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## Pathways to Transition: Jan Cygan and the Neo-Philological Tradition

**Abstract:** Jan Cygan's (1927–2021) linguistic thinking laid out in 1976 relied on self-contained form-based structuralism, but it also incorporated elements of emerging context-based structuralism. As such, it was animated by concepts that effectively implied divergent views on the foundational postulate of linguistic arbitrariness underlying structural linguistics. Cygan approached the inner tensions of changing linguistic paradigms in a manner that may be studied as a case in linguistic ethics. This ethic manifests itself in an attitude toward the linguistic fact, as discussed through the lenses of a linguistic model. Today, it is possible to comment on the period of transition in question, falling back on the achievements of cognitive linguistics. Cygan's stance may be interpreted in terms of the IN-OUT conceptual schema. This interpretation not only highlights the merits of the position emerging from Cygan's 1976 general linguistics introduction, but it also views this position as a solution to a more fundamental problem facing linguistic ethics today and in the future.

**Keywords:** linguistic ethics, Jan Cygan, IN-OUT conceptual schema, history of linguistics

### Introduction

Supposing we report on Jan Cygan's (1927–2021) view of linguistics today, what tense should we use for the verbs introducing the reported clause: the present or the past? Should we suggest Cygan says something that we might want to hear today, or that he simply said something that others heard but which perhaps no longer holds for certain? This question is pertinent for scholars who presently succeed

Professor Jan Cygan in the institute he originally led. But it also has relevance for the study of language, as it is now caught up between two separate, disciplinary silos of linguistic research and literary studies research. Late structuralist thinking on language embodied in the writings of Jan Cygan forms part of the history of linguistics. In Jan Cygan's Poland, this linguistics accidentally cohabited with philology, a non-discipline according to effective official taxonomy today, and for this reason alone, Cygan's linguistics might be viewed as out of step with what will be seen as publishable, priority research. But his view of language—its method, scope and ambition—might also be held to encapsulate something different altogether: a permanently valid ethics of language study for now and for the future. In this regard, Cygan's legacy allows the much-diversified contemporary linguistics to revalorize the synergy of goals extending from the rational to the empirical while maintaining the rigour of intellect. This rigour stems from the awareness of the need for self-constraint when establishing linguistic facts—a particularly valuable, though intangible, testamentary asset in Cygan's linguistic ethic.

Obviously, this text touches just the surfaces of Jan Cygan's heritage, yet it hopes to mark one of the crucial pathways of transition from self-contained form-based structuralism to context-based structuralism—a Hamilton moment in the efforts to break from the compartmentalization of linguistic research. In this article, we discuss this moment of transition by characterizing first the setting for the transition (Section 1) and then, with the transition described, we argue for the validity of Cygan's heritage through the image-schematic lens of contemporary cognitive-linguistic research. On a broader philosophical plane, the discussion at this stage revolves around “naturalist” vs “extra-naturalist” tensions (Kuźniak) that arise from the adoption of the CONTAINER schema, which itself underlies the transition in question (Section 2). The article reiterates critical insights from Cygan's work and its value to linguists and linguistics of today (Section 3).

## 1. Transition in progress: A case of realist scholarship

In contrast with the bulk of contemporary textbook grammars of English, Cygan's 1976 *Strukturalne podstawy gramatyki angielskiej* [Structural foundations of English grammar] was intended to explain general linguistic “foundations of English grammar”<sup>1</sup> (7). The driving question, then, was “not so much to explain how [grammar] works in English, but why it does so” (7), and the ambition was, accordingly, to demonstrate the systematicity of English. This goal was to be achieved in steps, with chapters covering English phonology and orthography, morphology, word classes, verb phrases, nominal phrases, clauses, and sentences. But these individual chapters were preceded by an introductory one. In it, Cygan

<sup>1</sup> All citations from *Strukturalne podstawy...* (Cygan) translated into English by M. K. and M. L.

set out theoretical concepts on which to rest the study of the grammar of English. Consequently, the introduction amounted to a mini-lecture on what linguistics, as he knew it, could say about the grammar of a language. We want to map out important steps he took in this introduction.

Cygan opened with the ancient definition of language as “the organ” of communication and immediately linked it with the modern theory of language functions (Buehler cited in Cygan). The basic language functions—expressive, impressive and informative—were inscribed into the axiomatic model of the speaker, the receiver and the reality where the communication act takes place. But they were cast as a hierarchy; the third function was shown to be primary, and the two remaining ones were ultimately dependent on symbolization of an objectively existing object. In the final analysis, functionalism appeared to be framed in structuralist terms.

