SSCC - Sound Symbolism and Crossmodal Correspondences
SPTC - Symbolisme Phonétique et Correspondances Transmodales

International Interdisciplinary Conference
University of Paris 4 - Sorbonne / Salle des Actes
4 and 5 May 2017

Organizers
Philippe Monneret (University of Paris 4 - Sorbonne)
Luca Nobile (University of Burgundy)

Keynote speakers
Damián Ezequiel Blasi (University of Zurich, CH)
Ophélia Deroy (University of London, GB)
Vanja Ković (University of Belgrade, RS)
Søren Wichmann (University of Leiden, NL)
…

Call for papers
(version 1.0 - 26 November 2016)

The SSCC//SPCT conference aims to create an encounter between researchers working in the field of sound symbolism and those working on crossmodal correspondences. The disciplines involved are linguistics, philosophy, literary studies, experimental psychology and, more broadly, cognitive science. If at an international level, research on sound symbolism and crossmodal correspondences has considerably developed over the past twenty years, these issues are still relatively overlooked in France. The SSCC//SPCT conference therefore also aims to contribute to the development of this type of approach in French research.

§

The concept of "sound symbolism" (cfr. 40, 47, 54, 73, 74, 79) intends to characterize any type of motivated link, whether direct or indirect, based on similarity or contiguity, between the phono-articulatory signified of a linguistic unit and its signified, its meaning or its referent. It is a form of linguistic iconicity operating at a phonological level (27, 51, 70). Even if this concept is clearly in opposition with the principle of the "arbitrariness of the sign", contemporary works on sound symbolism usually do not deny this principle, but they consider that it only covers a partial aspect of the linguistic phenomena. The existence of sound symbolism is indeed evidenced by a large set of data, both experimental and descriptive.

Experimental research (6, 11, 13, 15, 16, 17, 18, 20, 26, 35, 38, 41, 42, 57, 65, 67, 71, 72, 79, 85, 88, 92, 97) has largely documented the spontaneous tendency of speakers to assign intrinsic "proto-semantic" values to speech sounds. It has demonstrated, for instance, that the phono-articulatory contrast between [grave] phonemes like /u/ or /b/ and [acute] phonemes like /i/ or /p/ is regularly associated with visual contrasts between {large} and {small}, {rounded} and {sharp}, {dark} and {bright}, among others. More recently, neurophysiological research has started to identify the areas of the cortex and the time slots in the cortical activity that are specifically associated with processing sound symbolism (5, 58, 81).

On the other hand, descriptive research has been producing more and more in-depth and systematic analysis of the main phenomena of sound symbolism existing in languages: onomatopoeias (43, 54, 82, 93, 100), ideophones, mimetics or expressives (1, 2, 3, 19, 33, 34, 45, 48, 53, 78, 86, 87, 96), phonesthemes and submorphemes (6, 8, 9, 10, 37, 44), phonosemantic structures in morphology (51, 52, 59, 94, 68, 69) and more recently the general tendency of the lexicon to organize along the line of iconicity, as exemplified by a number of studies over big corpora (7, 25, 46, 61, 95, 98).

These results can have interesting applications in several fields, for instance in marketing (55, 66, 99), in language acquisition and language learning studies (76, 60, 49, 50, 75), in literary analysis (4, 12, 28, 29,

39, 89, 91) and in theoretical speculations on the origin of language (14, 80, 83, 84).

At the theoretical level, sound symbolism is an exemplary case of "embodied cognition", as its existence in language pleads for a fundamental link between linguistic units and the motor, perceptual and emotional life of speakers.

§ §

Research on crossmodal correspondences (cfr. 32, 90) can be considered as a generalization of the problem of sound symbolism. Instead of focusing on the link between the phono-articulatory experience of speech sounds and the experience of meanings, the crossmodalist approach focuses on the relationship between any two sensorimotor experiences: hearing and touch, hearing and taste, vision and touch, vision and olfaction, etc.

