

Commentary on Martina Lampert's

Attention and Recombinance. A Cognitive-Semantic Investigation into Morphological Compositionality in English

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This very detailed study on attention in language aims “to provide a comprehensive account of how language, at all of its levels, inheres a complex system of attention-directing mechanisms and of how these general attentional mechanisms may affect language” (Lampert 2009, p. 389). Martina Lampert chooses to accomplish this task by systematically applying Leonard Talmy's (2007b) “factor model” of linguistic attention to “a substantive body of semantically coherent, and in part just recently emerging authentic language data” (*ibid.*, p. 389) taken from Web sources: which the author calls the “*emotion* network”.

The book is divided into two main parts. The first part (*ibid.*, pp. 42-161) is a comprehensive and meticulous summary of Talmy's cognitive approach to language: the main principles inspiring his theory of language, his Overlapping Systems Model of Cognitive Organization, his Schematic System of Attention (Chapter III), his system of basic “factors” that set strength of attention (Chapter IV), and his methodology (Chapter V).

The second part (*ibid.*, pp. 162-388, that is, Chapter VI), adopting a bottom-up, data-driven perspective, and moving up from simple to increasingly complex morphological structures (that is, from mono-constituential to poly-constituential linguistic representations), presents attentional analyses that subsequently integrate more “factors” needed to account for the increasing complexity of the linguistic target items. The linguistic target items are drawn “from a cross-section of the

recently emerging lexical network which has *emotion* as its morphological (and conceptual) base” (*ibid.*, p. 162)¹. They range from:

- 1) single morphological constituents (*ibid.*, pp. 170-239), either belonging to the open-class lexical subsystem², such as *emotion*, *emote* (verb and noun), *emo* (noun, adjective and verb) and the free morpheme *emoti* or to the closed-class grammatical subsystem³, such as prefixal negations (*a-*, *de-*, *dis-*, *in-*, *mis-*, *non-*, *un-*,) and suffixal abstractions (*-age*, *-ant*, *-ence*, *-dom*, *-(e)ry*, *-hood*, *-ity*, *-(i)kin*, *-ness*, *-ship*);
- 2) to bi-constituential compositions and composites (*ibid.*, pp. 239-283)⁴, which may either derive from a left- or right-affixal extension of one of the morphological bases identified by Lampert (some examples of affixal extensions are the compositions *non-emotion*, *disemote* and *emodom*), or may be a compound (such as the compositions *after-emotion* and *emo moment*) or a blend (such as the composites *emoment*, *emoage* and *emoticon*);
- 3) to poly-constituential combinations (*ibid.*, pp. 283-316), such the multiplex composition *emotion-feeling*, alphabetisms like *EQ* and *EMO*, and nestings (for example, *overemotionalization*).

Additionally, Lampert also offers a first, tentative account of the attention-related principles at work at:

- 4) the phrase level (*ibid.*, pp. 316-331). At this level Lampert considers an array of linguistic representations of the event frame “A SPEAKER EXPRESSES THEIR EMOTIONS USING THE MEDIUM OF LANGUAGE” that range from condensed compositions such as *emoabc* and *emoalphabet* to

¹ Lampert specifies that there are also three shortenings of *emotion* – the lexicalized back-formation *emote* and the back-clipped forms *emo* and *emoti* – that can be considered as morphological bases of the *emotion* network (Lampert 2009, p. 180).

² The open-class lexical subsystem includes roots of nouns, verbs and adjectives, and collocations.

³ The closed-class grammatical subsystem includes: bound morphemes (inflections, derivations, clitics), free morphemes (determiners, adpositions, conjunctions, particles), grammatical categories (“noun”, “verb”), grammatical subcategories (“mass noun”, “count noun”), grammatical relations (“subject”, “direct object”), word order patterns and “zero” forms.

⁴ Compositions are linguistic constructions characterized by a transparent and referentially predictable structure, while composites are linguistic constructions characterized by an emergent, opaque structure (such as idioms). As Lampert explains: “Following Talmy, two categories relevant for linguistic representations at all levels of (spoken) language must (...) be kept apart: First, those that result from an ‘additive’ (or: computational) combination of semantically and/or formally simplex items, yielding, in the terminology suggested here, *compositions* of variable complexities in accordance with combinatorial rules; second, there are *composites*, which cannot readily be analyzed in terms of a ‘simple’ (additive) computation of their formal constituents and/or semantic components, but only as ‘wholes’ or Gestalts; Talmy’s (2005:14) example is *considerable*, which, as a composition, would have to be understood as ‘able to be considered’, and as ‘fairly great’ when it is a(n emergent) composite” (Lampert 2009, pp. 62-63).

more extended verbalizations such as *emotional language*, *emotion in language*, *verbal emotion*, and *expressing emotion through language*;

- 5) the clause and sentence level (*ibid.*, pp. 350-360),
- 6) and the text level (*ibid.*, pp. 360-374).