This ruling came with a qualification. Linguistic forms were in the main symbols, Cygan insisted, with the exception of a small group of deictic elements. These forms had adjustable meanings, which resulted from the circumstances of reference. There was more. Their role in language was of “capital importance” (12). But did not that contradict the ruling that language was essentially based on symbolic signification? Cygan did not explain.

Instead, he proposed another step. He defined the problem of language as the question of “why sounds produced by human beings signify something” (12). The key to the problem was in the language form, or else the element situated between the substance of non-linguistic reality and the sound substance of a language. Just as symbolization trumped expression and impression as language functions, the phonological substance of a language preceded its graphic substance. The study of linguistic form concentrated on the region between two substances—the language substance and the extra-linguistic substance. But the schema appeared to have a gap, and Cygan admitted that. Surely, if the linguistic form was essentially phonetic, the reasons to entertain the distinction between linguistic and non-linguistic substances were not quite clear, all the more so because Cygan qualified the latter as “the world around us”, “reality”, “accident”? (12) Cygan admitted that the distinction was “somewhat artificial”; he explained that the artifice was a corollary of human exceptionalism (*homo loquens*), and he accepted it (12).

The consecutive sections introduced more distinctions and another hierarchy. The linguistic form may be discussed in terms of grammar and lexis, because forms generally fall into a closed or an open class of elements. This distinction implies that grammar and semantics should be viewed as separate, albeit mutually dependant, ways of dealing with linguistic forms. Grammar focuses on syntagmatic relations; semantics deals with paradigmatic relations, and both kinds of relations are held together by the postulate of textuality (Cygan builds on the notion of “textual elements” at this stage) (16). Cygan stressed the importance of minding the distinction between grammar and semantics, and he proposed that “semantic meaning should follow formal description” (17) in a grammar book. It is another

striking reversal of the radical view on language arbitrariness expressed earlier. The succession of arguments implied (without arguing explicitly) that although symbolization may be postulated as purely arbitrary systematicity, it may be discussed only as a material hierarchy, because publishing a book on grammar entailed, for Cygan, a purpose to grammar. Cygan sailed through these apparent contradictions without stopping to view them as critical problems of theory.

But he did offer a way to view them as problems of scholarly ethics. Grammar, as Cygan consequently explained, may be discussed for different purposes and through different conceptual lenses. The distinctions between grammars—descriptive, comparative, contrastive, prescriptive, paradigmatic grammar, generative-transformative (Cygan 18–19)—are legacies. Cygan implied that they emerge from traditional practices of discussing grammar, rather than principles of linguistics themselves (for instance, he said, the traditional distinction between morphology and grammar was conditioned by specific group-level characteristics of Greek and Latin). This reality, in any case, allowed Cygan to define his work as a specific application of grammar: his book, he stated, was concerned with “systemic” or “system-structure grammar” (20). This grammar relied on accepted categories—“sentence”, “clause”, “group”, “word”, and “morpheme” (20). Or, as Cygan added, in English, the traditional distinction between morphology and grammar has no *raison d'être* (23).

This laid the groundwork for a passage that is of special interest to us. Cygan stressed that Saussure’s idea that language is a global structure *où tout se tient*, where everything holds together (24), was no longer accepted unreservedly. Language was this, but more still. Cygan cited J. R. Firth’s distinction between “structure” and “system” to explain that language was systemic in a poly-systemic sense. This was followed by a statement that we want to look at closely.

... [Linguistic] structure is a train of elements that manifest themselves all at a time, next to each other (in writing) or one after another (in speech). Meanwhile, systemic structure requires that elements become manifest based on a choice of element from among existing possibilities. ... One may venture saying that the structure is syntactic in character, while the system is paradigmatic. Or building on the convention of our writing, we may say (with the explicit quotation mark) that a structure is as if “horizontal” whereas the system is “vertical”. The structure is a sequence of elements coming “one after another”; the system is a choice: “one instead of another”. (Cygan 24)

