

LACUS FORUM XXIV



YOUR RIGHTS

This electronic copy is provided free of charge with no implied warranty. It is made available to you under the terms of the Creative Commons Attribution-NonCommercial license version 3.0

(<http://creativecommons.org/licenses/by-nc/3.0/>)

Under this license you are free:

- **to Share** — to copy, distribute and transmit the work
- **to Remix** — to adapt the work

Under the following conditions:

- **Attribution** — You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).
- **Noncommercial** — You may not use this work for commercial purposes.

With the understanding that:

- **Waiver** — Any of the above conditions can be waived if you get permission from the copyright holder.
- **Other Rights** — In no way are any of the following rights affected by the license:
 - Your fair dealing or fair use rights;
 - The author's moral rights;
 - Rights other persons may have either in the work itself or in how the work is used, such as publicity or privacy rights.

Notice: For any reuse or distribution, you must make clear to others the license terms of this work. The best way to do this is with a link to the web page cited above.

For inquiries concerning commercial use of this work, please visit
<http://www.lacus.org/volumes/republication>

Cover: The front cover of this document is licensed under the Creative Commons Attribution-No Derivative Works 3.0 license (<http://creativecommons.org/licenses/by-nd/3.0/>) and may not be altered in any fashion. The LACUS “lakes” logo and York University logo on the cover are trademarks of LACUS and York University respectively. The York University logo is used here with permission from the trademark holder. No license for use of these trademarks outside of redistribution of this exact file is granted. These trademarks may not be included in any adaptation of this work.

VERBAL METAPHORS AND NONVERBAL METAPHORICS : WHAT CAN THEY TEACH US?

Fabienne BAIDER and Agnès ROMÁN
University of Toronto

1. Verbal/Nonverbal Communication Interface

Actual communication between people is more than the exchange of verbal utterances. It has verbal and nonverbal components which are rarely studied together. McNeill (1992,1995) is one of the few who has devoted his research to establishing that gesticulation and speech form an integrated communication system. His research, concentrated on the relationship between verbs and gestures, is unveiling a system underlying this integrated communication system. Since the function of gesticulation is deeply connected to speech as the two simultaneously communicate and share concepts, it seemed important to us to investigate how other grammatical categories would be 'gesticulized'. For instance, are gestures and adjectives also linked? Do they also form a system of communication? This paper answers – at least partially – these two questions. Our methods are inspired by McNeill's experiments. McNeill (1992) defined four main categories of gestures:

- *Iconic gestures* display in their form and manner of execution concrete aspects of the scene as in the speech. They appear with narrative level references to the concrete events of the story
- *Metaphoric gestures* display in their form and manner of execution abstract concepts and relationships. *Metaphorics* appear with meta-narrative level references to the structure of the story itself
- *Beats* are timed to occur with thematic discontinuities in discourse and do not depict any imagery. *Beats* often appear with shifts between narrative levels
- *Deictics* point to a location, a gesture space, that stands for an abstract concept or relationship. *Deictics* also appear at the meta narrative level.

Iconics and *metaphorics* are the two main categories we will be looking at in this paper.

2. Verbal Metaphors and Non-Verbal Metaphorics

Our title refers to 'verbal metaphors' and to 'metaphorics'. This section will explain our terminology and hence will clarify our school of thought.

As far as the term *metaphorics* is concerned, McNeill defined them as a "present imagery, [...] an image of an abstract concept, such as knowledge, language itself,

the genre of the narrative” (McNeill, 1992:80). Metaphorics are then a type of speech-accompanying gestures which have a similar function on the nonverbal level of communication as metaphors have on the verbal/linguistic level. Therefore we expected to find a link between these non-verbal metaphorics and linguistic metaphors.

We now hypothesize that adjectives could be considered as linguistic metaphors when they are used in a figurative way. The usage of adjectives is commonly seen as describing our judgment about reality in concrete terms (*a small house*) or metaphorical terms (*a small mind*). If we examine this figurative usage in the light of Lakoff and Johnson’s definition of metaphor (a “[m]etaphor [being] principally a way of conceiving one thing in terms of another, and its primary function is understanding” – 1980:36), we could then extrapolate that these adjectives are verbal/linguistic metaphors.¹ Our research looks at the possible correlation between gestures described as metaphorics and adjectives considered as verbal metaphors.

