

Chapter 1 : The Empirical Base of Linguistics | PDF Free Download

The Empirical Base of Linguistics has 5 ratings and 3 reviews. Brian said: Schutze has done the linguistics community a huge service in capturing the mul.

Printed in the Netherlands. University of Chicago Press, Introduction The data on which linguists base their theories typically consist of grammaticality judgments, i. When a linguist obtains a grammaticality judgment, he or she performs a small experiment on a native speaker; the resulting data are behavioral data in the same way as other measurements of linguistic performance e. However, in contrast to experimental psychologists, linguists are generally not concerned with methodological issues, and typically none of the standard experimental controls are imposed when collecting data for linguistic theory. He aims to identify parallels between linguistic judgment behavior and other types of cognitive behavior, an approach that allows him to arrive at a model of the judgment process that explains linguistic intuitions as the result of the interaction of the language faculty with other cognitive faculties. Grammaticality Judgments and Linguistic Theory Chapter 1 provides a general motivation for studying the empirical properties of linguistic data: Psycholinguistic findings, on the other hand, show that grammaticality judgments are subject to a considerable number of biases, for which a naive approach to judgment collection fails to control. The central question is therefore one of data validity: He points out that the difficulties with naive data collection are amplified by the fact that current linguistic research does not confine itself to cases of clear acceptability or unacceptability, but makes crucial use of subtle and potentially controversial judgments: Belletti and Rizzi, for instance, make extensive use of relative grammaticality judgments, de facto employing a seven point scale for acceptability. However, no attempt is made to establish whether native speakers can reliably provide judgments of this granularity. One has to bear in mind here that experimental data as such are not sufficient to determine the grammaticality status of a sentence. For theoretical reasons, a linguist might want to assume that certain sentences are grammatical, even though they are not accepted by native speakers: However, the assumptions about grammaticality may vary from one theoretical framework to another, which raises the problem of the immunization of theories. Dispute the validity of the data, e. Claim that the data is not relevant to the theoretical issue at hand, e. Claim that the data is correctly accounted for by the theory, but the judgments do not reflect this, e. Psycholinguistic experimentation allows an evaluation of the validity of strategies 1 and 3: It would allow us a principled way to establish to what extent any such piece of evidence should be considered to bear on the grammar. Based on this review, he then proposes a model of the judgment process and formulates a set of recommendations for collecting more reliable data. For reviews of the use of grammaticality judgments in second language research see Birdsong and Chaudron The categories are discrete and the only formal relation defined on categories is equality: No ordering relation is defined for a nominal scale, and the only mathematical operation that can be performed is counting. Hence the statistics for nominal scales has to be carried out on category frequencies. An ordinal scale has the same properties as a nominal scale, and in addition, an ordering relation is defined over the categories: However, no commitment is made as to the distance of the points on the scale, and again the only mathematical operation defined is counting, allowing for frequency statistics only. Acceptability is measured on an ordinal scale if the traditional binary categories are complemented by intermediate ones. This practice can be systematized by defining a consistent ordinal scale for acceptability, and much of the experimental literature on linguistic judgments has followed this approach. This lack of agreement is problematic, as using the right scale is crucial for obtaining consistent data: Just like an ordinal scale, an interval scale presupposes an ordering over the measured categories. In addition, a distance relation is defined that specifies the difference between any two points on the scale. Typically, an interval scale is used for properties which can be measured numerically. Admissible mathematical operations include addition and multiplication, which allows for means to be calculated and for parametric statistics to be carried out. Standardly, linguistic data is not measured on an ordinal scale: Recently, however, a number of researchers have argued that linguistic intuitions should be measured using magnitude estimation, an experimental paradigm that yields judgment data on an interval scale Bard et al. The magnitude