It might be expected that, writing in 1976, Cygan should generally be exempt from accounting for issues that seem foundational only to the linguists who came later and who, for that matter, were trained on Lakoff’s critique of Putnam. It will be remembered that this criticism picked on the fact that formalist accounts of meaning postpone, rather than solve, the problem of meaning, so far that the correspondence (reference) concept of meaning does not explain the fact of meaning itself. Cognitive linguistics attacked this gap with its rediscovered account of meaning as something materially-grounded in human bodily existence. It is possible to view Cygan’s train of thoughts as evidence to the effect that embodied reason

blows the lid off structuralist formalism in structuralist arguments themselves; this happens when a structuralist exposition needs to rely on open metaphors to ensure coherence of its reference-based account of language. There is direct evidence of such contradiction in Cygan's text. In the passage quoted above, he insisted on orthographic devices that mark out metaphors that were both auxiliary for and constitutive of his argument.

Apparently, the motivation here was to stress that the words are employed merely for the advancement of the expository purposes of his book. This betrays his commitment to "objectivism", which was to be fiercely attacked as a simulacrum by a whole generation of cognitive linguists. But at the same time, it is patently clear that the charges brought against formalist linguistics by cognitive linguists (and its related analytic philosophy of language) could not be levelled against Cygan in good faith. Cygan discussed language as a systematic structure, in which it is conceived as composed of discrete elements that make up categories. But at the same time, he treated the linguistic structure, and therefore the systematicity of language, as cognitively engaging. The manifestation of the linguistic structure—as shown in the quoted fragment—fits the natural cognitive moment of human conceptualization. The point is of consequence. Cygan talks about speech sequence as presented to the human conceptualizer "all at once", a contradiction that may be solved only when we consider "now" as an essentially human, embodied category (it is the "human now", the perceptual moment of the cognitivist account). The study of linguistic structure is enabled by the faculty of embodied, metaphorical thought; the linguistic structure is seen as essentially human-scale. This is fundamentally a cognitive approach, although not expressed in terms of the future generation of cognitive linguists.

Of course, it is impossible to determine what Cygan actually meant, nor is it desirable for our argument. We are simply content to observe that, writing in 1976, Cygan clearly did not seem obliged to pre-empt a cognitivist peer-review snipe at his wording. And, consequently, for some today, his account may sound naïve or simplified, too formal to compete with cognitive linguistics, and too deductive, or simply humanist, in its method to match modern computational linguistics where the syntagmatic and the paradigmatic may be reduced to the mathematical. Equally, it may be taken for granted that the modern critical linguist will view Cygan's implication in structuralist contradictions (Lakoff and Johnson; Lakoff) as a serious flaw, or at least a significant shortcoming.

But what is really interesting about Cygan's humanist structuralism is not simply that it may be viewed in hindsight as unaware of its flaws. Cygan's argument becomes especially interesting when we question *what kind of mistake* these flaws putatively fall into. For the modern linguist, Cygan the structuralist sits on a theoretical tinderbox insofar as his argument originates eventually from the centrepiece of twentieth-century linguistics, or else Saussure's synchronic radicalism; thus, it carries the inherent potential, tensions and contradictions of Saussure's theory. The

modern linguist is tempted to view Cygan's structuralism as abortively hubristic in its postulates, or at least fraught with contradictive tensions that arise between a descriptive ambition to model language and a scholarly ambition to understand language. Our present time's hubris regarding Cygan's structuralism may even feed on untoward erudition: indeed, such world-known linguists as Jakobson appear to have occasionally lost the plot on the concept of arbitrariness in Saussure's theory (Harris).

But Cygan's treatment of linguistic theory strikes us as contradictory only if you focus just on the limits of the structuralist model. It is far less contradictory if you consider how Cygan knowledgeably addresses the limitations of this model no less than *through* these alleged contradictions. In the passage above, Cygan the structuralist may insist that the vertical and the horizontal metaphors of the paradigmatic and the syntagmatic are accidental, that they derive from the human experience of literary practice, that they merely illustrate independent principles of structuralist linguistics. But at the same time, Cygan the linguist, understands that it is that very accidental experience of grasping the paradigmatic and the syntagmatic in language through metaphors that makes the distinction relevant, meaningful, or even possible. If you insist on a metaphor to illustrate a concept, this concept appears fundamentally unstable and less than discrete, perhaps even suggesting that this concept and its illustration be practically indistinguishable. If you rely on accidents to make general points, the accidental is less than arbitrary. The result might be that Cygan's advocacy of form-based linguistics could question its own formalism in his pedagogy of linguistics, where linguistics is understood as something that humans grasp with their intellectual faculties.