We are aware that our hypothesis about this possible correlation between linguistic metaphors and gestural metaphorics is not yet supported by any theoretical framework as far as we know. However, findings of neurological research on languages have shown that the right hemisphere of the brain plays a definite role in understanding adjectives AND metaphors, as well as extralinguistic features of communication (Mendoza, 1995:48-50). This neurolinguistic connection supports the hypothesis that adjectives can be related to metaphors.

3. Method and Experiment

We have collected samples of gestures and speech that allow us to compare adjectives and gestures among bilingual speakers and across languages (French and English). Our experiment was inspired by McNeill’s. His stimulus was an animated Warner Brothers 1949 Tweety & Sylvester cartoon. In our case speakers were shown a narrative stimulus: a famous comic strip called Tintin whose title was *Le Secret de la licorne*. Each subject viewed a 10 page long story that depicted a battle on a pirate ship. They were asked immediately afterwards to tell the story of the stimulus from memory to a listener as we videotaped the performance. We also captured the spontaneous conversation that took place before and after the task itself. In phase 1 subjects were asked to describe in French what happened in the story. In phase 2 subjects were asked to do the same thing but in English. Phase 1 always preceded

¹ In French, many adjectives have a differential meaning according to its position in the nominal syntagm. They describe nouns in concrete terms when placed afterwards such as *un homme grand* as “a tall man”. They are used figuratively and describe abstract concepts mostly when they are placed before the noun : *un grand homme* is translated as a “great man”. The question which is still to be answered is whether this abstract meaning would be expressed by a gesture or not. If yes, would it be the same as for the concrete meaning ?

phase 2. The subjects were not aware that either their gestures or the adjectives were of interest. The narrative was transcribed and its linguistic structure analyzed. Independently we analyzed the unprompted gestures that accompanied their verbal descriptions.

Our subjects were four women between the ages of 27 and 37; they all held post-secondary degrees. They were all Canadian born bilingual French-English with French as their mother tongue except for one. We are fully aware of the small number of subjects. On the other hand, this study was conducted only to verify that our correlation hypothesis was correct and whether more interviews and analysis were called for.

All testing sessions were administered by the same experimenter and were videotaped for later coding and analysis. For each subject we compared the details of their gestural response. Subjects did not all necessarily produce unprompted gestures at the same moment. In our analysis, we focused on the correlation between gestures and adjectives although many gestures accompanied adverbs and verbs. Verbs, though, seem to be the ultimate grammatical category to be accompanied by gestures: *He goes away* or *il s'en va* may be more likely to be 'gesturized' than nominal syntagms such as *un beau bateau* or *a beautiful ship*. This could be the reason why little research had been done on the correlation between the nominal phrase and gestures. We did find some though and they are the focus of our next section.

4. Results

As McNeill pointed out, the telling of a story entails two processes. One is conveying the events of a story itself, usually in a linear sequence. The other is overtly or implicitly conveying the structure of the story including references to the object of communication. We focused on the first process, the event of the story. The tables below summarize our findings.

The conversations lasted in French on average 4 minutes 10 seconds for each subject and in English 3 minutes. Table 1 describes the number of gestures for the whole conversation. As one can observe, subjects who use a lot of gestures in one language tend to use also a lot in the other, with these gestures being similar in both languages. It seems then that the language used does not make any difference: the idiosyncratic display of gesticulating or not gesticulating could show that, in bilingualism, speaking a different language does not symbolize a different culture in the Canadian context. Kendon pointed out (1988:43) that cultures differ not only in the extent to which they employ gestures but also in the sort of information they rely upon gestures to provide. But with our experiment, subject 1 has French as her mother tongue² and does not use gestures whereas subject 3 has English as her

² Our subjects being bilingual, we used the term *mother tongue* for the language that was spoken at home the most.

mother tongue and uses gestures. The amount of gestures did not seem to be affected through the use of different languages.

