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The Grammar of Knowledge

A Cross-Linguistic Typology

EDITED BY

Alexandra Y. Aikhenvald
and R. M. W. Dixon

Explorations in Linguistic Typology

The Grammar of Knowledge

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A Cross-Linguistic Typology

Edited by

ALEXANDRA Y. AIKHENVALD and

R. M. W. DIXON

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Preface

Every language has a way of talking about knowledge, and expressing information source. Some languages have a grammatical system of evidentials; others employ additional means to express information source and the ways in which speakers know what they are talking about. The marking, and the conceptualization of knowledge, vary across languages and cultures. This volume aims at investigating the varied facets of evidentiality, information source, and associated notions.

The volume starts with a typological introduction outlining the marking, and the meaning, of evidentials and other ways of marking information source, together with cultural and social aspects of the conceptualization of knowledge in a range of speech communities. It is followed by revised versions of twelve of the fourteen presentations from the International Workshop ‘The grammar of knowledge’, held at the Language and Culture Research Centre, James Cook University, 16–21 July 2012. An earlier version of Chapter 1 had been circulated to the contributors, with a list of points to be addressed, so as to ensure that their detailed studies of individual languages were cast in terms of a common set of typological parameters. (This is the seventh monograph in the series *Explorations in Linguistic Typology*, devoted to volumes from the International Workshops organized by the co-editors.)

The week of the workshop was intellectually stimulating and exciting, full of good discussions and cross-fertilization of ideas. Each author has undertaken intensive fieldwork, in addition to experience of working on linguistic typology, historical comparative issues, and problems of areal diffusion. The analysis is cast in terms of basic linguistic theory—the cumulative typological functional framework in terms of which almost all descriptive grammars are cast—and avoids formalisms (which provide reinterpretations rather than explanations, and come and go with such frequency that any statement made in terms of them is likely soon to become inaccessible).

It is our hope that this volume will provide a consolidated conceptual and analytic framework. We aim at covering the major parameters of variation in the expression of evidentiality, information source, and knowledge in general across languages of the world.

We are grateful to all the participants in the Workshop and colleagues who took part in the discussion and provided feedback on presentations at various stages, particularly, Michael Wood, Yongxian Luo, Grant Aiton, Hannah Sarvasy, Mikko Salminen, Dineke Schokkin, Esther Stützele-Csaja, and Lidia Suarez. We owe a special debt of gratitude to Brigitta Flick and to Elena Rhind, for helping us organize the Workshop in a most efficient manner. Brigitta Flick’s support and editorial assistance was, as always, invaluable. A very big ‘thank you’ goes to Amanda Parsonage, for her assistance and cheerful support during the preparation of the final manuscript.

The Workshop was made possible through the Australian Research Council Discovery Project ‘The grammar of knowledge: a cross-linguistic view of evidentiality and epistemological expressions’. We gratefully acknowledge financial assistance from the Faculty of Arts and Social Sciences and from the Cairns Institute at James Cook University.

As with all previous volumes emanating from our International Workshop (also published in the series *Explorations in Linguistic Typology*), we owe a considerable debt to John Davey, our editor at Oxford University Press. His support, and encouragement, make our books feel welcome.

Notes on the contributors

ALEXANDRA Y. AIKHENVALD is Distinguished Professor, Australian Laureate Fellow and Director of the Language and Culture Research Centre at James Cook University. She is a major authority on languages of the Arawak family, from northern Amazonia, and has written grammars of Bare (1995) and Warekena (1998), plus *A Grammar of Tariana, from northwest Amazonia* (Cambridge University Press, 2003), in addition to essays on various typological and areal features of South American languages. Her other major publications, with OUP, include *Classifiers: a typology of noun categorization devices* (2000), *Language contact in Amazonia* (2002), *Evidentiality* (2004), *The Manambu language from East Sepik, Papua New Guinea*, (2008), *Imperatives and commands* (2010), *Languages of the Amazon* (2012), and *The art of grammar* (2015). Address: The Cairns Institute, James Cook University, PO Box 6811, Cairns, NQld 4780, Australia; e-mail: Alexandra.Aikhenvald@jcu.edu.au

JULES JACQUES COLY received his PhD from the University of Cologne, where he is currently occupying a four-year postdoctoral position. His principal research has been on Jóola and Wolof (Senegal) and Maaka (Nigeria) on which he has published several articles. His book *Morphosyntaxe du Jóola Kuwaataay* was published in 2012 (Munich, Lincom Europa). Address: Institut für Afrikanistik, Universität zu Köln, Meister-Ekkehard Str-7, D-50923 Cologne, Germany; e-mail: colyjules@hotmail.com

GERRIT J. DIMMENDAAL is Professor of African Studies at the University of Cologne, Germany. He specializes in Nilo-Saharan and neighbouring language families belonging to Afroasiatic and Niger-Congo groupings. He is the author of *The Turkana language* (Dordrecht: Foris, 1983). His recent publications include an edited volume, *Coding participant marking: Construction types in twelve African languages* (2009), a monograph, *Historical linguistics and the comparative study of African languages* (2011), and a collection of papers *The leopard's spots* (2014, Leiden: Brill). Address: Institut für Afrikanistik, Universität zu Köln, Meister-Ekkehard Str -7, D-50923 Cologne, Germany; e-mail: gerrit.dimmendaal@uni-koeln.de

R. M. W. DIXON is Adjunct Professor and Deputy Director of the Language and Culture Research Centre at James Cook University. He has published grammars of a number of Australian languages (including Dyirbal and Yidiñ), in addition to *A grammar of Boumaa Fijian* (University of Chicago Press, 1988), *The Jarawara language of Southern Amazonia* (Oxford University Press, 2004, paperback 2011) and *A semantic approach to English grammar* (Oxford University Press, 2005). His works on typological theory include *Where have all the adjectives gone? and other essays in semantics and syntax* (Mouton, 1982) and *Ergativity* (Cambridge University Press, 1994). *The rise and fall of languages* (Cambridge University Press, 1997) expounded a punctuated equilibrium model for language development; this is the basis for his detailed case study *Australian languages: Their nature and development* (Cambridge University Press, 2002). He is also the author of the three-volume work *Basic linguistic theory* (Oxford University Press, 2010–12) and of an academic autobiography *I am a linguist* (Brill, 2011). Address: The Cairns Institute, James Cook University, PO Box 6811, Cairns, NQld 4780, Australia; e-mail: robert.dixon@jcu.edu.au

DIANA FORKER teaches in the Department of General Linguistics at the University of Bamberg. She completed her PhD at the Max Planck Institute for Evolutionary Anthropology. Her main interests are languages of the Caucasus, typology, and morphosyntax. She is currently working on the documentation of the Nakh-Daghestanian language Sanzhi Dargwa and on a typological investigation of referential devices in natural discourse. Among her recent and forthcoming publications are *A grammar of Hinuq* (Mouton grammar library, 2013) and several articles on different aspects of Hinuq and other Nakh-Daghestanian languages. She was awarded a prestigious Otto-Hahn Medal for the excellence of her research and a Feodor Lynen Postdoctoral Fellowship. *Address:* Universität Bamberg, Lehrstuhl für Allgemeine Sprachwissenschaft, Obere Karolinenstr. 8 96049 Bamberg, Germany; *e-mail:* diana.forker@uni-bamberg.de

TEIJA GREED obtained her first Master's degree at the University of Tampere, Finland, in Slavonic Philology. She then studied linguistics at SIL International, before moving to Russia to study the Tatar language at Kazan State University, after which she assisted in the translation of the New Testament into Tatar (published 2001). She has a particular interest in the interaction of source and receptor texts in translation. Her Master's thesis is on Tatar evidentiality. She is currently a linguistics consultant with SIL International, and is involved in a PhD programme at the General Linguistics Department at the University of Helsinki, studying evidentiality in the non-Slavonic languages of Russia. *Address:* SIL International, Hämeenlinnantie 20 A 3, 15800 Lahti, Finland; *e-mail:* teija_greed@sil.org

GWENDOLYN HYSLOP received her PhD in Linguistics from the University of Oregon in 2011. She is a lecturer at the Department of Linguistics, Faculty of Arts and Social Sciences, University of Sydney. She has worked on several Tibeto-Burman languages and is a specialist on the East Bodish languages of Bhutan and Arunachal Pradesh. Publications include articles on tonogenesis, ergativity, historical linguistics, and a forthcoming grammar of Kurtöp with Brill. She is also co-director of the Bhutan Oral Literature and Language Documentation Projects. She has been awarded a prestigious Visiting Fellowship of the Cairns Institute for 2013. *Address:* Department of Linguistics, Faculty of Arts and Social Sciences, University of Sydney NSW Australia 2006; *e-mail:* gwendolyn.hyslop@sydney.edu.au

ELENA MIHAS has been doing research into Ashéninka/Asháninka varieties of Kampan (Arawak) languages of Peru since 2008. She earned her PhD in Linguistics from the University of Wisconsin-Milwaukee in 2010. Her doctoral dissertation deals with the essentials of Ashéninka Perené grammar. Currently, she holds a position of Postdoctoral Research Associate at the Language and Culture Research Centre, James Cook University and is a Visiting Scholar at the Center for Latin American and Caribbean Studies at UW-Milwaukee. Her most recent publications include 'Ideophones in Alto Perené' (*Studies in Language*) and 'Subordination strategies in Ashéninka Perené (Arawak) from Central-Eastern Peru' (*Rivista di Linguistica/Italian Journal of Linguistics*). *Address:* The Cairns Institute, James Cook University, PO Box 6811, Cairns, NQld 4780, Australia; *e-mail:* Elena.Mihas@jcu.edu.au

