
Article:
Divjak, D.S. orcid.org/0000-0001-6825-8508, Levshina, N. and Klavan, J. (2016) Cognitive Linguistics: Looking Back, Looking Forward. Cognitive Linguistics, 27 (4). pp. 447-463. ISSN 0936-5907

https://doi.org/10.1515/cog-2016-0095

DE GRUYTER Cognitive Linguistics

Editorial to the Special Issue: "Looking Back, Looking Forward"

Journal:	*Cognitive Linguistics*
Manuscript ID	Draft
Manuscript Type:	research-article
Keywords:	Cognitive Commitment, Sociosemiotic Commitment, Introspection, Experimentation, Quantification
Abstract:	Since its conception, Cognitive Linguistics as a theory of language has been enjoying ever increasing success worldwide. With quantitative growth has come qualitative diversification, and within a now heterogeneous field, different – and at times opposing – views on theoretical and methodological matters have emerged. The historical "prototype" of Cognitive Linguistics may be described as predominantly of mentalist persuasion, based on introspection, specialized in analysing language from a synchronic point of view, focused on West-European data (English in particular), and showing limited interest in the social and multimodal aspects of communication. Over the past years, many promising extensions from this prototype have emerged. The contributions selected for the Special Issue take stock of these extensions along the cognitive, social and methodological axes that expand the cognitive linguistic object of inquiry across time, space and modality.

Editorial to the Special Issue: "Looking Back, Looking Forward"[1]

Dagmar Divjak, Natalia Levshina, Jane Klavan

[1] The idea for this Special Issue grew out of the theme session we organised for the 13th International Cognitive Linguistics Conference in Newcastle, UK. We are thankful to the presenters and audience for stimulating accounts and discussion. We would also like to express our gratitude to John Newman for his insightful comments on an earlier version of this editorial. Work on this project was supported by a British Academy Mid-Career Fellowship to Dagmar Divjak.

Abstract

Since its conception, Cognitive Linguistics as a theory of language has been enjoying ever increasing success worldwide. With quantitative growth has come qualitative diversification, and within a now heterogeneous field, different – and at times opposing – views on theoretical and methodological matters have emerged. The historical "prototype" of Cognitive Linguistics may be described as predominantly of mentalist persuasion, based on introspection, specialized in analysing language from a synchronic point of view, focused on West-European data (English in particular), and showing limited interest in the social and multimodal aspects of communication. Over the past years, many promising extensions from this prototype have emerged. The contributions selected for the Special Issue take stock of these extensions along the cognitive, social and methodological axes that expand the cognitive linguistic object of inquiry across time, space and modality.

Keywords: Cognitive Linguistics, Cognitive Commitment, Sociosemiotic Commitment, Introspection, Experimentation, Quantification

You have your way.
I have my way.
As for the right way, the correct way, and the only way, it does not exist.
Nietzsche

Since its conception, Cognitive Linguistics as a theory of language has been enjoying ever increasing success worldwide. With quantitative growth has come qualitative diversification, and within a now heterogeneous field, different – at times opposing – views on theoretical and methodological matters have emerged. The aim of this Special Issue is to bring together a number of eminent researchers who identify or sympathize with Cognitive Linguistics and represent different perspectives on what Cognitive Linguistics is or should be. With the working title *Looking back, Looking forward* we aimed to survey the many faces Cognitive Linguistics currently has and map out the roads Cognitive Linguistics is likely to take in the future.

Our editorial is structured along three axes and three dimensions. The axes capture the three areas that question the foundations on which research within the cognitive linguistic tradition is based. These are

1) the "reductionist" decision to consider language as a mental phenomenon and provide an interface with the Cognitive Sciences in order to arrive at an encompassing account;
2) the "social" decision to foreground the social dimension of language and incorporate the social forces that shape language in our account of linguistic structures;
3) the "methodological" challenge posed by the many options available to cognitive linguists: introspection and experimentation have been supplemented with corpus-based methods and the requirement of using ever more advanced quantitative techniques risks fragmenting the field.

For each of these three axes that form the centre around which the Cognitive Linguistic enterprise revolves, we distinguish three dimensions, organized along polar oppositions, i.e.

