László Cseresnyési & Miklós Kontra:
Empirical linguistics
Argumentum 20 (2024), 276–286
Debreceni Egyetemi Kiadó
DOI: 10.34103/ARGUMENTUM/2024/16

László Cseresnyési & Miklós Kontra

Empirical linguistics

A cautious obituary[1]

Abstract

The present paper is intended as a contribution to an ancient controversy about the nature of linguistic research. Dionysius Thrax, the author of the first extant European grammar, claimed that the study of language is "empirical". We argue that linguistics, as long as it strives for empirical adequacy, must be essentially data-oriented, reflecting what may be called sociolinguistically valid *collective intuitions.* Using data from the Hungarian National Sociolinguistic Survey and the Budapest Sociolinguistic Interview project, we show the empirical inadequacy of two structural grammars of Hungarian published in 1998. In contrast to their titles (namely: "a grammar of Hungarian"), these structural grammars describe Codified Standard Hungarian (CSH), hence, in some cases, they ignore the grammaticality judgments of more than half of the native speakers of Hungarian in Hungary. It is also shown that studying people's actual speech leads to important linguistic discoveries, e.g. the final *-n* of the inessive case-ending of CSH *-ban, -ben* 'in (location)' is pronounced in only one-third of instances in normal Hungarian speech.
Keywords: data, empirical, intuition, introspection, adequacy, grammaticality judgments of Hungarians, speech data

1 In defense of dinosaurs

Few things are more annoying to linguists like us nowadays than the arrogance of some of our colleagues who claim that a "truly scientific linguistics" is, in fact, limited to studies pursued by "theoretical linguists". For instance, for such a Hungarian claim, see É. Kiss (2009: 4), who claims that all the theories and pretheoretical linguistic research before the advent of generative linguistics aimed to study language as a social phenomenon […] in contrast to generative linguistics, which studies the human linguistic capacity.[2] Claims of this kind are decades old, beginning with Lees' (1957: 380) distinction between "the brilliant scientist" and "the dull cataloger of data". In other words, LINGUISTIC SCIENCE, writ large, is said to have begun in the 1950s, and those who still attempt to make use of empirical methods are leftovers of a prescientific paradigm, comparable to fossils of antediluvian reptiles.

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[1] Section 1 is written by Cseresnyési, section 2 by Kontra, and section 3 jointly by both authors. Unless indicated otherwise, we use *we, us, our* throughout the paper since we take joint responsibility for everything stated here.

[2] In Hungarian: "A generatív nyelvelméletet megelőző teóriák és preteoretikus nyelvészeti kutatások célpontja a nyelv mint társadalmi képződmény […] Ezzel szemben a generatív nyelvelmélet tárgya az egyén nyelvi képessége, mely lehetővé teszi […]."

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What we argue in this paper is not just that empirical methods (elicitations, surveys, and "data-hunting") are legitimate and essential means of the study of language.[3] We also claim that linguistic dinosaurs and real scholars do pretty much the same thing, as long as our endeavor is supposed to meet the requirements of empirical adequacy. What we miss on the part of (at least some) theoretical linguists is a measure of decent modesty or respect for the traditions we all benefited from.[4]

The first half of the present paper is concerned with a brief discussion of the terms *empirical, intuition* and *introspection*. One of the most-quoted lines by Alfred N. Whitehead, the prominent British mathematician and philosopher, comes from his 1929 book called *Process and Reality.* It reads as follows ([1929] 1978: 39):

> The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato. I do not mean the systematic scheme of thought which scholars have doubtfully extracted from his writings. I allude to the wealth of general ideas scattered through them.

Plato had, indeed, set the agenda for several nagging problems which have been examined by successive generations of scholars. He already drew a distinction between *epistêmê,* i.e. knowledge based on scientific principles and inferences, as opposed to *empeiria,* i.e. unprincipled, empirical knowledge which develops through trial and error. Bad physicians, he claimed, provide patients a particular treatment, and if those patients die, physicians change the therapy (*Laws* 720, 477bc). Apparently, in Plato's theory of knowledge, we already have the fundamental idea that mere experience or empirical knowledge is worth little and might even turn dangerous without understanding the principles underlying actual data. Medieval scholars added to Plato's original insight that the process of thinking is inherently paradoxical. Without having a preliminary (intuitive) concept of what we are looking for, it is impossible to collect relevant data, while without knowing some relevant data beforehand, we cannot form a preliminary (intuitive) concept.

