We can say that this "solo comedian's narrative

performance" corresponds to the style of stand-up comedy, and "the form of dialogue between two comedians" to the style of *Manzai*. Katayama (2009) says that both the humors are "stand-up" comic. In addition, Katayama (2009: 125) also says, "Stand-up comedy is one of the most popular genres of entertainment both in the United States and in Japan." He thinks that *Manzai* and stand-up comedy are the same type of humor and both humors are popular in public. That is, it seems reasonable to compare Japanese *Manzai* and English stand-up comedy. Furthermore, by comparing and guessing the main difference between *Manzai* and stand-up comedy, it can be possible to know one aspect of humor. For these reasons, this paper mainly discusses the differences between English stand-up comedy and Japanese *Manzai*.

In each humor, how it is expressed is significant. For example, to a person who says the same things many times, a famous comedian Shinya Ueda says, "Kyoku no sabi zya nain dakara (like a chorus of a song)." This is his humor, but not everyone uses such an expression in the same situation. Ueda thinks that the person's utterance is similar to one chorus, and he says so. In this way, what kind of word is chosen as humor depends on how a speaker captures an event and what kind of background knowledge is activated. Cognitive linguistics can reveal such a phenomenon because it explains how a speaker grasps an event in language. Therefore, this paper explores stand-up comedy and *Manzai* from the viewpoint of cognitive linguistics.

However, humor is so abstract that using some views from other field might be more helpful. When considering linguistic issues, sometimes brain scientific analysis offers a further hint into these matters. The brain science can explain the different functions of brain between English speakers and Japanese speakers, so it might help the study of humor with cognitive linguistics. Therefore, this paper considers *Manzai* and stand-up comedy, from the viewpoint of cognitive linguistics, while also referring to the field of brain science.

2. Definition of Humor and Its Structure of Blending

In order to consider *Manzai* and stand-up comedy, the question of "what is humor" first has to be made clear. In this section, a definition of humor is presented from the viewpoint of brain science and cognitive linguistics. Based on

the definition, the structure of humor is shown by blending (Fauconnier and turner 2002).

2.1. *Manzai* and Stand-up Comedy

In the beginning, *Manzai* and stand-up comedy have to be explained. *Manzai* is usually performed by two people (though sometimes more), collaborating in order to show their humor. Their roles are mainly divided as: *Boke* and *Tsukkomi*. The former says or conducts something stupid, and the latter points out its ridiculousness. One of the examples of *Manzai* is as below (T means *Tsukkomi* and B means *Boke*):

(1) (*Boke* and *Tsukkomi* assume the situation of transferring school. In this situation, *Boke* has to change school, and he calls his mother to confirm it as if *Boke* does not know it. *Tsukkomi* says that *Boke* does not need to have a confirmation about himself.)

   B: Moshi-moshi   Okaasan !?

     hi (in a call)   mom

    (Literally, 'HI, MOM!?')

  T: Kakunin   tora   ndeeenen, oi.

    confirmation have need not   oi

    (Literally, 'OI, [YOU] DO NOT NEED TO HAVE

       [A] CONFIRMATION.')

  B: Bangohan nani?

     dinner   what

    (Literally, 'WHAT'S FOR DINNER?)

  T: Nanno kakunin   yanen, oi.

    what   confirmation is   oi

    (Literally, 'OI, WHAT ARE [YOU] CONFIRMING?')

         (Alexaman Shibata 2022, Kamaitachi "Tenko")

In the situation, *Boke* and *Tsukkomi* talk about changing school. However, *Boke* confirms the dinner's menu suddenly. It deviates from the context, and *Tsukkomi* points it out. Like this, in *Manzai*, *Boke* says something stupid and

Tsukkomi points out what is strange in *Boke*'s utterance.

On the other hand, stand-up comedy is performed usually by one person; the comedian introduces some episode where, for example, some nationality or politician becomes a subject and is portrayed as humorous. The example is as follows:

(2) Bought myself one of those iPhones with Siri. Oh, your assistant, she talks to you, she listens to you…if you're American. (The audiences laugh here.) (Noah, Trevor 2017, TREVOR NOAH - Most Viewed Videos of 2020, parentheses mine)

In the example (2), the comedian who is not an American refers to the American attitude toward English pronunciation. He says Siri responds to American commands but not to the speakers of other nationalities. Of course, Siri is not made like that, but it is natural to think that Siri belongs to Americans in nationality because Siri was produced by American entrepreneurs. That is, in the utterance, Siri is the metaphor for American people who distinguish American English from other Englishes. The comedian makes a sarcastic remark about Americans. Like this, English stand-up comedy often sets the national characteristics as the topic of comedy, where irony often appears, and the audience has to understand such a humor without *Tsukkomi*.