1) the dimension of "time": synchrony versus diachrony; do we consider data from language as spoken at one particular time, or do we track changes over time?
2) the dimension of "linguistic diversity": one language versus many: do we study phenomena within one language or trace their diversity across many?
3) the dimension of "modality": sound versus gesture: do we restrict attention to language in its written form, or expand our study to take into account other modes of communication?

The historical "prototype" of Cognitive Linguistics may be described as predominantly of mentalist persuasion, based on introspection, specialized in analysing language from a synchronic point of view, focused on West-European data (English in particular), and showing limited interest in the social and multimodal aspects of communication. Over the past years, many promising extensions from this prototype have emerged. The contributions selected for the Special Issue take stock of these extensions along the cognitive, social and methodological axes that expand the cognitive linguistic object of inquiry across time, space

and modality. In the Sections that follow, we review each of these axes and dimensions in turn.

THREE AXES

1. The Cognitive Axis

Cognitive Linguistics has a mentalist orientation; its proponents endeavour to provide an account of language that is consistent with what is generally known about human cognition, an aim often referred to as the "Cognitive Commitment" (Lakoff 1990: 40). Work in the cognitive linguistic tradition likes to stress that the analyses proposed are "in line with what is known about the mind". But what does this mean? From the very beginning, there seem to have been two interpretations of the term "cognitive", i.e. the option to use insights from the Cognitive Sciences to guide the careful examination of data obtained by introspection versus the use of linguistic data to validate and further insights from the Cognitive Sciences. Over the past 25 years, at least three different interpretations of the "Cognitive Commitment" have found their way into Cognitive Linguistics, namely cognitive plausibility, cognitive reality and biological/neurological reality.

The earliest interpretation of "cognitive" within the cognitive linguistic tradition refers to the tendency to use insights from the Cognitive Sciences to guide the careful examination of data obtained via introspection. "The cognitive commitment is a commitment not to isolate linguistics from the study of the mind, but to take seriously the widest range of other data about the mind" (Lakoff 1990: 46). This cognitively or psychologically "realistic" approach (Nesset 2008: 9-10) yields hypotheses about mental grammars that can be tested using experimental techniques from psychology, for example. But this cognitive "realism" often remains no more than an aspiration, based at best on "hand-me-downs" from the Cognitive Sciences. Examples here are analytic concepts for which there is extensive evidence in the Cognitive Sciences, evidence that remains underutilized in Cognitive Linguistics, however. Think, for example, of prototypes and radial networks. Cognitive linguists know prototypes from the presentation and interpretation offered in Lakoff (1987) or Taylor (1989), and rarely consult the original literature, let alone the extensions that have been proposed since the publication of the original findings (see Murphy 2002 for an overview). Conversely, there are also examples of analytical concepts that are extensively invoked by cognitive linguists, yet lack (direct) psychological evidence. Examples here are image schemata (Johnson 1987), entrenchment (see Divjak and Caldwell-Harris 2015 for a discussion) and mental spaces (Fauconnier and Turner 2002).

A more recent interpretation of the Cognitive Commitment takes it as a commitment to describe and explain language processing and knowledge in the way that it occurs or is represented in the speaker's mind. Here, there is or should be significant overlap with research done on language within the Cognitive Sciences. Yet, there does not appear to be much contact between the disciplines, let alone overlap in the points highest up on the respective research agendas. The contribution by Dąbrowska highlights some of the areas where cognitive linguists can improve their engagement with the Cognitive Sciences, especially with cognitive psychology. Some of the areas where collaboration would be fruitful include, but are not limited to, the following: What does it mean for a speaker to "have" a construction? How is constructional knowledge represented in memory (e.g. is it declarative or procedural)? What cognitive processes are involved in construal (and how can they be measured)?