The word *intuition* was first introduced by Plôtinos (Plotinus), a 3rd century Greek philosopher, who made a distinction between two types of "knowing something" (*Enneads* IV.4.1.). One that is based on logical reasoning, processing experience, inferences and the like (*diexodikos logos,* in English *discursive* is the usual translation of *diexodikos*). Also, another one that involves no conscious reasoning. This latter one Plôtinos called *epibolê* 'casting, abrupt grasp, immediate apprehension / understanding of something'.[5] By pure observation we recognize, for instance, that the shortest distance between two points is the straight line. Also, we simply happen to "know" that *There are no round squares,* or *Nothing can be red and black all over at the same time.* This idea of sudden "illumination" was rendered in Latin as *intuitio.*[6]

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[3] For a brief comparison of introspective versus empirical approaches see, for instance, Krug & Schlüter (2013: 2–3). They state, among other things that "Up to the 1960s, linguists' work was based on authentic examples collected from written or spoken usage. The Chomskyan revolution and the rise of the generative paradigm put a sudden halt to this tradition, now dismissing actual language data as error-ridden and imperfect and concentrating on the internalized grammar of an ideal speaker/hearer."

[4] Nevertheless, a giant of scientific inquiry, Isaac Newton, for instance, flatly denied that the history of physics starts with his own works. Instead he famously wrote in a letter to Robert Hooke that "If I have seen further, it is by standing on the shoulders of giants" (February 5, 1675). The phrase "on the shoulders of giants" goes back at least to John of Salisbury's *Metalogicon* (1159).

[5] In German philosophical terminology *schlagartiges Erfassen, Anschaung, Eingebung* etc.

[6] In the 13th century by W. van Moerbeke, in his translation (< *intueor* 'inspect, consider').

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The word *intuition* has made an amazing career in philosophy, psychology, linguistics, and in everyday language as well.[7] It may mean almost anything. People may say, for example, by their "moral intuition" (ethical belief) *Beating children is wrong.* The modern everyday concept of *intuition* has a certain mystique connected with a particular individual's innermost, unconscious "gut-level" feelings. Let us take an example. It may be hard to explain how a driver has been able to predict that the BMW ahead of us was going to change lanes, and crash into that Volkswagen. But we must have seen something. Indeed, intuitions are, by definition, beliefs or motives not immediately interpretable in a rational way. The reason is that we are processing an immense number of stimuli, including subliminal stimuli, at any moment of our life, and the control of our moves and decisions is subconscious and spontaneous to a large extent. What we must emphasize, however, is that all intuitions, including *linguistic intuitions,* belong to our collective knowledge.

Why is this fact so important? There is no doubt that to a considerable extent we can have access to this collective knowledge through self-observation, technically called *introspection.* It is an established fact, however, that introspection as a research method is prone to gross errors. From Auguste Comte's *Cours de philosophie positive* (1830–42) to modern scholarship, the nature of introspection was subject to critical scrutiny (cf. Boring 1953, Heavey 2013). Linguists sitting in comfortable armchairs, for example, reflecting on their own language use, often fail to realize how different grammaticality judgements actually are among native speakers of the same language. By pure introspection we often miss how different interpretations people give to the same utterances. Also, most frequently, our beliefs about prototypical usage or frequency tend to be completely wrong. However, we tend to believe that we can just learn everything that matters by sitting back in that comfortable armchair and groping into our brain. There is nothing wrong about self-confident individuals passing grammaticality judgements on innocent English sentences in the solitude of their office. Yet claiming that they are, in fact, doing "cognitive science" appears to be a bit of exaggeration. Our learned colleagues should realize somehow that there is a whole world outside.

Half a century ago, Guy Carden claimed that differences of idiolect have long been an embarrassment to transformational grammarians (Carden 1970: 281). People doing research in pragmatics and sociolinguistics tend to believe that "the same language" used by individual speakers is, in fact, far more diverse than it has been believed. The illusion of homogeneity may be due to the fact that each speaker possesses what we would like to call a *composite competence.* This term implies that a native speaker knows a lot about other speakers' language use, and builds up his or her personal model of varieties.

Beyond this diversity inside the individual and also outside among the members of the community, a further problem is posed by the fact that language use is not always governed by rules, but often by tendencies, and everything is entrenched in pragmatic factors.

Let us just briefly refer to Japanese conditionals to illustrate how complex and variable data are. Conditionals in European languages tend to belong to prototypes such as factual, hypothetical and counterfactual. However, the choice among the four types of Japanese conditionals is determined by more than ten pragmatic factors.
The types are the following:

[7] Bjelke (1972); Hintikka (1969, 1999); DePaul et al. (1998); Devitt (2006, 2010). For more details cf. the Stanford Encyclopedia of Philosophy: https://plato.stanford.edu/entries/intuition/.

