# entreviSta

## WOLFRAM HINZEN

Entrevista com o filósofo e linguista alemão Wolfram Hinzen, oferecida à Aniela Improta França e a Marcus Maia pela Revista LinguíStica. Hinzen esteve no Brazil em março de 2015 para participar do evento IPC in Rio, organizado pelo Pós-Ling da UFRJ e pelo Programa de Pós-Graduação Estudos da Linguagem da PUC-Rio



Wolfran Hinzen is a philosopher-linguist with an interest in the cognitive significance of human language, i.e. the impact that language has on cognition and the genesis of our species-specific mind. He is currently a professor and researcher with ICREA based at the Universitat de Barcelona, leading a major AHRC-funded project on Language and Mental Health, based in Durham, Newcastle and London. Hinzen was the director of the ‹Un-Cartesian Linguistics, a research program with the aim of rethinking the nature of grammar as a domain of scientific inquiry, raising new questions about the constitutive role of grammar in the organization of our (rational) minds and selves.

**Revista LinguíStica:** It is a pleasure to have you here with us at Revista LinguíStica. Classical Generative Grammar proposes an independence between language and thought. The argument is that animals and infants think in some way devoid of language. Un-Cartesian linguistics, the research program you advance, has the aim of rethinking the nature of grammar as a domain of scientific inquiry. In which sense will it include thought in grammar? How?

**Wolfram Hinzen:** Thank you so much to have me here. My reading of the tradition is that Chomsky suggested to methodologically abstract from 'thought' when analyzing structural complexity in language. This was a very important step in securing language as a domain of inquiry in its own right, and hence a science of linguistics as such. To establish such domains, and when we just barely begin to understand patterns in our primary domain, we sometimes need to 'bracket' broader issues. This is, on my reading, one of the essential differences between Chomsky's 'Cartesian linguistics' (1966) and its historical precursor, the Cartesian linguistics of Port Royal (1660), which essentially identified the sciences of thought and language, but was very naïve in this respect as Chomsky pointed out. The independence of thought and language that you attribute to classical generative grammar is thus, for me, best regarded as an expression of methodological caution and strategy. It's not an assumption of fact, and in general, we need to be very careful not to read out methodological abstractions into our ontology, i.e. to be aware that while methodologically useful, they need not ultimately describe our object of inquiry.

Thus, I do not understand the claim of thought-language independence (in humans). It is clear that language without thought would be a parody, and thought that could not be expressed in language would not be thought of the same kind. Since no one owns the word 'thought', we can, of course, ascribe a thinking process to insects, birds, extinct hominins, or babies. But we will then change the meaning of the term, or simply define it in such a way that it will apply to these different species or types of humans. Whatever the non-human or non-linguistic thinking process is, it has empirically different properties (this is clear even within the genus Homo), as is supported by comparative research in animal cognition, studies of the material cultures of different hominins, studies of adults without language, adults with their language faculty blocked, adults with neurocognitive or neurodegenerative disorders, and children with developmental language disorders.

In short, I consider 'mind' or 'thought' to be species-specific terms – every species has its own set of mental capacities and limitations. And I am exploring the hypothesis that there is one type of thought that uniquely, and necessarily, patterns grammatically. Its inherent currency is lexemes, and it so happens that these combine by grammatical principles. So without grammar, the relevant cognitive type would not exist. With grammar, then, or with what I call the grammaticalization of the hominin brain, a new type of thought comes into the world, which we cannot preserve if we subtract grammatical organization from it. In line with that, there is one kind of type of meaning that uniquely depends on (it only 'lives in') grammatical configurations. It is the content of that kind of thought. We may call this type of meaning – which I call grammatical meaning – a natural kind, and its existence is a hypothesis. This hypothesis entails that grammar has a fundamental epistemological significance: it is foundational for human cognition and crucial to philosophy as well.