An emerging interpretation of the Cognitive Commitment sees it as a commitment to detect neural correlates of language knowledge in the speaker's brain. Should we aim to detect linguistic (form- and meaning-related) categories in the brain (cf. Allen et al. 2012) and if we do, what do we expect to find? What motivates researchers to look for grammatical elements (morphemes, constructions) in the brain? How realistic is it to find something, and how reliable are the findings presented so far? These questions are taken up in the contribution by Blumenthal-Dramé who argues for a deeper engagement of Cognitive Linguistics with neurolinguistics. While a deeper engagement is seen as essential when interest lies in the cognitive realism of usage-based models, we are also cautioned against two major stumbling blocks: blind confidence and extreme scepticism. Neuroimaging data are not any clearer or less open to debate and interpretation than any other language-related data, which obviates the concern that "looking into the brain" oversimplifies matters.

At this junction, the question becomes: how *should* Cognitive Linguistics define 'cognitive reality'? Can we fruitfully link all three interpretations? Is it desirable to have linguists propose categories that seem optimized for psychological or neurological verification? Two centrifugal forces are at work: one is the *linguistic* desire to classify phenomena as economically as possible while accounting for as much of the data as possible. This clashes with the commitment to classify phenomena in a way that is in line with what we know about *human cognition*. If our concern is with linguistic description, then we presumably want to find the most parsimonious description, regardless of its cognitive reality. If our concern is with cognitively real(istic) description, we may need to settle for less classification power: human brains multitask and can therefore not be optimized for every task. The linguistically "best" description is not by definition also the cognitively "most relevant/realistic" description – think of statistical classifiers that outperform humans, but lack our flexibility and ability to learn quickly from sparse data. The contribution by Milin and collaborators highlights the importance of insights from research on learning for usage-based, emergentist theories of language. In addition to implementing the Cognitive Commitment at the level of data annotation, modelling and analysis, such methods naturally accommodate many of the concepts that are core to Cognitive Linguistics. Moreover, these methods can be extended to handle pragmatic and social patterns of variation, thereby offering a potential solution to one of the most pressing challenges Cognitive Linguistics currently faces.

2. The Social Axis

The classical works in Cognitive Linguistics (e.g. Johnson 1987, Lakoff 1987, Langacker 1987, Goldberg 1995, Talmy 2000) describe the linguistic competence of the abstract idealized speaker of a language (predominantly English). Although the social basis of language was taken as a given in theory (Langacker, this issue), this aspect was backgrounded in actual practice. In this regard, Cognitive Linguistics was not too different from generative linguistics.

With time, the limitations of this practice have become evident to many scholars. For example, Croft criticizes the foundations of Cognitive Linguistics as being too solipsistic, that is, too much "inside the head" (Croft 2009: 395). The accumulation of such critical ideas has triggered what is labelled as a 'social turn' in Cognitive Linguistics (Harder 2010). This change reflects the general paradigmatic development in linguistics, also known as "recontextualization" (Geeraerts 2010). Recontextualization represents the return to a pre-structuralist holistic view of language, where language emerges and functions at the

intersection of the cognitive, social, historical, cultural and biological domains. This shift in focus is also mirrored in the contributions to the Special Issue, as the majority of the authors advocate for the social dimension to take centre stage in cognitive linguistic research.

The catalyst for the "social revolution" has been the growing importance of corpora in cognitive linguistic research. Corpus data represent language used by speakers in specific communicative situations, which can be described in terms of registers, genres, individual styles, dialects and other 'lects'. The use of corpora brings the heterogeneity of real communication to the foreground and necessitates the inclusion of sociolinguistic, geographic and other lectal variables in multifactorial linguistic models (Geeraerts 2005).

One can speak about two directions of interaction between Cognitive Linguistics and the social dimension: Cognitive Sociolinguistics and Social Cognitive Linguistics. Although these terms are often used interchangeably, there is a subtle difference in scope. Namely, Cognitive Sociolinguistics focuses mainly on language varieties (lects), lectal variants and their cognitive representations (e.g. language attitudes) (e.g. Kristiansen and Dirven 2008; Geeraerts et al. 2010), arguing strongly for the inclusion of a variational and sociolinguistic perspective to cognitive linguistic studies. For example, Geeraerts (this issue) advocates the Sociosemiotic Commitment that should complement the Cognitive Commitment, i.e. a commitment to make our account of human language accord with the status of language as a social semiotic tool (i.e. an intersubjective, historically and socially variable tool).