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p-eba **q**	**p**-tara **q**	**p** nara **q**	**p** to **q**

p stands for the antecedent, **q** for the conclusion;
-eba, *-tara*, *nara* and *to* are the markers

Let us just mention a few factors. For example, conditionals of the **p**-eba **q** type require an indicative conclusion clause. In a sentence such as *If Ken arrives, give me a call* the conclusion is an imperative, so the *-eba* type is not possible. Here, the **p**-tara **q** type is correct (and it may have an "if" or "when" interpretation). With **p** nara **q** the option of the opposite state of affairs must be considered possible (i.e. the assumption that Ken doesn't arrive at all). The **p** and **q** in the *nara* type may or may not follow each other, so *If you go to Tokyo, go by plane* is possible using *nara*. On the other hand, *If I die, I will go to heaven* is not used with *nara,* because it would imply that the subject is immortal. Yet, *If you die on me, I will also die* is OK with *nara,* because here the universe of discourse is limited to one particular situation. Sensitivity to unique and repeated acts also matters, and some factors motivate only tendencies, not absolute rules. Usage also depends on the age of the speaker and other factors (such as style or register).

This mess is what we usually call a LANGUAGE. We believe that it is not a good idea to turn a blind eye to its true, often elusive nature, and to believe that any reference to collective data, variation and ongoing change would result in destroying our nice and neat rules.

2 Data and analyses

For several decades, contemporary linguistics research has been suffering from a data-and-analysis problem, and also from a "scientific linguistics" problem.

2.1 Data and its analysis

In his book *Linguistics as a Science,* Yngve (1986: 2) wrote that

> There are complaints that the leading theories do not properly address large areas of data. (Weinreich, Labov & Herzog 1968; Hymes 1974 […] and many others.)

The data problem also concerns the issue of what data should be primary in linguistic analyses: spontaneous speech, or written texts, or introspection (see, e.g., Sampson & Babarczy 2014). In the past seven decades, a good deal of linguistics has also been suffering from irresponsible data analyses, as shown by Postal (2004) in his essays on *junk linguistics*.

As regards data and analysis, reproducibility has been a problem for linguistics for many decades. Yngve (1994: 35) stated that "The criterion of acceptance of observational and experimental results is their reproducibility when questioned." In a recent position paper Berez-Kroeker et al. (2018: 9) state that "The bad news is that linguistics has a long way to go before we can claim to be a discipline that values reproducible research." In their definition, reproducible research "provides access to the original data for independent analysis" (p. 4).

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2.2 Is linguistics a science?

This continues to be a burning question. Yngve (1986: 3) correctly remarked this:

> Unlike the situation in linguistics, where major linguists seldom agree on theory, major physicists around the world generally agree about most matters of theory.

For lack of time and space, we will only mention a few important publications addressing this issue: Itkonen (1974), Halliday (1975), Ringen (1980), Yngve (1994), and Schütze (1996).

We endorse Yngve's (1994: 44) program whereby "the linguistic study of people must become central in a scientific linguistics", but we don't endorse his "hard-science" program. Rather, we agree with Sampson (2017: back cover):

> Linguistics is a subject which came to the fore only in the 1960s. It is founded on a fallacy. Linguistics came to be 'the scientific study of language', but language behaviour is too open-ended and creative to be treated by the methods of science. In consequence, linguistic theories systematically distort the nature of language, and present a misleading picture of our human nature.

2.3 "Missing out on a great deal of linguistic data"

In 1980, Chambers & Trudgill (p. 55) wrote this:

> Linguists and dialectologists remained, as they still remain to a considerable extent, ignorant about the way in which most people in England (and elsewhere) speak, and have therefore been missing out on a great deal of linguistic data.

As late as 1998, structural descriptions of Hungarian, e.g., Kenesei, Vago & Fenyvesi (1998) and É. Kiss, Kiefer & Siptár (1998) used the terms *free variation* or *szabad váltakozás* (its Hungarian equivalent) respectively several times, paying little or no attention to the social and stylistic variation in Hungarian increasingly available in published research. To illustrate the discrepancies between a structural grammar and actual language use in Hungary in the 1990s, we quote what Kiefer (1998: 215–216) says about the 1SG conditional suffix of verbs in the indefinite conjugation (our translation):

> The first-person inflection is *-ék*. This suffix does not in fact alternate, and it 'violates' the rule of vowel harmony, which would require e.g., *vár-nák* [for the back-vowel verb *vár* 'wait'], but that form would be the same as the 3PL conditional form of the definite conjugation. Since the two forms are different in person (1SG and 3PL), such homonyms are, if possible, avoided by the language.