Whether this so-called 'un-Cartesian' hypothesis is true or not, I am less interested in than in what research program it generates. For me and my co-workers, and my present emergent research group (www.grammar.cat, website under construction), the hypothesis has been enormously fruitful. In particular, it has generated completely new questions with regards to clinical language disorders. Within linguistics proper, the hypothesis also makes us look at grammar in a different and more constrained way. Thus, if the hypothesis is true, we will seek to reinterpret grammatical principles as principles that govern the particular kind of meaning above. The more 'meaningless' principles there are in grammar, the more the above hypothesis is weakened. Structural Case, for example, should come out as interpretable. And I have tried to argue that recursion, too, should be intrinsically meaningful, and I have argued that in a paper with Boban Arsenijevic[1]. Recursion in language needs to be illuminated through something different than a completely generic notion of 'Merge', which, as currently defined, does not tell us anything about the specificity of the language system.

This also relates to why over the last 10 years or so I have tried to stop using the term 'syntax'. You are asking above how grammar can be meaningful, or include thought, and this is very hard to understand if we are looking at grammar from the viewpoint of formal syntax only, never mind from a purely Merge-based perspective. Talking about 'syntax' often triggers the reflex-like reaction that we are talking

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1. Editors' note: Arsenijevic, B.; Hinzen, W. (2012) On the Absence of X-within-X Recursion in Human Grammar. Linguistic Inquiry, 07/2012; 43(3): p. 423-440, available at http://www.researchgate.net/publication/254925922_On_the_Absence_of_X-within-X_Recursion_in_Human_Grammar. Wolfram Hinzen

about something purely formal and meaningless, which becomes meaningful only if some independent component, the semantic one, is added to it. But no one has any idea where this semantic component is supposed to come from. Attributing it to some posited domain of 'thought' clearly does not help. But saying it comes from syntax is meaningless when we have completely internalized the idea of syntax as something purely formal. By contrast to this modern and technical term 'syntax', the traditional term 'grammar' was almost never that of a meaningless formal structure, as I've tried to show in chapter one of my last book[2]. One can of course decide to analyze it formally, but this does not make it a formal object that is meaningless. Abstracting from the type of meaning that lives in this sort of structure does not mean it intrinsically has no such meaning. One can study planetary motion formally, but planets are not formal objects. They are material, physical objects. The same applies to grammar: it is a natural object, not a formal one, though it has formal properties. It's a subtle distinction, but for me an important one. It is grammar as a natural object, which I claim is representative of a particular form of thought and the origin of knowledge. It is a mental tool that allows humans to represent the world in the format of knowledge. Hence its epistemological significance.

**Revista LinguíStica:** You work on the very interesting intersection between philosophy and linguistics, in which linguistics seems to play a stronger role in the sense that meanings derive directly from grammar. While Fodor argues for a language of thought, you push the idea that "There is no 'semantic component' located on the nonlinguistic side of an 'interface' to which the organization of grammar is 'answerable'". Does this mean that semantics is lexically bounded? If so is there a way to accommodate non-lexicalist models, such as Distributed Morphology in this view?

**Wolfram Hinzen:** The intersection between philosophy and linguistics is indeed fascinating, and my (albeit limited) historical research has suggested to me that it has been perennially problematic for more than two thousand years, with philosophers tending to reject linguistics in favor of logic. The dismal lack of education in grammar that we offer to philosophy of language students in standard Anglo-American curricula today is an expression of that preference, but I have found a similar dialectic in very rich discussions that took place in Ancient India, for example, and then again in Modistic grammar in the late Medieval ages. Our modern decision in this regard is really remarkable, however, for in the way that I read Descartes, who is regarded as the originator of modern philosophy, most of his methodology is not conceptual or logical, but based on fact and empirical inquiry. In a way, though, during the last century the formalist viewpoint in classical generative grammar has cemented this divide between philosophy and linguistics. This is because if the core of modern linguistics is formal syntax as usually understood, then philosophers will just turn their heads away, and go for logic: they just don't see how syntax thus understood can matter to philosophical questions, which usually concern content, or meaning. The epistemological significance of grammar is thus dismissed – explicitly so, e.g., by Donald Davidson. Fodor is another example: he is just not interested in universal grammar, and his arguments that the structure of thought and its contents are inherently different from those of language are empirically unfounded, in my opinion. On a closer look, thought and language tend to align. I am not dogmatic about this, but I just don't know of any convincing and relevant counterexamples. Fodor's opting for the language of thought (LOT) as the proper locus of

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semantic content, which bypasses language, is thus, for me, just the most recent expression of a very old and venerable idea. Thanks to its influence we now have no science of thought. We have a science of language, and of language development/acquisition, and language evolution. But not of 'thought development/acquisition', or 'thought evolution'. There simply are no such fields, as if there didn't need to be any.

