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Jean-Rémi Lapaire

► **To cite this version:**

Jean-Rémi Lapaire. Visuo-Kinetic Explorations of Grammar. András Benedek and Kristóf Nyíri (eds.). Images in Language: Metaphors and Metamorphoses (Visual Learning) , Peter Lang, pp.41-55, 2011, ISBN: 9783631620465. halshs-01629049

HAL Id: halshs-01629049

<https://shs.hal.science/halshs-01629049>

Submitted on 5 Nov 2017

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Visuo-Kinetic Explorations of Grammar

Jean-Rémi Lapaire

Introduction

All knowledge takes its place within the horizons opened up by perception.¹

Lines, arrows, scribbles and geometrical forms are routinely used in diagrammatic drawings to handle abstractions. As “essentials” are drawn from an entity, “concepts take shape”, structural features are singled out and schematic imagery is produced that allows “visual thinking” to take place.²

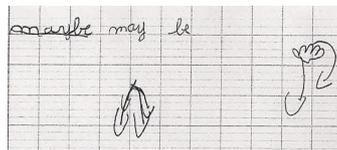


Figure 1: Drawing abstract meanings³

Similarly, the *schematic gesture images* that are spontaneously produced by speakers as they report events or explain situations⁴ are evidence enough that human reason is fundamentally imaginative in character,⁵ that vision and move-

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- 1 Maurice Merleau-Ponty, *Phenomenology of Perception*, transl. from the French by Colin Smith, London: Routledge & Kegan Paul, 1962, p. 207.
 - 2 Rudolf Arnheim, *Visual Thinking*, Berkeley: University of California Press, 1969.
 - 3 Yasser’s schemata for *maybe* (so / not) were drawn in class, after observing and analyzing the manual gestures spontaneously produced by speakers in synchrony with *may*, *might*, *maybe*. During the discussion, comments were made on the “lack of certainty” and “alternative options” coded by epistemic *may*. Children were then asked to “draw the meaning of *maybe*”. Yasser is one of 24 pupils, aged 9–11, receiving instruction in English and French at a public bilingual school in Brittany, France. The experiment on “drawing grammatical concepts” was carried out in March 2011, during a workshop focused on “vision, movement and grammar”.
 - 4 Geneviève Calbris, *The Semiotics of French Gesture*, Bloomington: Indiana University Press, 1990; David McNeill, *Hand and Mind*, Chicago: Chicago University Press, 1992; Irene Mittelberg, “Geometric and Image-schematic Patterns in Gesture Space” in V. Evans and P. Chilton (eds.), *Language, Cognition and Space: The State of the Art and New Directions*, London: Equinox, 2010, pp. 351–385.
 - 5 Mark Johnson, *Moral Imagination*, Chicago: The University of Chicago Press, 1993.

ment are “active participants of speaking and thinking”,⁶ that abstraction requires the innate ability to schematize.⁷



“I like to
INCORPORATE
this into my show”

Figure 2: Spontaneous gesture of inclusion into an abstract container⁸

At a more general level of cognitive investigation, the imagery and sensory-motor activity that *support* mental and verbal processes seem to *shape* crucial aspects of human understanding.⁹ So close is the integration of physiological and mental processes that neither reason nor language should be regarded as “separate from and independent of bodily capacities such as perception and movement”.¹⁰ Hence the claim made in the present article that visual and kinesthetic forms of reasoning are relevant in areas where high levels of abstraction are required.

6 David McNeill, *Gesture and Thought*, Chicago: Chicago University Press, 2005, p. 6

7 Arnheim, *op. cit.*; Ronald Langacker, *Grammar and Conceptualization*, Berlin – New York: Mouton de Gruyter, 2000.

8 Screen capture made from Jay Jay’s magic tricks podcast on <http://www.FreeMagicLive.com> (08.10.2009). In this episode, Australian magician Jay Jay discusses the importance of “observing life, observing what’s happening” while performing a trick outdoors. “It’s important that you focus on your trick, on what you’re doing, OK, but let’s say someone walks through your performance... depending on the situation... I like to INCORPORATE THAT into my show.” Gesture phases: first, the unexpected external event is entified and reified (treated as a thing). It is placed outside, at some distance before the speaker, on the right hand side. Then, the disturbing event is manually brought into an invisible container (the magician’s performance), closer to speaker’s body. The gestural action is both concrete and abstract, iconic and metaphoric.