According to Lampert: “the greatest asset of Talmy’s approach to attention is its suggestion to conceive of the selective and differential distribution of attention over the components of a referent scene as being grounded in a system of ‘particular linguistic mechanisms’ (...) that inherits its characteristics from general cognition – hence, pays respect for all kinds of attentional variability” (*ibid.*, p. 7). Talmy’s model accounts for this variability “by proposing a relatively closed universally available inventory of attention factors which may be individually combined and (successively) integrated into a comprehensive and highly flexible system of attentional patterns or schemas” (*ibid.*, p. 7). Such attention factors relate both:

to a linguistic representation’s conceptual domain (e.g., referential properties) and to its structural domain (e.g., “formal” or “componential” properties), implying that a linguistic representation’s concrete materialization is especially relevant to an attentional analysis – including phonological characteristics such as suprasegmental features of “vocal dynamics”. The factors likewise relate to a range of targets outside the simple form-meaning dichotomy in the language system (e.g., to properties of the lexicon such as availability conditions or recency of representation in discourse) (*ibid.*, p. 80).

Talmy’s model includes more than fifty attention factors, each one involving

a particular linguistic mechanism that increases or decreases attention on a certain type of linguistic entity. The mechanisms employed fall into some ten categories, most with subcategories. The type of linguistic entity whose degree of salience is determined by the factors is usually the semantic referent of a constituent, but other types occur, including the phonological shape of a constituent, or the local delivery of the utterance. Each factor contrasts a linguistic circumstance in which attention is increased with a complementary circumstance in which it is decreased. A speaker can use a factor for either purposes – or in some cases for both at the same time. For some factors, increased attention on a linguistic entity is regularly accompanied by additional cognitive effects, such as distinctness, clarity, and significance, while decreased attention correlates with such converse effects as melledness, vagueness, and ordinariness (Talmy 2007b, p. 264-265).

Let us examine the attention factors identified by Talmy as they are summarized by Lampert (2009)⁵, briefly describing how they govern the distribution of attention in language.

(A) Factors involving properties of the morpheme⁶

⁵ It must be noted that Talmy has not yet offered a final and definitive version of the factors, and that his work is still in progress (2003, 2007b, 2008b). Therefore the list presented by Lampert (2009) can also be considered a provisional one.

(Aa) Formal Properties of the Morpheme

(Aa1) Expression in one or another lexical category.

A concept tends to be more or less salient in accordance with the lexical category of the form representing the concept. Open-class categories in general lend more salience than closed-class categories. Within open-class categories, nouns may tend to outrank verbs while, within closed-class categories, forms with phonological substance may tend to outrank forms lacking it.

(Aa2) Degree of morphological autonomy

A concept tends to receive greater attention - and abetted by that attention, greater distinctness and clarity - when it is represented by a free morpheme than by a bound morpheme.

(Ab) Componential Properties of the Morpheme

(Ab1) Solo vs. Joint Expression of a Component in a Morpheme

When a concept constitutes the sole and entire referent of a morpheme, it tends to have greater salience and individuated attention, but when it is conflated together with other concepts in a morpheme's reference, it tends to be more backgrounded and to meld with the other concepts.

(Ab2) The ensemble vs. the individual components of a morpheme's meaning

A language user directs more attention to the combination or ensemble of the semantic components that make up the reference of a morpheme than to the individual components themselves. That is, more attention is on the Gestalt whole of a morpheme's meaning than on its parts.

(Ab3) Weighting among the components of a morpheme's meaning

One semantic component within the meaning of a morpheme can be more salient than another. That is, the semantic components expressed by a morpheme can have different attentional weightings.

(Ac) Frame and prototype properties of the morpheme

(Ac1) A morpheme's direct reference vs. associated concepts

The set of concepts directly expressed by a morpheme is more salient than concepts only associated with that direct reference.

(Ac2) Degree of Category Membership

When an addressee hears a morpheme, more of his attention is on the prototype member of that morpheme's referent, or on an entity with a greater degree of membership, than on a peripheral or lower-degree member.

(Ad) Polysemy Properties of the Morpheme

(Ad1) Size of the polysemous range of a morpheme

A concept tends to be more salient when it is expressed by a morpheme that has a smaller polysemous range and that accordingly can express fewer other concepts, than when it is expressed by a morpheme with a larger polysemous range covering more concepts.

(Ad2) Weighting among the senses of a polysemous morpheme

The various senses of a polysemous morpheme can be differently weighted with respect to how readily they are evoked by the morpheme. That is, when a listener hears the morpheme, some of its senses may come to mind more strongly, while other senses are more obscure.

⁶ Talmy defines a morpheme as any "minimal linguistic form with an associated meaning. This thus includes not only simplex morphemes, but also idioms like *turn in*, *go to sleep*, and constructions like the English auxiliary-subject inversion meaning 'if', as in *had I known her*" (Talmy 2008a, p. 29).

(B) Factors involving Morphology and Syntax

(Ba) Grammatical and Constructional Properties

(Ba1) Positioning at Certain Sentence Locations vs. Other Locations

Each language may have certain locations within a sentence - e.g., initial position or pre-verbal position - that tend to foreground the referent of a constituent placed there. Such added salience usually accompanies or facilitates a further cognitive effect, such as making that referent the target of a conceptual contrast.