SIMON E. OVERALL received his PhD in 2008 from RCLT, La Trobe University, with a thesis on the grammar of Aguaruna. He has taught linguistics at La Trobe University and Otago University, and has published on aspects of the syntax and phonology of Aguaruna. His current research focus is on the diachrony of nominalizations and their involvement in discourse and switch-reference, as

well as the linguistic situation in the eastern foothills of the Andes. He holds a position of Postdoctoral Research Fellow at the Language and Culture Research Centre, James Cook University and is working on Candoshi, an isolate of Peru. *Address:* The Cairns Institute, James Cook University, PO Box 6811, Cairns, NQld 4780, Australia; *e-mail:* Simon.Overall@gmail.com; Simon.Overall@jcu.edu.au

CHIA-JUNG PAN is Assistant Professor at the School of Literature, Nankai University, P. R. China. His PhD thesis *A Grammar of Lha'alua, an Austronesian language of Taiwan*, was completed at the Language and Culture Research Centre, Cairns Institute, James Cook University in 2012. In 2013, he was a Postdoctoral Research Fellow at the Institute of Linguistics, Academia Sinica. Currently, he is continuing his research into the Saaroa language and investigating a number of grammatical topics on Saaroa, Tsou, and Kanakanavu languages. *Address:* School of Literature, Fansun Building, Nankai University, No. 94 Weijin Road, Tianjin 300071, P. R. China; *e-mail:* chiajung.pan216@gmail.com

OLGA SEESING studied linguistics at the Kalmyk State University (Russian Federation), and completed her PhD on temporal clauses in Kalmyk at the Ludwig Maximilian University of Munich. As a Postdoctoral Research Fellow at the Ludwig Maximilian University of Munich she worked on evidentiality and mirativity in Kalmyk (supervisor: Elena Skribnik), and is currently working on temporal clause construction in Kalmyk. *Address:* Institute of Finno-Ugric and Uralic Studies, Ludwig Maximilian University of Munich, Ludwigstr. 31, D-80539 Munich, Germany; *e-mail:* olga.seesing@web.de

ELENA SKRIBNIK is Professor and Director of the Institute of Finno-Ugric and Uralic Studies at the Ludwig Maximilian University of Munich. Her main areas of research are syntax, especially grammatical categories and grammaticalization processes, and language contact of the languages of Siberia. She has carried out fieldwork on a number of Altaic and Uralic languages of Siberia (1977–2008) and published studies on these languages. She has participated in educational programmes for representatives of indigenous peoples at the Universities of Novosibirsk and Khanty-Mansiysk (Russian Federation), and is co-author of the first Mansi teaching manual intended for students of Mansi national schools and pedagogical institutions with insufficient knowledge of their heritage language. She led the ESF EuroCORES/EuroBABEL project 'Ob-Ugric languages: conceptual structures, lexicon, constructions, categories', and is currently working on a reference grammar of Mansi, and on a digital construction of temporal clauses in Mongol, Buryat, and Kalmyk. *Address:* Institute of Finno-Ugric and Uralic Studies, Ludwig Maximilian University of Munich, Ludwigstr. 31, D-80539 Munich, Germany; *e-mail:* skribnik@lmu.de

ANNE STORCH is Professor of African Languages and Linguistics at the University of Cologne. Her principal research has been on the various languages of Nigeria (including Jukun and Maaka), on the Atlantic language region, on Western Nilotic, and on African speech registers. Her publications include *Das Hone und seine Stellung im Zentral-Jukunoid* (Cologne 1999), *The noun morphology of Western Nilotic* (Cologne 2005), *Secret manipulations* (New York 2011), and several edited volumes. Her book *Repertoires and choices in African languages*, co-authored by Friederike Lüpke, was published in 2013, by Mouton de Gruyter. She is currently finishing a grammar of Luwo (Sudan). *Address:* Institut für Afrikanistik, Universität zu Köln, Meister-Ekkehard Str-7, D-50923 Cologne, Germany; *e-mail:* anne.storch@uni-koeln.de

BORUT TELBAN is Research Advisor and Associate Professor at the Scientific Research Centre of the Slovenian Academy of Sciences and Arts. His anthropological research among the Karawari-speaking people of the East Sepik Province, Papua New Guinea, has spanned more than twenty years including ten months of ethnographic fieldwork in Ambonwari village between February and December 2011. In his published articles and chapters he has explored in detail Ambonwari cosmology, kinship and social organization, ritual, death, poetics, and socio-cultural change pertaining to the impact of the Catholic charismatic movement. He is the author of *Dancing through time: A Sepik cosmology* (Clarendon Press, Oxford, 1998) and is currently working on an encyclopaedic and ethnographic dictionary of Karawari language. *Address:* Institute for Anthropological and Spatial Studies, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Novi trg 2, 1000 Ljubljana, Slovenia; *e-mail:* Borut.Telban@zrc-sazu.si

SIHONG ZHANG is Associate Professor and Vice-dean of the School of International Education and Exchange, Anhui University of Chinese Medicine. He has just completed his PhD at the Language and Culture Centre within the Cairns Institute of James Cook University. He is working on Ersu, an underdocumented language spoken in Sichuan Province, China. His research area is in anthropological linguistics (Tibeto-Burman languages), applied linguistics (ESL), and corpus linguistics (pedagogy). *Address:* Anhui University of Chinese Medicine, 103 Mishan Road, Hefei, Anhui 230038, China; *e-mail:* Sihong.Zhang@my.jcu.edu.au; zhang-sihong@qq.com

Abbreviations

1	1st person
2	2nd person
3	3rd person
III	third nominal group
IV	fourth nominal group
V	fifth nominal group
VII	seventh nominal group
I–V	gender markers
A	transitive subject
ABL	ablative
ABS	absolutive
ABST	absent at the present moment
ACC	accusative
ACHI	achievement
ADJ	adjective
ADV	adverb
AFF	affect (Chapter 10)
AFF	affirmative (Chapter 7)
AGR	agreement
ALL	allative
ALOC	animate location
ALSO	also (no abbreviation)
ANAPH	anaphoric pronoun
ANT	anterior
AP	antipassive
APPLIC	applicative
ASP	aspect
ASSERT	assertive
ASSUM	assumed
AUG	augmentative
AV	actor voice

AUX	auxiliary
BEN	benefactive
BR	bound root
CATEG	categorical future (tense)
CAUS	causative
CEXP	counter-expectation
CL	classifier
CMPLZ	complementizer
CNTF	counterfactual
COMIT	comitative
COMPL	completive
COMPL.CL	complement clause
CONC	concessive
COND	conditional
CONJ	conjunction
CONT	continuous
CONTA	location with contact
CONVB	converb
COP	copula
CORE	core case
COS	change of state
CTM	co-temporal
DAT	dative
DBT	dubiative
DEC	declarative
DEF	definite
DEM	demonstrative
DER	derivational affix
DESID	desiderative
DET	determiner
DIM	diminutive
DIR	directional
DM	discourse marker
DS	different subject
du, DU	dual
DUB	dubitative

-DY	past tense suffix in Tatar
e	eyewitness
E	extension to core (Chapter 11)
E	edible (Chapter 8)
EGO	position of the speaker (Chapter 12)
EGO	Egophoric (Chapter 5)
EP	epenthetic
EMPH	emphasis
EQ	equative
EQUAT	equative
ERG	ergative
EVID	evidential
EVID.MOD	modified situation
EVID.NPOT	anti-potential
exc	exclusive
EXCLAM	exclamative
EXIS	existential
EXIST	existential
EXP	experiential
EXPE	experiential
FEM, F, f	feminine
FOC	focus
FP	far past
FUT	future
-GAN	resultative past tense suffix in Tatar
GEN	genitive
HAB	habitual
HESIT	hesitation pro-form
HON	honorific
HPL	human plural
HT	high transitivity
ICP	intransitive copy pronoun
IDEO	ideophone
IMMED	immediate
IMP	imperative

IMPER	imperfect
IMPERS	impersonal
IMPERV	imperfective
IN	location 'in'
inc	inclusive
INCH	inchoative
incl	inclusive
INCOM	incompletive
INDEF	indefinite
INDEP	independent
INDIC	indicative
INDIR	indirectivity
INESS	inessive
INFER	inferred
INFIN	infinitive
INST	instrumental
INT	intentional
INTER	interrogative
INTERJ	interjection
INTR	intransitive
IRR	irrealis
JOINT	joint perception
JUS	jussive
KIN	kinship
LAT	lative
LINK	linker
LOC	locative
LOG	logophoric
LV	locative voice
MASC, M, m	masculine
MC	Mandarin Chinese
min, MIN	minimal
MIR	mirative
MIRAT	mirative
MOD	modal