The main difference between *Manzai* and stand-up comedy is whether *Tsukkomi* is requested or not. This idea is supported by a currently active comedian: according to Mullane, as an Australian who has lived in Japan for more than 20 years, performing as a Japanese comedian, says that Japanese *Manzai* differs from foreign humor because it has *Tsukkomi*. He states that *Boke* can say something stupid as much as he wants, because *Tsukkomi* catches and points out what is strange or stupid in *Boke*'s utterance, while stand-up comedy tends to be generally cynical (Mullane 2017: 30-32).

Thus, *Tsukkomi* can be a keynote which distinguishes Japanese humor from English humor. Of course, some types of Japanese humor do not have *Tsukkomi*; an example is *Rakugo*, but this is outside of the discussion in this paper, because such a humor is broadly similar to English humor. This paper focuses mainly on *Manzai* and stand-up comedy with a consideration for the existence of *Tsukkomi*.

2.2. Definition of Humor by Brain Science

Manzai and stand-up comedy are types of humor, and a definition of humor is needed here. However, the definition is difficult and what is the definition of humor has been unsettled for a long time. For example, Warren (2020: 59) also says that "people laugh almost every day in almost any type of social setting. Scholars have agreed that understanding humor is important, but they have not agreed about what conditions catalyze laughter, amusement, and the perception that something is funny."

In this paper, the definition provided by the field of brain science is adopted. There are some reasons. First, there is no definition of humor in the field of cognitive linguistics. Second, a regularity is helpful when we think conceptual phenomena like humor. By using some systematic or regular ideas, we can avoid ambiguity. Here, ideas by Kobayashi (2018) are used.

According to Kobayashi (2018), science has revealed that the parasympathetic nervous system becomes activated, over and above the sympathetic nerve system, when our brain senses humor. Kobayashi (2018) states that the parasympathetic system is activated when we feel relaxation, while the sympathetic system is activated when we become excited. There is an index which scales the activity of the parasympathetic system; Kobayashi (2018: 480) calls it the "Potential Parasympathetic nervous system Dominant Index (PPDI)." He (2018) also mentions some causes which lower PPDI—one of them is the perception of risk. For instance, people with acrophobia reduce their PPDI when they are in a high location and feel fear (Kobayashi 2018: 480). When we consider such a case, it is reasonable to adopt the idea that the parasympathetic system has to be dominant when we create or feel humor.

In addition to PPDI, Kobayashi (2018) mentions a factor which is essential for humor: "uncertainty" between memories. Uncertainty means that there is a big gap between activated memory and usually-used memory, and Kobayashi (2018) says that humor is created when we experience high uncertainty between such memories. For example, when we see a group of apples, oranges, and bananas which are placed together casually, humor can be created if someone says that it is like "feed in a zoo"; while simply commenting that "They are fruits" does not make anyone laugh; that is because we rarely imagine such a former linguistic

reference ("feed in a zoo") when we see these fruits (Kobayashi 2018: 363, 368, 376). In this case, we can say that uncertainty is high, because there is a big gap between the memory arising from our usual imagination and the memory activated by the comment (Kobayashi 2018). In other words, uncommon information like feed in a zoo activates uncertainty. Additionally, some nostalgic memory also can provide high uncertainty, because such a memory has been forgotten until it is stimulated (Kobayashi 2018: 396). Also, in this case, there is a big gap between the memory which we usually remember and the memory which is activated by some unusual stimulus (Kobayashi 2018). According to Kobayashi (2018: 432), this nostalgic memory also can be a factor of humor, such as "*aruaru neta*" and "*monomane*;" "*Aruaru neta*" makes people laugh by stimulating their sympathy and "*monomane*" makes laughter by imitating some people. This paper does not distinguish such a nostalgic memory from the uncommon memory discussed above, because in both, information with high uncertainty is connected to our memory as Kobayashi (2018: 432, 441) says. In common, there is a big gap between memories, which makes high uncertainty.