In contrast, the main aim of Social Cognitive Linguistics is to describe the social-interactional mechanisms of how usage shapes linguistic knowledge at the level of speaker and hearer. These mechanisms are rooted in general social cognitive abilities, such as joint action, coordination and convention (Croft 2009). An example of this approach is Schmid's Entrenchment and Conventionalization Model (Schmid 2015 and this issue). The name of the model, which includes the cognitive notion of entrenchment and the social concept of conventionalization, iconically suggests that the cognitive and social aspects of language use should be treated on a par. At a more philosophical level, these aspects can be integrated, as demonstrated by Zlatev (this issue), with the help of phenomenology, a discipline that focuses on human experience and helps to resolve the issues of whether language as "experience" is individual or social, pre-linguistic or linguistic, unconscious or conscious.

3. The Methodological Axis

Although it can be argued that Cognitive Linguistics has always been empirical with its usage-based approach and employment of a wide variety of data, there is no question that introspection is deeply embedded in Cognitive Linguistics. Introspection owes its privileged status to both the history as well as the theoretical assumptions of the discipline. As a reaction to the extreme empiricism of the behaviourists, the 1950s and 1960s saw the rise of introspection as the main source of evidence in linguistics, especially within the domain of formal syntax. Much of the work by the "founding fathers" of Cognitive Linguistics is (quite naturally) focused more on theory-building than data gathering and analysis. It was not until the mid-1990s that there was a shift in paradigm; for the journal *Cognitive Linguistics*, the year 2008 "marks the quantitative turn" (Janda 2013: 2). Yet, it is the discipline's theoretical assumptions, namely its cognitive nature, its usage-based perspective, and its contextualizing approach (Geeraerts 2006: 31) that make Cognitive Linguistics a particularly good candidate for championing the methodological progress of linguistics. Recent years have witnessed an exponential growth in studies that use statistical analysis of corpus data

or experimental findings. The shift in paradigm, especially in Cognitive Linguistics, has resulted in the publication of various edited volumes and monographs on linguistic methodology (e.g. Gonzalez-Marquez et al. 2007, Glynn and Fischer 2010, Newman and Rice 2010, Janda 2013, Glynn and Robinson 2014), as well as textbooks introducing linguists to statistics (e.g. Baayen 2008, Johnson 2008, Gries 2009, Levshina 2015). In fact, the pendulum may have swung to the other extreme – concerns have been raised that the field may be becoming too empirical and that much of the quantitative work published under the Cognitive Linguistic umbrella does not pay enough attention to language and theory. There is talk about doing "numbers just for numbers' sake" (Langacker this issue), "number-crunching" (Nesset, Langacker this issue), and "empirical imperialism" (Geeraerts 2006: 34, Schmid 2010).

It is in the context of the sharp quantitative turn that one of the central axes becomes particularly pertinent – the Cognitive Commitment. As pointed out by the contributors to this Special Issue, the quantitative turn will not make the Cognitive Commitment superfluous (Nesset), but it raises the question of which methods are adequate (Milin et al.). A number of the papers in this issue therefore discuss the use of advanced empirical methods in the context of cognitive plausibility, e.g. (psycho)linguistic experiments (Dąbrowska) including neuroimaging (Blumenthal-Dramé) and computational modelling (Milin et al.). A particularly strong case is made for using techniques that are based on biologically and psychologically plausible learning algorithms, such as Parallel-Distributed Processing or Connections Modeling, Analogical Modeling, Memory-Based Learning, Naive Discriminative Learning (Milin et al.). Many of the papers in this Special Issue also take a stance on some of the theoretical issues involved in using advanced methodology, including, for example, the discussion on the theoretical status of corpus-based generalisations (Blumenthal-Dramé, Dąbrowska) and assuming that distribution equals meaning (Dąbrowska). Other papers address areas where there are "problems" with large quantities of data and/or gathering and interpreting the data; these include, for example, historical linguistics (Nesset), typology (Croft), multimodal communication (Cienki), and neurolinguistics (Blumenthal-Dramé).