What this example hopefully shows is that Cygan's position on language could be seen as partly explicitly formulated and partly implicitly enacted. Or at least, the implicit performative dimension of his linguistic method is what may come across for some scholars today as a model ethical attitude to the study of language. To provide intellectual elbow room for structuralism without forfeiting Saussure's postulates—that is a practical transition for linguistics. It is also an ethical stance toward the reality of practicing linguistics.

## 2. Transition complete: Between “naturalism” and “extra-naturalism” (Kuźniak)

The transition sketched out above throws in relief one element, namely the role of the linguist in linguistic inquiry. This role appears to have been generally overlooked or deemed less than central when structuralism formulated its programme. However, if we assume that a human being along with its entire cognitive-perceptual repository is not the ultimate benchmark against which the epistemology of language and the interpretation of the linguistic outcome is to be construed, then the ethos of linguistics becomes an important focal point for a theory of language. On

this account, the language of description should be non-reductionist and rationalist, as the burden of proof admits the existence of facts beyond direct human perception, whether at the micro or macro level, including transcendental speculation. This approach may be summed up as extra-naturalism. The principal assumption is that the extra-naturalist perspective, due to its broader scope of research interest, may offer guidance as to the aesthetics of linguistic description for researchers favouring conflicting paradigms. In this way, extra-naturalism may also avoid the traps behind its approach (see Section 4). The roots of the naturalist/extra-naturalist dichotomy in thinking about the substance of *la langue* and, broadly, the philosophy of research in linguistics can be found at the image-schematic-level of our conceptualization, strictly the CONTAINER schema (see Johnson; Krzeszowski). The CONTAINER basis of language and linguistics may be subsumed under the label of “form-based linguistics”, which groups various strands of the neo-philological tradition of research ranging from structuralism (both American and European versions) through generative linguistics (e.g., Chomsky *Structures* and *Aspects*), functionalist approach (e.g., Beneviste; Halliday, McIntosh and Strevens), to post-structuralism (e.g., Langacker; Lakoff).

Fifty years after the conception of Cygan’s book, what is the state of linguistics relative to the problem of linguistic form? Perhaps the achievement of cognitive linguistics, specifically its ambitious programme of reconceptualizing philosophy of language, may be of use in addressing this question. As Kuźniak (1) argues,

[f]orm-based linguistics, irrespective of the underlying paradigm, takes for granted the CONTAINER ontology of language as its subject matter of study. The options are essentially two-fold: linguists may focus on the IN-side of the CONTAINER, thus boosting what in the philosophy of language is called internalism, or they may profile the OUT-side, thus promoting what in the philosophy of language is referred to as externalism. ... The IN-OUT aspects of CONTAINER topology were given a comprehensive treatment by Mark Johnson and subsequently enriched in the studies undertaken by Tomasz Krzeszowski. In consequence, the notions of epistemic or epistemology are also to be understood here along the lines drawn by cognitive linguistics, which takes as its departure point a human-scaled “envisionment of the world”. ... Despite the differences, most linguistic programs, whether IN or OUT-oriented, seem to belong to one naturalist ‘family’, as they more or less explicitly propagate explanation of linguistic facts within the bounds of the sensually graspable world by consistently positioning a human being on top of the hierarchy of beings. ... In other words, form-based linguistics, regardless of the provenance, assumes that the knowledge is most attainable through recourse to the potential of the human cognitive-perceptual apparatus. In this sense, the existing paradigms may be jointly referred to as anthropocentric.

Given the above, is Cygan a naturalist or an extra-naturalist? His strong insistence on the domination of the symbolic function of language appears to put him in the “hard” naturalist camp. But at the same time, his introductory pages go to some length to sketch out the limits of radical structuralist thinking. He inconspicuously turns to functional structuralist ideas; for instance, when he assumes that grammar is motivated by such factors as may be grasped and exposed in a textbook for people who hope to teach English.

So, while Cygan's diction may and will often sound anthropocentric and naturalist, his method mirrors the axioms of extra-naturalism<sup>2</sup> (as discussed by Kuźniak). This approach has the potential to accommodate two seemingly conflicting forces: anthropocentrism on the one hand and awareness of the limitations of anthropocentric epistemology on the other. This virtue is under threat today, and it should be seen as a value, if not for its merits, then certainly for the sake of intellectual diversity.