Based on these two factors, Kobayashi (2018: 474) suggests a equation of humor: A distance between connected information × PPDI = Amount of laughter. If I rewrite the equation based on Kobayashi (2018), it becomes as follows: A distance between memories causing high uncertainty × PPDI = Amount of laughter. When we are relaxing and experience high uncertainty between offered information and our usual memory, we can laugh. In this paper, the initial part in the equation (A distance between memories causing uncertainty) is rewritten by a linguistic term. That is because the factor which causes high uncertainty is explained from both the viewpoints of brain science and cognitive linguistics. From the viewpoint of brain science, the association of memory is explained, applying the term "synapse." Kobayashi (2018: 313) states that elements called "synapse" transmit memory-information. This paper uses Kobayshi's idea, but it must be transferred into a linguistic formula or perspective. That is, as follows: The distance between mental spaces (causing uncertainty) × PPDI = Amount of laughter. Mental space (Fauconnier 1985) is a cognitive linguistics term, which treats not only linguistic phenomena but also human cognition about our memories.

2.3. Definition of Humor by Cognitive Linguistics

2.3.1. Mental Space

Synapse is similar to "mental space (Fauconnier 1985)." Synapses connect some memory-information in our brain, and mental spaces also associate our memory with another memory. This section clarifies the notion of mental space, and how mental space can be an alternative to the function of synapse.

Fauconnier and Turner (2002: 40) claims that "mental spaces are small conceptual packets constructed as we think and talk, for purpose of local understanding and action." When we think or talk, knowledge or memory stocked in our brain is activated, which is just mental space. In this meaning, mental space is likened to synapse which directs our brain to activate our memory.

This mental space is significant to our discourse comprehension. For example, when we capture the past tense, we have to make our mind move to the past time. Here, mental spaces are required. Fauconnier (1985: 3-34) claims that an element a in a trigger domain and another element b in a target domain are linked together by a pragmatic function, which is the basic structure of mental space. The structure is depicted in Figure 1. According to Fauconnier, this pragmatic connector develops many elements, and "new elements can be added to them and new relations are established between their elements (1985: 16)."
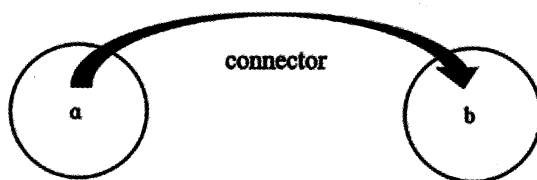

Figure 1: Sampling and Rewrite of the Pragmatic Function and Image by Fauconnier (1985: 11, 12, 14)

Because mental spaces connect an element of the present (trigger domain) to the domain of the past (target domain), we can grasp the past tense in our relationship with the present. In this way, mental spaces play a vital role in our

comprehension of discourse. According to Fauconnier (1985), mental space is a construction "distinct from linguistic structures but built up in any discourse according to guidelines provided by the linguistic expressions (16)." In the case of the past tense, the linguistic clue of "ed" leads a mental space to move into the past time and connects that field with the present. Although mental space is a conceptual term at first glance, linguistic expressions are essential for establishing mental spaces. This fact also supports the adequacy of surveying conceptual humor from the viewpoint of linguistics.

In this way, when we conduct linguistic activity, we activate our mental spaces (knowledge packed as memory), and use them to understand language.

Here, example (1) is mentioned. When *Boke* says Bangohan nani 'What's for dinner?' in English, the trigger domain is confirmation of changing school and the target domain is confirmation of dinner's menu. The common factor of "confirmation" connects each mental space as a connector, and it is similar to a synaptic connection between two memories discussed by Kobayashi (2018). The distance between the connected mental spaces for confirmation is large, because the knowledge of "dinner" and the knowledge of "transferring school" tend not to be connected usually, so there is high uncertainty.

Therefore, the equation seems to be rewritten into a cognitive linguistics term: The distance between mental spaces × PPDI = Amount of laughter. However, a new question is created: Where does humor come from? In other words, why the uncertainty becomes funny. About this issue, "blending (Fauconnier and Turner 2002)" can explain it.