As to the second central axis of the Special Issue – the social axis and those who advocate it (e.g. Geeraerts, Zlatev, Schmid, Croft this issue) – it is stressed that our account of human language should be based on a methodology that transcends the individual, i.e. looking at language as an intersubjective, historically and socially variable tool. Geeraerts (this issue) emphasises that the existence of variation within language, be it socially structured or individual, affects the methodological requirements of Cognitive Linguistics. This increases the pressure on the average cognitive linguist – how, practically speaking, can one take into account all the possible sources of data? The inclusion of a social stance may be very appealing, but the field has yet to see empirical studies that validate adopting this approach. This brings us to an important question – what counts as data in cognitive linguistics? Decisions about how human language is defined, i.e. whether we identify language as individual or social (or both), have crucial implications for the methodology we adopt.

Can the cognitive linguist's existential question be phrased as "to be empirical or to be introspective" (Zlatev this issue)? The papers in the Special Issue champion both approaches and both are argued to be crucial for the development of Cognitive Linguistics. As pointed out by Langacker (this issue) "qualitative descriptions provide the basis for quantitative methods such as experiment, neural imaging, and computer modeling – they suggest what to look for and allow the interpretation of results". Naturally, those who do introspective (qualitative) research will proclaim that there is too little of this type of research

being done (Langacker this issue) and those who do empirical research, will claim that the field is still very much dependent on introspective data (Dąbrowska this issue). Given this, it is pivotal to avoid attitudes that claim the superiority of one method over another, as this would be detrimental to the field and inhibit the development of the cognitive linguistic enterprise.

THREE DIMENSIONS

1. The Dimension of Time: "Synchrony vs. Diachrony"

The majority of cognitive linguistic studies describe and explain synchronic phenomena. From a historical perspective, this preference can be explained by the long-lasting influence of the structuralist view that synchrony has a privileged position in linguistic description. Now that pre-structuralist linguistics is enjoying renewed attention (e.g. Hermann Paul, who is considered one of the first usage-based linguists, cf. Hopper 2015), it is time to re-assess this opposition and transcend it. Such a synthesis or *Aufhebung* in Hegel's sense is possible, in particular, if we assume the usage-based evolutionary approach to language-specific phenomena and typological generalizations (e.g. Croft this issue). On a more practical note, diachronic data are less easily available for many research questions than synchronic data, which may include large diverse corpora, experimental evidence, survey data etc. Moreover, many important cognitive and socio-interactive details (such as the extra-linguistic information available to the speaker and hearer, as well as intonation, gestures and other multimodal clues) may be very difficult or impossible to obtain. This can make an estimation of the cognitive plausibility of a theory problematic.

In spite of practical difficulties, there has been a substantial body of cognitive linguistic work based on diachronic evidence. The earliest examples are studies in historical lexical semantics (Geeraerts 1983; Winters 1987) and grammatical change (Kemmer 1992). The grammaticalization studies, which deal with similar questions, although they are usually not subsumed under the label of Cognitive Linguistics (e.g. Traugott 1985), also naturally incorporate the historical perspective. Further examples can be found in Winters (2010). An important new area of research, which has become possible due to the emergence of large diachronic corpora, is diachronic Construction Grammar (e.g. Israel 1996, Verhagen 2000, Traugott and Trousdale 2013; Hilpert 2013; see an overview in Hilpert 2015). A less common direction is historical cognitive phonology, which is represented by Nesset (this issue), who investigates the cognitive factors of prosodic change in Eastern Slavic. While taking stock of the Cognitive Commitment in the context of historical linguistics, he also acknowledges that both the "social" and "quantitative" turns open up important perspectives and provide new opportunities for cognitive historical linguistics.