For instance, it has recently been demonstrated that odors of smoke and chocolate tend to be associated to more grave sounds than odors of citrus and fruit (23, 24, 30), while bitter and salty tastes are perceived as lower pitched than sweet and sour (21, 22, 56). Relationships between crossmodal correspondence and synaesthesia are still being studied but it seems established that, if synaesthetes show cognitive features distinguishing them from most people, crossmodal correspondences, on the contrary, are a general feature of human cognition (30).

Some of these correspondences are considered universal (e. g. between sound intensity and brightness) while others are considered culturally variable (for instance between physical height {up:down} and acoustical height {acute:grave}; cfr. 36). They are thus a fundamental property of our cognitive system, which can play an essential role in understanding multisensorial integration and be considered as a precursor of the ability of abstraction. That is why this type of phenomenon concerns both cognitive psychology and neuropsychology as well as the philosophy of cognition (32, 77).

§ § §

The encounter between phonetic symbolism and crossmodal correspondence can prove fruitful, not only for their points of intersection, but also because of the differences that separate them. On the one hand, the two phenomena proceed from heterogeneous analogies, that is to say from cognitive processes based on similarities between entities of different ontological nature (62, 63). On the other hand, however, each partially exceeds the domain of the other.

Research on crossmodal correspondence analyzes a wider variety of perceptual phenomena and highlights the network of extralinguistic links that exist between them: this can be an important source of hypotheses for the research on phonetic symbolism (for example, if bitter taste is associated with grave notes, one may wonder whether the linguistic expression of bitterness tends to prefer grave phonemes or not, or whether or not it tends to approximate phonologically to the linguistic expression of gravity).

As for research on sound symbolism, it certainly analyzes only a limited subset of crossmodal phenomena, but it always has to do so within the framework of a formal system of oppositions and combinations, which is that of language itself. The latter functions partly as an interdependent and complex whole. This may constitute a challenge for experimental research on crossmodal correspondences because it is a matter of understanding how a plurality of simple perceptual effects combine within a system to generate complex effects.

This conference will address both the point of intersection between the two fields and their complementarity, offering to bridge the gap between linguists, psychologists, philosophers and literary studies, cognitive science and natural language processing specialists. The guiding questions of this conference are the following:

a) In the present state of research, how can we build on the available results and methodologies to move on to systematizing the analyses?
b) What strategies can be adopted to achieve conclusive analysis not only on basic perceptual facts, but also on their interactions and combinations within complex structures languages are?
c) How to separate universal phenomena from those depending on languages and cultures, and how to account for their simultaneous presence and their mutual influence?

§ § § §

We invite paper proposals which may address the following topics (not exhaustive):

- Theoretical approaches of sound symbolism and / or crossmodal correspondences
- Universals in the field of sound symbolism and / or crossmodal correspondences
- Experimental research on sound symbolism and / or crossmodal correspondences
- Descriptive research on sound symbolism in languages and in texts
- Role of computerized corpora and natural language processing in the descriptive research on sound symbolism
- Role of sound symbolism and / or crossmodal correspondences in the acquisition and learning of languages
- Applications in the areas of marketing, semantic web and artificial intelligence

§ § § § §

Conference languages are French and English.

Proposals, consisting of a title and an abstract of 2000 characters (including spaces and bibliography), should be sent **before 10 February 2017** simultaneously to the two organizers:

philippe.monneret@paris-sorbonne.fr
luca.nobile@u-bourgogne.fr

Registration fee for the participants is 100 € (before 10 Avril) or 150 € (after 10 Avril). Free attendance for the general public.

