Sprachtypologie und Universalien

Linguistische Relativität

Arne Rubehn
Lehrstuhl für Multilinguale Computerlinguistik
Universität Passau

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Überblick

Heute beschäftigen wir uns mit dem Zusammenspiel zwischen Sprache, Kultur und Umwelt und diskutieren in diesem Kontext die Hypothese der linguistischen Relativität.

Kann Sprache die Wahrnehmung der Umwelt beeinflussen?

Welche Wechselwirkungen gibt es zwischen Sprache und Kultur?

Beeinflusst Sprache die Art und Weise, wie wir denken?

Kultur und Sprache

Kultur und Sprache

Sprache ist zumindest bis zu einem gewissen Grad ein **kulturelles Werkzeug.**

Sie basiert auf universellen kognitiven Fertigkeiten des Menschen, aber weist auch starke Zusammenhänge zu kulturellen Ausdrücken auf.

Sprache wird sowohl von universellen, als auch von kulturspezifischen Faktoren geformt.

Kultur und Sprache

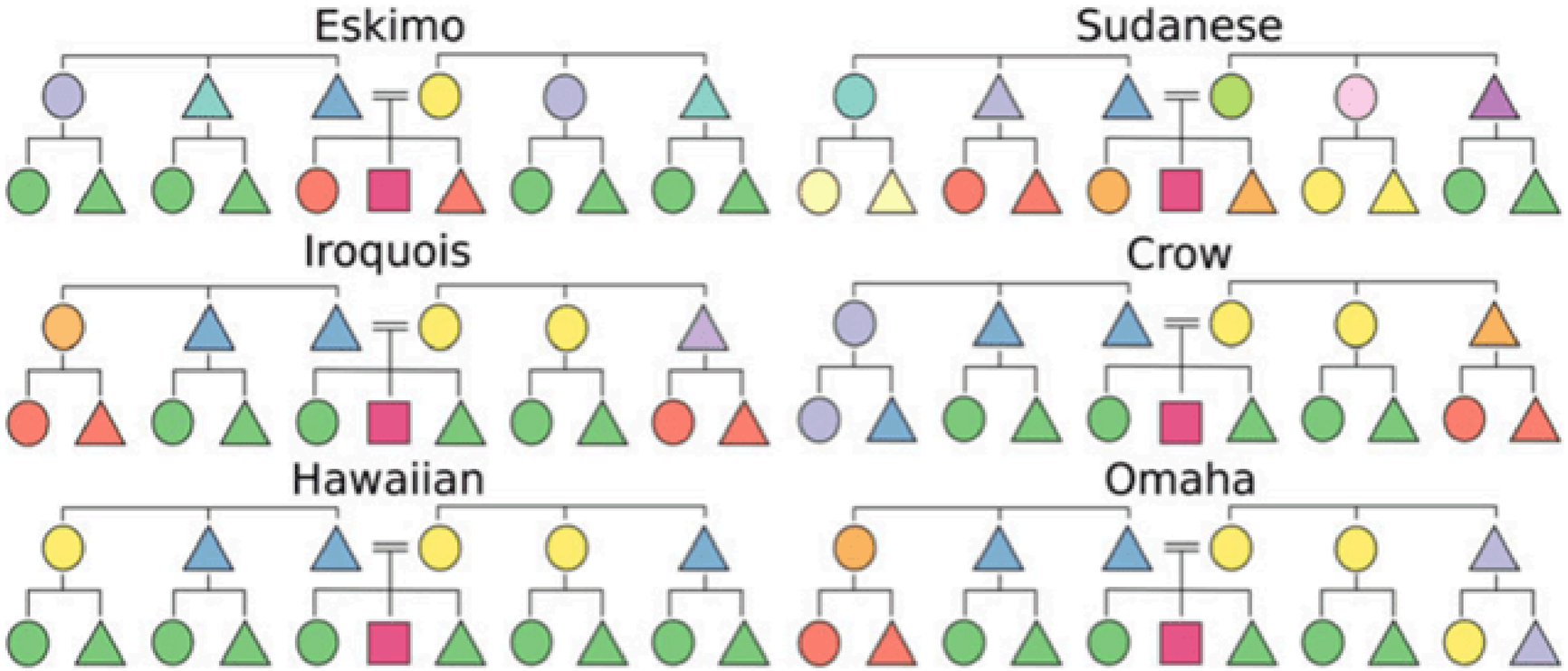

Figure 1. Six terminological types as formalised by Murdock, and named after societies in which they were first identified (Murdock, 1949). Triangles represent male, and circles female, relatives. The square represents Ego, the focal point of the terminology. Relatives are coloured to indicate where the same linguistic label (word) is used. Parallel lines indicate marriage.

Kultur und Sprache

“It does not seem likely [...] that there is any direct relation between the culture of a tribe and the language they speak, except in so far as the form of the language will be moulded by the state of the culture, but not in so far as a certain state of the culture is conditioned by the morphological traits of the language.”

Franz Boas

Kultur und Sprache

“No two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached.”

Edward Sapir

Kultur und Sprache

“It is easy to show that language and culture are not intrinsically associated. Totally unrelated languages share in one culture; closely related languages—even a single language—belong to distinct culture spheres. There are many excellent examples in Aboriginal America. The Athabaskan languages form as clearly unified, as structurally specialized, a group as any that I know of. The speakers of these languages belong to four distinct culture areas… The cultural adaptability of the Athabaskan-speaking peoples is in the strangest contrast to the inaccessibility to foreign influences of the languages themselves.”

Edward Sapir

Kultur und Sprache

Die meisten Sprachstrukturen sind wohl nicht durch die Umwelt beeinflusst.

Der **Wortschatz** ist hierbei allerdings eine bedeutende Ausnahme.
→ Über 100 verschiedene Worte für essbare Pflanzen und 55 lokale Tierarten in Himba: https://youtu.be/J2UXX9yAQGY (ab 38:00)

Was sagt das über das Zusammenspiel zwischen Sprache und Umwelt?

Kultur und Sprache

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Was sagt das über das Zusammenspiel zwischen Sprache und Umwelt?

Gibt es noch andere Faktoren außer der Umwelt?

Kultur und Sprache

Der **Wortschatz** wird im Kontext von Sprache und Kultur häufig untersucht.

Viele Fallstudien untersuchen hierbei **Verwandtschaftsbegriffe** und **Farbbenennungen** (nächste Woche).

Ein Beispiel, das in diesem Kontext oft angebracht wird:

Eskimosprachen haben extrem viele Wörter für Schnee.

Kultur und Sprache

Eskimosprachen haben extrem viele Wörter für Schnee.

Tatsächlich falsch – es gibt nur 3-5 Wortstämme – höhere Schätzungen für 50-100 verschiedene “Schneearten” sind sehr aufgebläht und beziehen sich i.d.R. durch Wortbildungsprozesse aufeinander.