NARR	narrative
NCL	noun class
NEG	negation
NEUT, N	neuter
NF	non-final
nf	non-feminine
NFIRSTH	non-firsthand evidential
NHPL	non-human plural
NIGHT	nighttime
NMASC	non-masculine
NOM	nominative
NOMZ	nominalizer
NONVIS	non-visual
NP	noun phrase
NPAST	non-past
NPOSSD	non-possessed
nsg	non-singular
NWIT	non-witnessed evidential
O	transitive object
OBJ	object
OBL	oblique
ONOM	onomatopoeia
OTR	first person 'other'
OPT	optative
ORD	ordinal number
p	person
PART	particle
PARTIC	participle
PASS	passive
PAST	past
PERV	perfective
PF	pause filler
pl, PL	plural
PN	pronoun
POSS	possessive

POT, pot	potential
PR	polite request
PRED	predicative (word)
PREF	prefix
PREP	preposition
PRES	present
PRES.NONVIS	present non-visual
PREST	present speaker
PRN	proper noun
PROG	progressive
PROHIB	prohibitive
PROS	prospective
PURP	purposive
PV	patient voice
Q	question particle
QP	question particle
QUOT	quotative
RC	relative clause
REAL	realis
REAS	reason
REC	recent
REC.P.NONVIS	recent past non-visual
RECIP	reciprocal
REDUP	reduplicated
REF	referential
REFL	reflexive
REGR	regressive
REL	relative
REM	remote
REP	reported
REPET	repetitive
RES	resultative
REV	reversive
S	intransitive subject
s.th.	something

S _a	'active' S, marked like A
SEQ	sequential
sg, SG	singular
SIM	simultaneous
S _o	'stative' S, marked like O
SLF	first person 'self' (narrator)
SPEC	speculative
SPECUL	speculative
SPR	location 'on'
STAT	stative
SU	subject
SU>OBJ	subject of marked clause is object of controlling clause
SUB	subordinator
SUBORD	subordinate
SUPRESS	superessive
SVC	serial verb construction
TAG	tag particle
TAM	tense-aspect-mood
TEL	telic
TEMP	temporal
TERM	terminative
TOP	topic
TOP.NON.A/S	topical non-subject
TR	transitive
UNCERT	uncertain(ty)
UNWIT	unwitnessed
VBLZ	verbalizer
VEN	ventive
VIS	visible (Chapter 8)
VIS	visual
VN	verbal noun
VOC	vocative
WIT	witnessed

The grammar of knowledge: a cross-linguistic view of evidentials and the expression of information source

ALEXANDRA Y. AIKHENVALD

Every language has a way of speaking about how one knows what one says, and what one thinks about what one knows. In any language, there are ways of phrasing inferences, assumptions, probabilities, and possibilities, and expressing disbelief. These epistemological meanings and their cultural correlates are the subject matter of the present volume.

In a number of the world's languages, every sentence must specify the information source on which it is based—whether the speaker saw the event, or heard it, or inferred it based on visual evidence or on common sense, or learnt it from another person. As Frans Boas (1938: 133) put it, 'while for us definiteness, number, and time are obligatory aspects, we find in another language location near the speaker or somewhere else, source of information—whether seen, heard, or inferred — as obligatory aspects.'

'Evidentiality' is grammaticalized marking of information source. This is a bona fide grammatical category, on a par with tense, aspect, mood, modality, directionality, obviation, negation, and person. Just as 'person' can be fused with 'gender' and 'number', evidentiality may be fused with tense or aspect or mood. Its expression, and meanings, may correlate with sentence types: evidentials in questions may have overtones different from evidentials in statements. Exclamatory sentences may have no evidentials at all. Evidentials in commands are very limited in their meanings.

In §1, we briefly revisit the relationship between evidentiality and information source. §2 presents a potted summary of evidentials and their meanings across the world. In §3, we turn to the means other than grammatical evidentials which can cover information source, and attitude to information. Evidentials may have non-evidential extensions.

Their use tends to reflect cultural norms and conventions. And their meanings change as new techniques of acquiring information become available. These are the topics of §4. Ways of talking about knowledge in languages with, and without, evidentials are addressed in §5. In the last section (§6) we offer a brief outline of this volume.

1 Evidentiality and information source

It is not uncommon for a linguistic term to have a counterpart in the real world. The idea of ‘time’ in the real world translates into ‘tense’ when expressed in a language. ‘Time’ is what our watch shows and what often passes too quickly; ‘tense’ is a grammaticalized set of forms we have to use in a particular language. Not every time distinction acquires grammatical expression in the language: the possibilities for time are unlimited, and for tense they are rather limited. Similarly, an ‘imperative’ is a category in the language, while a command is a parameter in the real world. Sex distinctions between males and females is often translated into the category of ‘gender’. Along similar lines, ‘evidentiality’ is a linguistic category whose real-life counterpart is information source.

Information source can be expressed in a variety of ways. These may include lexical means, including verbs of perception (‘see’, ‘hear’, ‘smell’) and cognition (‘know’, ‘understand’, and so on). Modal verbs, particles, parentheticals of various sorts, and even facial expressions, can be used to express inference, assumption, and attitude to information—whether the event is considered probable, possible, or downright unlikely. In any language, there is a way of reporting what someone has said. All languages use quotations, and many have direct and indirect speech reports. Their use may interrelate with attitude to the information quoted or cited. For example, a verbatim quote in Arizona Tewa implies that the speaker does not vouch for the information quoted (we return to this in §3.2.4). To sound neutral a speaker would prefer an indirect speech report.¹

Any means of expressing information source may correlate with attitudes to information, and communicative strategies—which information is considered more valuable, and how it is expressed in culturally appropriate ways in each language. There are, however, significant differences between evidentials and non-primarily evidential means ‘co-opted’ to cover some information sources.

In a nutshell: grammatical evidential systems are closed and restricted, with limited choices available. The scope of grammatical evidentials is usually the clause, or the sentence. Only very occasionally can a noun phrase have its own evidentiality specification, different from that of a verb; we return to this in §2.2. In contrast, other means of expressing information source offer open-ended options in terms of their semantics, and can be more flexible in their scope. Expressions related to information

¹ Kroskrity (1993: 146); Aikhenvald (2004: 139); Aikhenvald (2011c: 322) for typological features of speech reports.

source are heterogeneous and versatile. They include closed classes of particles and modal verbs, and a potentially open-ended array of verbs of opinion and belief. The term ‘lexical evidentiality’ is misleading in that it obscures these differences (we briefly turn to this in the Appendix).²

In languages with evidentials, these are never the only means of expressing information source. Verbs, adjectives, adverbials, and speech reports may provide additional detail, to do with attitude to knowledge—the sum of what is known and the information this is based on.

Our main concern within this volume is a cross-linguistic investigation of expression of knowledge through evidentials as a major grammatical means to express the information source, and through other means. We also focus on their correlations with types of knowledge including traditional knowledge, information acquired through more modern means, cultural conventions, and speech practices. The ‘grammar’ of knowledge subsumes the principles of expressing how one knows things, and what this knowledge is based on. Every language will have ways of talking about these issues, but these will vary. There may be constraints on how specific, or how vague, one is expected to be. The practices of talking about what one knows, and how one knows it, may turn out to be shared in languages with and without evidentials.

Evidentials often come from grammaticalized verbs of perception, from modal markers, and from verbs of speech. A typology of lexical and other expressions of information source will help us trace the origins of evidential systems.

Terminological clarity is essential in any branch of science, and linguistics is no exception. The Appendix lists a few common misconceptions about evidentiality and ‘evidential’ meanings.

2 Evidentiality: a bird’s-eye view³

Evidentiality is a grammatical marking of how we know something—whether we saw it happen, or heard it, or smelt it, or inferred what was happening based on logical assumption, or on a result we can see, or whether we were just told about it. In perhaps a quarter of the world’s languages, marking a selection of information sources is a

² Further details on evidentiality as a grammatical category, its meanings and developments are summarized in Aikhenvald (2004, 2006); grammaticalization of evidentials is discussed in Aikhenvald (2011b); evidentials and other means of expression of information source are contrasted in Aikhenvald (2008). An up-to-date bibliography on evidentials is in Aikhenvald (2011a). There are useful papers in Aikhenvald and Dixon (2003), Johanson and Utas (2000) and some in Chafe and Nichols (1986). Earlier approaches to evidentiality which are strongly recommended, include Boas (1938), Jakobson (1957); and especially Jacobsen (1986). On the opposite side of the coin, a warning should be noted that Willett (1988), de Haan (2005), and van der Auwera and Plungian (1998) and many of the papers in Diewald and Smirnova (2010) are of decidedly mixed quality (see the review in Aikhenvald 2012b). The Appendix addresses some issues of terminology.

³ The generalizations here and in all my work on evidentials are based on the analysis of grammars of *c.* 600 languages (since the publication of Aikhenvald 2004, I have had access to further grammars). I avoid limiting myself to any artificially constructed ‘samples’ of languages, since these are likely to engender skewed results.

obligatory.⁴ We now summarize a few points relevant for an understanding of evidential systems (§2.1). A brief overview of geographical distribution of evidentials is in §2.2. Information source expressed within noun phrases is the topic of §2.3.

2.1 Evidentiality systems: a snapshot

As a category in its own right, evidentiality is a relatively recent ‘arrival’ on the linguistic scene—in contrast to other categories such as person, gender, number, and tense which have been household concepts in linguistics for many centuries (see Robins 1967). This may well be the reason why the proper limits of evidentiality are still debated by some.