(Ba2) Expression in One or Another Grammatical Relation

A cline of greater to lesser prominence tends to be associated with nominals in accordance with their grammatical relation in a sentence as follows: subject > direct object > oblique, with greater attention tending to be focused on the entity mentioned as subject.

(Ba3) Head vs. Dependent Constituency within a Construction

The concept expressed by a nominal is more salient when the nominal is the head constituent of a construction than when in the dependent constituent.

(Bb) Compositional Properties

(Bb1) The Composition vs. its Components

There is a general tendency for more attention to go to the meaning of the whole of a composition than to the meanings of its linguistic constituents. This tendency manifests itself at two levels of linguistic organization: the morphemes that make up a word, and the words that make up a phrase or clause.

(Bb2) An idiomatic vs. a Compositional Meaning

The concept represented by an expression being used as an idiom is more salient than any concept represented compositionally by that expression.

(C) Factors involving Forms that Set Attention Outside Themselves

(Ca) Specific linguistic forms with an attentional effect outside themselves

(Ca1) A form designating an outside referent as the object of attention

A morpheme or construction can set the level of attention on the referent of a constituent outside itself.

(Ca2) A form designating a concomitant of an outside referent as the object of attention

An attribute of a constituent (other than the referent) is more salient when a morpheme intrinsically stipulating greater attention on it is in construction with the constituent than when one is not.

(Ca3) A form designating an outside entity or phenomenon as the object of attention

A feature of the current context is more salient when a morpheme intrinsically stipulating greater attention in conjunction with a device for indicating the feature is present than when one is not.

(Cb) Context with an attentional effect outside itself

(Cb1) Context designating one sector of a morpheme's extended reference as the object of attention

A part of the extended reference of a morpheme that is more relevant to the context of the morpheme than other parts is more salient than those other parts.

(Cb2) Context designating one of a morpheme's multiple senses as the object of attention

A sense of a polysemous or homophonous morpheme that is more relevant to the context of the morpheme than other senses is more salient than those other senses.

(D) Phonological Factors

(Da) Phonological properties of intrinsic morphemic shape

(Da1) Morpheme length

The concept expressed by a morpheme is more salient in proportion to the phonological length of the morpheme.

(Da2) Phonological similarity to other morphemes in the lexicon

The phonological shape of an uttered morpheme may tend to activate (in the sense of raising or potentiating a rise in attention) other similar-sounding morphemes in the language's lexicon. This effect can be desirable when the activated morphemes enhance the communicative intention, or undesirable if they detract from it.

(Db) Extrinsic phonological properties on a constituent

(Db1) Degree of stress on a constituent

The concept expressed by a constituent is more/less salient where the stress on the constituent is above/below the unmarked amount than where it is not.

(Db2) Length change in a constituent

The concept expressed by a morpheme is more salient when the length of a segment in the morpheme is increased from the unmarked length than when it is not.

(Dc) Intrinsic phonological properties over an expression

(Dc1) Vocal dynamics

The concept expressed by an utterance is more salient in proportion to the amount by which the volume is above the norm.

(Dc2) Intrinsic phonological similarity over an expression

The phonological shapes of forms in an expression (and the forms bearing them) are more salient when those shapes contain a similarity recurring over the expression than when they do not.

(Dc3) Extrinsic phonological similarity over an expression

The stress patterns on the forms in an expression (and on the forms bearing them) are more salient when those patterns contain a similarity recurring across the expression than when they do not.

(Dc4) Unmarked pattern of stress assignment

The concept expressed by a constituent in an expression is more salient when the constituent receives greater stress due to the unmarked stress pattern over the expression than when it receives less stress.

(E) Factors involving Properties of the Referent

(E1) Referential divergence from norms

A referent's divergence from certain norms tends to foreground it. Such norms, and deviations from them, include: ordinariness vs. unusualness; neutral affect vs. affective intensity; and genericness vs. specificity. For example, in the case of cultural and other experiential norms, a more unusual referent tends to attract greater attention than a more ordinary referent.

(E2) Direct reference to attention in the Addressee

An entity is more/less salient where there are explicit directions to the hearer to attend more/less to that entity than without such directions.

(F) Factors involving the relation between the reference and its representation

(F1) The reference vs. its representation

More attention goes to the concept expressed by a linguistic form than to the shape of that form. That is, a form's reference is more salient than how the form is constituted as a representation.

(F2) Intended vs. actual reference and representation

The hearer's attention tends to focus more on the speaker's inferably intended reference and its presumed well-formed representation, than on the speaker's actual representation and its literal reference.

(F3) Degree of deviation by the actual representation from the intended one

Beyond a grace amount, the infelicity of an expression as well as its form (and meaning) are more salient in proportion to the deviation of the expression from the inferably intended reference and its well-formed representation.

(G) Factors involving the occurrence of representation

(Ga) The inclusion of representation

(Ga1) Presence vs. absence of Explicit representation.

The presence within discourse of overt linguistic forms explicitly referring to a concept foregrounds the concept. And the absence of forms referring to a concept that might otherwise be represented backgrounds that concept. This is the factor underlying the whole of the "windowing of attention" analysis in Talmy (2000a).