Two years before Kiefer (1998), Lanstyák & Szabómihály (1996) demonstrated in a written questionnaire study (n=735) that 14% of highschoolers in Hungary used the nonstandard form *tud-nák* 'I would be able to' as opposed to 25% of Hungarian high schoolers with Hungarian as the medium of teaching in Slovakia, and 65% of Hungarians with Slovak as the medium of teaching. Using data from the Hungarian National Sociolinguistic Survey (HNSS) conducted in 1988, Kontra (1994 and 2003: 126–130) demonstrated that 45% of a representative sample of adult Hungarians in Hungary (n=832) judged the highly stigmatized nonstandard form *kap-nák* 'I would get' to be grammatically correct. Social stratification by occupation had a significant ($p < .01$) effect on the judgments, as did educational achievement, age, and other factors. It was also shown that the nonstandard judgments were undergoing standardization in Budapest, but not in the rest of the country. Oral sentence-completion data in the same study

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showed that 15% of the representative sample used non-standard forms like *tud-nák* 'I would be able to' and *in-nák* 'I would drink'. Social stratification by education, residence, gender, occupation, and race (Gypsies vs. others) all had a significant effect on the spoken forms used. Ongoing standardization was revealed in the speech of women ($p < .01$), though not of men. In this case, one can say that Kiefer (1998), when describing Codified Standard Hungarian, missed the grammaticality judgments of 45% of the adult residents of Hungary, and the oral sentence-completion data of 15% of the same people.

Our studies show that oral sentence-completion data were much closer to Codified Standard Hungarian than grammaticality judgments, because respondents demonstrated more linguistic awareness (audio-monitoring) during oral sentence-completion than during judgments. Nevertheless, if a Hungarian linguist chooses to describe Codified Standard Hungarian speakers, s/he will certainly miss at least two-thirds of the native speakers in Hungary, see Figure 1 (Kontra 2006: 108). One can only guess how many (theoretical) linguistically significant features such a linguist will miss.

Figure 1 shows the results of a "linguistic hurdle race" of 7 oral sentence-completion tasks. In the following sentences (tasks) the standard variants[8] are in square brackets.

1) *Azt akarom, hogy ő [nyissa] ki az ajtót.*
   'I want him/her to open the door.'
   – Vt-final verb (verb ending in vowel + t)
2) *Ha jobb lenne a fizetésem, többet is [tudnék] dolgozni.*
   'If my salary was higher, I could work more.'
   – 1Sg conditional (nVk)
3) *Az asztalos éppen most [ragasztja] a szék lábát.*
   'The joiner is just gluing the leg of the chair.'
   – Ot-final verb (verb ending in obstruent + t)
4) *Ebben a zajban nem hallom, ha Éva [kinyitja] az ajtót.*
   'There is so much noise I can't hear if Eve is opening the door.'
   – Vt-final verb (verb ending in vowel + t)
5) *[Természetes], hogy igazad van mindenben.*
   'Naturally, you are right in every respect.'
   – adjective+that-clause
6) *Nem akarom, hogy Tamás a rossz utat [válassza].*
   'I don't want Tom to choose the wrong route.'
   – Ot-final verb (verb ending in obstruent + t)
7) *[Természetesen] igazad van, mint legtöbbször.*
   'Of course you are right, as usual.'
   – adverb + clause

The bars in Figure 1 show those respondents who completed the tasks according to Codified Standard Hungarian. If a respondent used the nonstandard variant of task 1), s/he was lost in the race. If s/he used the nonstandard variant in task 2) s/he was also out. After task 1, 700 out of a total of 832 respondents continued the race. After task 2) 587 respondents were left. After task 7), 290 respondents remained, that is 34.8% of the Hungary-wide representative sample.

[8] For a detailed description in English of the following seven variables and their variants, see Kontra (2006).