Bibliography

1. Akita, K. (2009), A Grammar of Sound-Symbolic Words in Japanese, PhD thesis, Kobe University, Tokyo.
2. Akita, K. (2011), Towards a phonosemantic definition of phono-symbolic words, in Michelucci, P., Fischer, O. & Ljungberg (éds.), Semblance and Signification, Amsterdam, Benjamins, 3-18.
3. Akita, K. (2012), Toward a frame-semantic definition of sound-symbolic words: A collocational analysis of Japanese mimetics, Cognitive Linguistics 23/1, 67–90.
4. Anderson, E. R. (1998), A grammar of iconism, Londres, Associated University Presses.
5. Arata, M., Imai, M., Kita, S., Thierry, G. & Okada, H. (2010), « Perception of sound symbolism in 12 months-old infants: an ERP study », Neuroscience research 68S, e300
6. Bergen, B. K. (2004), « The psychological reality of phonaesthemes », Language 80/2, 290-311.
7. Blasi, D. E., Wichmann, S., Hammarström, H., Stadler, P. F. & Christiansen, M. H. (2016) « Sound–meaning association biases evidenced across thousands of languages », PNAS doi:10.1073/pnas.1605782113.
8. Bolinger, D. (1949), « Sign is not arbitrary », Boletin Institute Caro y Cuervo 5, 52-62.
9. Bowles, H. (1995), « The Semantic Properties of the Phonaestheme », Studi Italiani di Linguistica Teorica e Applicata 24, 1, 91-106.
10. Bowles, H. (1998), « The Phonetic Structure of the Phonaestheme », in Studi Italiani di Linguistica Teorica e Applicata 27/2, 351-68.
11. Brown, R. W., Black A. H. & Horowitz, A. E. (1955), « Phonetic symbolism in natural languages », Journal of abnormal and social psychology 50, 388-93.
12. Cappello, S. (1990), Le réseau phonique et le sens : l'interaction phono-sémantique en poésie, Bologna, Éditions CLUEB.
13. Cassidy, K. W., Kelly, L. H. & Sharoni, L. J. (1999), Inferring Gender from Name Phonology, Journal of Experimental Psychology 128/3, 362-381.
14. Changizi, M. (2011), Harnessed: How Language and Music Mimicked Nature and Transformed Ape to Man, BenBella, Dallas.
15. Chastaing, M. (1958), « Le symbolisme des voyelles: significations des i », Journal de psychologie normale et pathologique 51/3, 403-423 et 461-481.
16. Chastaing, M. (1962), « La brillance des voyelles », Archivium Linguisticum 14/1, 1-13.
17. Chastaing, M. (1964), « L'opposition des consonnes 'sourdes' aux consonnes 'sonores' a-t-elle une valeur symbolique?», Vie et langage 147, 367-370.
18. Chastaing, M. (1966), « Si les R étaient des L… », Vie et langage 159, 311-317.
19. Childs, T. (1994), « African ideophones », in Hinton & al. 1994: 178-204.
20. Crisinel, A.-S., Jones, S. & Spence, C. (2012), «'The Sweet Taste of Maluma': Crossmodal Associations Between Tastes and Words », Chemosensory Perception 5, 266-273.
21. Crisinel, A.-S. & Spence, C. (2009), « Implicit association between basic tastes and pitch », Neuroscience Letters 464, 39-42.
22. Crisinel, A.-S. & Spence, C. (2010), « As bitter as a trombone: Synesthetic correspondences in nonsynesthetes between