(Ga2) The occurrent reference instead of alternatives

The speaker's choice of one expression among alternatives (a foundational property of language that was termed "conceptual alternativity" in Talmy 2000a) ends up as a linguistic device for attention setting: overtly expressed concepts tend to attract more attention than concepts that are only inferred.

(Gb) The availability of representation

(Gb1) Presence vs. absence in the Lexicon of a morpheme for a particular concept

A concept expressed by a morpheme that occurs in a lexicon is more salient than a concept without such representation (in the sense that the presence in the speaker's lexicon of a morpheme that represents a certain concept facilitates that concept's appearance in the speaker's consciousness).

(Gc) Requirement of representation

(Gc1) Obligatory vs. optional representation of a conceptual category

A category within (the conception of) a situation is more salient when its representation is obligatory than when it is not.

(Ge) Amount of representation

(Ge1) Density of representation

A concept is more salient in proportion to the density of representation of it (of reference to it).

(H) Factors involving properties of temporal progression

(Ha) The recency of representation

(Ha1) Current vs. prior forms

One aspect of a hearer's attention, it seems, tends to be more on the linguistic forms currently being uttered by the speaker than on previously uttered forms.

(Ha2) Recency of last reference or occurrence

The more recently a phenomenon has been referred to or has occurred, the more the hearer's attention remains on that phenomenon or the more readily the hearer's attention can be directed back to it.

(I) Factors involving properties of the speech context

(Ia) The production of speech

(Ia1) presence vs. absence of speech

Speech and its content are more salient than silence.

(Ia2) A speaking vs. a silent participant

A participant producing speech is more salient than one who is not.

As Talmy's research shows, the existence of such factors can be independently motivated by the working of the major, non-linguistic cognitive systems. Indeed, the fundamental mechanisms governing the major cognitive systems⁷ are neither system-specific only, nor are they determined by general cognitive features alone: that is, cognitive systems are neither encapsulated, autonomous modules, nor are they general purpose modules. Instead, the relation between such major cognitive systems is characterized by varying degrees of overlap and independence. As Talmy states, "the general finding is that each cognitive system has some structural properties that may be uniquely its own, some further structural properties that it shares with only one or a few other cognitive systems, and some fundamental structural properties that it has in common with all other cognitive systems" (Talmy 2000a, p. 16)⁸.

Moreover, as Lampert highlights, the existence of the factors identified by Talmy and the predictions they imply are supported by the observations and findings of psychological research.

⁷ According to Talmy, the major cognitive systems that can be distinguished in animals include perception, motor control, affect, reasoning/inferencing, attention, memory, language and culture (Talmy 2000a, 2000b).

⁸ The extensive degree of the link-ups between language and the other major cognitive systems is accounted for in Talmy's work by his Overlapping System Model of Cognitive Organization (Talmy 2000a, 2000b).

For example:

- the rank scale assumed under factor Aa1 (open-class items score higher in attentional weight than closed-class items; within open-class categories, nouns tend to outrank verbs; etc.) may “independently be motivated with reference to the basics of (visual) perception – concrete objects are more salient than schemas; objects outscore properties and relations – and to ontogenesis, where a clear object name bias is found across languages in the early acquisition of infants’ lexicon” (Lampert 2009, p. 86);
- the differential attentional value in the componential properties of morphemes highlighted by factor Ab1⁹ “is supported by evidence from visual feature integration research according to which objects that consist of elementary features are discriminated earlier and more reliably than those that require a conjunction of features” (*ibid.*, p. 88);
- attentional priority, predicted by factor Ab2, of the ensemble or Gestalt over the parts constituting it, is amply confirmed in perception studies by the phenomenon known as “global precedence effect” (*ibid.*, p. 89);
- factor Ac2’s prediction about the higher prominence assigned to the prototype member of a morpheme’s referent than to a peripheral member, is supported by Eleanor Rosch’s studies and the findings that “the prototype of a category is regularly associated with, e.g., saliency, ease and/or speed of recall, and early acquisition” (*ibid.*, p. 93);
- attentional priority, assumed by factor Ba1, of certain sentence locations vs. other locations, “correlates with robust findings of verbal memory research, where in free recall experiments participants consistently produce significantly better results in remembering the initial and the final items from a list (...) These two elevated recall levels are known as recency effect and primacy effect, respectively” (*ibid.*, p. 96);
- The foregrounding and backgrounding effects predicted by factor Cb2 parallel, respectively, the cueing and masking effects highlighted by cognitive psychology (*ibid.*, p. 109).

In Chapter IV, Lampert exemplifies most of the factors with a linguistic representation from the *emotion-network*. Table 1 shows some of these examples.