As for the 'semantic component', my official position is that none is required – and same for the LOT. Clearly, we can only posit such hypothesized theoretical entities if there a job for them to do. If the job is done by something else, they become redundant. In theoretical models of the language faculty that we draw up on whiteboards we can of course always introduce such a component, and hence an 'interface' between it and others. But it is immediately clear that insofar as grammar is the origin – rather than what answers to – *sapiens*-specific thought; there *cannot* be an 'interface' between grammar and at least this type of thought. Of course there is a pre-linguistic form of semantics, and the un-Cartesian linguistics program has a clear view on this. But if that semantics is what is supposed to be on the other (non-linguistic) side of this putative interface? Then it will not do much linguistic explanatory work, which was supposed to be its purpose in the Minimalist Program.

At the level of the brain, I also simply do not see where such a semantic component would be. The brain stores lexemes in long-term memory and since it never stops its thinking process (our mind always wanders), these lexemes (or 'concepts') are always active and structure our mental life. But lexemes exhibit grammatical properties in virtue of which they combine with others; they also relate to one another associatively, but the point in humans is that they also do so grammatically, which is a different kind of link. Crucially, these grammatical properties *change* their meaning. For a trivial example that I always give, MAN does not mean the same as 'the man', for example. The latter can be used referentially to refer to a particular man, the former in isolation cannot. The difference between referential meaning and lexical content is critical. Grammar is this difference. Nor does MAN mean the same as [D [man]], i.e. a determiner phrase with an empty D position, so what I am saying does not relate to 'the' specifically. In short, the moment lexemes combine, or the grammar engine kicks in, which we can never stop it from doing, we have grammatical meaning. So that cannot be something 'extra', which comes on top of an 'autonomous' syntactic process, and I don't see where, in the brain, the 'thought network', as distinct from the language network, would be. What would it mean that there is 'semantic processing' separate from grammar, or grammatical processing separate from meaning? (As I said above, there is a pre-linguistic semantics, but this is a different matter which is prior to the level where we have got lexemes.)

As for Distributed Morphology, this is a really nice point to raise, on which I do not have strong and well-developed views. Insofar as I understand it, many aspects of DM are consistent with the above framework. Thus I also argue against the distinction of a 'lexical' and a 'sentential' syntax, and I assume that the grammatical meaning of a root, including its part of speech status and what I call its formal ontology, is determined in the course of the derivation only. 'Noun', in particular, is a grammatical notion, not a lexical one. What I remain worried about is whether there is a process of 'lexicalization' that has semantic effects (Fodor's old conundrum that 'kill is not the same as 'cause-to-die', to which I think there is not yet a satisfactory solution); and what our notion of 'concept' is, when it is not tied to a notion of lexicalization; and whether phonology is peripheral or inherent to the grammatical process.

**Revista LinguíStica:** How can the study of cognitive disorders such as autism and schizophrenia shed light onto the way we use reference in natural languages?