Table 1
Narration Time and Number of Gestures [whole text]

	<u>French</u>	<u>English</u>
Subject 1.	4 min 10 sec [8]	4 min 57 sec [4]
Subject 2.	4 min 45 sec [62]	4 min 19 sec [39]
Subject 3.	3 min 39 sec [53]	2 min 44 sec [46]
Subject 4.	4 min 45 sec [96]	3 min 03 sec [75]

Tables 2 and 3 below show the number of adjectives and the ratio of adjectives to gestures for a one-minute sample analyzed in detail. Subjects 1, 2 and 4 were speaking more French at home than English. Subject 3 was speaking more English. In table 3, the third column shows that when the subjects were using their mother tongue, they had the tendency to use more adjectives. A discrepancy is shown with subject 2 though. This subject speaks French as her mother tongue but she uses more adjectives in English. Was it because she felt more at ease with the narrative or with the experiment in the second session? Only more data could give an explanation. In table 3 the ratio is fairly consistent for the usage of gestures with adjectives (18% in average).

Table 2
Ratio of Adjectives for the Total of Words [1 minute analyzed]

	<u>French</u>	<u>English</u>	<u>Difference</u>
Subject 1.	6 / 157 [3.8%]	4 / 110 [3.6%]	+ 0.2%
Subject 2.	5 / 131 [3.8%]	10 / 115 [8.7%]	- 4.9%
Subject 3.	3 / 112 [2.7%]	4 / 105 [3.8%]	- 1.1%
Subject 4.	6 / 118 [5.1%]	3 / 158 [1.9%]	+ 3.2%

Table 3
Ratio of Gestures accompanied by Adjectives [1 minute analyzed]

<u>French</u>	<u>English</u>
---------------	----------------

Subject 1.	5 / 1 (20%)	0 / 0
Subject 2.	9 / 1 (11%)	2 / 1
Subject 3.	17 / 3 (18%)	11 / 0
Subject 4.	14 / 3 (22%)	24 / 2 (8%)

Table 4 describes the number of iconics and metaphorics found in our videos. More iconics were found than metaphorics. An example of iconics is the gesture describing the bottom of the ship (both hands flat moving left and right) while saying *at the bottom of the ship*; an example of metaphorics is the gesture accompanying the adjective *nouveau* (both hands up). This ratio in favor of the iconics could be explained by the task itself. The subjects had to summarize the events of a story. Therefore they focused on the propositional content of the story without trying to be 'expressive'. They wanted to communicate facts and to remember details.

However we noticed a difference in the number of gestures used in spontaneous conversations and during the narration. In spontaneous speech the absolute number of gestures is much higher. Again in the narration, the propositional content prevails while in spontaneous speech one expresses oneself. Thought and speech are, then, more connected in a conversation than in an imposed narration of an event outside the 'vecu'.

Table 4
Gesture Types used with Adjectives

	Iconics	Deictics	Beats	Metaphorics
	[F/E]*	[F/E]	[F/E]	[F/E]
Subject 1	2/0	1/0	1/0	2/0
Subject 2	4/1	1/0	5/0	1/1
Subject 3.	8/4	2/4	2/3	5/2
Subject 4.	5/13	1/3	9/5	1/6

*F = French; E = English.

Table 5 presents the detailed analysis of the correlation between adjectives and gestures for a one minute sample, across languages and across subjects. There we have a correlation, although slight, between the usage of metaphorics and metaphorical adjectives such as 1) *nouveau*, 9) *différentes*, 25) et 31) *hostile*, 34) *vieux*. More iconics are found with adjectives used in their literal meaning such as in 2) et 7) *parallèle* and *parallel*, 30) *drunk*, 44) *petits*, 45) *petite*. The relationship between metaphorics (metaphors on the gestural level) and abstract/figurative

adjectives (metaphors on the verbal level) could be seen as redundant. What could be, then, the function of this redundancy? The gesture could express the personal and subjective judgment of what is considered by the speaker as “nouveau” or “different”.