⁹ Talmy exemplifies this factor in the following way: “The concepts ‘parent’ and ‘sister’ each receive greater individual attention when expressed alone in a separate morpheme *parent* and *sister*, as in *one of my parents’ sister*. But they receive less individual attention when expressed together in the single morpheme *aunt*, as in *one of my aunts*” (Talmy 2007b p. 269)

Table 1. Lampert's (2009) examples, from the emotion-network, of Talmy's attention-related factors

Attention-related factors	Examples from the <i>emotion-network</i> (the symbol ">" stands for "is more salient/scores higher in attentional terms than")
(Aa1) Expression in one or another lexical category.	<i>Emotion</i> > <i>emote</i> (verb); <i>emotionalize</i> > <i>emote</i> (transitive) (because the closed-class bound morpheme {-ize} is made phonologically overt, while in <i>emote</i> the same conceptual content "cause" is represented aphonologically and jointly with the "emotion" meaning)
(Aa2) Degree of morphological autonomy	<i>Emotion</i> in <i>emotional</i> scores higher than {-al}
(Ab1) Solo vs. Joint Expression of a Component in a Morpheme	<i>Unemotional</i> > <i>emotionless</i> (because the two concepts "negative" and "quality" in <i>unemotional</i> are represented solo by {un-} and {-al} respectively, thus foregrounding each of the two concepts, whereas in <i>emotionless</i> the suffix {-less} conflates the two concepts in a joint expression, resulting in a decrease of either concept's prominence)
(Ab2) The ensemble vs. the individual components of a morpheme's meaning	In view of this factor, it is the Gestalt-like meaning of <i>emoticon</i> ("a sequence of printable characters or a small image that is intended to represent a human facial expression and convey an emotion") which is more attended to than the reference to the morpheme's two component meanings ("icon representing an emotion")
(Ac1) A morpheme's direct reference vs. associated concepts	In <i>emoter</i> , {-er} selects only the agent of the underlying causal reference scene for windowing while gapping the other regularly associated participants, that is, the cause(s), the instrument(s), the patient(s), etc.
(Ac2) Degree of Category Membership	<i>Emotion</i> > <i>emo</i> (because the former represent the concept "emotion" in a more prototypical way than the latter)
(Ad1) Size of the polysemous range of a morpheme	<i>Emoticon</i> and <i>emotivism</i> > <i>emo</i> (because the polysemy range of the former approximates zero, while the latter has acquired a considerable range of meanings distributed over various lexical categories)
(Ba1) Positioning at Certain Sentence Locations vs. Other Locations	The "negative" is more salient in <i>unemotionality</i> , due to the initial position's primacy, than in <i>emotionlessness</i> , where the same conceptual content is associated with a constituent in an attentionally inferior (medial) location
(Ba2) Expression in One or Another Grammatical Relation	<i>Emoter</i> > <i>emotee</i> (because the suffix {-er} prototypically designates an "agent", i.e., the entity that causes the emotion, while the suffix {-ee} designates the experience or undergoer of the emotion)
(Ba3) Head vs. Dependent Constituency within a Construction	<i>Language of emotion</i> receives the reverse attentional adjustment for each of its constituents when compared with <i>emotion in language</i> : in the former, <i>language</i> represents the head constituent of the phrase, in the latter it is part of the dependent constituent
(Bb1) The Composition vs. its Components	In <i>emotionnalsee</i> , <i>emospeak</i> , <i>emobabble</i> , <i>emo lingo</i> , the overall meaning of the composition receives more attention than the meanings of the constituents that make it up
(Ca2) A form designating a concomitant of an outside referent as the object of attention	In a written structure such as (<i>un</i>) <i>emotional</i> , the parentheses are "forms that redirect attention to a constituent outside themselves", that is, to the double assertion of both <i>emotional</i> and <i>unemotional</i>
(Cb2) Context designating one of a morpheme's multiple senses as the object of attention	Depending on the context, either the attributive or the causative meaning of the adjectival suffix {-ive}, as they are instantiated in <i>emotive</i> (respectively, "characterized by emotion" and "tending or designed to arouse emotion"), will be foregrounded, masking its respective alternative
(Da1) Morpheme length	<i>Emotion</i> > <i>emo</i> (emotion)
(Da2) Phonological similarity to other morphemes in the lexicon	<i>Emocracy</i> would, by mere phonological similarity, most probably activate <i>democracy</i>
(Db1) Degree of stress on a constituent	Ample evidence is available in the spoken as well as in the written medium: EMO CRACY; THE EMOITE OF ELITE.
(Db2) Length change in a constituent	In the visual modality of the Internet, this factor's attentional effect might be found in the corresponding strategy of letter repetition, as in (the initial vowel) <i>eeemo</i> or in (the final vowel) <i>emoooo</i>

(Dc2) Intrinsic phonological similarity over and expression	Take the sentence <i>The aim is to depersonalize and de-emotionalize the issue</i> . The structurally identical (lexicalized) composition <i>depersonalize</i> may be understood to contextually trigger (or give rise to) the ad-hoc form(ation), <i>de-emotionalize</i>
(E1) Referential divergence from norms	<i>Inemotional, a-emotional, and disemotional</i> > <i>unemotional</i> and <i>non-emotional</i>
(F1) The reference vs. its representation	The referential (near-)identity of <i>unemotional, inemotional, non-emotional, and emotionless</i> overrides any structural differences between the expressions
(Ga2) The occurrent reference instead of alternatives	Comparing <i>emoter</i> and <i>emote</i> , we see that different suffixes select different aspects from the conceptual complex “causing emotion” for linguistic representation: <i>emoter</i> highlights the agent’s perspective on the causative event while necessarily backgrounding the patient’s, whereas <i>emote</i> reverses the perspective.
(Gb1) Presence vs. absence in the Lexicon of a morpheme for a particular concept	The monomorphemic <i>emote</i> is more foregrounded than the semantically equivalent representations <i>express emotion, especially in an excessive or theatrical manner, make an emotional display, give expression or emotion to, in a stage or movie role</i>