tastes/flavors and musical notes », Attention Perception & Psychophysics 72/7, 1994-2002.
23. Crisinel, A.-S. & Spence, C. (2011), « Crossmodal associations between flavoured milk solutions and musical notes », Acta Psychologica 138, 155-161.
24. Crisinel, A.-S. & Spence, C. (2012), « A fruity note : crossmodal associations between odors and musical notes », Chemical Senses 37, 151-158.
25. Dautriche, I., Mahowald, K., Gibson, E. & Piantadosi, S. T., "Wordform Similarity Increases With Semantic Similarity: An Analysis of 100 Languages", Cognitive Science, doi:10.1111/cogs.12453, 1-21.
26. Davis, R. (1961), «The fitness of names to drawings: a cross-cultural study in Tanganyika », British Journal of Psychology 52, 259-268.
27. De Cuypere, L. (2008), Limiting the iconic : from the metatheoretical foundations to the creative possibilities of iconicity in language, Amsterdam-Philadelphia, Benjamins.
28. Delbouille, P. (1961), Poésie et sonorité : la critique contemporaine devant le pouvoir suggestif des sons, Paris, Les Belles Lettres.
29. Delbouille, P. (1984), Poésie et sonorité II : les nouvelles recherches, Paris, Les Belles Lettres.
30. Deroy, O., Crisinel, A.-S. & Spence, C. (2013), « Crossmodal correspondences between odors and contingent features: odors, musical notes, and geometrical shapes », Psychonomic Bullettin & Review 20/5: 878-896.
31. Deroy, O., & Spence, C. (2013). Are we all born synaesthetic? Examining the neonatal synaesthesia hypothesis. Neuroscience & Biobehavioral Reviews, 37(7), 1240-1253.
32. Deroy, O., & Spence, C. (2016). “Crossmodal correspondences: four challenges”. Multisensory Research, 29(1-3), 29-48.
33. Dingemanse, M. (2012), « Advances in the cross-linguistic study of ideophones ». Language and Linguistics Compass, 6, 654-672.
34. Doke, C. M. (1935), Bantu linguistic terminology, Londra, Longmans and Green.
35. D'Onofrio, A. (2014), « Phonetic Detail and Dimensionality in Sound-shape Correspondences: Refining the Bouba-Kiki Paradigm », Language and Speech 57/3, 367-393.
36. Eitan, Z., & Timmers, R. (2010). Beethoven’s last piano sonata and those who follow crocodiles: Cross-domain mappings of auditory pitch in a musical context. Cognition, 114(3), 405-422.
37. Firth, J. R. (1930), Speech, Londres, Ernest Benn.
38. Fónagy, I. (1983), La vive voix : essai de psycho-phonétique, Parigi, Payot.
39. Fónagy, I. (2001), Languages within language, Amsterdam, Benjamins.
40. Gabelentz, G. von der (1891), Die Sprachwissenschaft : ihre Aufgaben, Methoden und bisherigen Ergebnisse, Weigel, Leipzig.
41. Gentilucci, M. (2003), « Grasp observation influences speech production », European Journal of Neurosciences 17, 179-184.
42. Gentilucci, M., Dalla Volta, R. & Gianelli, C. (2008), « When the hands speak », Journal of Physiology 102, 21-30.
43. Grammont, M. (1901), « Onomatopées et mots expressifs », Revue de langues romanes 44/4, 97-158.
44. Guiraud, P. (1967), Structures étymologiques du lexique français, Paris, Payot.
45. Hamano, S. (1998), The sound-symbolic system of japanese, Stanford, CSLI.
46. Haynie, H., Bowern, C. & La Palombara, H. (2014), « Sound symbolism in the languages of Australia » 9/4, 1-16.