2.3.2. Blending

When we laugh, we have to understand what is funny. The rewritten equation shows factors of humor, but does not explain how humans consider such factors as funny. About this, we can refer to "blending (Fauconnier and Turner 2002)". Blending explains how complex discourse is understood via several mental spaces.

Fauconnier and Turner (2002: 47) explain blending as follows:

"Blends arise in networks of mental spaces. In the network illustrated in the Basic Diagram (That is shown in Figure 2 below), there are four

mental spaces: the two inputs, the generic space, and the blend. This is a minimal network. Conceptual integration networks can have several input spaces and even multiple blended spaces."

(Contents in parentheses are by the author)

Therefore, four mental spaces are significant for blending; Fauconnier and Turner (2002) explain each space as follows:

(i) The two input spaces: "In conceptual integration, there is partial matching between input spaces (2002: 47)." "Such counterpart connections are of many kinds: connections between frames and roles in frames, connections of identity or transformation or representation, analogical connections, metaphoric connections, and, more generally, "virtual relations" mappings … (2002: 47)."

(ii) The generic space: "At any moment in the construction of the network, the structure that inputs seem to share is captured in a generic space, which, in turn, maps onto each of the inputs. A given element in the generic space maps onto paired counterparts in the two input spaces (2002: 47)."

(iii) The blended space: "In blending, structure from two input mental spaces is projected to a new space, the blend. Generic spaces and blended spaces are related: Blends contain generic structure captured in the generic space but also contain more specific structure, and they can contain structure that is impossible for the inputs, … (2002: 47)"

The system of mapping mentioned in (i) is shown in Figure 1 above. In addition, Fauconnier and Turner (2002: 47) state that "not all elements and relations from the inputs are projected to the blend." That is, blending is performed through interaction among multiple mental spaces, and elements which are essential in the interpretation of discourse are selected and connected. And new interpretation is created in the blended space, which shows how to deal with speaker's intention (complex interaction between mental spaces). Fauconnier and Turner (2002) suggest the Basic Diagram as Figure 2.
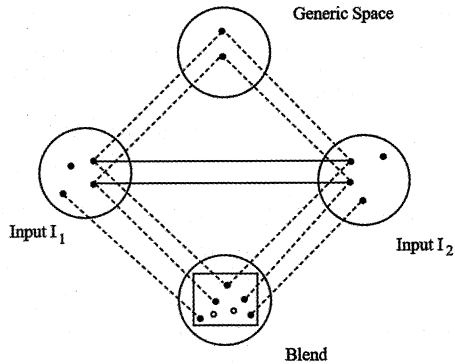
Figure 2: The Basic Diagram (Faconnier and Turner 2002: 46)

Fauconnier and Turner (2002: 45) indicate: "The circles represent mental spaces, the solid lines indicate the matching and cross-space mapping between the inputs, the dotted lines indicate connections between inputs and either generic or blended spaces, and the solid square in the blended space represents emergent structure."

Therefore, blending shows how mental spaces are connected and new ideas are created through the mental spaces. In other words, when we understand how complex discourse makes sense, blending functions. By using this idea of blending, how we can understand humor can be explained. That is because several mental spaces which have a large distance between them discussed in 2.3.1 are connected to make a humor. This complexity between mental spaces can be revealed by blending.

In (1), the funny point is as follows: *Boke* says Bangohan nani? 'What's for dinner?' and *Tsukkomi* replies Nanno kakunin yanen oi 'Oi, what are you confirming?.' As an assumption, we know that *Boke* says something stupid and *Tsukkomi* points it out. We also know that the interaction between *Boke* and *Tsukkomi* makes a pair, and understanding the interaction is to understand their humor. Based on the knowledge, when we hear the interaction, blending functions. In input space 1, the information by *Boke* is put: that is the information of *Boke* confirming the dinner's menu in the context of transferring school, and the general information that *Boke* says something stupid. In input space 2, the information

offered by *Tusskomi* is put: that is, the information that *Boke* confirming things except transferring school is stupid in the topic of changing school. We can connect both the input spaces, because the common information of confirmation is extracted into the generic space, which motivates the connection between input spaces. On the blended space, some facts from each input space are projected, and a new interpretation is created: the reason why *Boke* is stupid is because he confirms the dinner's menu in an unrelated context and *Tsukkomi* is right because he points out *Boke* is strange. In other words, this new interpretation is equal to understanding uncertainty (Kobayashi 2018) between two mental spaces of confirming (the input spaces).