estimation approach allows to address the problems raised by the use of gradient judgments and other subtle data in linguistic theory. A standard example for such an individual factor is field dependence, for which Nagata demonstrated an influence on linguistic judgments. Another factor known to influence judgment behavior is Magnitude estimation ME is standardly used in psychophysics to measure judgments of sensory stimuli Stevens, It requires subjects to estimate the magnitude of physical stimuli by assigning numerical values proportional to the stimulus magnitude they perceive. Highly stable judgments can be achieved for a whole range of sensory modalities, such as brightness, loudness, or tactile stimulation. ME has been extended to the psychosocial domain Lodge, , and recently Bard et al. ME has been demonstrated to yield reliable and fine-grained measurements of linguistic intuitions and has been applied to a number of linguistic phenomena see Cowart, and Sorace, , for an overview. Field dependence is a concept used in personality assessment and can be measured using several standard tests, such as the embedded figures test. Cowart demonstrates effects of familial handedness on judgments of sentences with subadjacency violations. A contentious issue is whether linguists and non-linguists differ in their judgments. Judgment experiments typically employ naive subjects, who are likely to be unfamiliar with the linguistic concepts they are supposed to apply in rating the stimuli. No significant difference was found between the judgments for the two types of instructions, which leads Cowart to conclude that fatigue, boredom, and response strategies the informant may develop over the course of the experiment can have differing effects on sentences judged at various points in the entire procedure. Repetition effects were examined extensively by Nagata a, b, c , whose results show that repetition within a short interval leads to lower grammaticality ratings, while repetition after a long interval four months has no significant influence. A rather unexpected effect has been demonstrated by Carroll et al. In developing this model, he relies on the assumption that linguistic judgment behavior is not due to a special cognitive component dedicated to linguistic intuition, but rather the result of an interaction between the language faculty and general properties of the mind. In particular, the model lacks a precise specification it is presented only diagrammatically as well as a computational implementation. Eliciting Reliable Grammaticality Judgments Grammaticality judgment behavior is influenced by a diverse number of factors, both task-related and subject-related. Firstly, confounds from presentation order should be avoided by counterbalancing or randomizing stimulus presentation across subjects. Also, it is important to use a sufficient number of filler sentences, i. The fillers prevent subjects from becoming aware of the issue the experimenter is interested in as this might bias their judgments. To avoid anchoring effects, one should make sure that the set of stimuli and fillers does not contain substantially more grammatical than ungrammatical sentences or vice versa. To guard against lexical effects, different lexicalizations for each sentence type should be used, and the frequency of the lexical items should be controlled for. Also, sentences that might trigger processing problems should be excluded from the test materials, as they are likely to confound grammaticality ratings examples are center-embeddings and garden path sentences. Once steps have been taken to reduce confounds in the materials, the experimenter has to minimize biases in the procedure of judgment collection. In particular, linguists should be excluded as informants, as their judgments are likely to be confounded by theoretical bias. Of course, the number of subjects used has to be large enough so that statistical tests can be carried out on the data. He holds that both relative and absolute ratings can be appropriate, depending on the issue under investigation. Recent studies, however, favor the use of an interval scale based on the magnitude estimation methodology. Magnitude estimation has been shown to yield highly reliable and maximally fine-grained judgment data Bard et al. A certain amount of variance will remain in the experimental data, even if all necessary controls are applied. This variance could either be due to chance or could result from an experimental manipulation, i. In the latter case, the effect is. This point is particularly important if degrees of grammaticality are used as evidence: Regarding this issue, Cowart demonstrates that the overall judgment pattern for a given structure can be highly stable within a group of speakers, while at the same time, the judgments of individual speakers show considerable variance. Cowart concludes that, similar to other types of behavioral data, linguistic judgments seem to exhibit a certain amount of random variance around a stable mean, which he takes as a strong argument for collecting judgment data experimentally. Conclusion On the whole, The Empirical Base of Linguistics is a valuable guide to the elicitation and use of linguistic judgments. However, the conventional informal approach will

probably remain standard for the bulk of linguistic data, in spite of its serious shortcomings due to practical reasons such as the lack of training and resources for experimental work. This gap was filled recently by the excellent studies by Bard et al. The General Session, C.