2. The Dimension of Diversity: "One Language vs. Many"

Most studies in Cognitive Linguistics are based on data from one language. There is a strong bias towards Indo-European languages, and to English in particular. At the same time, there have been quite a few notable exceptions. Particularly fruitful has been the collaboration between cognitive linguistics and semantic and lexical typology, which goes back to the famous study of Basic Colour Terms by Berlin and Kay (1969). Abundant cross-linguistic co-lexification data, which have become available recently (e.g. List et al. 2014), allow the linguist to identify the most common semantic extensions and compare how

languages "carve up" different semantic domains. A concise overview of this research area is presented in Koptjevskaja-Tamm (2015). The grammatical pole has enjoyed less attention. Notable exceptions are Talmy's (1985) influential typology of verb-framed and satellite-framed languages, which differ with regard to the expression of motion events, and Newman's (1996) cognitive linguistic study of GIVE-verbs and the corresponding constructional patterns in a large sample of typologically diverse languages.

Importantly, typological evidence enables the linguist to identify the conceptual dimensions that are recurrent in different languages of the world and find the universal focal points and other discontinuities in the conceptual space. This provides a welcome addition to the traditional works in cognitive semantics, such as Talmy (2000), where the conceptual categories emerge as a result of introspection. In some cases, typological evidence can challenge the existing cognitive linguistic theories that are biased towards the (Indo-) European languages. For instance, Sweetser (1990), who discusses the conceptual metaphor KNOWING IS SEEING, claims that the objective, intellectual side of our mental life is regularly linked with the sense of vision because vision is the primary source of objective data about the world. In contrast, verbs of hearing would not normally be used to express the sense 'know' (Sweetser 1990: 2.4). However, it has been shown by Evans and Wilkins (2000) that semantic extensions from the auditory domain to cognition are popular in Australian Aboriginal languages, while the visual sense tends to extend into aggression, desire and sexual attraction. Only by taking the typological perspective seriously can one avoid conceptual Eurocentrism.

Overall, the collaboration between cognitive linguists and grammatical typologists has not been very intense. There seem to be two important reasons for that. First, although functional typology sometimes resorts to cognitive explanations (e.g. iconicity, economy, processing complexity), many grammatical typologists are not particularly interested in the cognitive underpinnings of linguistic universals (van der Auwera and Nuyts 2007; see also Croft this issue). Second, grammatical typology usually involves a rather coarse-grained description of linguistic phenomena and uses comparative concepts (e.g. VERB, PASSIVE, MORPHEME), which do not have to be cognitively real and are evaluated only in terms of their practical usefulness (Haspelmath 2010). A notable attempt to combine the cognitive reality of descriptive grammatical categories with a typological perspective is Radical Construction Grammar (Croft 2001; see also Croft this issue). In this approach, language-specific constructions are treated as primary units of linguistic description, while grammatical categories (e.g. ADJECTIVE, CLITIC, PERSON), which are also language-specific, are secondary and derived from constructions (Croft 2001). However, due to the lack of sufficient distributional data for many languages of the world, the creation of such a bottom-up grammatical typology remains largely a task for the future.

3. The Dimension of Modality: "Sounds and gestures"

Cognitive Linguistics has embraced and supported gesture studies more than any other theoretical linguistic framework (Kok and Cienki 2016). The match between the two was made in heaven. For one, the global organization of Cognitive Grammar, which lies at the very heart of Cognitive Linguistics, reflects the semiological function of language by permitting meanings to be symbolized phonologically (Langacker 2013). Symbolic structures, such as words and sentences, consist of a sound pole and a semantic pole, where either is able to evoke the other. The sound pole comprises not only orthography and

phonology but also gesture. Thanks to this, gesture studies slot in perfectly alongside work on orthographically or phonologically represented communication.

Secondly, one of the areas that was boosted by research within the Cognitive Linguistic tradition is metaphor; the original evidence for conceptual metaphors stems from the systematic analysis presented in Lakoff and Johnson (1980). Yet, a longstanding objection about conceptual metaphor theory is that showing that metaphors are part of thought, and not just language, requires independent non-linguistic evidence (Gibbs 2015: 177). One of the non-linguistic domains that has provided evidence for this relationship is gesture studies (Cienki and Müller 2008). A number of experimental studies in this tradition have shown how metaphoric gestures support and extend information beyond the message conveyed by a speaker's words. McNeill and Levy (1982) were the first to show how schemas – conceptual metaphors – are signalized visually through the use of metaphorical gestures. Metaphoric gestures substantiate cross-domain cognitive mappings and visualize how a metaphor's source domain is present and activated in the speaker's mind (Chui 2011: 454).