Table 5

Results : Adjectives and Gestures across languages in the one minute samples

1	le nouveau	R - L sym + up	iconic? metaphoric
7	en parallèle	R -L sym	iconic
9	il y a différentes (manoeuvres)	L only + up	metaphoric
17	c'est une confrontation hostile	R + L sym	iconic?
25	(il y a une) grosse lutte	R + L altern + up	metaphoric
31	l'équipage hostile du bateau des flibustiers	R + L asym + up + circles	metaphoric
34	leur vieux navire	R + L asym + RdownLup	iconic
2	in a parallel, very close	R + L sym + altern	iconic
16	(from their) past (exploits)	R only + down + down	iconic? deictic?
30	(all) are drunk and fall over	R + L sym + up/down	iconic
44	pour les petits (enfants)	R only + down + down	iconic
45	une petite goutte	R only + up	iconic

R = right; L = Left; sym = symmetrical; asym = asymmetrical; up and down = the movement of each hand; altern = alternatively.

5. Summary

“To consider gestures with speech is to consider two types of symbols that occupy the same moment of expression. This kind of binocular vision leads to new insights into the narrative of the language system itself. The imagistic component coexists with the linear segmented linguistic component and the coordination of the two issues gave us some insights into the processes of language and thought.” (Goaldin, Meadow and McNeill:63).

The few insights we are able to share are the following. As far as findings about bilingualism are concerned, first of all we cannot conclude that there was a striking difference in the usage of gestures between languages; both gestures and adjectives varied on the individual level, although we are mindful that there should be cultural/pragmatic constraints. Second, more adjectives were used in the language

labeled as mother tongue; could we say that the speech is then more personal in our mother tongue or simply more limited in the other language?

As far as the connection between the verbal and non-verbal communication is concerned, we wanted to establish whether all metaphors expressed by adjectives are also expressed in the gestures, or whether there is some complementary function of the nonverbal modality in expressing metaphorical concept without any verbal utterance. We did find a correlation between metaphors and linguistic metaphors: adjectives were used with gestures for 1/5 of the time and these gestures were iconics and metaphorics. We also observed that gestures were used to fill gaps and silences; there could be a complementary function of the nonverbal modality when the verbal modality is not accessible. Finally, as Lakoff pointed out (1980), we also confirm that more form is more meaning: repetition of adjectives (*a big big fight*) or lengthening of the vowel (*a biiiiiig fight*) were used to intensify the meaning in our videos. This phenomenon was also true on the gestural level: metaphoric gestures were used to give more meaning to verbal metaphors: *grosse lutte* was intensified by the reiteration of gestures; *confrontation hostile* by amplified movements.

6. Conclusion

“The conceptual structure is grounded in physical and cultural experience as are the conventional metaphors. Meaning therefore is never **disembodied** or objective” (Lakoff, 1980:197, our emphasis).” Lakoff exemplifies this linguistic embodiment with such examples as *up is good* or *good is up*. With this present study we found that gestures - such as iconics and metaphorics - are used to accompany adjectives and to express them ‘bodily’. Therefore *good* can also be expressed by a gesture, i.e. a nonverbal metaphor. We can then conclude that there is a definite linguistic embodiment of verbal metaphors by nonverbal metaphors whether they are iconics or metaphorics. This link, though, has hardly ever been studied. In our view, it is necessary to investigate this connection further. This would help us to make progress in understanding metaphors in particular, and in understanding the process of meaning in general.

REFERENCES

- Kendon, Adam. 1988. *Sign Languages of Aboriginal Australia : Cultural, Semiotic, and Communicative Perspectives*. Cambridge: Cambridge University Press
- Lakoff, George & JOHNSON, Mark. 1980. *Metaphors We Live By*, Chicago: University of Chicago Press.
- McNeill, David. 1992. *Hand and Mind. What Gestures Reveal about Thought*, Chicago & London: University of Chicago Press.
- McNeill, David & Pedelty, Laura . 1995. "Right Brain and Gesture." In. *Language, Gesture, and Space*, K. Emmorey & J. S. Reilly (eds.), 63-85. Hillsdale, NJ: Erlbaum.
- Mendoza, Jean-Louis Juan de. 1995. *Serve gauche, serve adroit.*, Paris: Flatiron.
- Singleton, Jenny L., Golden-meadow, Susan & McNeill, David. 1995. "The Cataclysmic Break Between Gesticulation and Sign: Evidence Against a Unified Continuum of Gestural Communication." In. *Language, Gesture, and Space*, K. Emmorey & J. S. Reilly (eds.), 287-311. Hillsdale, NJ: Erlbaum.