Chapter 2 : Empirical | Definition of Empirical by Merriam-Webster

Throughout much of the history of linguistics, grammaticality judgments - intuitions about the well-formedness of sentences - have constituted most of the empirical base against which theoretical hypothesis have been tested.

The founding documents of the field suggested a relation between the grammar, construed as recursively enumerating an infinite set of sentences, and the idealized native speaker that was essentially equivalent to the relation between a formal language a set of well-formed formulas and an automaton that recognizes strings as belonging to the language or not. The focus on strong generative capacity, it is argued, requires a new discussion of what constitutes valid empirical evidence for GG beyond observations pertaining to weak generation. While linguists agree on this focus, they nevertheless tend to uncritically assume that judgments of the acceptability of strings constitute data for GG. Chomsky , SS elaborates: The grammar of L will thus be a device that generates all of the grammatical sequences of L and none of the ungrammatical ones. On this Early View EV , the idealized native speaker is the human equivalent of an automaton in the theory of formal languages, which accepts recognizes or rejects a given string depending on whether or not it is part of the set of legal sequences. While the importance of hierarchical structures underlying the sequences was recognized to be of central importance, the formal systems used at the timeâ€”Post-style rewrite rules plus transformational rulesâ€”ultimately enumerated strings see Lasnik, That the matter is more complex was explicitly acknowledged shortly after by Chomsky , p. Newmeyer, , p. A true shift in perspective, however, took place later, when the notion of sentence, understood as sequence in L, was eliminated altogether from the theory. This dismissal of the view of a language as a set of sentences is a corollary of the shift of the focus of attention from sentences to structures: Chomsky , p. This move replaces the EV of the grammar as determining a set of sentences with one of grammar as determining form-meaning correlations: The misleading choice of terms was, in part [due to] the confluence of two intellectual traditions: Certain expressions in this notation are well-formed sentences, others are not. Call such a set an E-language [â€œ]. In the theory of formal languages, the E-language is defined by stipulation, hence is unproblematic. But it is a question of empirical fact whether [â€œ] I-language generates not only a set of [structures] but also a distinguished E-language [â€œ]. Beyond Acceptability Chomsky , p. While 1 , where who is displaced from the gap position, receives a straightforward interpretation in terms of an operator-variable dependency, 2 cannot be interpreted in this way. I know [who [John [kissed Mary]]] In 2 , the wh-operator has no variable to bind, and consequently cannot be assigned an interpretation. Does this mean that we want to block generation of 2 , while allowing generation of 1? Chomsky explicitly denies this, arguing that such a move would redundantly replicate the effect of Full Interpretation. Analogously, to use the famous example introduced in LSLT , the goal of the theory is not to construct a grammar that generates a set of well-formed formulas including Colorless green ideas sleep furiously but excluding Furiously sleep ideas green colorless, but to explain why the SD assigned to the latter cannot be mapped onto an analogous interpretation. The naturalness of the typographical or acoustic object is of no immediate relevance to the theorist cf. McCawley, , p. The fact that What does John like apples and? Expressions have the interpretations assigned to them by the performance systems in which the language is embedded: In later works, Chomsky entertains the idea that generation of SDs proceeds freely via the operation Merge, with constraints imposed only by external systems. For instance, Chomsky , p. On this RV, there exists no notion of well-formedness that is given independently of whatever is strongly generated by the I-language. The grammar does not specify a set of legal strings but an infinity of SDs; the only empirical success criterion is that the SDs postulated by the theorist have the properties in interpretation and externalization they do. The following quotes, randomly culled from popular textbooks, are representative: As a result of this unconscious? Sprouse , p. The above remarks illustrate that the profound implications of the RV and its focus on generation of SDs remain insufficiently appreciated cf. This view is most explicitly espoused by Frampton and Gutmann , p. A direct outgrowth of this ideology is the extensive reliance on highly stipulative features as licensors of structure-building Chomsky, , p. The methodological problem posed by acceptability judgments, no matter how experimentally refined, is not their informal and

