

## **Iconicity in language: theoretical issues and future directions.**

**Organizers: Mutsumi Imai (Keio University) and Marcus Perlman (University of Birmingham)**

### *The theme and the goal of the workshop*

Recent developments in research from diverse disciplines (e.g., psycholinguistics, anthropological linguistics and neuroscience) have accumulated evidence for the view that iconicity, along with arbitrariness, is a design feature of language (Vigliocco, Perniss & Vinson, 2014). The field has now come to a new phase where the focus of research is to clarify the nature and functions of iconicity in language as well as its biological foundations in fine details. This workshop consists of 7 presentations of cutting edge research on iconicity in language with diverse angles and methodologies, asking following questions: 1) how non-obvious iconicity in language can be uncovered; 2) universality and diversity in the structure, distribution and use of iconic resources in natural languages; 3) how iconicity eases the processing burden of generating mental simulations and conceptualization in language comprehension and production; 4) similarities and differences in how gestures and sign languages exploit iconicity; 5) how iconicity is different across speech and signs; 6) how iconicity in sound-meaning mapping arises in deaf and hearing individuals; 7) how sound symbolism is different from synesthesia. Together as a group, this workshop will expand the horizon of the research field both in theory and methodology.

### *Required time and time allocations*

The workshop will be 4 hours in total. There will be a brief 5-minute introduction by the organizers, and the seven presentations will each be 30 minutes (25 + 5 min Q/A). The participants will use the remaining 30 minutes for critical discussion and audience questions.

### **Presentation 1**

#### *The Systematic Patterns of Iconicity in the English Lexicon*

Marcus Perlman & Bodo Winter (University of Birmingham)

English, by its reputation, is scarce in iconicity compared to many other spoken (and

signed) languages. And yet, recent studies analysing iconicity ratings of ~3000 English words show that iconicity is patterned in systematic ways even across English vocabulary. We present findings showing that the level of iconicity in English words is related to factors including age of acquisition, lexical class, semantic domain, and semantic density. We discuss the exciting potential for future research using ratings to compare iconicity between diverse spoken and signed languages, noting the importance of collecting iconicity ratings according to instructions and scales that are as commensurate as possible.

## **Presentation 2**

*Rethinking the roles of iconicity in learning and communication*

Mark Dingemanse (Radboud University)

Empirical work on speech, gesture and sign has established the importance of iconicity in many aspects of language structure. Here I explore some functions of iconicity in language, focusing especially on learning and communication. I aim to combine insights from work on visual and vocal aspects of iconicity. In gesture studies, the communicative role of iconicity has long been recognised, but this aspect has received less attention in studies of spoken language, where the focus has mostly been on how iconicity makes words easier to learn. While decades of experimental work across fields has given us a solid view of iconicity in the lab, there is now the opportunity to add insights from observational and corpus-based work in spoken and signed languages around the world. This reveals patterns of universality and diversity in the structure, distribution and use of iconic resources in natural languages.

## **Presentation 3**

*Iconicity, Situated Language and Embodiment*

Gabriella Vigliocco, Yasamin Motamedi, Margherita Murgiano (University College London) & Zhenguang Cai (Chinese University Hong Kong)

When talking about iconicity - and more generally non-arbitrariness - in language, its prevalence, distribution and function, we tend to focus on non-arbitrariness/iconicity in the *linguistic form* of spoken or signed languages. This assumes a narrow view of language, as a context-independent population-level system. This perspective ignores that in the real-world, language is used in face-to-face communication and is enacted through the systematic combination of the audio-vocal, visual-gestural and oro-facial channel. Focusing at this broader level of 'language as situated', the presence of non-arbitrariness

is much more than marginal, as it is exploited on-the-fly via indexical cues such as eye gaze or points and iconic cues such as prosodic modulations and co-speech gestures. In this talk, we will discuss how looking at non-arbitrariness and especially iconicity from this - situated - perspective brings novel insight into when mental simulations (and therefore, embodiment effects) would need to be run during language comprehension and production. The central argument is that non-arbitrariness and especially iconicity ease the processing burden of generating mental simulations in comprehenders which would be especially high for displaced language. From the perspective of the speaker, iconicity, especially in gestures, could also ease the cognitive load associated to conceptualisation and be part-and-parcel of running mental simulations for speaking.

#### **Presentation 4**

*Similarities and differences in form-meaning mappings between silent gesture and signs*  
Gerardo Ortega (University of Birmingham)

The language sciences have clearly demonstrated that the sign languages of deaf communities and the gestures used by hearing speakers are two different forms of communication in the manual-visual modality. An important point of intersection is that both exploit iconicity to create form-meaning associations. There are multiple instances in which gestures and signs represent a given concept using the same mappings and as a result they share manual structures with the same form and meaning. However, there are other instances in which sign languages exploit iconicity in ways that are not typically observed in gesture. To this date there have been limited attempts trying to explicate the similarities and differences in how gestures and sign languages exploit iconicity to make form-meaning associations. In this talk I will try to bridge this gap by describing some of the patterns observed in elicited silent gestures and will make speculations on potential differences that can be expected in sign languages.

#### Presentation 5

*The multidimensionality of depiction*  
Gabrielle Hodge & Lindsay Ferrara

Investigations of iconicity are prevalent across the human communication sciences. However, when it comes to comparing iconicity across different interactions (e.g. deaf and hearing) and modes of communication (e.g. sign and speech), it is not always clear we are looking at the same thing. For example, spoken ideophones and manual depicting

actions are both types of iconic forms. Yet spoken ideophones may signal depictive and descriptive qualities, while manual actions may signal depictive and indexical qualities (via direction and/or placement in space), and each may co-occur with other semiotics articulated with the hands or mouth. The paradigm of iconicity as a single property may therefore be too broad and coarse for comparative semiotics, as important nuances may be masked. We draw on Clark's model of language as signalled via description, indication and depiction to demonstrate the multidimensionality of depiction in face-to-face communication, and discuss some implications for research on iconicity.

### **Presentation 6**

*Exploitation of iconicity in Hard-of-Hearing and Hearing individuals*

Mutsumi Imai (Keio University), Miki Namatame (Tsukuba College of Technology),  
Kimi Akita (Nagoya University), Sotaro Kita (Warwick University)

Sound symbolism is a type of iconicity in language, whereby the sound of a word resembles its meaning. We explore the nature and the origin of sound symbolism by comparing the goodness of sound-referent mappings in hearing and Hard-of-Hearing individuals in the domains of tactile and shape. The judgements of sound symbolism by Deaf or Hard-of-Hearing individuals were similar to that by hearing people, regardless of the level of hearing ability (with implant or hearing aids). The results suggest that the sense of sound symbolism is at least in part arises from multimodal mappings between a non-auditory sensory modality (e.g., vision and tactile) and oral movements to create language sounds.

### **Presentation 7**

*Domain-general nature of sound-meaning mapping in sound symbolism*

Katerina Kantartzis and Sotaro Kita (Warwick University)

There are a number of theories surrounding the nature of sound-symbolism. Some theories have drawn analogies between sound-symbolism and synesthesia (Ramachandran & Hubbard, 2005). However, there are qualitative differences between sound-symbolism and synaesthesia. One key difference is that in synaesthesia the mapping is domain specific (e.g., sound and colour, sound and taste), but in sound symbolism it is domain general in the sense that the relevant meaning is not tied to specific information domain such as shape, size, etc. We will present two experiments

that demonstrate that sound-meaning mapping in sound symbolism is the domain general.