…wie viele verschiedene Wörter gibt es im Deutschen, die eine Art Schnee bezeichnen?

Kultur und Sprache

Die Idee dahinter ist aber trotzdem richtig: Gegenstände, die wegen der Lebensbedingungen eines Volkes besonders wichtig sind, und über die entsprechend **viel gesprochen** wird, werden durch den Wortschatz **feiner differenziert**.

Fachsprachen (Seemannssprache, Jägersprache, …) zeigen dasselbe Phänomen.

Die Umwelt und die Bedürfnisse der Sprecher prägen also den Wortschatz einer Sprache maßgeblich – Schnee ist vielleicht nur nicht so ein spannendes Thema.

Kultur und Sprache

Verwandtschaftsbezeichnungen und **Höflichkeitsregister** sind offensichtliche Gebiete, in denen die Sprache kulturelle Praktiken reflektiert.

Können wir andere Faktoren beobachten, die den Wortschatz einer Sprache beeinflussen? (ethnobotanisch, klimatisch, demographisch)

Gibt es Faktoren, die Sprachstruktur (über den Wortschatz hinaus) beeinflussen? (Grammatik, Lautsystem, Kognition)

OPEN ACCESS Freely available online PLoS one

Language Structure Is Partly Determined by Social Structure

Gary Lupyan[1]*, Rick Dale[2]

1 Institute for Research on Cognitive Science and Center for Cognitive Neuroscience, University of Pennsylvania, Philadelphia, Pennsylvania, United States of America, **2** Department of Psychology, The University of Memphis, Memphis, Tennessee, United States of America

Abstract

Background: Languages differ greatly both in their syntactic and morphological systems and in the social environments in which they exist. We challenge the view that language grammars are unrelated to social environments in which they are learned and used.

Methodology/Principal Findings: We conducted a statistical analysis of >2,000 languages using a combination of demographic sources and the World Atlas of Language Structures— a database of structural language properties. We found strong relationships between linguistic factors related to morphological complexity, and demographic/socio-historical factors such as the number of language users, geographic spread, and degree of language contact. The analyses suggest that languages spoken by large groups have simpler inflectional morphology than languages spoken by smaller groups as measured on a variety of factors such as case systems and complexity of conjugations. Additionally, languages spoken by large groups are much more likely to use lexical strategies in place of inflectional morphology to encode evidentiality, negation, aspect, and possession. Our findings indicate that just as biological organisms are shaped by ecological niches, language structures appear to adapt to the environment (niche) in which they are being learned and used. As adults learn a language, features that are difficult for them to acquire, are less likely to be passed on to subsequent learners. Languages used for communication in large groups that include adult learners appear to have been subjected to such selection. Conversely, the morphological complexity common to languages used in small groups increases redundancy which may facilitate language learning by infants.

Conclusions/Significance: We hypothesize that language structures are subjected to different evolutionary pressures in different social environments. Just as biological organisms are shaped by ecological niches, language structures appear to adapt to the environment (niche) in which they are being learned and used. The proposed *Linguistic Niche Hypothesis* has implications for answering the broad question of why languages differ in the way they do and makes empirical predictions regarding language acquisition capacities of children versus adults.

SHORT REPORT

Phoneme inventory size and population size

JENNIFER HAY
University of Canterbury

LAURIE BAUER
Victoria University of Wellington

This short report investigates the relationship between population size and phoneme inventory size, and finds a surprisingly robust correlation between the two. The more speakers a language has, the bigger its phoneme inventory is likely to be. We show that this holds for both vowel inventories and consonant inventories. It is not an artifact of language family.*

1. INTRODUCTION. Some researchers have previously speculated that there might be a link between the number of speakers of a language and how many phonemes that language is likely to have (Haudricourt 1961, Trudgill 2002). However, to our knowledge, no one has ever reported a statistical correlation between these two things. We don't find it particularly surprising that such a link has not been systematically investigated, as this is certainly not an association one would necessarily expect. However, in the process of proofreading a manuscript that contained information about a series of languages, including their populations and vowel inventories, it struck us that there appeared to be some connection between them. We couldn't resist checking this apparent link more systematically. In this short report we show that there is, indeed, an association between phoneme inventory and population size. We do not have well-developed arguments to offer about why this should be. The correlation seemed intriguing enough, however, that it was worth simply presenting the result, and leaving it up to readers to draw their own conclusions.

The Effect of Language on Economic Behavior: Evidence from Savings Rates, Health Behaviors, and Retirement Assets

M. Keith Chen*
Yale University, School of Management and Cowles Foundation

December, 2012
Status: Forthcoming, *American Economic Review*

Abstract

Languages differ widely in the ways they encode time. I test the hypothesis that languages that grammatically associate the future and the present, foster future-oriented behavior. This prediction arises naturally when well-documented effects of language structure are merged with models of intertemporal choice. Empirically, I find that speakers of such languages: save more, retire with more wealth, smoke less, practice safer sex, and are less obese. This holds both across countries and within countries when comparing demographically similar native households. The evidence does not support the most obvious forms of common causation. I discuss implications for theories of intertemporal choice.

RESEARCH ARTICLE

Future Tense and Economic Decisions: Controlling for Cultural Evolution

Seán G. Roberts[1]*, James Winters[2], Keith Chen[3]

1 Language and Cognition department, Max Planck Institute for Psycholinguistics, Nijmegen, Netherlands,
2 Language Evolution and Computation Research Unit, University of Edinburgh, Edinburgh, United Kingdom,
3 UCLA Anderson School of Management, Los Angeles, CA, United States of America

* sean.roberts@mpi.nl

Abstract

A previous study by Chen demonstrates a correlation between languages that grammatically mark future events and their speakers' propensity to save, even after controlling for numerous economic and demographic factors. The implication is that languages which grammatically distinguish the present and the future may bias their speakers to distinguish them psychologically, leading to less future-oriented decision making. However, Chen's original analysis assumed languages are independent. This neglects the fact that languages are related, causing correlations to appear stronger than is warranted (Galton's problem). In this paper, we test the robustness of Chen's correlations to corrections for the geographic and historical relatedness of languages. While the question seems simple, the answer is complex. In general, the statistical correlation between the two variables is weaker when controlling for relatedness. When applying the strictest tests for relatedness, and when data is not aggregated across individuals, the correlation is not significant. However, the correlation did remain reasonably robust under a number of tests. We argue that any claims of synchronic patterns between cultural variables should be tested for spurious correlations, with the kinds of approaches used in this paper. However, experiments or case-studies would be more fruitful avenues for future research on this specific topic, rather than further large-scale cross-cultural correlational studies.