In Chapter VI, adopting a bottom-up perspective, Lampert uses attention-related factors to analyze individual instances of compositions and composites, drawn from the *emotion*-network, of increasing linguistic complexity (single morphological constituents, bi-constituential compositions and composites, poly-constituential combinations, phrase level, clause and sentence level, text level). For each linguistic target item she specifies all the relevant attention-allocating factors’ value. This allows her to identify:

- a) instances of “systemic interaction of attention factors (alternatively recombining, converging or competing)” (*ibid.*, p. 162) at the various levels of linguistic complexity, which can “yield patterns of differential salience effect such as gradation of strength, reinforcement or conflict” (*ibid.*, p. 162);
- b) recurrent patterns of individual factor values that can reveal potential clusters of basic factor integration.

In order to offer an example of Lampert’s analyses in attention-related factors, I have tried to schematize in an adapted way some of her analyses of the “negative” prefixes belonging to the *emotion*-network. Table 2 shows the attentional weight or salience implied by each factor for each negative prefix. It must be noted that: (1) the positive (+) and negative (-) signs are not intended to convey an all-or-none/yes-or-no reading, which would be at odds with Talmy’s gradient conceptualization, as well as with neuroscientific findings; rather they are intended to show an increase or decrease in attentional salience, respectively, that can be either gradient, dichotomous or hierarchical in nature; (2) Lampert clearly states that some analyses, especially those involving prototypicality and colloquiality, need empirical investigation in order to be confirmed: therefore, in such cases the positive and negative signs indicate a “tendency” toward increase or decrease of

attention; (3) the table does not show those factors that have discourse or text as their domain of application.

Table 2. Lampert’s attention analysis of prefixal negations in the emotion-corpus (“+” = increase in attentional salience; “-” = decrease in attentional salience; n.a. = not applicable; n.c. = need contextualization to be assessed; m.r. = of marginal relevance)

Attention-related factors	Prefixal negation in the <i>emo(tion)</i> -network					
	a-	anti-	de-	in-	non-	un-
Aa1	-	-	-	-	-	-
Aa2	-	-	-	-	-	-
Ab1	+	+	+	+	+	
Ab2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ab3	n.a.	n.a.	n.a.	n.a.		
Ac1	+	+	+	+	+	+
Ac2	-	+		+	+	+
Ad1		+	-	+	+	-
Ad2		n.a.	n.c.	n.a.	n.a.	
Ba1	+	+	+	+	+	+
Ba2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ba3	-	-	-	-	-	-
Bb1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bb2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ca1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ca2	+	+	+		+	+
Cb1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cb2	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.
Da1	-	+	-	-	+	-
Da2	m.r.	m.r.	m.r.	m.r.	m.r.	m.r.
Db1	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.
Db2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dc1	+	+	+	+	+	+
Dc2	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.
Dc3	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.
Dc4	+	+	+		+	n.c.
E1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
F1	+	-	-			n.c.
F2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
F3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ga1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ga2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gb1	-	+	+		+	
Gc1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

As Lampert summarizes:

Attentionally, the prefixes are found to display a rather homogeneous behavior – with only minor differences in terms of direct reference and associated concepts (Frame and Prototype Properties) and, provided a polysemy view is adopted, the Polysemy Properties of the Morpheme, affecting the ensuing assessments in the Context Factors Cb, of course (...) Also, some difference in phonological properties (Morpheme Length Da1 as well as Similarity Da2) and phonetic quality (Vocal-Dynamics Factor Dc1 and Unmarked Pattern of Stress Assignment Dc4) are seen to attentionally discriminate between the negative prefixes, as there are recorded differences in terms of colloquiality and frequency/productivity (Gb1) (*ibid.*, p. 220).

According to Lampert, the analysis of attention-related factors can also be used to investigate the phenomenon of the selection by a language user among structural variants that can be considered near-equivalent in their conceptual content: a phenomenon that can “be attributable not primarily to subtle semantic nuances, but preeminently, to specific attention factors interacting differently” (*ibid.*, p. 164). For example, comparing the attentional effects of the negative adjectives *unemotional* and *emotionless*, which can be assumed to be nearly equivalent in meaning, it can be seen that while {un-} is accorded a relatively high salience on account of the factors Ab1, Dc4 and1, {-less} is backgrounded because of these very same factors: “it may well be that this specific attentional profile proves the relevant determinant of lexical choice”, concludes Lampert (*ibid.*, p. 341).

Generally speaking, I think that the analyses of attention factors as they have been identified by Talmy highlights a very important aspect of the use that can be made of language in piloting human attention: that is, how language, addressing and guiding a language user’s attention in specific ways, contributes to present semantic components and concepts in a certain way. I also think that Lampert’s work, with its very detailed and in-depth analysis of the attentional factors of linguistic items drawn from the lexical *emotion*-network, offers a noteworthy and paradigmatic exemplification of how Talmy’s ideas can be applied.