9 Mark Johnson, *The Body in the Mind*, Chicago: The University of Chicago Press, 1987; Carla Hannaford, *Smart Moves: Why Learning Is Not All In Your Head*, 2nd ed., Salt Lake City, Utah: Great River Books, 2005.

10 George Lakoff – Mark Johnson, *Philosophy in the Flesh*, New York: Basic Books, 1999, p. 17.



Assessing amounts of substance – “large” or “small”, “concrete” or “abstract”.

Coding personal attitudes to quantity – “factual” or “subjective”

Figure 3: Visual and kinesthetic exploration of mass nouns in English¹¹

Such forms of reasoning are multimodal and integrative:

- they stimulate “the imaginal capacity of cognition” and achieve the union of “perception” and “conception” through “ception”;¹²
- they offer embodied approaches to conceptualization that set the stage for the “cross-modal” production and processing of meaning.¹³



Based on a visual activation of the *BALANCE*-schema.¹⁴

From top to bottom: -er / more than...; as...as; not as... as...

Figure 4: Using visuo-kinetic imagery to understand the process and expression of comparison

Although unusual or different in form, embodied approaches to abstraction should be regarded as natural and coherent. As will be shown in this brief demonstration, the integration of the *visual, spatial and kinetic domains* through the production of rich visuo-kinetic imagery “fuels thought”.¹⁵ The creation of “blended spaces”¹⁶ where events can be located and ideas represented, where concepts may imaginatively “take shape”¹⁷, where hidden meanings can be “seen” and abstract notions “grasped”, is like setting up a “conceptual stage” where cognitive work may be *physically* and *symbolically* performed. Thus

13 Screen capture made from “Grammar in Motion”, DVD in Jean-Rémi Lapaire – Jean Masse, *La grammaire anglaise en mouvement*, multimedia pack, Paris: Hachette Education, 2006.

11 Leonard Talmy, *Toward a Cognitive Semantics*, vol. I, Cambridge, MA: The MIT Press, 2000, pp. 99 f.. See also *ibid.*, p. 139: “We adopt the notion of *ception* here to cover all the cognitive phenomena, conscious and unconscious, understood by the conjunction of perception and conception.”

12 Zohar Eitan, “Music and Cross-Modal Interaction”, in S. D. Lipscomb – R. Ashley – R. O. Gjerdingen – P. Webster (eds.), *Proceedings of the 8th International Conference on Music Perception and Cognition*, Adelaide, Australia: Causal Productions, 2004.

14 Mark Johnson, *The Body in the Mind*.

15 David McNeill, *Hand and Mind*, Chicago: Chicago University Press, 1992.

16 Gilles Fauconnier – Mark Turner, *The Way We Think: Conceptual Blending and the Mind’s Hidden Complexities*, New York: Basic Books, 2002.

17 Arnheim, *op. cit.*

“man can confidently rely on the senses to supply him with the perceptual equivalents of all theoretical notions”.¹⁸ This applies to a wide range of categories and concepts, including those used to describe language, which can be mentally and physically “grasped” by combining verbal descriptions and visuo-kinetic imagery.

1. Grammar in Visual Format

... there is generally the potential for any linguistic example to have an analog in a visual format.¹⁹

Imagistic representations of grammatical meaning and processes may be produced that are accessible and meaningful. The creation of *visual analogues* of abstract grammatical concepts is based on Arnheim’s contention that “thinking takes place in the realm of images”²⁰, that mental imagery is never far removed from perceptual (or sensory) imagery, and that all “theoretical concepts ... may be associated with a visual setting”.²¹ It may also be regarded as an extension of Langacker’s hypothesis that “conception ... has various properties that are most evident and clearly discernable in perception, vision in particular” so that parallels can be drawn between “viewing arrangements” and “construal relationships”.²² The physical moves and attitudes are called KineGrams.²³ All require a symbolic use of gesture and space. All combine strong heuristic properties with a marked aesthetic component. This makes them *attention catching* (“striking”), *visually explicit* (“clear”, “illuminating”) and, it is hoped, pleasant to watch.