The idea of obligatory marking of information source encoded in grammar goes back to Boas, and his sketch of Kwakiutl (Boas 1911: 443, 496). ‘The source, or nature, of human knowledge (known by actual experience, by hearsay, by inference)’ is listed by Sapir (1921: 108–9) alongside other grammatical concepts, such as person, modality, number, and tense. Since Boas’ work, the notion of grammatical evidentiality has made its way into many grammars of North American languages.

In languages with obligatory evidentiality, a closed set of information sources has to be marked in every clause—otherwise the clause is ungrammatical, or the speaker incompetent, or even not quite right in his mind (Weber 1986: 142). Evidentiality is a category in its own right. Evidentials may occur together with exponents of modality, tense, or mood.⁵ Evidentiality can be intertwined with other categories—including tense, aspect, epistemic modalities, expectation, and ‘sharing’ of knowledge.

2.1.1 What meanings are expressed in evidentiality systems Languages with grammatical evidentials divide into a number of types depending on how many information sources are assigned a distinct grammatical marking. Some languages mark just information reported by someone else.

Nhêngatú, a Tupí-Guaraní lingua franca of north-west Amazonia, has a reported evidential marker *paá* (Floyd 2005). Suppose you saw Aldevan go fishing. After that, Aldevan’s aunt Marilha arrives at the house and asks where he has gone. You then reply, *u-sú u-piniatika* (3sg-go 3sg-fish) ‘He went fishing’. Then a friend comes to visit

⁴ The term ‘evidential’ as a label for the grammatical category of information source was first introduced by Jakobson in 1957; and became established by the mid-1960s (see Jacobsen 1986: 4–7; Aikhenvald 2004: 10–17). Lazard (1957) was among the first French linguists to have discussed evidential meanings (‘inférenciel’), based on the material from Tajik, an Iranian language.

⁵ Statements that evidentiality is a type of verbal modality can be found in Palmer (1986), van der Auwera and Plungian (1998), and Willett (1988) are not borne out by the facts of languages, and are mistaken. See the arguments in de Haan (1999), Lazard (1999, 2001), and DeLancey (2001), and the general summary in Aikhenvald (2004: 3–10). Some scholars whose experience is limited to a handful of familiar European languages tend to assume that evidentials are a kind of modal largely because of their absence in most major European languages, thus trying to explain an unusual category in terms of some other, more conventional, notion.

and asks Marcilha where Aldevan has gone. She replies, using a reported evidential—she did not see the man go:

- (1) u-sú u-piniatika paá
 3sg-go 3sg-fish REP
 He went fishing (they say/I was told)

Systems with just one, reported, evidential are widespread across the world. Saaroa, an Austronesian language from Taiwan, also has just one reported evidential (Chapter 4).

Other languages distinguish firsthand and non-firsthand information sources. A typical conversation in Jarawara, an Arawá language from Brazil, is as follows. One speaker asks the other:

- (2) jomee tiwa na-tafi-no awa?
 dog(masc) 2sgO CAUS-wake-IMMED.PAST.noneyewitness.masc seem.masc
 Did the dog wake you up?

He uses a non-firsthand evidential in his question: he didn't himself see or hear the dog; perhaps he was just told about it. The other speaker—who had indeed been woken by the dog and thus saw it or heard it or both—answers using the firsthand evidential:

- (3) owa na-tafi-are-ka
 1sgO CAUS-wake-IMMED.PAST.eyewitness.masc-DEC.masc
 It did wake me up (I saw it or heard it)

Evidentials in Jarawara are distinguished in past tense only. This is the case in many languages with evidentials (including Hinuq: Chapter 2 and Tatar: Chapter 3): the source of information is easier to gather for what has already occurred. In Tatar, the marking of non-firsthand information source is also associated with the resultative.

A further type of small evidential system involves having a marker for information acquired through a NON-FIRSTHAND source, and leaving any other information unmarked, or 'source-neutral'. This is frequent in Caucasian, Turkic, some Finno-Ugric languages, and some languages of the Andes (Johanson and Utas 2000; Aikhenvald 2012a: ch. 9). Within the present volume, this kind of system is described for Hinuq, a Nakh-Daghestanian language (Chapter 2) and Tatar, a Turkic language (Chapter 3).

The 'non-firsthand' term has an array of meanings covering reported or hearsay, and logical deduction or inference. The evidential marker *-rke-* in Mapudungun, an isolate

spoken in the Andean areas of Chile and west central Argentina, is a prime example (Smeets 2007: 246–7, 110). In (4), it refers to reported information:

- (4) Kuyfi miyaw-ürke-y mawida mew
 long.ago walk-NONFIRSTHAND-INDICATIVE forest through
 Long ago s/he wandered through the forest (it is said)

In (5), the same *-rke-* describes what one has inferred:

- (5) weḏweḏ-pe-rke-la-y
 crazy-PROXIMITY-NONFIRSTHAND-INDIC-3PERSON
 He must be crazy (that one, he travelled through all that rain)

The ‘information-source-neutral’ form may refer to a variety of information sources. It is the most likely one to be used in translations and elicitation, as a ‘default’ choice (see §2.2.2 of Chapter 2, on Hinuq). The information-source neutral form in Tatar often acquires a firsthand reading (see Figure 4 in §6.3 of Chapter 3, and an alternative analysis of Hinuq mentioned in Chapter 2).

What could be the reason for this? In many languages, the least formally marked verb in a language with evidentiality would acquire a visual, or a firsthand reading. In Ersu, if a clause contains a verb without an evidential, this is interpreted as based on ‘direct’ information source (§4.1 of Chapter 6, and see Aikhenvald 2004: 72–3). Thus, no overt marking for information source may imply that the source will be understood as visual or firsthand by ‘default’. Having firsthand information formally unmarked is a strong tendency, but by no means a universal rule. A formally unmarked verb in Kurtöp encodes uncertain future (§5.2 of Chapter 5); the expression of information source in this language depends on the choices made in the aspect system, and is intertwined with a number of further verbal categories.

Firsthand experience can be contrasted with what one has inferred, and with what one assumes. If a speaker of Matses, a Panoan language, has experienced something directly—that is, seen it, heard it, or smelt it—they would use an ‘experiential’ evidential. To answer a question ‘How many wives do you have?’, a Matses would say:

- (6) daëd ik-o-şh
 two be-RECENT.PAST.EXPERIENTIAL-3P
 There are (lit. were) two

According to Fleck (2007), this can be understood as something like ‘last time I checked, they were two’. Evidentials are there only in the past: again, this makes sense because information source is clearer for events which have happened.

If a speaker sees a dead man, and there is no natural cause for death in sight, they would use an inferential evidential:

- (7) nënëchokid-n ak-ak
 shaman-ERG kill-REC.PAST.INFERRED
 (I infer that) a shaman (must have) killed him

And if the speaker has not seen the corpse yet, and assumes that the shaman may have killed the man, the ‘conjecture’ evidential is the right choice:

- (8) nënëchokid-n ak-aşh
 shaman-ERG kill-REC.PAST.CONJECTURE
 (I guess that) a shaman (may have) killed him

Neither the inferential nor the conjecture evidentials imply any uncertainty. If the speaker thinks that the shaman might have killed the man, but they are not sure, they will use a counterfactual suffix *-en* on the subject:

- (9) nënëchokid-n-bi-en ak-chito-ak
 shaman-ERG-EMPH-COUNTERFACTUAL kill-UNCERT-REC.PAST.INFERRED
 A shaman (might have) killed him

Ersu, a Tibeto-Burman language, marks three information sources (§4 of Chapter 6). If information is acquired directly, that is, through seeing, hearing, feeling, or smelling, the verb is formally unmarked. There is a special marker *pà* for inferred and assumed information, and a reported evidential used if the speaker’s statement is based on something someone else had told them. A quotative marker is in the process of being grammaticalized.

What one saw can be contrasted with what one learnt through hearing and smelling, and through various kinds of inference. Tariana, an Arawak language from north-west Amazonia, and its many East Tucanoan neighbours, have five options. If I see José play football, I will say ‘José is playing-*naka*’, using the visual evidential. If I heard the noise of the play (but didn’t see it), I will say ‘José is playing-*mahka*’, using the non-visual. If all I see is that José’s football boots are gone and so is the ball, I will say ‘José is playing-*nihka*’, using the inferential. If it is Sunday and José is not home, the thing to say is ‘José is playing-*sika*’ since my statement is based on the assumption and general knowledge that José usually plays football on Sundays. And if the information was reported to me by someone else, I will say ‘José is playing-*pidaka*’, using the reported marker. Omitting an evidential will produce ungrammatical and unnatural sentences.

Recent studies in grammatical evidential systems have revealed the existence of further terms. Yongning Na (Mosuo), a Tibeto-Burman language (Lidz 2007), has a direct or visual, an inferential, a reported, and a quotative evidential, and a further term which covers general knowledge. This marker is illustrated in (10) (numbers represent tones):

- (10) nɑ₁₃ bu₃₃ nɑ₁₃ bu₃₃ zɿ₃₃ tu₃₃-ku₃₃ dɿ₃₁ tɑ₁₃
 Na POSS Na POSS family-LOC all COMPARATIVE
 tɔ₃₁ tsɑ₃₃=dzɔ₃₃ zɿ₃₃ mi₃₃ t^hi₃₃ li₃₃ ni₃₃
 important/busy=COMMON.KNOWLEDGE.EVID hearth room this CL Co
 In Na families, more important than anything, as everyone knows, is the hearth room

Kalmyk (Chapter 7) has a special evidential for ‘common knowledge’, and so does Mamaindê, a Nambiquara language. Mamaindê has two further evidentials, for secondhand and for thirdhand information.