From this assumption, the basic diagram for blending in dealing with Japanese *Manzai* is depicted as Figure 3. The information offered by *Boke* is mentioned as "*Boke*'s world" and the information by *Tsukkomi* as "*Tsukkomi*'s world," because a mental space is one world where some knowledge and memories are activated.
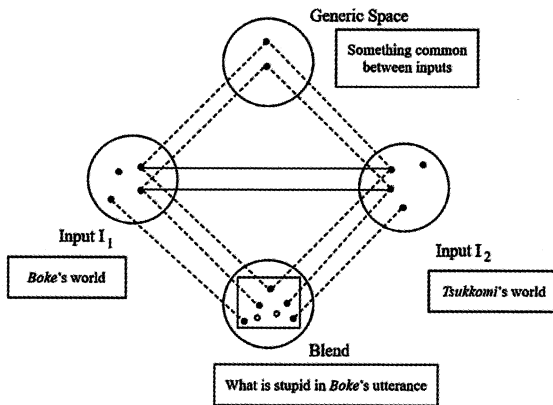

Figure 3: The Blending Structure of Japanese *Manzai*

On the other hand, in the example (2), how the audience processes the humor differs from Japanese case. The main difference between the two humors is whether *Tsukkomi* is seen or not as I have discussed in the section 2.1. Though *Manzai* has two comedians (*Boke* and *Tsukkomi*), stand-up comedy has one comedian (a speaker). Therefore, an input space corresponds to a comedian's world like *Manzai*, but another space is not. We have to rewrite the input spaces in Figure 3, and the input space 1

changes into a comedian's world while the person who substitutes for *Tsukkomi* is significant in the input space 2, and the person is of course the audience. The audience in stand-up comedy understands things which are pointed out by *Tsukkomi* in the case of *Manzai,* in place of *Tsukkomi*, and he or she uses their background information or knowledge called "Idealized Cognitive Model (ICM)" in order to understand those points. ICM[1] is ideal knowledge which speakers have about their society (Lakoff 1987: 68-76). Please remember the example (2). The comedian talks about an episode that Siri only answers to the voice of native speakers of English. This episode is unreal and we know that the comedian says something stupid. So the audience puts such information by the comedian as information of something stupid in the input space 1. However, instead of *Tsukkomi*, the audience's ICMs are used as clues to understand the ridiculous point in the input space 2. In the example (2), the ICMs are the metaphorical knowledge that Siri is a metaphor of Americans because its developers are Americans, and the stereotype in which Americans make a fool of the other pronunciations. Both the Siri and Americans react to voice, so the common idea of reacting voice is put in the generic space, and it motivates the connection between the input spaces. As a result, a new interpretation is created in the blended space: the comedian says something stupid that Siri selects people, but it is a metaphor of American people, which is a stereotype of Americans. Like this, the uncertainty between real Siri and stupid Siri makes an ironical humor.

The schematic diagram of blending in English stand-up comedy is depicted as Figure 4. The input space 1 is about what is stupid in the episode, which is expressed as the comedian's world. Then, instead of *Tsukkomi*, the audience processes the strange point following ICMs, which is shown as the audience's world.
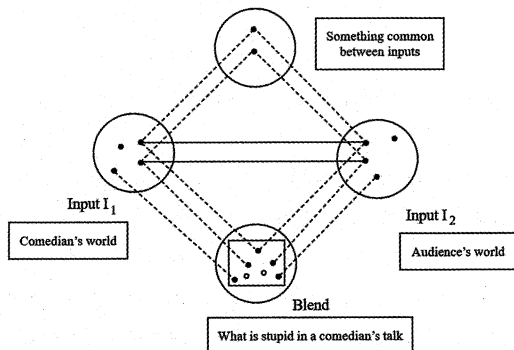

Figure 4: The Blending Structure of English Stand-up Comedy

Friedrich and Hans-Jörg (1996: 287) also mention the blending of jokes and state that "input space 2 is used to render the contents of the punchline." Because joke is considered to be one kind of humor, their suggestion is also suitable to this paper's discussion. That is, the input space 2 is the resource of a humorous punchline, which supports the idea that the input space 2 is related to common sense (*Tsukkomi* or ICM). The normal knowledge reveals what is strange as a punchline. In addition, Friedrich and Hans-Jörg (1996: 287) suggest that "jokes produce an emergent structure containing at least some elements for which blending is not successful because they are incompatible and this is the source of their humorous effect." The connections between *Boke*'s world and *Tsukkomi*'s world, or between the comedian's world and the audience's world are sometimes incompatible, but it can constitute the resource of humor.