Extra-naturalism thus holds that our understanding of reality is principally an incomplete expression of the knowledge of any phenomenon, including the natural language. Extra-naturalists believe that ontological and epistemological Truths are actually beyond the scholarly, within which (i.e., the level of human perception and cognition) only approximative statements of reality can be produced (Kuźniak 5).

Naturalists, on the other hand, claim that research undertakings should be grasped as facts rather than the Truth, and that the world is describable by natural means, i.e., without recourse to the transcendental. (5)

What conjoins the two apparently rivalling camps is a set of assumptions underlying linguistic discourse, and they are manifest in Cygan's work. Indeed, it is particularly attractive as a demonstration of how linguistic assumptions sustain a tentative balance between the IN and OUT poles of form-based linguistics. Cygan avoids radicalism in thinking. He consistently adheres to the self-contained view of language, but his method of exposition, including the incorporation of fundamentally different perspectives, points to his awareness that linguistic description relies on a scholarly model. It might be then recommended to look into some of the quotations from Cygan (Ch. 1) to see how his research position—often through implicit address—marks up the foundational naturalist position with the avenues beyond what this position logically admits. Or putting it in other words, it is now justified to go back to Jan Cygan's argument, this time firmly using the present tense to report on his stance.

A point of reference for this exploration is a set of universals discussed in Kuźniak (7), which seem to underlie—and thus reconcile—naturalist and extra-naturalist philosophies of linguistic inquiry.

- Language is a fact;
- Language is a biological-cultural phenomenon;
- Any linguistic system is composed of symbolic units;
- As a system, language is composed of functional elements.

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<sup>2</sup> “Extra-naturalism thus holds that our understanding of reality is principally an incomplete expression of the knowledge of any phenomenon, including the natural language. Extra-naturalists believe that ontological and epistemological Truths are actually beyond the scholarly, within which (i.e., the level of human perception and cognition) only approximative statements of reality can be produced. ... Naturalists, on the other hand, claim that research undertakings should be grasped as facts rather than the Truth, and that the world is describable by natural means, i.e., without recourse to the transcendental” (Kuźniak 5).



Cygan discusses language as a fact, but this is not a neopositivist understanding of facts understood as collections of scientific statements circumscribed under the ontological formula X IS Y. Cygan understands language in Saussurean terms and, in this regard, he views language as a social phenomenon. But he immediately situates such conceived phenomenon in between the three components, the speaker, the listener, and the surrounding objective reality. Cygan stresses the functional aspect of language by referring to Plato's notion of *órganon*, thereby positing the INSTRUMENT-based view of language as primary but also accentuating its biological [material] footing.

One of the oldest definitions of language is found in Plato: it is a tool (*órganon*) with which one speaks to another. This model of language as a tool proved useful as late as the 20th century: it allowed us to define the functions of language on the basis of the analysis of a normal speaking situation.

In this situation, language is situated among three elements: the speaker (A), the listener (B) and the objective reality surrounding them (O). (11)

— Language is both a mental and material entity

Cygan makes further reservations concerning the nature of language by implicitly addressing its mental-material nature. This, in turn, evokes Saussure's distinction between *la langue* (language seen as an abstract entity) and *la parole* (language seen as a material entity). This dual nature of language as a social phenomenon necessitates that our determination of language ontology becomes intrinsically epistemic, i.e., amenable to the constraints of the human cognizing capacity, where abstraction derives from the contemplation of the here and now of the discourse situation. This concept transpires in the narrative of Cygan's lecture as a twofold way of seeing language phenomena, wherein recourse to *la parole* in some way naturally

[m]ore precisely, in a specific situation, the issue is not about language, but about a particular linguistic text, spoken or written (since language is available to us only in texts); nor is it only about the speaker and the listener, but also about the sender and the receiver in general (**it can be the author and the reader**). And finally, it is **not necessarily about reality** but about all the "things" (**including abstract, imaginary things**) that the object of conversation concerns. (11, emphasis M. K. and M. L.)

— Language facts are epistemic representations of the entire ontological reality

Going 'epistemic' rather than 'ontological', Cygan quotes the open-ended catalogue of research observations and makes reservations by exemplifying his argument through exceptions that actually inform us about the "model" conceptualization of linguistic facts. This, again, conveys with it an approximative rather than definitive mode of argument formation and presentation.