47. Hinton, L., Nichols, J., Ohala, J.J., Eds. (1994), Sound Symbolism; Cambridge University Press: Cambridge.
48. Hjelmslev, L. (1928), Principes de grammaire générale, Copenhagen, Munksgaard.
49. Imai, M., Kita, S., Nagumo, M. & Okada, H. (2008), « Sound symbolism facilitates early verb learning », Cognition 109, 54-65.
50. Imai, M., Miyazaki, M., Yeung, H., Hidaka, S., Kantartzis, K., Okada, H., Kita, S. (2015), "Sound Symbolism Facilitates Word Learning in 14-Month-Olds", PlosOne 10/2, e0116494. doi:10.1371/journal.pone.0116494.
51. Jakobson, R. (1965), « À la recherche de l'essence du langage », Diogène 51, 22-38.
52. Jakobson, R. & Waugh, L. (1979), The Sound Shape of Language, Bloomington, Indiana University Press. [Trad. fr., La charpente phonique du langage, Parigi, Minuit, 1980].
53. Jendraschek, G. (2000), « Semantic and structural properties of Turkish ideophones », Turkic Languages 5, 88-103.
54. Jespersen, O. (1922), Language : its nature, development and origin, Londres, Allen.
55. Klink, R. (2000) « Creating brand names with meaning: the use of sound symbolism », Marketing Letters 11/1, 5-20.
56. Knoeferle, M. K., Woods, A., Käppler, F. & Spence, Ch. (2015) « That sounds sweet : Using crossomodal correspondences to communicate gustatory attributes », Psychology and marketing 32/1, 107-120.
57. Köhler, W. (1929), Gestalt Psychology, New York, Liveright; [édition remaniée:] (1947), Gestalt Psychology ; an Introduction to New Concepts in Modern Psychology, Oxford: Liveright.
58. Kovic, V., Plunkett, K. & Westermann, G. (2010), « The shape of words in the brain », Cognition 114, 19-28.
59. Malkiel, Y. (1990), Diachronic problems in phonosymbolism, Amsterdam, Benjamins.
60. Monaghan, P., Mattock, K. & Walker, P. (2012), « The role of sound symbolism in language learning », Journal of Experimental Psychology: Learning Memory and Cognition 38/5, 1152-1164.
61. Monaghan, P., Shillcock, R. C., Christiansen, M. H. & Kirby, S. (2014), « How arbitrary is language? », Philosophical Transactions of the Royal Society B: Biological Sciences, 369/1651, article n° 20130299.
62. Monneret, Ph. (2004), Essais de linguistique analogique, Dijon, ABELL.
63. Monneret, Ph. (2014), « L’iconicité comme problème analogique », Le français moderne, 1, 46-77.
64. Nänny, M. & Fischer, O., éds (1999), Form miming meaning, Amsterdam, Benjamins.
65. Newman, S.S. (1933), « Further experiments in phonetic symbolism ». American Journal of Psychology 45, 53-75.
66. Ngo, K. M. & Spence, C. (2011) « Assessing the shapes and speech sounds that consumers associate with different kinds of chocolate », Journal of sensory studies 26, 421-428.
67. Nielsen, A. & Rendall, D. (2011), « The Sound of Round: Evaluating the Sound-Symbolic Role of Consonants in the Classic Takete-Maluma Phenomenon », Canadian Journal of Experimental Psychology 65/2, 115-124.
68. Nobile, L. (2010), « Sémantique et phonologie des suffixes altératifs de l'italien », Studia Universitatis Babes-Bolyai Philologia LV/4, 83-98.
69. Nobile, L. (2011), « Words in the mirror: analysing the sensorimotor interface between phonetics and semantics in Italian », in