Linguistic Diversity and Traffic Accidents: Lessons from Statistical Studies of Cultural Traits

Seán Roberts[1]*, **James Winters**[2]

1 Seán Roberts Max Plank Institute for Psycholinguistics, Nijmegen, The Netherlands, **2** James Winters Language Evolution and Computation Research Unit, School of Philosophy, Psychology and Language Sciences, The University of Edinburgh, Edinburgh, United Kingdom

Abstract

The recent proliferation of digital databases of cultural and linguistic data, together with new statistical techniques becoming available has lead to a rise in so-called *nomothetic* studies [1–8]. These seek relationships between demographic variables and cultural traits from large, cross-cultural datasets. The insights from these studies are important for understanding how cultural traits evolve. While these studies are fascinating and are good at generating testable hypotheses, they may underestimate the probability of finding spurious correlations between cultural traits. Here we show that this kind of approach can find links between such unlikely cultural traits as traffic accidents, levels of extra-martial sex, political collectivism and linguistic diversity. This suggests that spurious correlations, due to historical descent, geographic diffusion or increased noise-to-signal ratios in large datasets, are much more likely than some studies admit. We suggest some criteria for the evaluation of nomothetic studies and some practical solutions to the problems. Since some of these studies are receiving media attention without a widespread understanding of the complexities of the issue, there is a risk that poorly controlled studies could affect policy. We hope to contribute towards a general skepticism for correlational studies by demonstrating the ease of finding apparently rigorous correlations between cultural traits. Despite this, we see well-controlled nomothetic studies as useful tools for the development of theories.

Citation: Roberts S, Winters J (2013) Linguistic Diversity and Traffic Accidents: Lessons from Statistical Studies of Cultural Traits. PLoS ONE 8(8): e70902. doi:10.1371/journal.pone.0070902

Adaptive Communication: Languages with more Non-Native Speakers tend to have fewer Word Forms

Christian Bentz[1], Annemarie Verkerk[2], Douwe Kiela[3], Felix Hill[3], Paula Buttery[1,3]
1 Department of Theoretical and Applied Linguistics, University of Cambridge, Cambridge, United Kingdom
2 Reading Evolutionary Biology Group, School of Biological Sciences, University of Reading, Reading, United Kingdom
3 Computer Laboratory, University of Cambridge, Cambridge, United Kingdom
*** E-mail: chris@christianbentz.de**

Abstract

Explaining the diversity of languages across the world is one of the central aims of typological, historical and evolutionary linguistics. We consider the effect of *language contact* - the number of non-native speakers a language has - on the way languages change and evolve. By analysing hundreds of languages within and across language families, regions and text types, we show that languages with greater levels of contact typically employ fewer word forms to encode the same information content (a property we refer to as *lexical diversity*). Based on three types of statistical analyses, we demonstrate that this variance can in part be explained by the impact of non-native speakers on information encoding strategies. Finally, we argue that languages are information encoding systems shaped by the varying needs of their speakers. Language evolution and change should be modeled as the co-evolution of multiple intertwined adaptive systems: On one hand, the structure of human societies and human learning capabilities, and on the other, the structure of language.

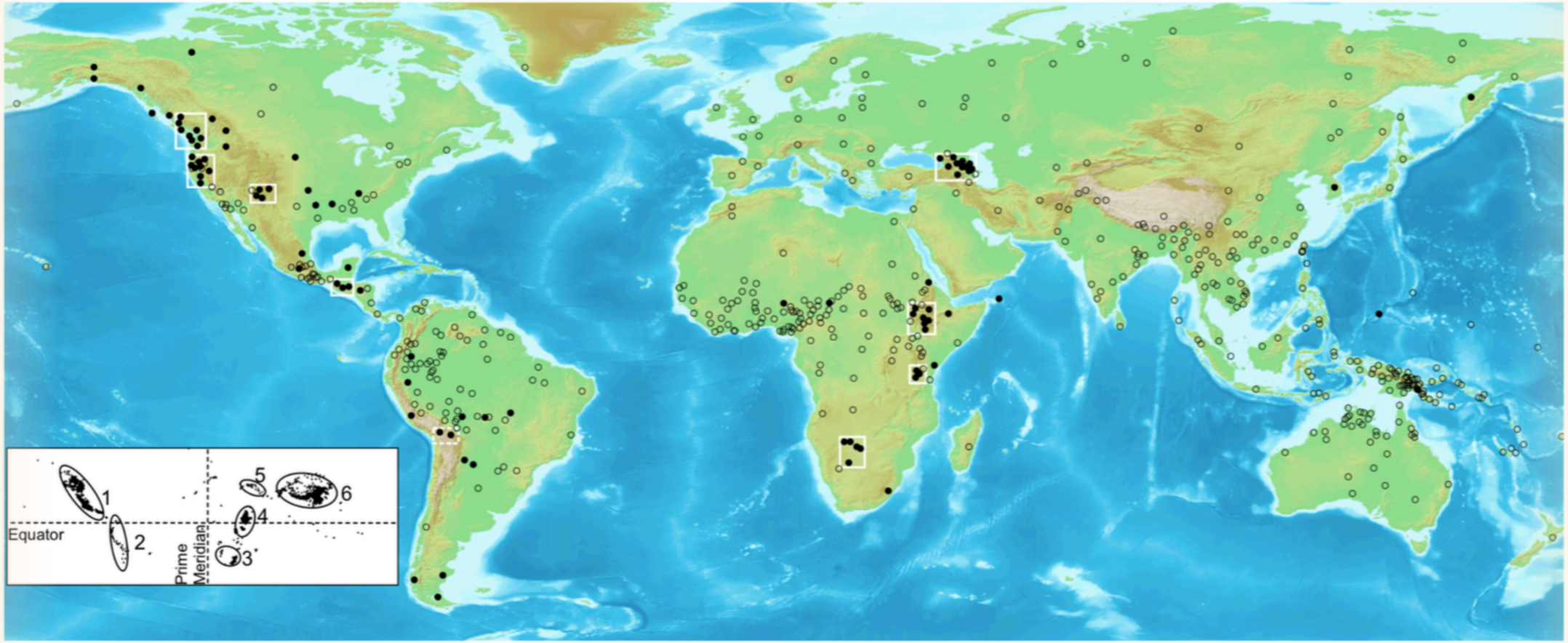
Evidence for Direct Geographic Influences on Linguistic Sounds: The Case of Ejectives

Caleb Everett*

Department of Anthropology, University of Miami, Coral Gables, Florida, United States of America

Abstract

We present evidence that the geographic context in which a language is spoken may directly impact its phonological form. We examined the geographic coordinates and elevations of 567 language locations represented in a worldwide phonetic database. Languages with phonemic ejective consonants were found to occur closer to inhabitable regions of high elevation, when contrasted to languages without this class of sounds. In addition, the mean and median elevations of the locations of languages with ejectives were found to be comparatively high. The patterns uncovered surface on all major world landmasses, and are not the result of the influence of particular language families. They reflect a significant and positive worldwide correlation between elevation and the likelihood that a language employs ejective phonemes. In addition to documenting this correlation in detail, we offer two plausible motivations for its existence. We suggest that ejective sounds might be facilitated at higher elevations due to the associated decrease in ambient air pressure, which reduces the physiological effort required for the compression of air in the pharyngeal cavity–a unique articulatory component of ejective sounds. In addition, we hypothesize that ejective sounds may help to mitigate rates of water vapor loss through exhaled air. These explications demonstrate how a reduction of ambient air density could promote the usage of ejective phonemes in a given language. Our results reveal the direct influence of a geographic factor on the basic sound inventories of human languages.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JOURNAL ARTICLE EDITOR'S CHOICE