No spoken language has a special evidential to cover smell, taste, or feeling: this complex of meanings is typically covered by a non-visual, a non-firsthand, or experiential evidential. However, Catalan sign language is reported to have a special evidential marking smell (Sherman Wilcox, p.c.).

Amazonian languages may have further terms. In the Southern Nambiquara dialect complex, there is an obligatory marking on the verb for, among others (Lowe 1999):

- whether a statement is eyewitness—that is, implying that the speaker had seen the action they are reporting;
- whether a statement is inferred or assumed, whereby ‘the speaker’s claim is based either on seeing an associated simultaneous action and making an interpretation therefrom, or on seeing a set of circumstances which must have resulted from a previous action and making an inference; different suffixes mark these two options’;
- whether it is reported, that is if ‘the speaker is simply passing on information they have heard from another speaker’; or
- whether there is ‘internal support’—if ‘the speaker reports their “gut feeling” that which they assert must be so.’⁶

The meaning of ‘gut feeling’ or ‘internal support’ can be expressed through means other than an evidential. Tariana has a lexical verb with a similar meaning (see example (23)), and Ashéninka Perené has a bound marker *-amampy* ‘have suspicions, misgivings’ which may have developed out of a verb (see §2.4 of Chapter 10).

⁶ See Eberhard (2009) on Mamaindê, and Lowe (1999: 275–6) on Southern Nambiquara.

2.1.2 *Summing up: semantic parameters in grammatical evidentiality* The semantic parameters employed in languages with grammatical evidentiality cover physical senses, several types of inference and of report. The recurrent terms are:

- I. VISUAL covers evidence acquired through seeing.
- II. SENSORY covers evidence acquired through hearing, and is typically extended to smell and taste, and sometimes also touch.
- III. INFERENCE is based on visible or tangible evidence or result.
- IV. ASSUMPTION is based on evidence other than visible results: this may include logical reasoning, assumption, or simply general knowledge.
- V. REPORTED, for reported information with no reference to who it was reported by.
- VI. QUOTATIVE, for reported information with an overt reference to the quoted source.

These semantic parameters group together in various ways, depending on the system's internal organization. The most straightforward grouping is found in three-term systems—where sensory parameters (I and II), inference (III and IV), and reported (V and VI) are grouped together, as in Quechua, Shilluk, and Bora (Aikhenvald 2004: 145–6; 159–66). Numerous languages of Eurasia group parameters (II–VI) under a catch-all non-firsthand evidential, for example Hinuq and Tatar (Chapters 2 and 3 of this volume), and also Abkhaz and Yukaghir. This kind of system is uncommon in Amazonia (although it has been described for Mapudungun, in the Andean region).

Alternatively, an evidentiality system may allow one to specify—or not—the exact information source (in line with Aikhenvald 2003a: 3; Johanson 2003). Kalmyk, a Mongolic language (Chapter 7), distinguishes direct and indirect evidentials. The 'direct' term combines reference to sensory parameters (I and II). The indirect term covers the rest. The speaker may choose to be more specific as to 'indirect' evidentiality—there is then the choice of inferred, assumed, prospective, reported, and common knowledge.

We now turn to further features of evidentiality systems, highlighting those described within this volume.

2.1.3 *Evidentials, and other categories* Just like most other grammatical categories, evidentials interrelate with mood. The maximum number of evidential specifications tends to be distinguished in declarative main clauses. The most frequent evidential in commands is reported (meaning 'do what someone else told you to!'). Evidentials in questions may reflect the information source of the answerer (as in Tsafiki, Quechua, Tariana, and Tucano: Aikhenvald 2004: 245–6) or the questioner's assumptions concerning the information source of the addressee; this has different consequences for their use. Typically, only reported evidentiality can be expressed in

commands (see Aikhenvald 2010: 138–40, for details). An evidential can be questioned, as in Wanka Quechua.⁷

Evidentiality can interact with negation. In M̃yky, an isolate from Brazilian Amazonia (Monserrat and Dixon 2003), no evidentials at all can be distinguished if the clause is negative. In contrast, negative existential copulas in Kurtöp (§6.1 of Chapter 5) have an evidential-cum-epistemic distinction not found in their affirmative counterparts: indirect evidence or inference with or without ‘doubt’. An evidential may be within the scope of negation, as in Akha, a Tibeto-Burman language.

The maximum number of evidential specifications is found in past tenses. In Hinuq, Tatar, Jarawara, and Matses evidentiality is only distinguished in the past tense. The choices made in the tense system thus determine the choices made in the system of evidentials (in line with Aikhenvald and Dixon 2011: 190).

The choice of evidentiality in Kurtöp depends on the choice made in the aspect system. This adds a further dependency to the list in Aikhenvald and Dixon (2011: 91) (there, we predicted the existence of such a dependency, but did not have any examples to illustrate it). Evidential distinctions made in perfective aspect in Kurtöp cover personal knowledge versus lack thereof, and shared versus non-shared knowledge. These evidential meanings form one system with expectation of knowledge, and overlap with the epistemic notion of ‘certainty’ (see Figure 2, Chapter 5). Only ‘expectation of knowledge’ is distinguished within the imperfective aspect.

Future and various modalities—conditional, dubitative and so on—may allow fewer evidential specifications than the indicative. In many languages—including Matses (Fleck 2007)—information source is ‘irrelevant’ for statements about the future. Projection of information source and thus marking of evidentiality in future may have special epistemic overtones, as in Wanka Quechua (Floyd 1999: 75, see Aikhenvald 2004: 261–2), and Ersu (Sihong Zhang, p.c.). In Kurtöp, only epistemic meanings of ‘certainty’ versus ‘uncertainty’ are relevant for the future (Figure 4, Chapter 5).

Prospective evidential in Kalmyk (Table 2 and §7 of Chapter 7) expresses predictions based on information inferred by the speaker at different times. This takes us to the next section.

2.1.4 Time reference of an event, and time reference of an evidential The time of verbal report about something happening may be the same as that of the happening itself. Or it may be made post factum. In Saaroa (§3.5 of Chapter 4), Tariana, and a number of other languages there can be a time gap between the event and the speaker’s information on it (see Aikhenvald 2004: 99–102; 2012a: 259–61).

The time of a report, and the time of the event can be marked separately, within one word. In Tariana, if the speaker had just been told that information would happen in the future, a future marker will be used with the recent past reported evidential:

⁷ Contrary to flawed assertions by Willett (1988), a source to be avoided.

- (11) du-dia-karu-pida-ka
 3sgnf-return-PURPOSIVE-REPORTED-REC.P
 She will return reportedly (the speaker has been told recently)

If the speaker has been told a long time ago, they will use the remote past reported evidential:

- (12) du-dia-karu-pida-na
 3sgnf-return-PURPOSIVE-REPORTED-REM.P
 She will return reportedly (the speaker was told a long time ago)

Matses (Fleck 2007) allows combination of different evidentials, each with its own time reference. If the hunter saw tracks of a white-lipped peccary a long time ago, and the tracks were fresh, he will use distant past experiential. This can be accompanied by the recent past inferred evidential, since the inference relates to the fact that the peccaries had been here recently with respect to the time when the hunter had seen them:

- (13) *ʃhəktenamë* *kuen-ak-onda-ʃh*
 white.lipped.peccary pass.by-REC.PAST.INFERRED-DISTANT.PAST.EXPERIENTIAL-3
 White-lipped peccaries evidently passed by (here) (fresh tracks were discovered a long time ago)

The source of inference may be specified by two evidentials in one clause. In Yongning Na (Mosuo), a Tibeto-Burman language, the quotative evidential may co-occur with inferred evidential (Lidz 2007: 67), meaning that the act of speech (and thus the quotation) was inferred:

- (14) “*ɛi33* *gi13* *ze33*” *pi33 p^hæ33 di33*
 rain CHANGE.OF.STATE.MARKER QUOTATIVE INFERRED
 It is inferred (that) s/he says, “It’s raining”

In Ersu (§6 of Chapter 6) the inferred evidential can occur together with either reported or quotative evidential. Similarly to Yongning Na, one information source specifies the other.

Making an inference or an assumption implies that information was first obtained and then interpreted. It may have been obtained before the speech act, or simultaneously with it. This creates an option for a language to make additional distinctions

within inferred evidentiality (see Aikhenvald 2004: 95–6, on how this can be reflected in co-occurrence of two evidentials in one clause; similar instances are mentioned in San Roque and Loughnane 2012: 118). Kalmyk distinguishes two inferred evidentials, depending on whether the information was obtained prior to the inference or simultaneously with it. The assumed evidential does not warrant such distinctions. A prediction can be made based on an inference (this is called ‘prospective’ evidential by Skribnik and Seesing, Chapter 7). Kalmyk distinguishes three forms: one for a prediction based on information obtained in the past, one based on prediction on the basis of information obtained simultaneously with it, and one based on the information one expects to obtain (Table 2, Chapter 7).

The possibility of ‘double tense’ with evidentials, and the co-occurrence of evidentials in one clause is one of the many features that make evidentials special, compared to any other verbal category.