Michelucci, P., Fischer, O. & Ljungberg, C. (ed.), Semblance and Signification, Amsterdam, Benjamins, 101-131.
70. Nobile, L. (2014), « Introduction. Formes de l'iconicité », Le Français Moderne 82/1, 1-45.
71. Nobile, L. (2015), « Phonemes as images: an experimental inquiry into shape-sound symbolism applied to the distinctive features of French », in Hiraga, M. K., Herlofsky, W. J., Shinoara, K. & Akita, K. (éds.), Iconicity: East meets West, Amsterdam, Benjamins, 71-91.
72. Nobile, L. & Ballester, J. (à paraître), "Du goût des mets au son des mots : recherches expérimentales sur le symbolisme phonétique des goûts et des arômes", F. Argod (éd.), Le français à table, Rennes, PUR.
73. Nobile, L. & Lombardi Vallauri, E. (2016), Onomatopea e fonosimbolismo, Rome, Carocci.
74. Nuckolls, J. B. (1999), « The case for sound-symbolism », Annual Review of Anthropology 28, 225-252.
75. Nygaard, L. C., Cook, A. E. & Namy, L. L. (2009), « Sound to meaning correspondences facilitate word learning », Cognition 112, 181-186.
76. Parault, S. J. & Schwanenflugel, P. J. (2006), "Sound-Symbolism: A Piece in the Puzzle of Word Learning", Journal of Psycholinguistic Research 35/4, 329-51.
77. Parise, C. V. (2016). Crossmodal correspondences: standing issues and experimental guidelines. Multisensory Research, 29(1-3), 7-28.
78. Peck, H. T. (1886), « Onomatopoeia in Some West African Languages », The American Journal of Philology 7/4, 489-495.
79. Peterfalvi, J.-M. (1970), Recherches expérimentales sur le symbolisme phonétique, Paris, CNRS.
80. Ramachandran, V. & Hubbard, E. (2001) «Synaesthesia: A Window into Perception, Thought and Language», Journal of Consciousness Studies 8/12, 3-34.
81. Revill, K. P., Namy, L. L., Clepper DeFife, L. & Nygaard, L. C. (2014), « Cross-linguistic sound symbolism and crossmodal correspondence: evidence from fMRI and DTI », Brain & Language 128, 18-24.
82. Rhodes, R. (1994), « Aural images », in Hinton & al. 1994 : 276-292.
83. Rizzolatti, G. & Arbib, M. (1998), « Language within Our Grasp », Trends in Neurosciences 21/5, 188-194.
84. Rizzolatti, G. & Craighero, L. (2007), Language and Mirror Neurons, in M. Gareth Gaskell (ed.), The Oxford Handbook of Psycholinguistics, Oxford University Press, Oxford-New York, 781-785.
85. Saji, N., Akita, K., Imai, M., Kantartzis, K. & Kita, S. (2013), « Cross-linguistically shared and language-specific sound symbolism for motion: an exploratory data mining approach », Proceedings of the 35th Conference of the CSS [Berlin, 31.07 - 03.08.2013], Austin, CSS, 1253-1258.
86. Samarin, W. (1965), « Perspective on African ideophones », African Studies 24, 117-121.
87. Samarin, W. (1971), « Survey of Bantu Ideophones », African Language Studies 12, 130-168.
88. Sapir, E. (1929), « A study in phonetic symbolism ». Journal of Experimental Psychology 12, 225–239.
89. Sasso, G. (1982), Le strutture anagrammatiche della poesia, Milano, Feltrinelli.
90. Spence, C. (2011), « Crossmodal correspondences: A tutorial review », Attention Perception Psychophysics 73: 971-995.
91. Tabakowska, E., Ljungberg, C. & Fischer, O. (2007), Insistent images, Amsterdam, Benjamins.
92. Taylor, I. & Taylor M. (1962), "Phonetic symbolism in four unrelated languages", Canadian Journal of Psychology 16, 344-356.
93. Torres Sánchez, M. A. & Berbeira Gardón, J. L. (2003), "Interjección y onomatopeya: bases para una delimitación pragmática", Verba 30, pp. 341-66.
94. Ultan, R. (1978), « Size-sound symbolism », in Greenberg, J. H. (éd.), Universals in human language, vol. 2: Phonology, Stanford, Stanford University Press.
95. Urban, M. (2011), « Conventional sound symbolism in terms for organs of speech: a cross-linguistic study », Folia linguistica 45/1, 199-214.
96. Voeltz, E. & Kilian-Hatz, C., éds. (2001), Ideophones, Amsterdam, Benjamins.
97. Westbury, (2005), « Implicit Sound Symbolism in Lexical Access: Evidence from an Interference Task », Brain and Language 93/1, 10-19.
98. Wichmann, S., Holman, E. W. & Brown, C. H. (2010), « Sound symbolism in basic vocabulary », Entropy 12/4, 844-858.
99. Yorkston, E. & Menon, G. (2004), « A sound idea: phonetic effects of brand names on consumer judgments », Journal of Consumer Research 31/1, 43-51.
100. Zerling, J. P. (2000), « Structure syllabique et morphologique des mots à caractère onomatopéique et répétitif », Travaux de l'Institut de Phonétique de Strasbourg 30, 115-162.