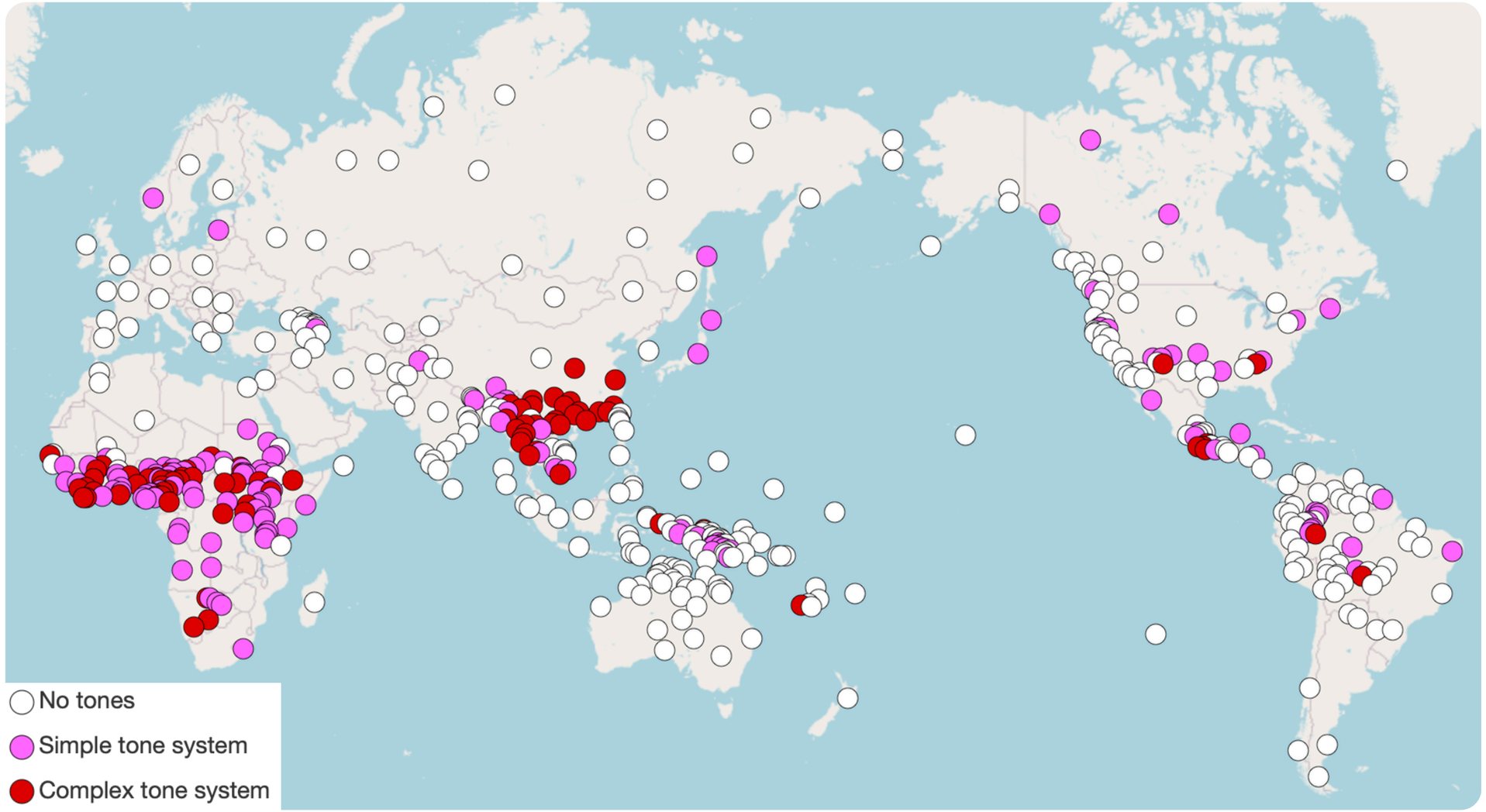
Language evolution and climate: the case of desiccation and tone FREE

Caleb Everett ✉, Damián E. Blasí ✉, Seán G. Roberts ✉

Journal of Language Evolution, Volume 1, Issue 1, January 2016, Pages 33–46,
https://doi.org/10.1093/jole/lzv004
Published: 19 February 2016

Abstract

We make the case that, contra standard assumption in linguistic theory, the sound systems of human languages are adapted to their environment. While not conclusive, this plausible case rests on several points discussed in this work: First, human behavior is generally adaptive and the assumption that this characteristic does not extend to linguistic structure is empirically unsubstantiated. Second, animal communication systems are well known to be adaptive within species across a variety of phyla and taxa. Third, research in laryngology demonstrates clearly that ambient desiccation impacts the performance of the human vocal cords. The latter point motivates a clear, testable hypothesis with respect to the synchronic global distribution of language types. Fourth, this hypothesis is supported in our own previous work, and here we discuss new approaches being developed to further explore the hypothesis. We conclude by suggesting that the time has come to more substantively examine the possibility that linguistic sound systems are adapted to their physical ecology.



Ein Zusammenhang zwischen Luftfeuchtigkeit und Tonsprachen scheint auf den ersten Blick plausibel, aber...

Commentary: There is no demonstrable effect of desiccation

Journal of Language Evolution, 2016, 65–69
doi: 10.1093/jole/lzv015

Harald Hammarström*

Department of Language and Cognition, Max Planck Institute for Psycholinguistics, Wundtlann 1, 6500 AH Nijmegen, The Netherlands

*Corresponding author: harald.hammarstrom@gmail.com

Robust, Causal, and Incremental Approaches to Investigating Linguistic Adaptation

Seán G. Roberts*

EXCD Lab, Department of Anthropology and Archaeology, University of Bristol, Bristol, United Kingdom

This paper discusses the maximum robustness approach for studying cases of adaptation in language. We live in an age where we have more data on more languages than ever before, and more data to link it with from other domains. This should make it easier to test hypotheses involving adaptation, and also to spot new patterns that might be explained by adaptation. However, there is not much discussion of the overall approach to research in this area. There are outstanding questions about how to formalize theories, what the criteria are for directing research and how to integrate results from different methods into a clear assessment of a hypothesis. This paper addresses some of those issues by suggesting an approach which is causal, incremental and robust. It illustrates the approach with reference to a recent claim that dry environments select against the use of precise contrasts in pitch. Study 1 replicates a previous analysis of the link between humidity and lexical tone with an alternative dataset and finds that it is not robust. Study 2 performs an analysis with a continuous measure of tone and finds no significant correlation. Study 3 addresses a more recent analysis of the link between humidity and vowel use and finds that it is robust, though the effect size is small and the robustness of the measurement of vowel use is low. Methodological robustness of the general theory is addressed by suggesting additional approaches including iterated learning, a historical case study, corpus studies, and studying individual speech.

