

# **Language, Cognition, and Culture**

## **Gesture Project**


### **Group Members**

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### **Analysis of Hitomi's Gestures**

We recorded a casual conversation within our group. The full videos are linked in the appendix. The analysis is centered on the gesticulations produced by Hitomi in three languages—English, Chinese and Singlish. The portions of speech in which gesticulations appear will be underlined, like so, in each example. We highly recommend reading a “live” version of this document with animated gestures 

<https://tinyurl.com/lcc-hitomi-joyce-pinxiu>

There were two gestures produced regularly by Hitomi during her speech in English. The first was similar to the Palm Up Open Hand (PUOH) gesture, formed with both hands that moved back and forth at the wrists in front of her (the “**flailing**” gesture). The second involved forming a spherical space in front of her with her hands, and moving her hands in tandem as if to move the sphere (the “**sphere**” gesture).



*Animated figure: “Flailing” gesture*




*Animated figure: “Sphere” gesture*

The flailing gesture is a cognitive tool for Hitomi. We noticed that the flailing gesture was used whenever Hitomi was expressing a point of uncertainty in her speech. For example: “And I think my parents expect me to work in law... for a few years.” The gesture stroke was timed to the words “for a few years”, which were expressing the uncertainty in the exact number of years.

Besides being co-expressed with words of uncertainty, the flailing gesture is also used during pauses. Hitomi hesitantly said “Or... or maybe I like... what I’m doing.” and flailed during the pause in her speech. This data suggests that the gesture may also be used to aid Hitomi’s thinking process, and help her to choose her next words. Although McNeill argues that “there is no basis for the continued assertion that gestures ‘occur during hesitations’” (McNeill 32), we find that our data contradicts McNeill’s account...

The flailing gesture is not limited to aiding Hitomi’s internal cognitive processes: she may also use the flailing to convey additional meaning that she cannot verbalise to her interlocutors. Hitomi asked about Pin Xiu’s career plans, “What sort of startup? Or are you just... gonna look for...” Here, Hitomi was unable to find the words to complete the sentence.

The flailing gesture served the purpose of communicating this sentiment to her interlocutors without having to verbalise it. At the same time, it conveyed the additional dimension of inviting them to supply verbal suggestions of their own, meaning that they were “co-expressive but non-redundant” (McNeill 24). 

The sphere gesture, on the other hand, was used to contain and convey a metaphorical space for the items in her speech. Hitomi said of her firm, “My firm, um... likes to put its trainees around different departments... So you get to take on all sorts of cases.” She formed the sphere gesture and moved her hands as if to place three different spheres down in front of her.




*Animated figure: Sphere gesture in “all sorts of cases”. Hitomi gestured three spheres from left to right (images are laterally inverted)*

It is likely that these “spheres” served to add meaning to the statement, visually cueing that there are a few different categories of cases. There was also a beat function to the three sphere gestures; they corresponded with the words “all”, “sorts” and “cases” - because these were the key words in the statement.

There is a very sustained use of the sphere gesture in Hitomi's speech events.

“But what it likes to do is that the departments aren't really... like it doesn't really have specialised... yeah, formal departments, so as a trainee, you kind of do a bit of everything... I guess the main split is between litigation and corporate. Apart from that, because I kind of said I wanted to go to the litigation department, so they're just gonna... push me everything in litigation.”

First, Hitomi performed the gesture involving the placement of three different spheres at “specialised” and “a bit of everything”. Then just before mentioning the “split”, she made the sphere, then brought her hand down on “split”, as icing the metaphorical object into two parts. She then apportioned the space on one side of the split to “litigation” and the other to “corporate”.



*Animated figure: Metaphorical splitting of sphere gesture. Her right hand was moving and ‘slicing’ the metaphorical sphere, still indicated with her left hand*

In the next sentence, when she talked about wanting to go to the “litigation department”, she motioned to the space she had earlier reserved for “litigation”. This consistency across her gestures indicates that the sphere gesture was used to form, and maintain, the metaphorical space for her items of speech. The physical space was an important tool for conveying meaning, and gestures allowed Hitomi to effectively create imagery in this physical space.

We observed that the sphere gesture was also used to convey additional information about Hitomi’s items of speech. When discussing aptitude examinations offered by her school, she said the school would show “This is where you are...”. Instead of using the placement gesture seen in the previous instances of the sphere gestures, Hitomi started with her hands close together, and then pulled her right hand away from her left as if miming a progress bar. This gesture indicated the notion of *progress* in her speech that her words alone did not convey



*Animated figure: Miming a progress bar*

In English, the sphere and flailing gestures were the primary modes of gesticulation. We then extended the analysis to ascertain if these gestures were also dominant when Hitomi speaks in other languages — Singlish and Chinese.