Subject shown as somehow responsible for his or her own misfortune in get-passives. The reversal of the flow of energy (subject ← object) is visually coded. So is the affectedness. E.g. He got caught. She didn’t get elected.

Figure 5: Bringing disaster upon oneself.

KineGrams have been designed to improve our understanding of language and social cognition by creating *visuo-kinetic images of linguistic processes*. Both the conceptual and inter-personal organization of grammar are revealed

18 *Ibid.*, p. 233.

19 Leonard Talmy, *op. cit.*, p. 102.

20 Arnheim, *op. cit.*, p. 116.

21 *Ibid.*, p. 111.

22 Langacker, *op. cit.*, pp. 204 f.

23 Lapaire – Masse, *op. cit.*

through gestural action. A “conceptual parallelism”²⁴ is created between *physical space* and *cognitive domains*; *material objects* and *abstract entities*; *bodily movement* and *mental activity*. The “gram” in KineGrams refers both to *grammatical form* (“grammatical morphemes and constructions”) and to *grammatical processes*, which may be studied along various dimensions – morphosyntactic, cognitive, pragmatic – as illustrated in Figure 6.



(Big) base + (small) affix.
E.g. believe –s / -ed / -ing

Figure 6: Morphosyntactic process of affixation.²⁵

As Turner aptly remarks, “grammatical constructions often represent basic abstract stories”.²⁶ One of the functions of KineGrams is to reveal those “abstract stories”, to perform them and make their content visually explicit through *symbolic forms of gesticulation*. Telling is equated with showing:

- how meaning can be “stretched to the limit” and “extreme positions reached” with *–st* in superlatives (e.g. *the best / the worst, the most intelligent / stupid*);
- how “solid facts” can be “established firmly (in reality)” by using the assertive properties of the simple present tense (e.g. *Dogs bark. They live down the road*);
- how speakers use the preterite to “look back” and *ago* to “count their steps” as they “travel back in time” (e.g. *I was there ten years ago*);
- how “pressure can be put on people” and “resistance overcome” with *must* (e.g. *You must come to my party*);
- how “options can be weighed” with *may*, as the mind “sways” (e.g. *You may be right [or wrong]*);
- how a general “sense of direction” or “the appropriate course of action” can be “shown” with *should* (e.g. *You should consult a specialist*), etc.

As these examples suggest, *physical postures* are associated with socio-cognitive *stances* or *attitudes* and *bodily motion* with *mental activity*. The moving hands / arms usually represent the cognizer's mind engaged in the process of *creating and processing meanings*. Yet, this becomes apparent only because KineGrams somehow reflect the metaphoric imagery contained in “Looking

24 Ray Jackendoff, *Patterns in the Mind*, New York: Harvester Wheatsheaf, 1993, p. 196.

25 The base is made to look “bigger” than the “affix” in terms of size and semantic import. Yet, affixation is shown to impact the base. The change is visually translated as a posture shift, related to the core-value of *–s*, *–ed* and *–ing*.

26 Mark Turner, *The Literary Mind*, New York: Oxford Paperbacks, 1996, p. 103.

(back)”, “Stretching (to the limit)”, “Weighing (options)”, etc. These short phrases are called LogoGrams and are intended to act as *verbal cues*. Without LogoGrams, KineGrams would lose much of their visual explicitness. The “smart” moves would be “dumb”. So LogoGrams necessarily precede KineGrams in the sequence of cognitive operations: they convert complex grammatical concepts into simple *image-schemata* – like the PATH-schema, the UP/DOWN-schema, the FORCE-schema²⁷ – and turn grammatical functions and processes into *metaphoric actions and perceptions*. Thus, preterition involves metaphoric vision in the form of “retrospection”, and metaphoric motion in the form of “travelling back”, along the PATH of time / life. The perception and the action are both “body action stories”²⁸ that have inbuilt *dramatic structure*, as becomes apparent when KineGrams are *staged*.