As we have observed, how we can feel funny from uncertainty can be seen through blending[2]. In both the stand-up comedy and *Manzai*, the basic system of blending is almost the same. When we compare Figure 3 and Figure 4, however, the difference is clear. That is whether *Tsukkomi* is seen or not. When there is no *Tsukkomi*, the audience activates the ICMs by themselves instead of *Tsukkomi*. This does not mean that Japanese audience lacks ICM. To be exact, the audience's ICMs are guided by *Tsukkomi* in the case of *Manzai*. The fact that *Tsukkomi* suggests what is strange means that *Tsukkomi* tells the audience which ICMs are needed to understand the stupid point. Please remember that Mullane (2017: 32) says that *Boke* can say any stupid thing because of *Tsukkomi*. That is because the audience can get a guide from *Tsukkomi*.

Here, the equation in the section 2.2 can be updated to a new equation as follows:

[1] English humor =
  PPDI × blending {input space1: comedian's information +
        input space2: audience's ICM}

[2] Japanese humor =
  PPDI × blending {input space 1: *Boke*'s information +
        input space 2: audience's ICM +
        Tsukkomi}

As the equation shows, both the input space 1s are a comedian's world, and each input space 2 is different. In other words, the existence of *Tsukkomi* can be shown to constitute the main difference between English stand-up comedy and Japanese *Manzai*. Concerning this, a detailed discussion is conducted in section 3.

3. Existence of *Tsukkomi*: Japanese Perspective and English Perspective

From the discussion so far, it can be considered that the existence of *Tsukkomi* makes the difference between English humor and Japanese humor. Here, a new question appears: Why English humor tends not to have *Tsukkomi*. To this issue, the idea of "perspective" by cognitive linguistics can offer a guide, because Japanese speakers and English speakers have the different perspectives and these differences affect each language individuality.

3.1. Different Perspectives between Japanese and English

As a trend of each language, English native speakers tend to capture an event objectively while Japanese speakers tend to understand an event by associating it with self (Ikegami 2006: 171). Ikegami (2006) points out each expression in a situation of getting pickpocketed. In the case of Japanese, the victim of pickpocket says, "Saihu wo nusumare mashita ("[I] had [my] wallet stolen" is a translation, and of course Japanese tends not to have subject.)," and how the speaker is troubled is verbalized (Ikegami 2006: 162, 171, parentheses mine). In the case of English, the expression is like "Someone stole my wallet (Ikegami 2006: 162)," and the agent of pickpocket is verbalized as "someone." Comparing two expressions, English speakers only describe what happens objectively while Japanese speakers express the relationship between the event and the speaker rather than the event itself: if Japanese expression is like "Dareka ga watashi no saihu wo nusumi mashita," that is the literal translation from English to Japanese, the native speakers of Japanese feel as if the speaker accepts the event as somebody else's problem and think that the Japanese expression is unnatural (Ikegami 2006: 171). In other words, Japanese expressions directly have a lot to do with the conceptualizer who pays main attention to an event, while English captures an event outside of the situation and verbalizes "who" "does" "what" more objectively.

And this paper considers that such specific perspectives lead to the styles of humor. In the case of English stand-up comedy, as shown in Figure 4, the mental space for a comedian and the mental space for an audience are separated: the former is put in input space 1 and the latter in input space 2. In other words, the mental space for something stupid (Siri discriminates people's nationality) is held by a comedian and the mental space for finding common sense (Siri is a metaphor of stereotypical Americans) is held by the audience. This separation can come from the English perspective discussed above. English speakers recognize "who" captures an event objectively, and this perspective is shared by the audience because he or she gets used to such a view as a native speaker. So an audience of comedy also captures the fact that "he or she" watches a comedy objectively, which makes the dividing line between two mental spaces.