Keywords: adaptation, humidity, tone, vowels, robustness, causal graph

Evolutionary Human Sciences (2024), **6**, e8, page 1 of 26
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RESEARCH ARTICLE

Investigating environmental effects on phonology using diachronic models

Frederik Hartmann[1], Seán G. Roberts[2], Paul Valdes[3] and Rebecca Grollemund[4]

[1]University of North Texas, Denton, Texas, USA, [2]Cardiff University, Cardiff, UK, [3]University of Bristol, Bristol, UK and [4]University of Missouri-Columbia, Columbia, Missouri, USA
Corresponding author: Seán G. Roberts; Email: RobertsS55@cardiff.ac.uk

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Abstract

Previous work has proposed various mechanisms by which the environment may affect the emergence of linguistic features. For example, dry air may cause careful control of pitch to be more effortful, and so affect the emergence of linguistic distinctions that rely on pitch such as lexical tone or vowel inventories. Criticisms of these proposals point out that there are both historical and geographic confounds that need to be controlled for. We take a causal inference approach to this problem to design the most detailed test of the theory to date. We analyse languages from the Bantu language family, using a prior geographic–phylogenetic tree of relationships to establish where and when languages were spoken. This is combined with estimates of humidity for those times and places, taken from historical climate models. We then estimate the strength of causal relationships in a causal path model, controlling for various influences of inheritance and borrowing. We find no evidence to support the previous claims that humidity affects the emergence of lexical tone. This study shows how using causal inference approaches lets us test complex causal claims about the cultural evolution of language.

Kultur und Sprache

Während der Effekt von Umwelt und Kultur auf den Wortschatz relativ klar ist, sind potenzielle Effekte auf andere Aspekte des Sprachsystems hochspekulativ.

Wir sehen dennoch viele verschiedene Strategien, die Welt um uns herum zu beschreiben (bzw. zu kategorisieren).

Kann umgekehrt die Sprachstruktur die Wahrnehmung der Umwelt beeinflussen?

Linguistische Relativität

Linguistische Relativität

Die Beobachtung, wie unterschiedlich Sprachen der Welt ihre Umwelt konzeptualisieren und beschreiben, führt zur Hypothese der **linguistische Relativität** mit folgenden zwei Interpretationen:

Schwache Interpretation. Strukturelle Unterschiede zwischen Sprachsystemen korrelieren mit kognitiven Unterschieden zwischen ihren Sprechern.

Starke Interpretation. Die Struktur der Muttersprache beeinflusst die Weltsicht eines Sprechers maßgeblich, während er sie erlernt.

Linguistische Relativität

Die Hypothese ist auch als **Sapir-Whorf-Hypothese** bekannt, nach Edward Sapir und Benjamin Lee Whorf.

Der Name ist allerdings irreführend: Sapir und Whorf haben diese Hypothese nie explizit aufgestellt (sie haben noch nicht einmal etwas zusammen veröffentlicht; Whorf war lediglich Sapirs Schüler).

Außerdem handelt es sich eher um ein Prinzip als um eine wissenschaftlich testbare Hypothese.

Linguistische Relativität

Zeit ist ein Konzept, das in verschiedenen Sprachen unterschiedlich ausgedrückt wird. Im Deutschen oder Englischen sind Zeitabschnitte (wie Tage) genau so zählbar wie physische Objekte. Metaphorisch sprechen wir auch häufig von Zeit als eine Art "Währung" (*verlorene oder verschwendete Zeit)*.

In Hopi wird Zeit als Prozess ausgedrückt, der nur durch Adverben oder Verben ausgedrückt werden kann. Statt *in drei Tagen* kann nur die Rede vom *dritten Tag* sein. Die Sprache hat keine grammatischen Zeitformen.

Unterscheidet sich die Zeitwahrnehmung, oder handelt es sich nur um grammatische Unterschiede?