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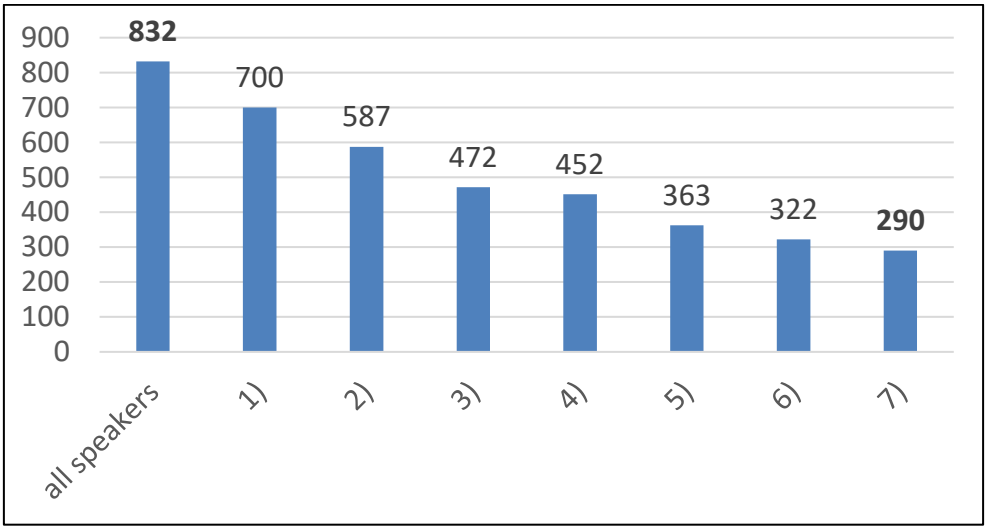

Figure 1. Number of respondents who orally completed 1, 2, … 7 sentences in accordance with Codified Standard Hungarian (Hungarian National Sociolinguistic Survey)

2.4 Studying people's speech leads to important discoveries

In his recent book Radford (2018: 3–4) convincingly argues that "non-canonical structures [in English] are of interest from five different perspectives (prescriptive, descriptive, theoretical, sociolinguistic and psycholinguistic)." He analyzes data that come mainly from recordings which he has made of popular programs on British radio and TV stations over the past decade, using live, unscripted broadcasts. Studying live, unscripted speech which is free of possible prescriptive influences offers important new discoveries (cf. also Biber et al 1999).

We will show one such new discovery in Hungarian speech, the behavior of the variable (bVn), the inessive case-ending meaning 'in' as in *házban* 'in (a) house [location]'. In Codified Standard Hungarian the inessive case-ending is different from the illative case-ending (e.g., *házba* 'into (a) house [direction]'). In normal speech the final *-n* of the inessive is often deleted, which is also reflected in grammaticality judgments such as

A kisfiút megbüntették, mert nem volt iskolába.
'The little boy was punished because he was not in school.'

where nonstandard *iskolába* 'into school [direction]' is used for standard *iskolában* 'in school [location]'. This prescriptively incorrect sentence was judged grammatically correct by 61% of the HNSS representative sample (n= 832).

From the Budapest Sociolinguistic Interview project we have learned that in normal Hungarian speech, on two occasions out of three the final *-n* is deleted in the tokens of the variable (bVn) 'in', see Figure 2. Deletion is socially stratified, but the phonological conditioning is yet to be teased out. Before members of the Budapest Sociolinguistic Interview project, no Hungarian linguists, whether prescriptive or descriptive, had the slightest inkling about the extent of this deletion.

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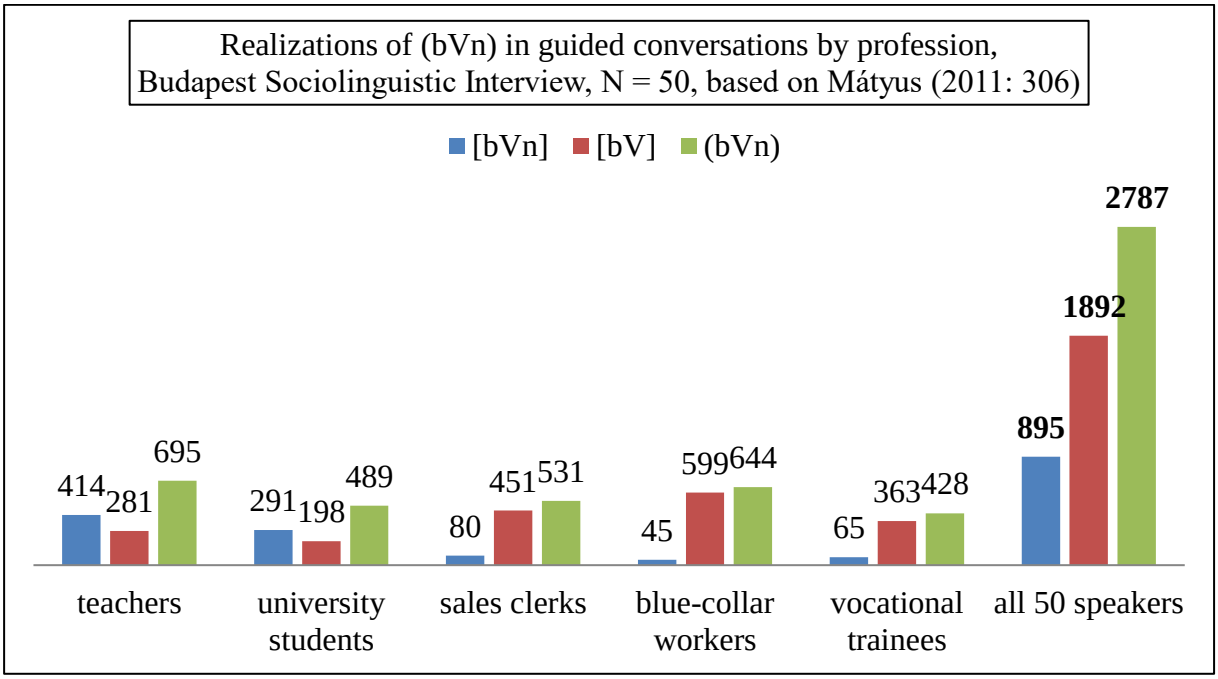