On the other hand, Japanese speakers capture some information "inside" a situation as discussed above, and the speakers are included there, which means that they do not have to separate themselves from others—unlike English speakers. This Japanese perspective can affect the style of *Manzai*. In the case of *Manzai*, as Figure 3 shows, there is no distinction between the mental space for comedians and the mental space for an audience as both the input spaces are comedians' worlds (*Boke* and *Tsukkomi*). That is because the audience and the comedians are in the same situation, which can be explained by Japanese perspective discussed above. Because of the perspective, the audience can develop each input space by following the interaction between the two comedians and the input space 2 is guided by *Tsukkomi*. So, it is not so problematic that the audience's ICMs coincide with *Tsukkomi*, and there is no separation between the audience and the comedians.

Therefore, it is clear that English speakers and Japanese speakers have different perspectives, which affects each blending structure of humor. Then, how such differences are created is an interesting issue. This can be resolved when we consider those linguistic characteristics via functions of brain hemispheres.

3.2. Brain Functions and Perspectives in Humor

In this section, a confirmation about cerebral hemispheres is needed because Hamada (2022: 216) says that the respective function of the hemispheres is vital when we consider linguistic characteristics of individual languages. According

to Corballis (2003: 171), it has been said "that the left hemisphere "controls" language, while the right hemisphere is responsible for visuospatial perception." Because the left hemisphere is in a relationship with language, it is meaningful to think of our brain function in language.

According to Tsukimoto (2008), when we start to speak Japanese and English, which part of the two hemispheres is activated is different in each language. In English, the speakers activate a part which separates self and others, and it is located on the right hemisphere, while Japanese speakers do not activate the part (Tsukimoto 2008: 193). Figure 5 is my translation of Tsukimoto (2008: 193)'s figure where his ideas are summarized.
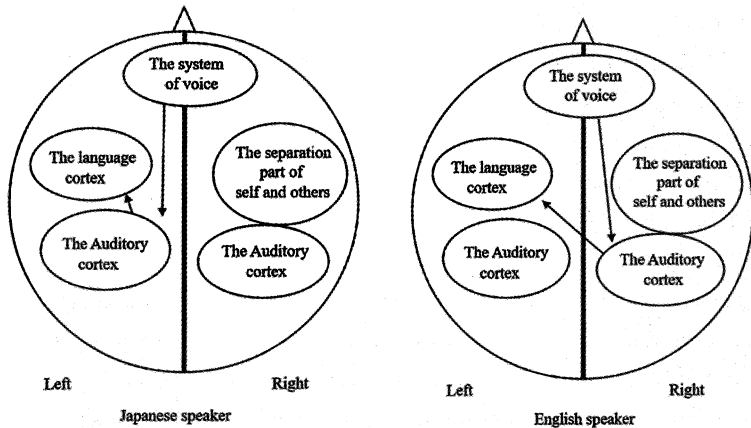

Figure 5: Signal Transfers on Utterance (Tsukimoto 2008 : 193, translation mine)

As we can observe, the main difference is whether we get through the right hemisphere before going to the left hemisphere. In the case of English, speakers (sometimes hearers) activate the language area on the left hemisphere via the right hemisphere which stimulates a part distinguishing self and others, so Tsukimoto (2008: 193-194) says that it takes a time for English speakers to transfer perception to actual verbalization. On the other hand, Japanese speakers make sequential transmission from perception to verbalization because the stimulation on the system of voice leads to the language part on the left hemisphere more immediately (Tsukimoto 2008: 193).

Tsukimoto (2008) mentions the differences of brain system at the timing of utterance, but he also says that this mechanism is not limited to the beginning of utterance. Tsukimoto (2008: 196) says that the left hemisphere and the right hemisphere can be considered to take two-way communication, the stimuli of which are repeated many times, so what happens on speaking also occurs even during the middle of speaking. This paper considers that such a theory also applies to the time of hearing because some previous study shows that we hear language during utterance, and the relationship between speaking and listening cannot be separated (Hiroya 2017). (Hiroya (2017) mentions brain interactions between listening and speaking.)