**Wolfram Hinzen:** Reference, for me, is a concept fundamental to the understanding of grammar. I do not think that we win anything but relegating this concept to post-grammatical processing components, since I think that grammatical organization mainly *is* about reference – it is about turning lexical meaning into expressions that are referential on an occasion of use. As for the notion of reference I am using here, it is so fundamental and foundational that it can only be illustrated by example. So, for example, when John says: 'Miller broke his leg', then he refers to a person, Miller, distinct from both him and his interlocutor, and also to an event of breaking a leg involving this person, located prior to the point of speech. I take this to be uncontroversial, and the notion of reference to be a simple concept for us to grasp. Nonetheless, at a theoretical level, it is of staggering complexity and certainly humanly unique. Thus, in humans, events and people are referred to under *descriptions*, which correspond to 'concepts' we have of such referents, and which the referents themselves do not *determine*; these descriptions apply or fail to apply to these objects *independently* of whether we believe they apply; and the referents are *shared* among interlocutors, though the descriptions need not be. Acts of reference are also inherently *first-person* phenomena, in which a speaker identifying himself in the grammatical first person locates an object in space, an event in time, and a proposition in discourse, relative to the deictic position occupied by himself and the interlocutor, who is the grammatical second person as and as long as the speech act takes place. I am calling this the *deictic frame* in which all human thought and speech takes place, and in which all content is generated. I depict it as a triangle, whose three corners are the three grammatical persons, with the third person being the 'it' or the 'world'. If this is the fine structure of human thought and rationality, we predict that when rationality declines or disappears, as in schizophrenia, the deictic frame should be disturbed. But just that *has* already long been argued independently (by Tim Crow), though not in quite these terms, since Tim did not yet conceptualize the deictic space as spanned by grammar. Many core symptoms that lead to a schizophrenia diagnosis moreover suggest that sufferers of this condition lose their sense of where in this deictic frame they are located; what is an object independent of their own mind, and which object is the same one as one that has been mentioned before, though under a different description. So what I am arguing is that in schizophrenia, a distortion of the deictic frame takes place, and that in some cases such a distortion is virtually a re-description of the clinical symptoms in question – and an illuminating one, since linguistic terms have virtually never been used in their description.

Currently three core positive symptoms are being assumed in schizophrenia diagnostics: formal thought disorder (FTD), hallucinations, and delusions. FTD is uncontroversially linked to language (i.e. a breakdown of it), as its diagnosed through disordered speech; hallucinations are paradigmatically verbal in schizophrenia, and in this sense represent a disorder of speech perception; the case of delusions is the hardest one for me to argue, but even here I am making progress with a collaborator, Peter McKenna. All delusions, we believe, involve a distortion in grammar-generated forms of (referential) meaning, and in the deictic frame in particular. Language in schizophrenia has been studied clinically for half a century; already Bleuler's famous 1911 book, which I admire greatly, is full of important documentation of an altered relationship that his patients had to language. So how come that in the last 100 years, only very rarely (and today essentially never) has language

been looked at a central cognitive variable in the schizophrenia conundrum? I think the reason lies in what I said earlier: common-sensically we simply do not think of language as a cognitive variable, as something that is intrinsic to our mental organization. We think of it as merely an expressive tool. So if a patient says strange things ('I grow my father's hair', 'I have a power plant in my stomach', 'A conclusion is my French professor', 'He had fouch with tekrimez'), our intuition is that this must be due to the patient's strange 'beliefs', or else to non-linguistic cognitive deficits in, say, executive functioning, memory, or other such variables that we see affected in neurological conditions. And the problem is: linguists (tacitly) even confirm this view – they don't think of language in cognitive terms *either*, and they offer no models how cognition might get distorted when the language frame is distorted. So no one really looks at the matter in great detail, which is what we are now trying to do. The case of autism is, in a sense, the easier one. Although – again characteristically – language is not a primary diagnostic criterion in the DSM-5 (which talks about deficits in 'communication' and 'social interaction' instead), everyone acknowledges that it plays a very central role in diagnosis, prognosis, and functioning. Moreover, although assessments differ, at least 25% percent of children with autism remain without functional language. Those that do communicate, but it is the normal *linguistic* forms of communication that we see differing. The old 'pragmatics' hypothesis, according to which the language itself is intact while its communicative use is not, has by now, I would say, been discredited: there is core grammatical dysfunction as well, and there is some evidence that it concerns core referential functions of language such as the use of definite descriptions with 'the' or personal pronouns. What is impaired, moreover, is personal forms of reference more than non-personal (i.e. third personal) ones. Declarative pointing, which we know correlates closely with language in neurotypical development, is also anomalous. Again, why has language not really been looked at as a part of the autism core? Because autism researchers, influenced by modern linguists, have separated off things like 'communication' from language; so when they see a communication abnormality, which is definitional of autism, then they do not think 'language' but they think 'communication' and 'social cognition'. But then I would like to ask: what is impaired, really? Is it communication as such, in a generic sense, or is it linguistic communication and aspects of communication such as pointing or eye gaze that, although non-verbal, are part of the intrinsic repertoire of a linguistic creature? And what is social cognition in humans, if we subtract language from it? Again here, I think, the matter can be looked at with fresh eyes, and reality may appear quite different as a result. We will know in ten years or so.