But KineGrams require more than just LogoGrams to be understood. As it turns out, viewers could never interpret them if they were not constantly exposed to the symbolic properties of ordinary co-speech gestures, i.e. if they could not handle the gestural expression of abstractions on a daily basis. KineGrams are in fact *iconic, metaphoric and deictic* gestures²⁹ that share a number of features with spontaneous co-speech gestures: they are co-expressive with speech (since they work in synchrony with LogoGrams), they make a *symbolic use of hands and space*, they both *represent* and *accompany* thought in action, they have *image-schematic* properties, they have the ability to carry both abstract and concrete, personal and inter-personal, specific and generic meanings. KineGrams nonetheless have distinct properties: they are *semiotic inventions*, created with a single purpose in mind (“explaining how language works”); they are always performed consciously; they make a more extensive use of signing space and physical space; they combine manual symbols for ideas and socio-cognitive processes with other forms of gestural action involving the lower limbs; they use facial expressions more sparingly.

27 Mark Johnson, *The Body in the Mind*.

28 Turner, *The Literary Mind*.

29 David McNeill, *Hand and Mind*.

2. Whose Body?

... the trouble with the perception-conception distinction is not that there is no motivation for it, but that it has been treated as a disjunct dichotomy.³⁰

As noted by Sweetser,³¹ motion verbs are routinely used across languages to code cognitive processes. Thus explanations can be *given* and lines of analysis *followed*, difficulties *encountered*, *progress made*, conclusions *drawn* or *reached*, etc. Mental activity is metaphorically described in terms of physical movement, while abstract mental spaces and non-physical objects of conception are understood in terms of physical space and objects.³² More generally, metaphorical motion³³ is performed by humans in a variety of epistemic and socio-pragmatic contexts, as exemplified by such common idioms as *Go ahead!* *Carry on!* *Please tread carefully!* *Don't dodge (the issue)!* *I can't handle this (matter, customer)*, etc. But who exactly performs the moves? Who traces imaginary steps along invisible paths? Who imaginatively travels through mental domains and regions? Who symbolically manipulates people and things? The speaker? The addressee? Some other participant? Since the language used in those fixed form expressions is clearly figurative, the motor events are entirely fictitious and their authors act more like “ghost movers” or “shadow agents” than true actors of flesh and blood. Indeed, no one actually runs away while *escaping criticism*, no one moves forward when *coming up with a proposal*, no one is expected to hold anything firmly in their hands when *seizing an opportunity*, nobody is likely to press on anybody while *putting pressure on people*, although some co-speech gestures – mainly iconic and metaphoric hand movements – may occur that seem to enact those fictive moves. But the gestural action remains at the symbolic (as opposed to literal) level of expression.

2.1. The “Idealized Body of Cognition” (IBC)

So then, who performs the moves? Is there a fixed repertoire of “ghost” or “shadow” acts of manipulation³⁴ and locomotion³⁵ that can be mapped out?

30 Leonard Talmy, *op. cit.*, p. 140.

31 Eve Sweetser, *From Etymology to Pragmatics*, Cambridge: Cambridge University Press, 1980.

32 Lakoff – Johnson, *Philosophy in the Flesh*.

33 Öçaliskan considers that “metaphorical motion” applies to all cases where a verb of motion (“self or caused”) is used “with a nonmotion interpretation” involving “a metaphorical change of location”. (Şeyda Öçaliskan, “Metaphor Meets Typology: Ways of Moving Metaphorically in English and Turkish”, *Cognitive Linguistics* 16/1 [2005], p. 210.)

34 Billioti de Gage has carried out an extensive British National Corpus based analysis of “hands and manipulation” in the conceptual systems of native English speakers, with a focus on *hands*, *fingers*, *finger tips*, *knuckles*, *palms*, *wrists*. She offers statistical evi-

What are the body parts most frequently involved in the metaphorical perceptual and motor scenes that commonly unfold in discourse ? Are there favoured or dominant organs of metaphoric motion? The claim made here is that some generic, language-specific entity, representing the *sentient and moving human body*, is needed in order for metaphoric bodily activity to take place. The suggested name for this abstract entity is the *idealized body of cognition* – or IBC.³⁶ This is the imaginary body that is found acting in the metaphoric scenes of motion and perception staged by language (e.g. *Don't stoop. Shrug it off! Go for it! See what I mean? Look at it this way...*). Such scenes are ritually performed by the IBC, following a strict protocol that is enshrined in established phraseology. The motions and perceptions are constrained and limited in number, despite the wealth of expressions that seem to trigger off action on the part of the IBC.