However, in my opinion, there is a main limitation to Talmy’s approach: privileging what can be called the *representational* aspect of attention, that is, how it can be used to filter, select, amplify and sustain already-formed semantic components and concepts, it tends to ignore or overlook what some authors call the *constitutive* aspect of attention: that is, its power to constitute and form semantic components and concepts, as well as all those linguistic meanings that do not derive from any concept (Benedetti 2009, Ceccato and Zonta 1980, Marchetti 2001, in press).

In fact, Talmy’s approach conceives semantic components and concepts as something already constituted and present, and attention factors as tools that can make them more salient by filtering, selecting, amplifying, sustaining and foreground them (but not as tools that constitute them). Just consider as an example the definition he gives of factor Aa1 (“a concept tends to be more or less

salient in accordance with the lexical category of the form representing the concept”), Aa2 (“a concept tends to receive greater attention when it is represented by a free morpheme than by a bound morpheme”) Ab3 (“one semantic component within the meaning of a morpheme can be more salient than another”), Ad1 (“a concept tends to be more salient when it is expressed by a morpheme that has a smaller polysemous than when it is expressed by a morpheme with a larger polysemous range covering more concepts”), Bb1 (“there is a general tendency for more attention to go to the meaning of the whole of a composition than to the meanings of the linguistic constituents that make it up”), Cb2 (“a sense of a polysemous or homophonous morpheme that is more relevant to the context of the morpheme than other senses is more salient than those other senses”), and Ga1 (“the presence within discourse of overt linguistic forms explicitly referring to a concept foregrounds the concept”): none of his factors is devised as an analytic tool to directly explain and investigate how attention builds semantic components, concepts and linguistic meanings not derivable from any concept. On the contrary, they are devised to explain only how attention presents already-built and –existing semantic components and concepts.

In this view, the use of most of the attention factors identified by Talmy does not allow researchers to directly analyze semantic components, concepts and linguistic meanings not derivable from any concept, but only to support, in an indirect and complementary way, semantic analyses performed with different and dedicated analytic tools¹⁰.

Most probably this main limitation of Talmy’s approach originates from considering:

(i) language in general and linguistic meanings in particular as a means of expressing concepts and semantic components. In Talmy’s own words:

Semantics simply pertains to conceptual content as it is organized in language. Hence, the word “semantic” simply refers to the specifically linguistic form of the more generic notion “conceptual” (...) And while linguistic meaning - whether that expressible by an individual language or by language in general – apparently involves a selection from or constraints on general conception, it is qualitative of a piece with it. Thus, research on cognitive semantics is research on conceptual content and its organization in language and, hence, on the nature of conceptual content and organization in general (Talmy 2000a, p. 14).

¹⁰ Concerning the use of attention in semantic and linguistic studies, I think that Lampert’s complaints about the “deplorable state of research on attention and language” (Lampert 2009, p. 6) deserves to be at least mitigated if not completely corrected. In fact, there is a long and outstanding tradition of research that tries to analyze language and meaning in attentional terms: for example, see Benedetti 2005, 2009, Ceccato 1969, Ceccato & Oliva 1988, Ceccato & Zonta 1980, Marchetti 1993, Vaccarino 1981. In my view, rather than complaining about “the deplorable state of research on attention and language”, it would be more correct to complain about “the deplorable level of attention and interest paid by researchers and scholars to research done on attention and language”.

(ii) concepts and semantic components as something already formed and existing independently of the attentional activity of the subject. In this view, language users can just select a mode of representation from among the different alternatives available in a language to differently express the same conceptual complex. In Talmy's words:

A speaker can generally choose a number of different subsets of aspects from the original conceptual complex, and each of these alternative subsets could be used equally well by the hearer to flesh out something like the original complex. This is a foundational property of language that was termed conceptual alternativity in Talmy (2000a, Chapter 3). Nevertheless, such alternatives of expression are not attentionally equivalent. Where one expression explicitly represents one set of concepts, leaving the hearer to infer the remaining concepts, another expression would directly express some of the previously inferred concepts, while leaving to inference some concepts previously expressed overtly (Talmy 2007b, p. 287).

Point (ii) is exemplified by Lampert's illustration of "conceptual alternativity", in which she compares the suffixes in *emoter* and *emotee*:

These compositional structures select different aspects from the conceptual complex "causing emotion" for linguistic representation, i.e., *emoter* highlights the agent's perspective on the causative event while necessarily backgrounding the patient's, whereas *emotee* reverses the perspective (Lampert 2009, p. 124).

As one can see also from this example, attention is conceived as something that is just used to select, filter or foreground (or background) something that *already* exists (the complex "causing emotion"). That is, attention is not used to explain how the complex "causing emotion" is generated, but how it is represented.