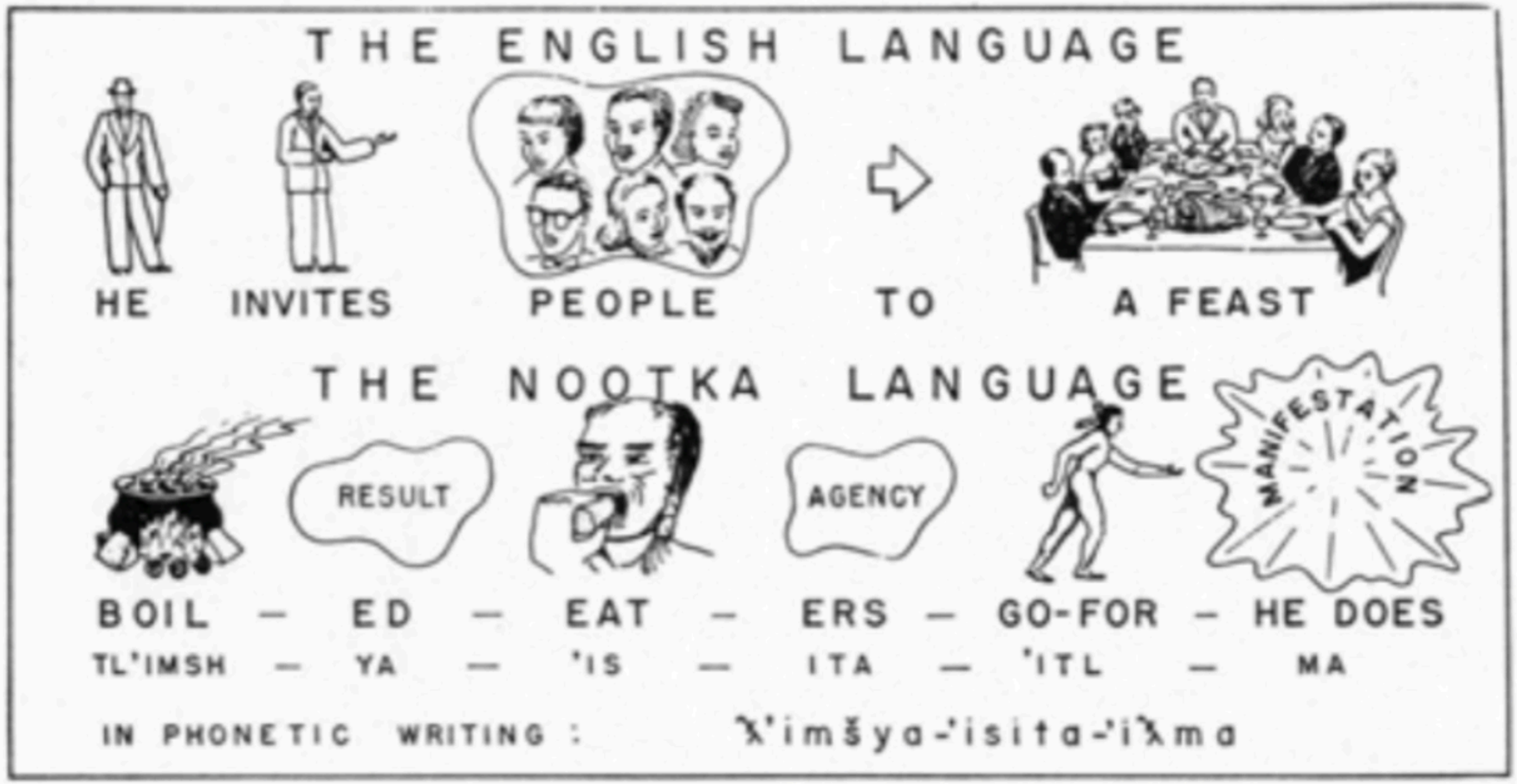

Figure 17. Here are shown the different ways in which English and Nootka formulate the same event. The English sentence is divisible into subject and predicate; the Nootka sentence is not, yet it is complete and logical. Furthermore, the Nootka sentence is just one word, consisting of the root *tl'imsh* with five suffixes.

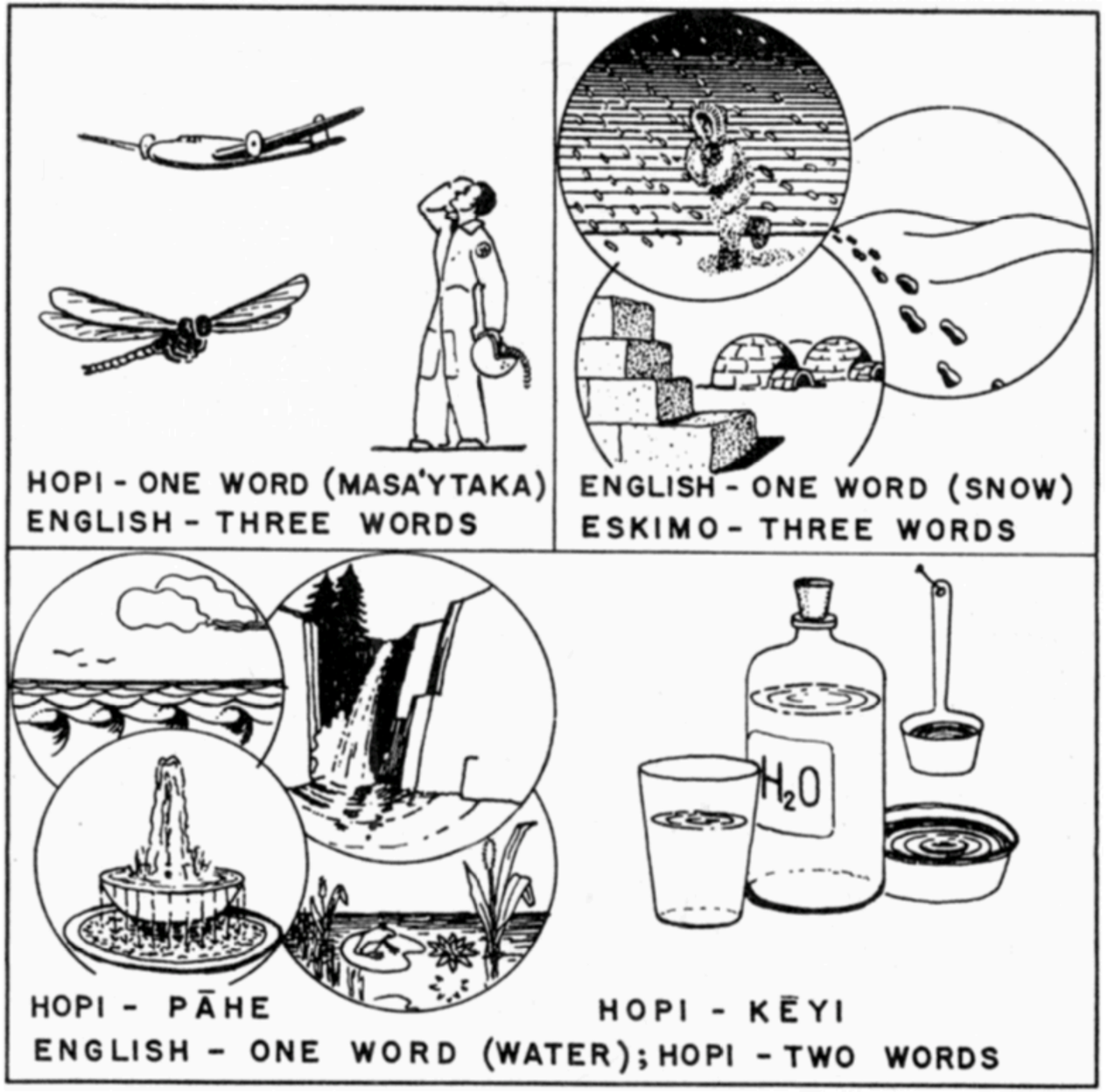

Figure 10. Languages classify items of experience differently. The class corresponding to one word and one thought in language A may be regarded by language B as two or more classes corresponding to two or more words and thoughts.

Linguistische Relativität

Auch die **räumliche Wahrnehmung** wird in verschiedenen Sprachen unterschiedlich ausgedrückt.

Hierbei gibt es **absolute** und **relative Referenzen.** Eine absolute Referenz wäre z.B. **geozentrisch,** also mit Bezug auf die Erde, während **egozentrische** Referenzen (Bezug auf den Sprecher) relativ sind.

Das ***Animals in a Row***-Experiment zeigt, dass sich räumliche Wahrnehmungen mit den sprachlichen Referenzstrukturen decken.