Inference and assumption may not be as reliable as what one sees with one’s own eyes. We now turn to epistemic meanings of some evidentials, and further categories involved.

2.1.5 Evidentials, epistemic meanings, shared experience, and expectation of knowledge Epistemic modality and evidentiality are different categories. A modal and an evidential marker can occur in one verb (see, for example, Chirikba 2003, on Abkhaz). Some evidentials may have epistemic extensions, to do with probability and the speaker’s evaluation of the trustworthiness of information.⁸ Visual evidential in Quechua can refer to information the speaker vouches for. Not so in Tariana or Tucano. The direct and the indirect evidentials in Kalmyk have no epistemic overtones. Meanings of ‘uncertainty’ and ‘certainty’ are a feature of just some inferred and assumed evidentials (Table 2, Chapter 7).

Reported evidential in Estonian has an overtone of doubt: saying ‘he is-reported.evidential a doctor’ would mean that I doubt his qualifications or abilities. In English, ‘they say’ may imply that the speaker does not really believe what is being reported. Similarly, the reported evidential in Saaroa (§4.1 of Chapter 4) may be used if the information is not reliable. This is akin to how the ubiquitous *diz que* has overtones of doubt in many varieties of South American Spanish.⁹ In contrast, in Quechua, Shipibo-Konibo, and Tariana, the reported evidential does not imply any of that. These languages have a plethora of other categories, which express doubt, belief, disbelief, and so on.

As Valenzuela (2003: 57) remarks for Shipibo-Konibo, the selection of reported evidential over the direct evidential ‘does not indicate uncertainty or a lesser degree of

⁸ Readers should be warned against gratuitously dividing languages into those where evidentials have epistemic extensions, and those where they do not (as did Plungian 2001). As shown in Chapter 5 of Aikhenvald (2004), in the same language one evidential may have an epistemic extension, and another one may not.

⁹ Summary in Aikhenvald (2004), also Kany (1944: 171); Travis (2006); Olbertz (2005, 2008), Babel (2009).

reliability but simply reported information.’ The reported markers in Hinuq (Chapter 2), Tatar (Chapter 3), and Maaka (§2.2.1 of Chapter 9) have no overtones of disbelief or doubt. Neither does the reported clitic =*ri* in Kurtöp (§7.2 of Chapter 5). Note that this clitic is widely used in story-telling. I suspect that if a reported evidential is used as the mark of a narrative genre, hardly any epistemic meanings would be attached to it.

The complementizer *kònò* in Maaka introduces a speech report: it is an evidentiality strategy rather than an evidential. Unlike the dedicated reported evidential *nà*, the complementizer always has epistemic overtones of doubt. And, unlike the reported evidential whose scope is the clause, the scope of the complementizer may vary, from a clause to an NP (§2.2.1 of Chapter 9).

Whether or not a reported evidential implies doubt can depend on the position of the evidential within a clause. The reported evidential *nana* in Tsou (Tsouic, Formosan, Austronesian) indicates that information was acquired through hearsay or a speech report if the marker appears before the verb of speech (Yang 2000: 72–3), as in (15). The speech report is in square brackets.

- (15) nehucma o-si **nana** [eainca to amo-su
 yesterday AUX-3sg **REPORTED** say OBLIQUE father-2sg
 maineè hohucma]
 go.home tomorrow
 I heard from other people yesterday that your father said ‘(you) go home tomorrow’

If the marker *nana* occurs within the reported clause, the implication is that the speaker is not certain of the information in the speech report:

- (16) o-si eUsvUta a’o [nehucma tena cu la
 AUX-3sg tell AUX-3sg? yesterday FUT PERF HAB
nana bumemealU]
REPORTED work.hard
 Yesterday she told me that she would work hard from then on (but I am not sure about ‘work hard’)

The grammatical marking of information source in the Kurtöp verb is intertwined with epistemic meanings (certainty of knowledge), the expectation of knowledge and ‘knowledge sharing’—whether only the speaker is privy to the information, or it is also shared by speech-act participants (§3 and Figure 2 of Chapter 5). The information can be expected or unexpected for the speaker and the addressee: this is the core of the category of expectation of knowledge, or ‘mirativity’ (also see Aikhenvald 2012c, for an overview of mirativity and the meanings subsumed under this term). The meanings of expectation of knowledge are linked with the meanings of ‘certainty’ in existential

and equational copulas—another area of Kurtöp grammar where direct and indirect information source are also relevant.

The conventionalized attitude to hearsay as a source of information determines whether or not a reported evidential, or a speech report in general, has epistemic extensions (see also §5.2 of Chapter 11). We return to this in §5.

2.1.6 Scattered coding of information source Evidential meanings can be expressed within the same language without relating to just one category or type of expression (see Aikhenvald 2004: 80–2). Different evidential meanings in Jarawara can be realized in three different slots within the predicate (Dixon 2003: 185). In Hinuq (Chapter 2), neutral versus non-witnessed evidentiality is expressed in synthetic past tense. Quotative and reported particles each form a separate system. This ‘scattered’ expression of evidentiality is also found in Tatar. In this language, reported, quotative, and assumed particles constitute a ‘layer’ of evidentiality marking which is separate from—and independent of—the neutral/non-firsthand distinction marked within the verbal past tense (Chapter 3). Along similar lines, in Maaka (Chapter 9) some meanings to do with information source are expressed on the verb, and others within a noun phrase.

Meanings to do with information source in Kurtöp are expressed through verbal suffixes, and equational and existential copulas; there are also two additional forms, one marking reported information and the other one quotes.

In many instances, the reported evidential stands apart from the other evidential meanings, in terms of its grammatical status and properties (also see Aikhenvald 2004: 82–7). Different ways of expressing information source, and different information sources in different parts of the grammar can be analysed as different evidentiality subsystems.

Other categories may also behave in a similar manner. Number, and gender, are often expressed differently on verbs, nouns, and pronouns. They may also have different semantic distinctions. In some languages of northern Amazonia the choice of a classifier depends on the modifier type, or the type of construction (e.g. Aikhenvald 2000: 68 for a discussion of nominal and pronominal genders; Aikhenvald 2007 on different subsystems of classifiers in different contexts).

Information source can be expressed through other, essentially non-evidential categories. This creates an opening for further ‘scattering’ of the way one can talk about the source of one knowledge in a given language (also see §4 of Chapter 10).

2.2 The geography of evidentials

Not every linguistic area or language family is of equal relevance for our study of evidentiality. An overwhelming number of languages with evidentials are spoken in Amazonia and the adjacent areas of the Andes. They boast the richest array of evidentials in the world, comparable only to North American Indian languages and languages of the Tibeto-Burman domain.

Evidentials are relatively poorly represented in familiar European languages (see Squartini 2007; Pusch 2008), in the Australian area, and in many languages from the large Austronesian family (other than Formosan languages which tend to have a reported evidential). Numerous Papuan languages spoken in the Highlands of New Guinea appear to have evidential systems. Some genetic groups, such as Semitic, do not have them at all. Hardly any evidential systems have been described for the languages of Meso-America (except for Uto-Aztecan languages which tend to have a reported evidential).

Evidentials are a prominent feature in many Turkic, Iranian, and Uralic languages (see Comrie 2000, and Johanson and Utas 2000), and in most north-east Caucasian languages. Basque, an isolate, has a reported evidential (Alcazar 2010, forthcoming). Only a handful of evidential systems have been described for African languages. The few descriptions include two Nilotic languages, Shilluk (Miller and Gilley 2007) and Luo (Storch 2013), !Xun, a Central Khoisan language (König 2013), Fur, a Nilo-Saharan language from the Sudan (Waag 2010), Laal, an isolate spoken in the Moyen-Chari prefecture in Chad (Boyeldieu 1982: 125–6), Sissala, a Gur (Voltaic) language from Burkina Faso (Blass 1989), and Lega, a Bantu language (Botne 2003).

Evidentials are easily diffused in language contact. They spread together with the diffusion of speech practices and speech etiquette, from one neighbour to the next. They are a salient feature of the Vaupés River Basin linguistic area (Aikhenvald 2012a: chs 2 and 9), and of the Balkans as a linguistic area (Aikhenvald 2004: 288–98). The presence of evidentials in Turkic and Iranian languages spoken next to each other may also be accounted for by areal diffusion. That is, we typically find evidentials in contiguous areas.

Amazonia is a high spot for evidentiality. Many Amazonian groups share the cultural convention of being ‘precise’. Yet, not every Amazonian language has a grammaticalized evidentiality system. Ashéninka Perené (Chapter 10) and Aguaruna (Chapter 11) compensate for this ‘gap’ with a plethora of evidentiality strategies and other ways of specifying how one knows things.

Once a language becomes obsolescent, evidentials tend to be lost. The last speaker of Baré, an Arawak language from north-west Amazonia, with whom I chanced to work, did not use evidentials. Speakers who were around twenty years before that did employ a reported evidential. The rarity of reports on evidentials in the Australian languages may be due to the advanced stage of their obsolescence (see Dixon 2002, on the state of affairs there). The reported evidential continues to be widely used in Saaroa, a moribund Austronesian language of Taiwan (Chapter 4); however, in many instances the exact meanings and conditions of its use are hard to pinpoint.