Based on Tsukimoto (2008)'s ideas, this paper considers that the brain scientific differences lead to the different perspectives discussed in the section 3.1. According to Hamada (2022: 208), Japanese speakers activate the left hemisphere at the timing of utterance and verbalize what they see directly, while English speakers activate the right hemisphere and the function of the right hemisphere is reflected in the way they perceive the situation. Hamada (2002) considers that the function of each hemisphere affects each perspective, and this paper also thinks so. English perspective is different from Japanese one because English separates a conceptualizer from the other people but Japanese dose not. This is compatible with each brain function: English stimulates the separation part of self and others on the right hemisphere and Japanese dose not. Though the order of whether the difference of brain function makes the perspective difference or each perspective creates the difference of brain function is not clear actually, we can say as follows: the fact is true that the difference of brain function and the difference of perspective interact with each other, supported by each linguistic activity.

In addition, as the section 3.1 discusses, the different perspectives lead to the difference of humor, which means brain function and humor type are associated. In fact, Figure 3 and Figure 4 are compatible with Figure 5 because English cases separate self and others in both Figure 4 and the right side of Figure 5. Through the right hemisphere, the separation part of self and others is activated, and the audience tends to separate the mental space for themselves from the mental space for a comedian when he or she processes English humor. On the other hand, Japanese speakers do not activate the separation part of self and others on the right

hemisphere, so the audience does not separate the mental space for themselves from the mental space for comedians. Of course, Japanese audience also uses ICMs in order to understand *Tsukkomi*'s utterance. Such ICMs are also cues to understand *Boke*'s utterance, and they are led by *Tsukkomi*. Therefore, it is more appropriate to say that Japanese audience can accept *Tsukkomi* which coincides with their ICMs in input space 2 because the audience does not separate comedians from themselves.

The compatibility among brain function, perspective, and humor is summarized as Table 1. (At this time, this table is just a hypothesis by the author, but Hamada (2002) admits that the brain function and the perspective are related.)

	Brain function	Perspective	Blending
Japanese	The left hemisphere: Not separating self and others	Not objective Not separating self and others	Figure 3: Not separating mental space for comedian / audience (Input 1: *Boke*'s world Input 2: *Tsukkomi*'s world ≒ Audience's world)
English	The Right hemisphere: Separating self and others	Objective Separating self and others	Figure 4: Separating mental space for comedian / audience (Input 1: Comedian's world Input 2: Audience's world)

Table 1: The Compatibility among Each
Brain Function, Perspective and Humor

However, there is a thing that we need to pay special attention to. That is, it is not correct that English speakers never accept *Tsukkomi* in any situation and Japanese speakers do not enjoy humor without *Tsukkomi*. Sometimes, for example, Japanese people laugh before they listen to *Tsukkom*. About this, more

study is required, but blending can be one factor which explains how the audience understands a humor, at least. If Japanese people understand a humor without or before *Tsukkomi*, such a humor can be categorized in Figure 4. In actuality, a comedian who is an English native speaker plays a Japanese stand-up comedy in Japan (like Okomedyaki), and a Japanese comedian plays an English stand-up comedy outside Japan (like Saku Yanagawa), and they make people laugh, which indicates that nationalities, countries or native languages are not significant in humor. Therefore, it is natural to think that people can understand both the humors with and without *Tsukkomi*.

4. Conclusion

English humor and Japanese humor can be studied from the viewpoint of cognitive linguistics. In addition, brain science also can support such a study by harmonizing with the ideas of cognitive linguistics. However, the connection between the two fields has to be studied more.

Furthermore, this paper suggests that the main difference between the two humors is whether *Tsukkomi* is seen or not. Generally, when we compare English stand-up comedy and Japanese *Manzai* in TV shows or YouTube, we can evidently find that only *Manzai* tends to have *Tsukkomi*. From our usual sense, it is clear that one of the main differences between the two humors is whether *Tsukkomi* can be seen or not. However, this idea also has to be revealed more obviously, because there are many types of *Tsukkomi*s in humors, and this paper just pays attention to the general and usual *Tsukkomi*. The clearer the point becomes, the more we can understand each humor.

1. Strictly speaking, ICM and mental space are different things. However in this paper, ICM is considered as one of mental spaces because both are package of knowledge, which is described as "world" through the paper.
2. We can understand relationship between something stupid and something correct by blending as Figure 3 and Figure 4 show. When we see the Figures, the system seems simple, but it is complex in actuality. That is because each input space has some mental spaces (even though I omit it).

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