In the most general terms, the IBC may be defined as a *symbolic construct* that comes to life in speech. It is the invisible body that is verbally invoked in metaphoric expressions describing fundamental cognitive and pragmatic events such as *seeing* or *grasping* for “understanding”; *building* (a case), *constructing* (a theory); *forming* (a hypothesis) or *shaping* (views and ideas) for “thinking creatively”; *giving* or *making* for “causing”; *handling* or *manipulating* for “controlling”; *rejecting*, *blocking* or *standing in the way* for opposing, etc. As these expressions suggest, the IBC takes up a variety of *cognitive stances* and *postures* in the epistemic world (e.g. *facing* [the facts], *confronting* [the truth], *opposing* [views], *accepting*, *rejecting* [a theory], *taking*, *giving* [ideas], *holding*, *seizing*, *dropping* [a matter], *fixing*, *sticking together*, *pulling apart* [an argument]), and adopts *positions* and *attitudes* in the social world (e.g. *standing firmly* [by someone] / *close* / *at a distance*, *falling*, *rising*, *bowing* [to pressure], *stooping*, *creeping* [before someone], *grovelling*). Not only does the IBC strike socio-

dence of the importance and relevance of metaphorical acts *touching*, *pushing*, *seizing*, *wielding*, *handling*, *manipulating*. (Cécile Billioti de Gage, “Hands and Manipulation in the Grammar and Cognitive System of English”, unpublished PhD dissertation, Université Michel de Montaigne-Bordeaux 3, Università Orientale, Napoli, 2011.)

- 35 Williams provides an insightful, corpus-based study of metaphoric or metonymic “lower-body actions” coded by the nouns *walk*, *kick*, *foot*, *stride*, *leap* and the verbs *stand*, *walk*, *run*, *kick*, as in *We're run off our feet trying to keep up with the demand for information. I kicked it all out to her. If you want to defend yourself or, you know, kick ass...* (Stephen Williams, “Metaphor of the Lower Body: A Corpus-Based and Diachronic Analysis of Metaphoric and Metonymic Locomotion”, unpublished M.A. dissertation, Université Michel de Montaigne-Bordeaux 3, 2008.)
- 36 Jean-Rémi Lapaire, “The Meaning of Meaningless Grams – Or Emptiness Revisited”, in Wieslaw Oleksy and Piotr Stalmaszczyk (eds.), *Cognitive Approaches to Language and Linguistic Data*, Frankfurt/M.: Peter Lang, 2009.

cognitive poses like *viewing*, *observing*, *standing*, *pushing*, *pulling*, *seizing*, etc., but it is also shown interacting physically and perceptually with *objects of conception and experience*, i.e. the “people” and “things” that are looked at, faced up to, dragged or kicked about, left behind, etc.

The conversion of meaning and experience into animate *actors* or inanimate *entities* is an essential cognitive operation known as *conceptual reification*.³⁷ Meanings, situations, and experiences are turned into objects or substances that can be *seized* upon (like “ideas”, “statements”, “excuses”), *grasped* (like “essentials”, “opportunities”, etc.) and *handled* (like difficult “cases” or “situations”), *put at a distance* or examined *closely*, etc. The abstract objects of conception are usually placed or located inside abstract *regions*, where they can be accessed and interacted with. Depending on the context, the regions may be *conceptual spaces* (like semantic *fields*, *areas* of knowledge or *domains* of meaning), *temporal spaces* (like *chunks* or *stretches* of time), *discourse* or *narrative spaces*, etc.

As the IBC engages in metaphoric sensori-motor activity, some body parts play a more prominent role than others. Typically, the perceptual and motor scenes involve the EYES (for *watching*, *viewing*, *observing*, *examining*...), the HANDS / ARMS (for *giving*, *taking*, *touching*, *holding*, *binding*, *forming*, *shaping*, *constructing*...), and the FEET / LEGS (for *treading*, *walking*, *kicking*, *moving forward or backward*, *stepping aside*...), with a more marginal use of the EARS, NOSE, SHOULDERS, BACK and STOMACH. The dominant body parts may be regarded as the *salient organs of social cognition and interaction* in the imaginary scenes played out by the IBC.