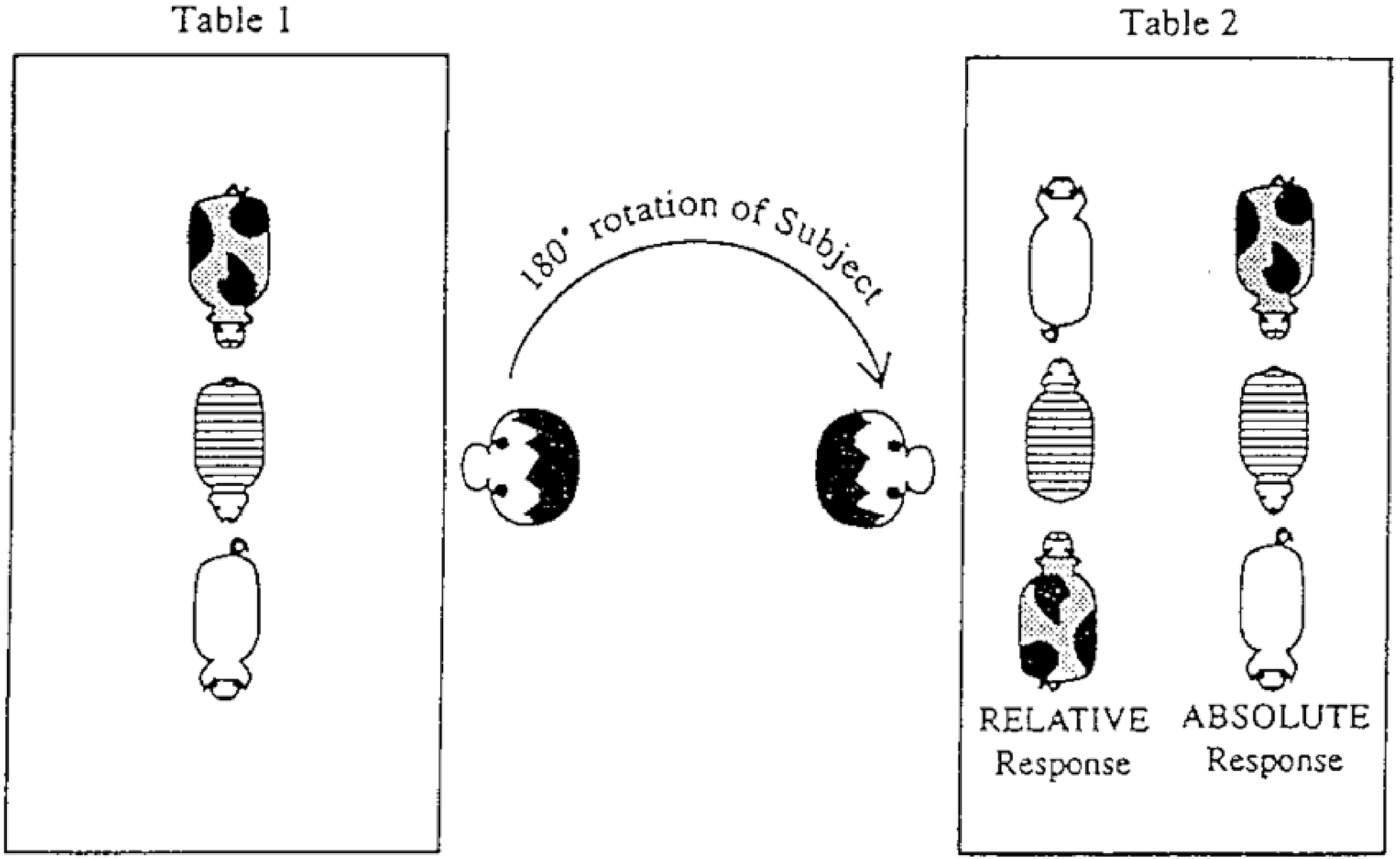
Table 1
180° rotation of Subject
Table 2
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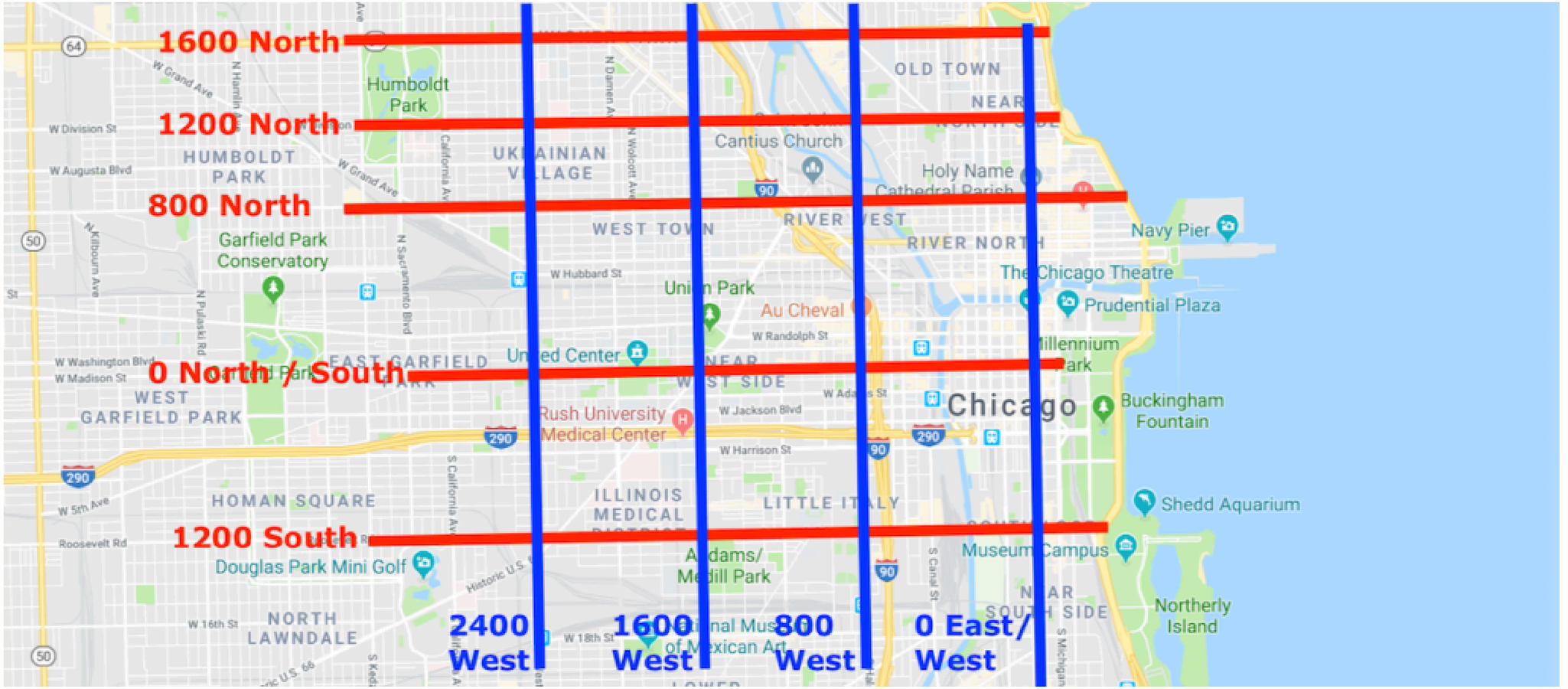
Response
ABSOLUTE
Response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OLD TOWN
NEAR NORTH SIDE
Cantius Church
Holy Name Cathedral Parish
WEST TOWN
RIVER WEST
RIVER NORTH
Navy Pier
The Chicago Theatre
Prudential Plaza
Garfield Park Conservatory
Union Park
Au Cheval
Millennium Park
United Center
EAST GARFIELD PARK
NEAR WEST SIDE
WEST GARFIELD PARK
Rush University Medical Center
Chicago
Buckingham Fountain
HOMAN SQUARE
ILLINOIS MEDICAL DISTRICT
LITTLE ITALY
Shedd Aquarium
Douglas Park Mini Golf
Adams/ Medill Park
Museum Campus
NEAR SOUTH SIDE
Northerly Island
NORTH LAWNDALE
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W Hubbard St
W Randolph St
W Washington Blvd
W Madison St
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Roosevelt Rd
W 16th St
W 18th St
N Damen Ave
N Wolcott Ave
N California Ave
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N Sacramento Blvd
N Pulaski Rd
N Kilbourn Ave
S Canal St
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64
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Linguistische Relativität

Sprachliche Strukturen können zwar **kognitive Gewohnheiten** bilden, aber sagen nichts über die kognitiven Fähigkeiten der Sprecher aus.