Figure 2. Realizations of the (bVn) variable by profession in the Budapest Sociolinguistic Interview, based on Mátyus (2011: 306). Figure first published in Hungarian by Kontra (2021: 39).

2.5 Hungarian vowel harmony: an example of theoretical and partly empirical research

In a 1986 study coauthored with Catherine Ringen on Hungarian vowel harmony (HVH for short), we (Kontra & Ringen) said that we felt the need for our investigations because

> in some cases the data [in the literature of the abstractness controversy in the 1970s] were based on the intuition of a single native speaker who had not been in day-to-day contact with Hungarian for over a decade, in others the data were based on normative, rather than descriptive works, and in still others the source of the data was completely unclear. (Kontra & Ringen 1986: 2)

We carried out a series of elicitation studies (e.g., Ringen & Kontra 1989, Kontra, Ringen & Stemberger 1990), which was the first step in broadening the empirical base of the study of HVH. The next step was conducting extensive corpus-based research and psycholinguistic studies (e.g., Hayes & Cziráky Londe 2006, Hayes et al. 2009, Patay et al. 2020). However, while we find the use of webcorpora and psycholinguistic experiments commendable, we (Cseresnyési & Kontra) lack the study of HVH in real speech.[9] Because real Hungarian speech data are not yet analyzed, there are no answers to such important questions as, for instance,

1) How similar are the webcorpus data and the experimental data to real Hungarian speech data?
2) Is this part of HVH stable or undergoing change?

[9] Note, however, that Mátyus, Bokor & Takács (2021: 198) report a priming effect in the affixation of the word *farmer* 'farmer' in the oral sentence-completion tasks of 50 respondents of the Budapest Sociolinguistic Interview project.

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3 Finally

Comparing Labovian (variationist) sociolinguistics and Chomskyan generative linguistics, Leonie Cornips & Frans Gregersen (2016: 502) have stated the following:

> Our story details how the study of Labovian variation challenged received wisdom as to what linguistic facts are and which conception of the individual's grammar should be the point of departure for solid empirical work. The story might also be phrased as the gradual empirification of armchair linguistics under the pressure of linguistic evidence.

What they call "the gradual empirification of armchair linguistics" is a long-awaited good change in our discipline.

References

Berez-Kroeker, A. L. et al. (2018): Reproducible research in linguistics: A position statement on data citation and attribution in our field. *Linguistics* 56(1), 1–18. https://doi.org/10.1515/ling-2017-0032

Biber, D., Johansson, S., Leech, G. N., Conrad, S. & Finegan, E. (1999): *Longman Grammar of Spoken and Written English*. London: Longman.

Bjelke, J. F. (1972): Das Problem der Intuition im Rationalismus und Empirismus. *Zeitschrift für philosophischen Forschung* 26, 546–562.

Boring, E. J. (1953): A History of Introspection. *Psychological Bulletin* 50(3), 169–189. https://doi.org/10.1037/h0090793

Carden, G. (1970): A Note on Conflicting Idiolects. *Linguistic Inquiry* 1, 281–290.

Chambers, J. K. & Trudgill, P. (1980): *Dialectology*. Cambridge: Cambridge University Press.