By highlighting this limitation of Talmy's approach, I do not intend to say that the attention factors he identified are not useful to analyze how attention constitutes, organizes and structures linguistic meanings derivable from concepts. What I mean is that:

- (1) the factors he identified are not sufficient, or are not sufficiently refined to also analyze semantic components, concepts and linguistic meanings not derivable from any concept. This purpose requires: a dedicated theoretical framework, such the one developed by Attentional Semantics (Marchetti 2003, 2006) or Operational Semantics (Benedetti 2009); more specific conceptual and analytic tools, such as the operations of "presence keeping" and "comparison" (see Bendetti 2009); to take into account the various phases of the operation of attentional focalization (attention can be engaged on a target, disengaged from it and shifted to a new target) and the various durations and levels of size and of intensity at which attention can be applied (see Marchetti 2003).

(2) the probable cause of this limitation lies in his notion of linguistic meaning as a way of expressing already-formed semantic components and concepts.

Finally, it must be noted that, even if “most” of the attention factors identified by Talmy cannot be used to directly analyze semantic components, concepts and linguistic meanings not derivable from any concept, there is at least one attention factor that can serve this purpose, as Lampert’s analysis shows very well: Ca2. Considering what she calls *parenthetical constructions* – hyphens, single or double quotes, brackets, parentheses, dashes, etc. -, Lampert observes that:

they refer to a referent outside themselves – just in the sense of the foregrounding effect achieved by, say, *Pay attention ...* or *You should note. (...)* While parentheses attract attention to themselves, their (communicative) function is in fact to divert attention away from them to the ‘outside’ referent (*ibid.*, p. 344).

To illustrate this function, Lampert provides the following example from the *emotion*-network:

A provisional paraphrase of *(un)emotional* in its original context *The (Un)Emotional Male* may be then amount to: “Though being *unemotional* may conform to a commonly presupposed stereotype of a male, it is rather the reverse quality ‘emotional’ that may well be a more typical personality trait of males” (*ibid.*, p. 344).

As Lampert explains, the parentheses instruct the recipient to divide his/her attention, so as to make the two contradictory readings simultaneously available:

It is precisely the communicative purpose of a parenthetical construction to make available alternative readings, that is, to instruct the recipient to “deviate from the norm” of processing the composition (as a Gestalt); or, in other words, to instruct addresses to divide their attention between variant readings (*ibid.*, pp. 348-349).

References

- Benedetti, G. (2005). Basic mental operations which make up mental categories. www.mind-consciousness-language.com
- Benedetti G. (2009). The Meaning of the Basic Elements of Language in Terms of Cognitive Operations: Operational Semantics. *Advanced Studies in Biology*, 6: 255-305.
- Ceccato, S. (1969) (Ed.). *Corso di linguistica operativa*. Longanesi. Milano.
- Ceccato, S. and Oliva, C. (1988). *Il linguista inverosimile. Una passeggiata fra esperienze ed esperimenti della parola*. Mursia. Milano.
- Ceccato, S. and Zonta, B. (1980). *Linguaggio consapevolezza pensiero*. Feltrinelli. Milano.
- Lampert, M. (2009). *Attention and Recombinance. A Cognitive-Semantic Investigation into Morphological Compositionality in English*. Peter Lang. Frankfurt am Main.
- Marchetti, G. (1993). *The mechanics of the mind*. Espansione. Roma
- Marchetti, G. (2001). A Theory of Consciousness. www.mind-consciousness-language.com
- Marchetti, G. (2003). Foundations of Attentional Semantics. www.mind-consciousness-language.com
- Marchetti, G. (2006). A presentation of Attentional Semantics. *Cognitive Processing*, 7: 163-194.
- Marchetti, G. (in press). *Consciousness, Attention and Meaning*. Nova Science Publishers Inc. Hauppauge, NY.
- Talmy, L. (2000a). *Toward a Cognitive Semantics. Volume I: Concept Structuring System*. Cambridge, Mass. The MIT Press (Paperback edition 2003).
- Talmy, L. (2000b). *Toward a Cognitive Semantics. Volume II: Typology and Process in Concept Structuring*. Cambridge, Mass. The MIT Press (Paperback edition 2003).
- Talmy, L. (2003). How language directs attention: a report on work in progress. (Logrono-Handout).
- Talmy, L. (2005). Recombinance in the evolution of language. (Rome-Handout).
- Talmy, L. (2007a). Foreword. In M. Gonzales-Marquez, I. Mittelberg, S. Coulson & M. J. Spivey (Eds.), *Methods in Cognitive Linguistics* (xi-xxi). Amsterdam/Philadelphia. John Benjamins Publishing Co.
- Talmy, L. (2007b). Attention Phenomena. In D. Geeraerts & H. Cuyckens (Eds.). *Oxford Handbook of Cognitive Linguistics* (264-293). New York. Oxford University Press.
- Talmy, L. (2008a). Aspects of attention in language. In P. Robinson and E. C. Nick (Eds.), *Handbook of Cognitive Linguistics and Second Language Acquisition* (27-38). New York & London. Routledge.
- Talmy, L. (2008b). The Attention System of Language. A Report on Work in Progress. Retrieved from: <http://wings.buffalo.edu/linguistics/people/faculty/talmy/talmyweb/Handouts/attention1.pdf>
- Vaccarino, G. (1981). *Analisi dei significati*. Armando Armando. Roma.