2.2. The IBC on Stage: “Acting Out” Metaphoric Motion

In ordinary speech, the IBC is the invisible player that is unconsciously invoked by speakers-cognizers to construe and report socio-physical experience (e.g. *We must still weigh options* [HANDS / ARMS] ; *I’ve come to a difficult decision* [FEET / LEGS]). In the kinegrammatic approach to linguistic description, the IBC becomes a *visible actor*, openly involved in the *body-motion conceptualization of grammar*. First, metaphoric catch phrases – or LogoGrams – are associated with grammatical meanings and processes. The phrases are meant to activate imagery related to bodily activity. At this early stage, metaphoric motions and sensations

37 Ronald Langacker, *op. cit.*; Jean-Rémi Lapaire, “Toucher sans toucher ou les contacts fictifs du corps symbolique de la cognition”, *Intellectica*, nos. 53–54 (2010/1–2), pp. 331–358.

operate at a strictly verbal level of representation, and the mental imagery is prompted by words alone, not gestures. Examples include :

- deontic *must*, which is verbally defined as “*Pressure to act*” [HANDS / ARMS] (e.g. *You must come to my party*);
- deontic *should*, defined as “*Showing the right, sensible way*” [HANDS / ARMS + FEET / LEGS] (e.g. *You should consult a specialist*).
- simple *assertion*, defined as “*Establishing / laying down the facts*” [HANDS / ARMS] (e.g. *I live here. She’s 18.*)
- *preterition and prediction / anticipation*, respectively defined as “*Looking back*” and “*Foreseeing / Looking ahead*” [EYES]

The *physical enactment* of the metaphoric movements follows. As bodies move, the verbal imagery acquires outer visibility and develops new kinesthetic properties. Overt visuo-kinetic expression is given to the metaphoric motions and perceptions of the IBC. Verbal metaphors are turned into controlled gestural metaphors.



Figure 7: *Anticipation as “foresight”*



Figure 8: *“Grasping essentials” with the zero article*

Although artificial in form and pedagogical in function, the gestural action does not differ significantly from other types of gestural expression, since it uses the *symbolic resources of the human body*, which can just about represent anything, abstract or concrete, through attitudes, expressions and movements in multidimensional space. What is more, the actual physical moves made during “*kinegrammatic performances*” are based on the standard *repertoire of metaphoric gestural activity* of the IBC. Thus, the manual symbol for “*grasping essentials*” – a gestural metaphor used to characterize the zero-article in English (e.g. \emptyset *Life... \emptyset Beauty... \emptyset Silence...*) – is little more than a physical instantiation of a common metaphor, entrenched in lexical usage. The grasping hands in the short, poetic kinegrammatic piece in Figure 8, belong both to the performer (as physical hands) and to the IBC (as HANDS that can interact symbolically with words and meaning in abstract grammatical space).

3. Grammar As Gestural Action: The Grammar and Motion Workshops

KineGrams may be used in a variety of ways, in different teaching environments. Scenes from the recorded DVD version³⁸ may be shown to research students and analyzed at a purely metalinguistic or metagestural level. Or an introductory study session might be organized for language instructors who want to experiment with LogoGrams and KineGrams in the language classroom. The purpose here is practical rather than theoretical: using visuo-kinetic imagery to facilitate learning and improve language performance, while enhancing student motivation.

As KineGrams are studied and learnt, adjustments are made. The acquisition of kinegrammatic skills never reduces to pure imitation and users should be encouraged to enrich or simplify gestural form, creating new gesture phrases and developing their own performing styles. Classroom work on *grammatical imagery* may also be done using screen captures or simple line drawings (as shown in Figure 1). The pictures taken or diagrams made can be paired with prototypical examples or patterns that illustrate the target grammatical structure. Thus learners are directly exposed to *visual concepts* which are both attention-catching and global-synthetic (Figure 4). Meaning is packed into a single poetic image, and (misleading) translations or (awkward) definitions are avoided.