Quality and reliability of descriptions is another matter. Many sketch grammars and grammatical descriptions cast in prescriptive frameworks do not have a place for evidentiality. A brief sketch of Shilluk, by Westermann (1911), does not mention any evidential distinctions. Neither does Migliazza’s (1972) study of Yanomami: his

concern was to fit the language into a transformationalist framework, rather than to see what distinctions were expressed. Some grammarians are more insightful than others. Carlin's (2004) study of Trio discusses evidentiality; Meira's (1999) grammar of the same language does not mention it. I suspect that the 'lack' of evidentiality in Africa is due to an oversight, and not to its absence.

Only through detailed investigation of languages based on intensive immersion fieldwork can we ever expand our general knowledge about the potential of human languages to mark information source in their grammars. It is as yet premature to try and map the geographical distribution of evidentials across the world: such an attempt would reflect how little we know about the expression of information source in Africa, New Guinea, and the Austronesian domain, and not what the facts are.

2.3 *The scope of evidentials: information source of a noun phrase*

Evidentials typically have sentential, or clausal, scope. Dependent clauses usually cannot have an evidential value different from that of a main clause. Then, the scope of an evidential covers the whole sentence: this is the case in Hinuq (§2.4 of Chapter 2), Saaroa (§3.4 of Chapter 4), Ersu (§4 of Chapter 6) and numerous other languages. In Tatar, a language with 'scattered' expression of information source, verbal evidentials have the whole sentence in their scope, while the quotative particle *dip* extends to the whole speech report, and the scope of the reported particle *di* 'can range from a word or phrase . . . to a whole text/discourse' (§4 of Chapter 3).

The scope of verbal evidentials and information-source-marking copulas in Kurtöp is the clause. In contrast, the clitic which marks reported speech (§7.2 of Chapter 5) may have scope over an entire stretch of discourse. But it can also be a noun phrase, if it attaches to just one word, indicating a direct quote. In contrast, epistemic markers tend to have a clause or a sentence as their scope. So do most evidentiality strategies.

Having a noun phrase within the scope of a grammatical evidential appears to be a rarity. In Jarawara (Dixon 2004, and p.c.) several information sources can be marked in one sentence, one on the verb and one on a noun phrase. A speaker was talking about what had happened to him and his companions, using far past tense (referring to what had happened more than two years ago): they had seen a place which had been reported to be another group's old village:

- (17) [[mee tabori botee]-mete-moneha]_{NP:O} otaa_A awa-hamaro ama-ke
 3nsg home:f old -FPnf-REPF insg.exc see-FPEf EXTENT-DECf
 We were seeing in the far past what was reported to be their old camp from far past

The speaker used the remote past (to reflect that it was some time ago) and a firsthand evidential (to reflect that he had been there and had seen everything himself). And he used the non-firsthand version of far past tense plus the reported evidential suffix

with the name of the location — ‘reportedly’ known to have been another group’s old village. This is why the ‘old village’ is marked with the reported evidential.

If I were to attempt to translate this word for word, I would come up with a tortured and clumsy sentence, such as one reads in English newspapers now and again—*The reported killer was allegedly seen to be captured by the police*. But unlike English, the Jarawara sentence is natural and compact. The same set of tense-cum-evidentiality markers is to express information source at a clause, and at a noun phrase level.

In a number of languages, information source is marked only at the NP level. We call it ‘non-propositional’ marking of information source. These appear to always include a term with visual, or firsthand reference.

Dyirbal, an Australian language (Dixon 1972: 44–57, 2010: 244, and Chapter 8), has a three-term system of noun markers which combine reference to visibility and spatial distance of the noun:

- bala-* ‘referent is visible and THERE (that is, not near speaker)’;
- yala-* ‘referent is visible and HERE (near speaker)’; and
- ɲala-* ‘referent is not visible’.

There is an additional series of verbal markers which accompany nouns in a peripheral locational case (§4 of Chapter 8), with the same meanings. The scope of all these markers is a noun phrase.

These distinctions are reminiscent of a cross-linguistically rather common evidential system, with a basic opposition between ‘firsthand’ and ‘non-firsthand’ information source (A1 in Aikhenvald 2004; comparable perhaps to Tatar: Chapter 3). The ‘non-visible’ marker covers something that is not seen but heard, or only known from its noise; something previously visible but now just audible; something neither visible nor audible; or something remembered from the past and not currently visible (§7 of Chapter 8).

Somewhat more complex systems of non-propositional evidentiality whose scope is just the noun phrase have been described for Mataco-Mataguan languages of Argentina and Paraguay. The markers combine reference to information source and to the distance of the nouns’ referent. Chorote distinguishes the following markers: visually perceived; distant (or dead/consumed); not visible now but visible before; invisible or unknown (used in myth) (Carol 2011). The information-source-related markers in Maká, from the same family, cover the meanings of: close (can be reached by hand); close (cannot be reached by hand); far and visible; far and non-visible; absent, seen before; absent, never seen before (Gerzenstein 1994: 166).

Perceptual meanings are encoded within the case system in Tsou, a Formosan language (Pan 2010, based on Tung 1964). The ‘nominative’ and the ‘oblique’ case markers combine information on how distant the object is from the speaker and the addressee, and whether the object was seen by both speaker and hearer, or by the speaker, or not

seen at all (but is nearby and can be heard, or is known to both). In (18), the speaker cannot see the child, but its cries can be heard:

- (18) m-o mongsi co oko
 AFFIX-REALIS cry(ACTOR.VOICE) NOMINATIVE:NOT.SEEN.HEARD child
 The child is crying

Neither of these languages have any grammatical marking for the information source of a clause.

Nominal markers in Maaka indicate the information source of a topicalized noun phrase (§2.1 of Chapter 9)—that is, they correlate with the discourse-pragmatic status of a noun. They encode visually acquired information, assumed information and information acquired through ‘joint perception’ by the speaker and the addressee. This meaning is reminiscent of the category of ‘shared knowledge’ described for Kurtöp in Chapter 5. The ‘joint perception’ noun marker in Maaka also has epistemic overtones of veracity and ‘truth’. There is also a clausal evidential—the reported marker *nà* (§2.2.1 of Chapter 9). Its meanings are different from those of the NP-level non-propositional evidentiality.

The Southern Nambiquara dialect complex has a remarkably complex set of nominal tense markers fused with information source; nouns are also specified for whether they are definite, or not, and represent given or new information (raised numbers stand for tones). Here are some examples, for *wa³ lin³-su³-a²* (manioc-CL:BONE.LIKE-DEF) ‘the manioc root’:

- (19) *wa³lin³-su³-ai²na²*
 manioc-CLASSIFIER:BONE.LIKE-DEFINITE.CURRENT
 This manioc root which we both see before us now
- (20) *wa³lin³-su³-ait³tã²*
 manioc-CLASSIFIER:BONE.LIKE-OBSERVATIONAL.MIDDLE.PAST.NEW
 The manioc root that I saw some time past at some distant place (but you didn’t)
- (21) *wa³lin³-su³-nũ)¹tã²*
 manioc-CLASSIFIER:BONE.LIKE-INFERENTIAL.DEFINITE.UNMARKED
 The manioc root that must have been at some time past, as inferred by me (but not by you)

The verbal categories of tense, aspect, evidentiality, and given information are different, in form and in meanings (Lowe 1999).

Southern Nambiquara and Maaka are the only languages we know of with different systems of evidentiality expressed on a clausal, and on an NP level. This is reminiscent of how tense can be expressed independently within an NP, and within a clause (see Nordlinger and Sadler 2004). In most cases discussed here, NP-level realization of evidentiality is intertwined with distance in space. Establishing the existence of NP-level evidentiality is a major insight within this volume.

There may be more examples of NP-level evidentiality. Santali (Munda: Neukom 2001: 42–4) has a special series of demonstrative pronouns referring to what is seen, or to what is heard. Both distinguish six degrees of distance combined with emphasis. The semantic extensions of these demonstratives are parallel to those in evidentiality systems: the visual demonstrative can refer to ‘what is evident’, while the auditive one may also refer to smell, taste, and feeling (Neukom 2001: 42). Note that a two-term audible versus inaudible demonstrative system has not been recorded in any language.

Perceptual meanings are often encoded in the system of demonstratives (Aikhenvald 2004: 130–1). There, reference to spatial distance can be combined with visibility or lack of it. The obligatory ‘visible/invisible’ distinction in demonstratives in Kwakiutl, a Wakashan language, combines with three degrees of spatial distance, yielding a six-term system (Boas 1911: 41): ‘visible, near me’, ‘visible, near thee’, ‘visible, near him’, ‘invisible, near me’, ‘invisible, near thee’, ‘invisible, near him’ (see Dixon 2010, for further examples). The choice of a locational marker in Tima (§3 of Chapter 12) correlates with the presence of the speaker as a witness of the event or an object. The category of ventive, roughly translatable as ‘move to where the speaker is’ in Tima, and in a number of neighbouring languages, also relates to the speaker being witness to the event, and to potential visibility. In each of these cases however the information-source related meanings of demonstratives can be understood as a corollary of their deictic functions: pointing at something is linked to whether you can see it or not.

3 Information source through other means

3.1 *Evidential strategies in grammar*

Meanings to do with how people know things may be expressed without developing a dedicated form whose primary meaning is information source. Non-evidential categories frequently acquire evidential extensions. This is what is known as ‘evidential strategies’. A conditional mood, a perfect aspect, or a passive can develop an evidential-like meaning as a ‘side effect’ (also see the discussion in Lazard 1999).