Auch Sprecher von egozentrischen Sprachen können geozentrische Referenzrahmen erlernen. Sprecher von Sprachen ohne Zahlenwörter können rechnen (lernen).

Es gibt sicher **Zusammenhänge** zwischen sprachlichen Strukturen und kognitiven Muster, allerdings kann nicht die Rede davon sein, dass die Sprache uns eine gewisse Denkweise “aufzwingt”.

Linguistische Relativität

In den 60er-Jahren gerieten Whorfs Ideen immer mehr in Verrufung. Man ging zunehmend von einer **universellen kognitiven Grundlage** aus, die durch sprachliche Strukturen lediglich reflektiert wird.

Kritiker bemängelten, dass Whorfs Ideen **unklar formuliert** und **nicht wirklich testbar** seien. Zudem fußten sie häufig auf unzulänglich oder schlicht **falsch analysierten Sprachdaten** (siehe die Eskimowörter für Schnee 👀).

Durch Experimente wie *Animals in a Row* flammt die Debatte um die schwache Interpretation ab den 90ern wieder auf.

Linguistische Relativität

“(…) no one, not even Whorf, ever held that our thought was in the infernal grip of our language. Whorf’s own idea was that certain grammatical patterns, through making obligatory semantic distinctions, might induce corresponding categories in habitual or non-reflective thought in just the relevant domains (…)” (Levinson 2003)

Schwache Interpretation. Strukturelle Unterschiede zwischen Sprachsystemen korrelieren mit kognitiven Unterschieden zwischen ihren Sprechern.

Starke Interpretation. Die Struktur der Muttersprache beeinflusst die Weltsicht eines Sprechers maßgeblich, während er sie erlernt.

Linguistische Relativität

Es gibt keine wirkliche Evidenz für die starke Interpretation der Hypothese.

Es gibt potenzielle Evidenz für die schwache Interpretation der Hypothese in einzelnen Domänen. Demnach beeinflusst die Sprache, wie wir die Umwelt **kategorisieren,** aber nicht zwangsläufig, wie wir Dinge **wahrnehmen.**

Alle Menschen teilen sich die selben biologischen Grundlagen, die Sprache ermöglichen. Ein hoher Grad an **Neuroplastizität** erlaubt es unseren Gehirnen allerdings, sich im Laufe unseres Lebens an äußerliche Gegebenheiten anzupassen.

Linguistische Relativität

...aber wie universell ist unsere Wahrnehmung wirklich?

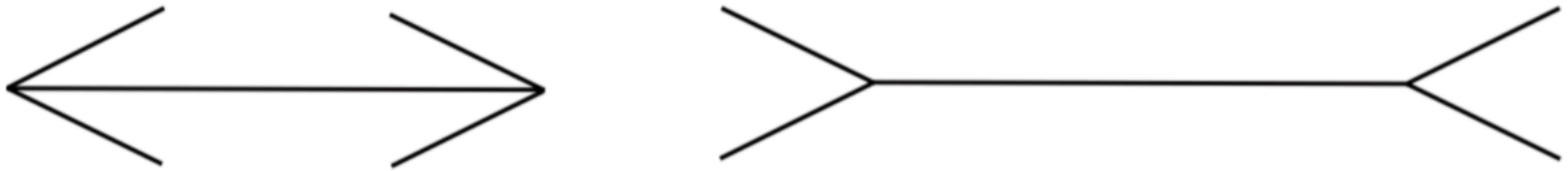

Figure 2.1: The Müller-Lyer illusion.

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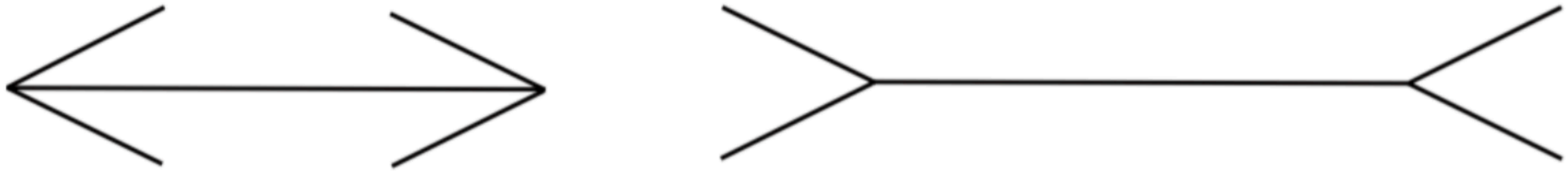

Figure 2.1: The Müller-Lyer illusion.

...lange Zeit als universell angenommen, aber die optische Täuschung funktioniert scheinbar bei “WEIRD”en* Probanden besser als bei anderen!

*WEIRD: Western, Educated, Industrialized, Rich, Democratic.

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Viele kognitive Faktoren sind zweifelsohne universell. Dennoch können wir die Universalität eines Merkmals erst dann annehmen, wenn es in **verschiedenen Kulturen weit verbreitet** ist, insbesondere in nicht sesshaften Jäger-Sammler-Kulturen, deren Lebensweise wohl am Ehesten dem ähnelt, wie Menschen über die meiste Zeit gelebt haben.

Unsere gemeinsame neurophysiologische Grundlage hat sich weitestgehend während einer nicht sesshaften Lebensweise entwickelt. Während der Mensch genotypisch extrem homogen ist, weist er eine extreme Variation in kulturellen Praktiken auf: Viele Verhaltensmuster sind nicht angeboren und werden im Laufe des Lebens erlernt.

Fazit

Sprache ist sicher eng mit der Umwelt und der Kultur, in der sie gesprochen wird, verwoben.

Dementsprechend finden sich immer wieder Zusammenhänge zwischen sprachlichen und nicht-sprachlichen Mustern wieder.

Diese dürfen allerdings nicht so interpretiert werden, als würde Sprache fest bestimmen, was Menschen denken oder wahrnehmen können.