Still, a more active use of KineGrams can be made, at all levels of linguistic instruction.³⁹ Grammar lessons can be taken out of the language classroom and taught differently in different places: barefooted, inside a gymnasium, a converted warehouse, a film or dance studio, a theatre rehearsal room, etc. Choosing the right venue for a *grammar and movement workshop* is extremely important: room is needed if participants are to move freely across *physical and symbolic space*, and engage emotionally in the activities. Since the *body-motion conceptualization of grammar* is both depictive and performative, verbal and gestural, grammatical meaning must be revealed through words and movements. For this to happen, participants must be ready to perform the metaphoric motions of the

38 Lapaire–Masse, *op. cit.*

39 Experimental *language and movement workshops* have been successfully run by the author, in collaboration with dance and drama teachers, at different levels of instruction, ranging from elementary school level (*Projet pédagogique "Let's Dance"*, Rennes, France, 2011), to university (*Ateliers "Grammaire et expression corporelle"*, Bordeaux 2009–11) and international symposium levels (*Lengua y cultura: tendiendo puentes a través de las artes*, Pinar del Rio, Cuba, 2007; *Teatro in Lingua, Lingua in Teatro*, Vercelli, Italy, 2011). Unfortunately, lack of space and prohibitive publishing costs prevent us from printing a selection of the pictures taken during the sessions.

IBC confidently. But performing symbolic acts of manipulation and motion publicly is a highly unusual exercise, so anxiety and self-consciousness are likely to run high. Therefore, great attention must be paid to warming up exercises, especially while opening the first sessions. Simple walking exercises are, by far, the safest option, since they require no particular dramatic or choreographic skill from participants: walking alone or in pairs, slowly or rapidly, shyly or confidently, self-absorbedly or communicatively, with or without making eye-contact with others... Stopping, stooping, adding head or hand movements, freezing... More focused exercises can also be added that introduce students to the domains about to be explored in the workshop.

In recent workshops devoted to “aspectual meanings”, invisible *action paths* or *lines of thought* were traced by students, as they walked from one end of the hall to the other.⁴⁰ Each participant invented a particular gesture sequence and allowed it to develop through time and space. Work on the division of a *dynamic process* into a series of *component states* followed. Participants were asked to focus mentally and visually on the opening, middle, closing and final moments of the “action-journey”.⁴¹ Initial, middle and final resultant “location-states” were explored, then used to discuss the aspectual notions of *ingression*, *progressiveness* and *perfectiveness*. Final resultant states had to provide a visible sense of achievement. Work was also done on the social grammar of *interpersonal manipulation* (“using language to get others to do things”). The inbuilt dramatic organization of grammar became visually explicit as scenes of persuasion, resistance or negation were choreographed. How do speakers get people *to go where they want them to go*? In a *straightforward* or *roundabout* way? Gently? Roughly? How does the addressee *resist the socio-physical forces of coercion*?⁴² An opportunity was provided to understand how polite imperatives work in English (e.g. *Please + V*), and to analyze the tentative uses of the past with modal verbs or verbs of volition / cognition (e.g. *I wanted to ask you ... I thought it might be a good idea to...*). Soft, rounded hand gestures were spontaneously produced by participants during the analysis of polite forms of address.

The socio-cultural grammar of *negation* is equally interesting to explore in visuo-kinetic mode. The spatial representation of negation requires the division of students into separate groups: those playing the part of the *obstacle standing in the way*, those trying to *force their way through*, and finally those who manage to *get around easily*. Characteristically, Asian students experience difficulty

40 Paths to planned or unplanned, desired or forced, destinations were also traced to define the grammatical notions of *purpose*, *result* and *necessity*.

41 Lakoff – Johnson, *Philosophy in the Flesh*.

42 Cf. Sweetser, *op. cit.*

playing the part of the obstructing character. They often shy away, as if too reluctant or embarrassed to confront the addressee directly. This feeling of uneasiness provides a perfect opportunity to explore cross-cultural differences in the sociopragmatic treatment of negation and conflict. The discussion usually leads to a sociophysical analysis of apologetic negatives in British English (e.g. *I'm afraid you can't...*). Such forms also encode feelings of reluctance or embarrassment, while catering to the face needs of the addressee.