This complete situational pattern occurs often, but not always. Instead of a speaker, for example, there may be an inscription. There may also be no listener (when someone excitedly speaks to themselves). Finally, there may be neither speaker nor listener (in a dictionary), but the symbolic function always exists. (11–12)

— Language has structure (form) and meaning (substance); Language is indeterminate in substance

For Cygan, the symbolic functions seem to operate in language invariably. This is foundational for any symbolic representation, as it forms an inalienable assembly of form and meaning. But Cygan ultimately realizes that the postulate of symbolic invariance is not exceptionless. By choosing the “epistemic” (approximative) pathway of conceptualization, he mentions deictic forms that do not make up “true” symbols (12). In fact, he argues that these elements form a rather small group in language, but later, however, adds that deixis plays a pivotal role in language.

Language is thus an instrument of representation by means of symbols. Linguistic forms are, in their vast majority, symbols. Only a small group of forms exemplify another technique: these are indicative elements. ... And although, as we shall see, deictic elements occupy a crucially significant place in language, the bulk of elements is symbolic. (12)

— Language is describable and analysable

Interestingly, Cygan sees the form-substance interplay in terms of a two-dimensional spatial conceptualization of relations, where the systemic plane of language (vertical relations) intertwines with its structural plane (horizontal relations). The model, as such, forms a continuum of planes from language substance through language form to an extra-linguistic substance (see Figure 1, below). Central still seem grammatical and lexical components, but for Cygan, an extra-linguistic substance still falls within the scope of linguistic research. Language appears as a relational entity, the ontology of which extends beyond the realm of form to cover the substantive facts, whether described as linguistic or extra-linguistic. This approach to language places Cygan among linguists who, though tightly linked to naturalist (language form-substance based) thinking, admit the need to explore facts that go beyond language, as these may still be considered relevant to the work of a linguist.

At the other end, the connection between linguistic form and extra-linguistic substance occurs at the level of semantics, i.e. the mutual assignment of linguistic forms and elements of the surrounding world; these relations are called meaning, and they fall within the scope of interest of linguistics (13).

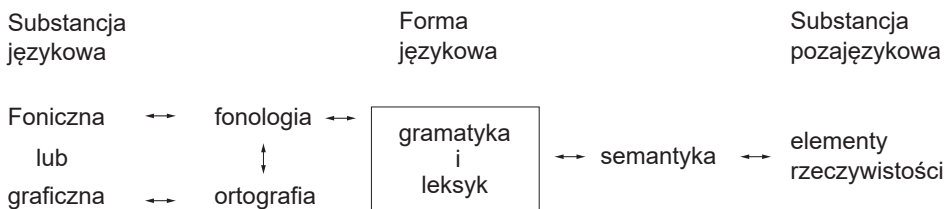


Figure 1: Systemic-structural relations in language (Cygan 13)

— As an entity, language has ecological properties, for example, sustainability, resilience, and diversification

This universal is explicitly addressed in Cygan's work and exemplified in Figure 1, above, where ecological aspects are mentioned in the form of extra-linguistic substance; that is, the elements of external reality. The reality as such is still viewed by Cygan as objectively given rather than constructed or mediated *via* conceptual operation in mind, but the prospects for incorporating the elements of extra-linguistic substance as part of language inquiry are open. Cygan, in this respect, clearly distances himself from the scepticism concerning the place of semantics in linguistics and, thus, from the relation of language to the outside world, as boldly expressed by, *inter alia*, American structuralism (Bloomfield) or Chomsky's (*Structures and Aspects*) early generative-transformational approach.

The universals presented above indicate a synthesis of naturalist (rationalist-empirical) philosophy of intellectual undertaking to which extra-naturalism may also subscribe. The overarching belief is that a systemic account of the research object is entirely achievable within the nature of the mind and the universe. If any fact established through the rationalist-empiricist method is to be dismissed, it should be done based on updated evidence within the bounds of the same rationalist-empirical tradition. The extra-naturalist version of linguistic epistemological universals, although largely contingent upon the rationalist-empirical heritage, would, on the other hand, sceptically shift the focus of the linguistic undertaking from the achievable into the principally non-achievable. To put it differently, the shift would be from the positive finalist (naïve?) conception of knowledge as a set of facts to the negative non-finalist (realistic?) conception of knowledge as a set of inherently approximate factual statements. As already mentioned, the product of such reasoning would entail seeing linguistic facts only as an approximation of the Truth. Appreciating this distinction could have a practical value for dry disputes among linguists, who often think about the facts they present as True, rather than as 'true' (a great qualitative difference). The stakes are high, and if the extra-naturalist approach is admitted to mainstream linguistics, it may mean a spectacular stage entrance, which along with its 'renewed' perspective on the theory of knowledge, may significantly add to the naturalist linguistic reflection on the WHAT, with no dramatic necessity to overturn the existing status-quo (Kuzniak 8).