inherently behavioral nature Bever, , but the fact that they do not constitute explananda for a theory of I-language as opposed to E-language. The field must overcome these limitations and move on to a theoretical characterization of possible SDs e. Conclusion The theory of GG has undergone significant conceptual shifts. Early work construed a GG as a finitary procedure that recursively enumerates all and only well-formed sentences of a language. Later work abandoned this conception entirely in favor of generation of discrete, hierarchically structured objects I-language. Questions of real linguistic interest arise only when [SGC] [â€] becomes the focus of discussion. Author Contributions The author confirms being the sole contributor of this work and approved it for publication. Funding Publication of this article was partially funded by the University of Ottawa, whose financial support is gratefully acknowledged. Conflict of Interest Statement The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Chapter 3 : CiteSeerX " Citation Query The Empirical Base of Linguistics

The Empirical Base of Linguistics aims to show that such methodological negligence can seriously compromise the data obtained, and argues for a more reliable mode of data elicitation in linguistics, based on standard methods from experimental psychology.

There are several well-known counter-examples to the Binding Theory of Chomsky, which have to do with Principles B and C. These counter-examples have different degrees of acceptability. We can account for these counter-examples and explain their different degrees of acceptability by i Distinguishing different types of sentences among these examples; different kinds of sentences exemplify different phenomena and require different explanations. The data show that when these other semantic factors determine some interpretation for a sentence in a clear enough way the speakers judge such an interpretation as at least partially acceptable. The judging panel consists of the current lacus The judging panel consists of the current lacus President and Vice President along with all past presidents in attendance at the meeting. Show Context Citation Context A notable feature of developing interlanguage grammars is the apparent optionality in those areas of grammar where optionality is not characteristic of stable state grammars. In the Valueless Features Hypothesis, it is proposed that the appearance of apparent optionality in the very early stages of In the Valueless Features Hypothesis, it is proposed that the appearance of apparent optionality in the very early stages of interlanguage development is due to the partial presence of functional categories at the initial state of non-native language development. The study reports on the study of acquisition of verb movement in Zulu by English native speakers. The results indicate non-optionality of verb movement at the initial state, and intermediate stage of interlanguage development wherein optionality sets in as a result of grammar competition and an expert stage in which verb movement has been fully acquired. The paper concludes that, contrary to the claims of the Valueless Features Hypothesis, initial state second language grammars have a full inventory of functional categories transferred from the first language L1. Subsequent interlanguage Show Context Citation Context By being timed, the task aimed at tapping immediate and spontaneous judgements. Sentences were controlled for length, sentence length r Dative case in Norwegian, Icelandic and Faroese: This article investigates the morphosyntactic status of dative case in Norwegian, Icelandic, and Faroese. We hypothesize that these three languages represent three diachronic stages signalled synchronically by the degree of preservation or non-preservation of dative under movement. Thus, we explore the synchronic status of dative under passive movement and topicalization in the three languages, while simultaneously paying attention to the larger questions of diachronic preservation and non-preservation of dative. We suggest that our findings have interesting ramifications for the categorization of case as structural Powered by:

Chapter 4 : Linguistic Books : The Empirical Base of Linguistics - Carson T. Schutze

Language; Linguistics Abstract Throughout much of the history of linguistics, grammaticality judgments - intuitions about the well-formedness of sentences - have constituted most of the empirical base against which theoretical hypothesis have been tested.

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Chapter 6 : The Empirical Base of Linguistics Grammaticality Judgments and Linguistic Methodology

Carson T. Schutze's The Empirical Base of Linguistics aims to show that such methodological negligence can

seriously compromise the data obtained, and argues for a more reliable mode of data elicitation in linguistics, based on standard methods from experimental psychology.

Chapter 7 : OAPEN Library - The empirical base of linguistics: Grammaticality judgments and linguistic me

Throughout much of the history of linguistics, grammaticality judgments - intuitions about the well-formedness of sentences - have constituted most of the empirical base against which theoretical hypotheses have been tested.