Other types of gestural action may be used to study negation, which are based on *manipulation* rather than locomotion. Thus proposals or suggestions may be treated as invisible objects that are put forward for consideration. The IBC's metaphoric HAND movements are *giving* (for “offering”), *taking* (for “accepting”, cf. Lat. *capere*), and *throwing* (for “rejecting”, cf. Lat. *jacere*), as reflected in idioms like *It's up for grabs. He took back his offer. I won't have it*, etc. (cf. Figure 9).



Figure 9: “Giving, taking, rejecting”

“Manipulation stories” that evoke “an actor’s physical manipulation of an object”,⁴³ like grasping, pushing, pressing, pulling, throwing, shaking, shaping, etc. are also useful to represent highly abstract mental activity. Construing cognizers as “movers and manipulators”⁴⁴ can yield interesting results in the epistemic domain. As hypotheses are formed, with various degrees of certainty, invisible interpretive *structures* are built manually which *stand* or *fall apart*, unless they are *brushed aside* by the speaker himself (e.g. *He must have missed his train* vs. *He can't have missed his train*). Blocks of evidence may be gathered and piled up that make the hypothesis look strong or shaky (e.g. *She must be French* vs. *She may / might be French*).⁴⁵

The essence of grammar, students eventually come to realize, is *posture*: how we *stand* in relation to events and concepts, truth and reality (“epistemic stance”); how we *stand* in relation to people (“social stance”), how our own minds act as if they were *bodies moving through space*,⁴⁶ constantly interacting

43 Turner, *The Literary Mind*, p. 27.

44 *Ibid.*, p. 35.

45 For a discussion of the physiology of epistemic modal meanings, see Jean-Rémi Lapaire, “From Sensory to Propositional Modality: Towards a Phenomenology of Epistemic Modal Meanings”, *Corela*, vol. 4, no. 1 (2006), cf. <http://www.revue-corela.org>.

46 Sweetser, *op. cit.*

with concrete and abstract entities. As grammatical meanings are explored physically, it becomes apparent that *social interaction* with other humans and *mental interaction* with ideas are conceived as “spatial action-stories”, i.e. stories in which social agents and cognizers behave as *movers* or *manipulators*.⁴⁷ So natural is the connection between physical, social or mental *action* and physical, interpersonal or mental *movement* that participants have no real difficulty using *bodily stances* and *motion*, literally and symbolically, to explore the relation between grammar and *socio-cognitive activity*.

Concluding Remarks

The hidden cognitive mechanisms of grammar can be made visible and meaningful by using special iconic, deictic and metaphoric gestures – or KineGrams. This peculiar kind of gesture symbolism requires the creation, observation and *fictive manipulation of imaginary objects of conception*, as well as a highly plastic and symbolic use of space in order to form *conceptual regions* and represent *domains of experience*. In this visuo-kinetic rendering of grammatical processes and meanings, *speakers-cognizers* are cast in the role of *viewers* and *movers* who adopt a number of *socio-cognitive* and *socio-pragmatic stances*: “standing” or “falling (down, apart)”, “leading” or “following”, “opening” or “barring the way”, “moving closer” or “away”, “offering” or “rejecting”, “splitting (into parts)” or “lumping (things) together”, “stretching” or “compressing”, etc.

The visuo-kinetic representation of linguistic concepts validates McNeill's claim that “the abstractedness of an idea is no barrier to its receiving a concrete reality in gesture form”⁴⁸. Yet, more formal research needs to be done to measure the impact of KineGrams on the acquisition of grammatical notions and categories by learners. Does the creation of postural and gestural analogues of grammatical meanings effectively “make more sense”? What sort of “help” does a spatio-kinetic presentation of meanings truly provide? Whatever results are found, KineGrams invite learners to think of *grammatical notions* in terms of *grammatical imagery* and to *experience* grammar as an embodied socio-cognitive *process*, not just a mindless and meaningless *collection of forms*.

47 George Lakoff and Mark Turner, *More than Cool Reason: A Field Guide to Poetic Metaphor*, Chicago: The University of Chicago Press, 1989; Turner, *The Literary Mind*.

48 McNeill, *Hand and Mind*, p. 163.