Cornips, L. & Gregersen, F. (2016): The impact of Labov's contribution to general linguistic theory. *Journal of Sociolinguistics* 20(4), 498–524. https://doi.org/10.1111/josl.12197

DePaul, M. R. & Ramsey, W. M. (eds.) (1998): *Rethinking Intuition: The Psychology of Intuition and Its Role in Philosophical Inquiry*. Lanham, MD: Rowman and Littlefield.

Devitt, M. (2006): Intuitions in Linguistics. *British Journal for the Philosophy of Science* 57(3), 481–513. https://doi.org/10.1093/bjps/axl017

Devitt, M. (2010): Linguistic Intuitions Revisited. *British Journal for the Philosophy of Science* 61(4), 833–865. https://doi.org/10.1093/bjps/axq018

É. Kiss, K. (2009): A 80 éves Noam Chomsky és a chomskyánus nyelvészeti forradalom. *Magyar Nyelv* 105, 1–8.

É. Kiss, K., Kiefer, F. & Siptár, P. (1998): *Új magyar nyelvtan*. Budapest: Osiris Kiadó.

Halliday, M. A. K. (1975): Language as social semiotic: Towards a general sociolinguistic theory. In: Makkai, A. & Becker Makkai, V. (eds.): *The First LACUS Forum 1974*. Columbia, S. C.: Hornbeam Press, 17–46.

Hayes, B. & Cziráky Londe, Z. (2006): Stochastic phonological knowledge: The case of Hungarian vowel harmony. *Phonology* 23, 59–104. https://doi.org/10.1017/S0952675706000765

Hayes, B., Zuraw, K., Siptár, P. & Londe, Z. (2009): Natural and unnatural constraints in Hungarian vowel harmony. *Language* 85, 822–863. https://doi.org/10.1353/lan.0.0169

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Heavey, C. L. (2013): Confronting the Challenges of Observing Inner Experience: The Descriptive Experience Sampling Method. In: Clegg, J. W. (ed.): *Self-Observation in the Social Sciences*. New Brunswick & London: Transaction Publishers, 103–120. https://doi.org/10.4324/9781351296809-7

Hintikka, J. (1969): On Kant's Notion of Intuition (Anschauung). In: Penelhum, T. & MacIntosh, J. J. (eds.): *Kant's First Critique*. Belmont: Wadsworth, 38–53. https://doi.org/10.5840/jphil199996331

Hintikka, J. (1999): The Emperor's New Intuitions. *Journal of Philosophy* 96, 127–147.

Hymes, D. (1974): *Foundations in sociolinguistics: An ethnographic approach*. Philadelphia: University of Pennsylvania Press.

Itkonen, E. (1974): *Linguistics and Metascience*. Kokemäki: Societas Philosophica et Phaenomenologica Finlandiae.

Kenesei, I., Vago, R. M. & Fenyvesi, A. (1998): *Hungarian*. London: Routledge.

Kiefer, F. (1998): Alaktan. In: É. Kiss, K., Kiefer, F. & Siptár, P. : *Új magyar nyelvtan*. Budapest: Osiris Kiadó, 185–289.

Kontra, M. (1994): Milyen hatása van a mai magyar nyelvművelésnek? *Magyar Nyelv* 90, 333–345. http://real-j.mtak.hu/15461/1/MagyarNyelv_1994.pdf (accessed 26 August 2024).

Kontra, M. (2003): *Én tudnék* vagy *tudnák*?: a (nVk)$_2$ változó. In: Kontra, M. (ed.): *Nyelv és társadalom a rendszerváltáskori Magyarországon*. Budapest: Osiris Kiadó, 126–130.

Kontra, M. (2006): Sustainable Linguicism. In: Hinskens, F. (ed.): *Language Variation – European Perspectives.* Amsterdam/Philadelphia: John Benjamins, 97–126. https://doi.org/10.1075/silv.1.08kon

Kontra M. (2021): A Budapesti Szociolingvisztikai Interjú története. In: Kontra, M. & Borbély, A. (eds.): *Tanulmányok a budapesti beszédről a Budapesti Szociolingvisztikai Interjú alapján.* Budapest: Gondolat Kiadó, 19–41. https://nytud.hu/en/kiadvany/tanulmanyok-a-budapesti-beszedrol-a-budapesti-szociolingvisztikai-interju-alapjan (accessed 26 August 2024).

Kontra, M. & Ringen, C. (1986): Hungarian Vowel Harmony: The Evidence from Loanwords. *Ural-Altaische Jahrbücher* 58, 1–14.