**Revista LinguíStica:** You have argued that data from schizofrenia patients motivate a postulation of a different language faculty. Could you elaborate on that? Would it contemplate recursion? Why cannot the data be accommodated in one single universal language faculty?

**Wolfram Hinzen:** What is uncontroversial is that what we see in this condition is a partially genetically based cognitive alteration, i.e. a different type of cognition. So logically we could only say that it is not a different type of language, if we separated language from cognition. If we don't, and the human cognitive type inherently is the linguistic type, then the idea that different cognitive types can correlate with different linguistic types becomes actually quite natural. Again we have been thinking too long of the language faculty as 'universal', 'hard-wired', 'encapsulated', 'unchanging, etc. On this picture, a linguistic model of cognitive disease is very strange indeed. But as I read Chomsky,

he is certainly not the culprit behind this pop-version of his ideas. UG is a genetic concept, and schizophrenia as well as autism involve changes in the genome. Why should this not affect UG, and thought would change as a result? The major work to be done here – over the next one or two decades – is to build systematic linguistic profiles of major mental disorders through which this question can be empirically investigated.

As for the recursion issue that you bring up, it is uncontroversial that you may not see any lack of speech quantity in schizophrenic speech (though with negative symptoms, speech quantity drops and this can result in alogia and mutism). Put differently, patients with schizophrenia can and do string words together and produce sentences that, at least at an individual level, are formally grammatical. So if you define recursion in the usual Merge-based minimalist terms, then these patients have Merge – even if, according to the literature, they tend to lack specific *forms* of recursion such as clausal subordination, which seems an important finding since it entails lack of 'theory of mind' content in how they express their thoughts. So in short, if one identified UG with Merge, then they have UG (though not all neurotypical forms of Merge). But it seems to be clear to me that in that case, our result is premised by our impoverished notion of UG. Put differently, we have shown that with a notion of grammar that is so poor, schizophrenia cannot be illuminated grammatically. But this is not a very interesting result. There is more to language disorders than whether we see Merge or not. A disorder certainly could affect grammatical meaning in my sense above: the type of meaning specifically arising with and within grammatical configurations, as and when these are generated.

You ask whether the data could not be accommodated with a single, universal language faculty. But people have tried that for many years, seeking to explain the variation from non-linguistic neurocognitive variables. But here the problems abound, and there has not been much progress in our understanding of schizophrenia for many decades. Correlations with cognitive deficits are particularly scarce in the case of the 'reality distortion' symptoms, i.e hallucinations and delusions. It is also not clear conceptually how, even if there were correlations, a deficit in memory, say, or in executive functioning, would explain these symptoms. Memory loss does not make you schizophrenic.

**Revista LinguíStica:** As a last question, in your book "Mind Design and Minimal Syntax"[3] you question Gould's (2002) proposal that formalism and functionalism " represent poles of a timeless dichotomy, each expressing a valid way of representing reality". What are your views on this debate now?

**Wolfram Hinzen:** At the time of my *Mind Design* book I was fascinated by the explanatory vision that has powered the Minimalist Program – and that vision puts form first, function second. And the origin of form is not functional. As my view has evolved over the last decade, I have come to think that it is crucial to ask the question what the function of grammar in our mental organization is, and what would change in the latter when this mental function disappears or disintegrates. This function of grammar is not an accident which a given form simply picks up. There is something very principled going on, and we see, by the above hypothesis, our mental functioning patterning in the way it does only because it has grammatical organization. For this reason, the Gouldian dichotomy

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3. Editors' note: Hinzen, W. 2006. Mind design and minimal syntax, Oxford: Oxford University Press.

does not have the attraction to me anymore that it used to have. What metaphors we are guided by in our thinking about a particular scientific domain is very important, and while the idea of human language as a crystal-like (purely formal) structure has fascinated me, I do not think it is helpful at this stage in the evolution of modern linguistics. It leaves the content side aside, and is thus a further and radical expression of the formalist vision that you asked about above. In my view we need to ask what grammar is for, and why it is there. Reference is what it is for, and this is not an accident: it is something intrinsic to how grammar operates and it provides a rationale for why it exists. Without it, there would be nothing that could perform this cognitive job.