Hitomi's Singlish is not very different from her English, and is characterised mainly by dropped or added words (e.g. "I [have] got better things to do", or "can lah"), rather than changes in the grammatical structure of her utterances. It is therefore unsurprising that she continues her flailing and sphere gestures in Singlish.


However, we noticed that Hitomi more easily produced iconic gestures in Singlish. It is possible that Hitomi's comparative discomfort with Singlish predisposes her to speak about simpler concepts with simpler language, and consequently, her gestures tend to grapple with less metaphorical or complex subjects.

When asked if she would feel personally affected by the outcome of the US election, Hitomi responded, "I just told my sister, like, I'm not gonna care..." When she said "I'm not gonna care", she waved her right hand in a horizontal slashing motion, as though flicking or sweeping something off with her hand.



*Animated figure: Flicking gesture. Hitomi flicked horizontally*

This is an example of Hitomi using an iconic gesture concurrently with her speech, where her gesture added the implication of an active state (of ‘flicking her cares away’) on top of the static state (‘I’m not gonna care’) implied by her words. 

Moreover, her flicking motion is a variant of what could be considered a conventionalised gesture of ‘sweeping’. Conventionally, a sweeping gesture would be two-handed, from one’s chest, repeated, and away from the individual. The conventionalised gesture implies a very concerted effort to chase someone/something out. This variant on the conventionalised gesture is less structured - it only uses one hand, and there are no repeated motions - which adds ssness to the sweep.

Lastly, we collected some data of Hitomi gesturing in Chinese. Firstly, our data revealed that Hitomi had reduced gesturing when speaking in Chinese. Furthermore, instead of the dominant sphere and flailing gestures, Hitomi adopted a more reserved stance by turning her hands inwards to face herself.



*Animated figure: Closed wall gesture*



This gesture was iconically creating a conversational   between Hitomi and us. This may reflect that she was not as comfortable speaking in Chinese around friends and was conscious of her gesturing.

At one point, Hitomi described watching a Korean drama about a man who was jailed for a year. During the utterance, she repeated the words “one year” twice, and used different accompanying gestures both times. (in Chinese) “It was talking about the one year, within one year, what had happened in jail.”

The first time she said “one year”, she rolled both hands forward, one after the other. The forward rolling action suggests that she metaphorically saw the passage of time as being forward in front of her.



*Animated figure: Forward rolling gesture*

However, such an expression is not consistent with how the Chinese language structures time - the future is either down (下) or behind (后), never in front. We posit here that Hitomi’s gesturing of time was influenced by metaphors in English, where time can be described as

moving “forward”. Even though Hitomi was speaking in Chinese, she had fully-developed event representations in English. She was not able to adjust her representation of time during the speech event and hence gestured using her preferred language of English (Gullberg 1987).

Interestingly, Hitomi then corrected her words and said “within one year” instead of just “one year”. As she did so, she reverted to using the sphere gesture, as if the sphere was containing the one year of time.



*Animated figure: Sphere gesture in “within one year”*

In performing this gesture, she re-frames time in the drama to be perfective, instead of the imperfective gesture used previously. This gesture deploys the metaphor of abstract time as a commodity that can be quantified and measured. During this gesture, the distance between both her hands were wider than in other instances of the sphere gesture. This could be iconically referring to how there were too many things that had happened in that one year to be contained in her hands.

Hitomi also kept her fingers open, which could be an iconic allusion to the idea of there being too many events in that one year. However, the finger-open aspect of the gesture is unlikely

to be meaningful since Hitomi also kept her fingers open in other instances of sphere gesturing. This example highlights how the interpreted gesture and what the speaker was intending to communicate could be asymmetrical. Moreover, understanding the speaker's gesturing habits can also alter the interpretation of the gestures.

Ultimately, Hitomi generally uses gestures either as a cognitive tool, or as a means to convey metaphorical space during her speech. This continues even when Hitomi is less comfortable with the language spoken, although her gestures decrease in frequency. In Singlish, she tends to rely on iconic gestures to add her desired meaning to her statements. In Chinese, her gestures create distance between speaker and listener, and follow English gesturing patterns more than Chinese metaphorical concepts or structures.

**Appendix**

Video, part 1:

[https://drive.google.com/file/d/1kcdPvVQom6ft\\_SBBua9chXsPwE04kak\\_/view?usp=sharing](https://drive.google.com/file/d/1kcdPvVQom6ft_SBBua9chXsPwE04kak_/view?usp=sharing)

Video, part 2:

<https://drive.google.com/file/d/1smMv9QzG1X7osXu8vrkL9wwU7ggZpUdC/view?usp=sharing>

Video for Chinese paragraph (with explanation and English subtitles):

<https://www.youtube.com/watch?v=1VyGd0i2bXc>