### 3. Towards conclusions

What inspirations can new generations of linguists draw from the life work of Jan Cygan today, when the tradition he embodied is questioned by claims of modern technology-driven methods?

Before it was plugged into the mathematical-algorithmic compound of science, the structuralist tradition was much closer to the cognitive tradition than it

may seem today. What is meant by the cognitive tradition is much older than the third generation of cognitive linguistics; in fact, the origins of cognitivism may well be traced back to Condillac, who hesitated on and finally rejected Locke's claim (Harris and Taylor) that language formation was arbitrary. But why would structuralism, when compared with data-driven linguistics, seem closer to the tradition that it competed with? The first and the second generation of structuralists—Saussure's and Jakobson's generations, respectively—practised human-scale linguistics. It will be remembered that, while agreeing on principles, models may differ in use because their volume range makes for a big cognitive difference for those who use models. As once said in reference to an earlier watershed moment in human learning, huge numbers (or for us—sets) may be “conceived” of, but they cannot be “imagined” (Lewis 98–99).

In the period of professor Jan Cygan's life work, the philological tradition, which does not draw a sharp contrast between linguistic and literary interests, was an obvious choice; it commanded respect from across the board of language studies. But today, it may be argued that it used the formal language of structuralism to talk about systematicity based on proofs that appear dwarfed by modern big data evidence. In fact, general statements and observations about the structure of English syntax were routinely supported by deductive rather than purely inductive forms of argumentation. As viewed today, they appear to have been based on the expert consensus of linguists rather than robust evidence—if today's data sets should determine the measure of robust evidence. Interestingly enough, linguistics seems to have fallen back on two related, but distinguishable, versions of itself. It appealed to the radical structuralism of Saussure when it explained the economy of its model and to the functional structuralism of Jakobson (Joseph) when it sought to explain its findings. The strength of that kind of linguistics was that its arguments were psychologically relevant, human-scale and easily implementable in language teaching or language use. They were compatible with literary studies under the umbrella of philology.

Of course, big data is also inextricable from the philological tradition because corpus processing depends on human interpretation—if not directly, then indirectly. In the final analysis, the mounting pile of language data is based on human interpretation of sound words. But this organic dependence of formal methods on the human judgment will be hidden from view so far as the experiences of data-driven linguistics and pre-data linguistics are, psychologically speaking, distinct for those who practice them. The point is a weighty one, so far that the culture of linguistics and the culture of informatics have different potentials.

Jan Cygan's thinking about language should occupy a permanent place of interest for students of linguistics *because* his linguistic heritage is that of a transition period. It admirably represents the shift from the linguistic paradigm of thinking about the “hard-wired” IN-aspects of language to the recognition of its OUT-er attributes as legitimate issues in a linguistic endeavour. The IN-OUT dichotomy arises, as said above, from the ontology of the CONTAINER schema. Conceived as

CONTAINER, language may be metaphorically discussed at the image-schematic level as having its IN and OUT features. This view accords with the widely-adopted approach in linguistics (regardless of the paradigm) that language has its mental (IN) and material (OUT) manifestations. This dual ontology of language recalls other dualities encountered in the world, e.g. processual-(wave)/discrete (particle) nature of light. Indeed, the transition towards the validation of the OUT properties of language was spectacular as it marked the “velvet” revolution of research perspective at both vertical and horizontal dimensions. Vertically, the perspective has been taken down to encapsulate the bottom, i.e. the corpus data of real language use; horizontally, the perspective has broadened to take account of the contextual horizons of language research interest. Last but not least, philosophically, the discussion has panned out to embrace the extra-naturalist epistemology of a linguistic work which is no longer seen as an exclusive post in the fenced-off laboratory (the place of objective *knowledge production*) but rather immersed in the Universum of the Anthropos, the realm of *knowledge pursuit* where the objectivity of facts is naturally constrained by the Inaccessible Truth.

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