Kontra, M., Ringen, C. O. & Stemberger, J. P. (1990): The Effect of Context on Suffix Vowel Choice in Hungarian Vowel Harmony. *Proceedings of the Fourteenth International Congress of Linguists*, Berlin/GDR, August 10–August 15, 1987. Berlin: Akademie-Verlag, 450–453.

Krug, M. & Schlüter, J. (2013): *Research Methods in Language Variation and Change*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511792519

Lanstyák, I. & Szabómihály, G. (1996): Contact varieties of Hungarian in Slovakia: a contribution to their description. *International Journal of the Sociology of Language* #112, 111–130. https://doi.org/10.1515/ijsl.1996.120.111

Lees, R. B. (1957): Review of Syntactic Structures by Noam Chomsky. *Language* 33, 375–408. https://doi.org/10.2307/411160

Mátyus, K. (2011): *-ba, -ban* elméletben és gyakorlatban: A (BVN) változó variabilitása a BUSZI-2 öt foglalkozási csoportjában. In: Hires-László, K., Karmacsi, Z. & Márku, A. (eds.): *Nyelvi mítoszok, ideológiák, nyelvpolitika és nyelvi emberi jogok Közép-Európában elméletben és gyakorlatban*. Budapest–Beregszász: Tinta Könyvkiadó – II. Rákóczi Ferenc Kárpátaljai Magyar Főiskola Hodinka Antal Intézete, 303–311.

László Cseresnyési & Miklós Kontra:
Empirical linguistics
Argumentum 20 (2024), 276–286
Debreceni Egyetemi Kiadó
DOI: 10.34103/ARGUMENTUM/2024/16

Mátyus, K., Bokor, J. & Takács, S. (2021): „Abban a farmerba nem mehetsz színházba”: a (bVn) variabilitásának vizsgálata a BUSZI tesztfeladataiban. In: Kontra, M. & Borbély, A. (eds.): *Tanulmányok a budapesti beszédről a Budapesti Szociolingvisztikai Interjú alapján.* Budapest: Gondolat Kiadó, 187–204. (First published in 2010.)

Patay, F., Benkő, Á., Lukács, Á., Rebrus, P. & Törkenczy, M. (2020): Testing variability effects in Hungarian vowel harmony. In: Hegedűs, V. & Vogel, I. (eds.): *Approaches to Hungarian: Volume 16*. Amsterdam: John Benjamins, 98–113. https://doi.org/10.1075/atoh.16.05pat

Postal, P. M. (2004): *Skeptical Linguistic Essays*. New York: Oxford University Press. https://doi.org/10.1093/oso/9780195166712.001.0001

Radford, A. (2018): *Colloquial English: Structure and Variation*. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108552202

Ringen, C. O. & Kontra, M. (1989): Hungarian neutral vowels. *Lingua* 78, 181–191. https://doi.org/10.1016/0024-3841(89)90052-1

Ringen, J. (1980): Linguistic Facts: A Study of the Empirical Status of Transformational Generative Grammars. In: Perry, T. A. (ed.): *Evidence and Argumentation in Linguistics.* Berlin: Walter de Gruyter, 97–132. https://doi.org/10.1515/9783110848854-007

Sampson, G. & Babarczy, A. (2014): *Grammar Without Grammaticality: Growth and Limits of Grammatical Precision.* Berlin: Mouton de Gruyter. https://doi.org/10.1515/9783110290011

Sampson, G. (2017): *The Linguistics Delusion.* Sheffield: Equinox.

Schütze, C. T. (1996): *The Empirical Base of Linguistics: Grammaticality Judgments and Linguistic Methodology.* Chicago: University of Chicago Press.

Weinreich, U., Labov, W. & Herzog, M. I. (1968): Empirical foundations for a theory of language change. In: Lehmann, W. P. & Malkiel, Y. (eds.): *Directions for Historical Linguistics: A Symposium*. Austin, TX: University of Texas Press, 95–188.

Whitehead, A. N. [1929] (1978): *Process and Reality.* New York: The Free Press.

Yngve, V. H. (1975): The dilemma of contemporary linguistics. In: Makkai, A. & Becker Makkai, V. (eds.): *The First LACUS Forum 1974*. Columbia, S. C.: Hornbeam Press, 1–16.

Yngve, V. H. (1986): *Linguistics as a Science*. Bloomington & Indianapolis: Indiana University Press.

Yngve, V. H. (1994). What can we believe these days? – Can linguistics actually be scientific? In: Becker Makkai, V. (ed.): *The Twentieth LACUS Forum 1993*. Chapel Hill, N.C.: LACUS, 33–50.

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