In other words, gestures are manifestations of embodied cognition, another idea that has received prominent support from research originating in the cognitive linguistic tradition. Motor theories of cognition have a long history in psychology and have been proposed as explanations for a wide range of mental processes (Hickok 2010). Embodiment theory was strengthened by the discovery of mirror neurons in macaques (di Pellegrino et al. 1992), i.e. neural structures in the area of the macaque brain dedicated to manual and oral action control. These mirror neurons were found to fire not only when performing a motor action but also when observing either the action itself or a representation of the action (i.e. by means of an iconic gesture). The discovery of mirror neurons in the macaque frontal cortex sparked a resurgence of interest in motor/embodied theories of cognition. Based on these insights, Gallese and Lakoff (2005) formulated a model of a conceptual system according to which conceptual structure is directly embodied at the neural level.

As witnessed by the recently published Handbook of Body - Language - Communication (Müller 2013/2014), gesture studies have given rise to a new and exciting field of multimodal communication and Cienki (this issue) discusses the history and future of research into multimodal communication. For Cognitive Linguistics to make the most of this development, it will be crucial to keep in mind the rationale the community had for looking at gesture in the first place: non-verbal communication should not become another domain to be studied in isolation but remain integrated with verbal communication, and with Cognitive Scientific work on concept and concept representation. Overall, this line of research has the potential to contribute significantly to the overall endeavour of unravelling how language is grounded in neurobiology.

CONCLUSIONS

One set of problems that may inhibit progress relates to the ideological divide within Cognitive Linguistics. For one, the field is yet to see a full-fledged détente between empiricists and introspectionists. Employing empirical methods, especially the use of controlled experiments, seems counter-intuitive to many cognitive linguists who see the study of language as a study of (other) human beings and their cultures, rather than physical objects. Some even claim that Cognitive Linguistics is in essence non-objectivist, which goes against the use of methods (such as corpus methods) involving an attempt to maximize the objective basis of linguistic descriptions (Geeraerts and Cuyckens 2007: 745. The call for

empiricism that was launched 20 years ago (e.g. Sandra and Rice 1995, Cuyckens et al. 1997) remains open, albeit with the added requirement of using methods that accord with what is known about language, more specifically language in relation to cognition. Questions that need answering are: How much of our toolbox needs to be cognitively real for us to be cognitive linguists? Is the cognitive reality of a linguistic category necessary for it to be useful to cognitive linguists? How do we relate to categories that are unlikely to have cognitive relevance? Or, do we really need the traditional linguistic categories at all? Should we instead prioritize models that do away with these distinctions and use cognitive plausible categories for annotation, cognitively plausible models for modelling and test their predictions against behavioural data?

Adding social and historical extensions to the cognitive linguistic prototype not only raises questions about the autonomy of Cognitive Linguistics, its boundaries and scope, but also about its methods. Although it is uncontroversial to say that a sound linguistic theory should not discard the social and historical aspects of communication, it is open to question whether Cognitive Linguistics should try to embrace all these aspects with the same amount of detail. Perhaps Cognitive Linguistics should maintain a special focus on linguistic cognition, as suggested by Croft (this issue)? One crucial issue here is methodological in nature: while cognitive sociolinguists have been instrumental in introducing analytical techniques for very rich datasets into cognitive linguistics, social cognitive linguists have not yet proposed a way to include the social dynamics into linguistic analyses and it is unclear what such an approach would look like from a methodological point of view.

Overall, we can conclude that there are many theoretical impulses and visions within the field, each with their own methodological challenges. The biggest challenge resides perhaps in fully acknowledging these alternative and at times competing strands, and asking ourselves how to approach this diversity: should we try to reconcile the competing forces or allow them all to flourish, each in their own way? We hope that the papers collected in this Special Issue will trigger reflection about the challenges that Cognitive Linguistics faces and how these challenges can be addressed with respect for our theoretical foundations and aspirations.

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