Conditionals and other non-declarative moods may acquire overtones of information the speaker cannot vouch for. One of the best-known examples is the conditional in French (known as ‘conditionnel d’information incertaine’) used to relate facts

obtained from another source for which the speaker does not take any responsibility.¹⁰ The modal marker *mixa* in Ersu (§7.1.2) has a range of meanings similar to that of the assumed evidential.

Further markers may be related to attitude to knowledge. Cavineña, a Tacana language with a reported evidential, has a special marker =*tukwe* ‘contrary to evidence’. Tucano, with five evidential specifications, also has *baa* to mark ‘obvious evidence’.

Perfect aspect can be extended to express non-firsthand evidential meanings in Georgian. This development is shared with many nearby Turkic, Iranian, and north-east Caucasian languages. Nominalizations and participles often develop connotations similar to non-firsthand evidentials. For example, participles in Lithuanian have inferential and hearsay meanings. Marking of assertion may correlate with speaker’s attitudes to information and—indirectly—to its sources. Gascony Occitan has a number of particles which mark speaker’s assertion intertwined with certainty and ‘general knowledge’.¹¹ In Ersu (§7.1.1 of Chapter 6), the meanings of the ‘experiential’ aspect partly overlap with those of the ‘direct’ evidential.

Or the choice of a complementizer or a type of complement clause may serve to express meanings related to how one knows a particular fact. In English, different complement clauses distinguish an auditory and a hearsay meaning of the verb *hear*: saying *I heard John cross the street* implies that I did hear John stamping his feet, while *I heard that John crossed the street* implies a verbal report of the result. That is, a *that*-clause with perception verbs can refer only to indirect knowledge (see a concise analysis of complement clauses with verbs of perception in English in the context of complementation in general, by Dixon 2005: 270–1).¹² Similar principles apply in Kalmyk. A participial complement clause of the verb ‘hear, listen’ implies actual hearing, and a clause with the complementizer marks information obtained through hearsay (§11 of Chapter 7). In Acholi, a Western Nilotic language, a perception verb without a complementizer implies direct perception (Hieda 2012).

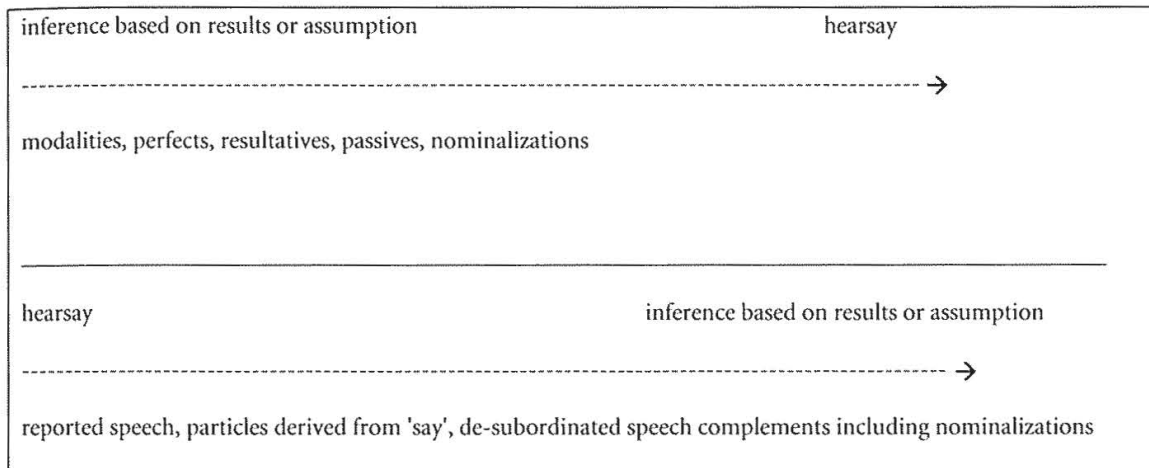
In Aguaruna, a deverbal nominalization has developed nuances of non-firsthand evidentiality (§§4.2 and 5.2 of Chapter 11). This is reminiscent of Mansi, Nenets, and Purépecha, where nominalizations have developed similar overtones (references in Aikhenvald 2004: 117–20).

Evidentiality strategies often develop a range of meanings characteristic of reported and non-firsthand evidentials: they combine reference to inference and to verbal report. And they are not averse to having epistemic extensions to do with probability,

¹⁰ Dendale (1993) and Dendale and Van Bogaert (2007); see Squartini (2007) on how the conditional in Italian can cover reported information.

¹¹ Giacalone Ramat and Topadze (2008); Hewitt (1995: 259, 93) on Georgian; Wiemer (2008), Grone-meyer (1997) and Timberlake (1982) on Lithuanian; Comrie (1976: 110), Aikhenvald (2004: 289–96) on perfect aspect; Pusch (2008) on Occitan.

¹² Also see Kirsner and Thompson (1976) on a difference between ‘direct perception of a situation’ and ‘deducing a situation’ in their analysis of complements of sensory verbs in English.



SCHEME 1 The semantic range of evidentiality strategies.

and also expressing speakers' attitudes to the veracity of what is being said. Meanings of evidentiality strategies expressed through modalities, perfects, resultatives, passives, and nominalizations range from inference to hearsay. In contrast, reported speech, particles derived from 'say' and desubordinated speech complements may develop inferential meanings out of a primary meaning of 'hearsay'. These pathways are shown in Scheme 1.

No language has been found to have a special evidentiality strategy for each of the evidential meanings which can be expressed (I–VI in §2.1). Many of the features outlined for grammatical evidentials in §2.1 are not characteristic of evidential strategies. For example, no evidential strategy can have scope over a noun phrase.

Evidentiality strategies in Ashéninka Perené include a number of modalities. Dubitative modality has inferential and assumptive meanings, and affect modality expresses speculation (§§2.1–3 of Chapter 10). The counterfactual conditional marker has overtones of speakers' reliance on their general knowledge and the ensuing expectation that something similar will occur. The bound 'intuitive suspicion marker' is used in reports about previous experience with speakers relying on their gut feelings as a basis for assumptions concerning future predictions (§§2.3–4 of Chapter 10). These meanings are comparable to 'prospective meanings' in the Kalmyk evidential system (Chapter 7), and also to the 'gut feeling' evidential in Nambiquara (Lowe 1999). However, the meanings of evidentiality strategies go beyond what is typically expressed in closed systems of grammatical evidentiality.

Over time, an evidential overtone of a non-evidential category may conventionalize as its major meaning. In other words, evidential strategies may develop into grammatical evidentials. For instance, a future tense can give rise to a dedicated non-firsthand evidential, as happened in Abkhaz (Chirikba 2003: 262–4).

The exact line between an evidentiality strategy on the way towards becoming a grammaticalized evidential and a fully grammaticalized evidential may be hard to

I can also use the verb *-awada-* ‘reason, think’. In (23), I stress that the assumption—encoded in the evidential—is based on logical reasoning:

- (23) *nu-awada-ka* *du-ñami-sita-sika*
 I-think.by.reasoning-subordinator she-die-already-assumed.evidential.recent.past
 She (assumed) has already died, as I reason (that she is dead is a logical conclusion based on my reasoning)

Tariana has no evidentials to describe intuition and reasoning. The lexical means of marking information source are much more versatile than the grammatical options. The interaction between these two is what makes Tariana discourse fascinating. There are many more options in the details one may want to express through lexical means than through grammar.

In every language, one can talk about perception—‘see’, ‘hear’, and ‘smell’. The meanings of individual items in individual languages vary: Warekena, an Arawak language from north-west Amazonia, has just one verb *-eda* covering these three sources of perception. In Yukaghir, a Paleo-Siberian isolate, the verb of auditory perception can refer to vision.¹⁴ Ashéninka Perené has one verb *kim* covering all non-visual sensory perception (hearing, smelling, touching, and tasting). Its cognate in Tariana, *-hima*, has the same range of meanings, in addition to ‘understand’ (*-hmeta* in (22) is a causative form of *-hima*). Most chapters within this volume briefly address lexical verbs of perception.

Lexical verbs can express further meanings. These may include cultural scripts for talking about objects and events removed from immediate perception (that is, whether one ‘sees’ a mental image, or whether there is a separate way of referring to ‘clear appearance in a vision’: see §3.2 of Chapter 10, for Ashéninka Perené). Dyirbal does not have a general verb ‘know’: this would be too vague, and go against the cultural requirement to be ‘precise’ (Chapter 8). We return to this in §5.

Most languages of the world have a way of badging one piece of information as ‘true’ and another as ‘unreliable’. This can be done through adverbial expressions. They may express possibility, probability, doubt, and can also extend to refer to inference, assumption, validity of information, and attitude to it—that is, they may be used to refer to information source. English adverbs *reportedly*, *supposedly*, and *allegedly* are a case in point. One can opt to use an adjective to express a similar meaning: one hears reference to *an alleged drug-dealer*, or *a supposedly false statement*. The choices are many.

Prepositional constructions may express opinion, belief, inference, and so on, for example Italian *secondo me* ‘according to me’, or Portuguese *ao meu ver* (lit. to my seeing) ‘in my opinion’. Manambu, a Ndu language from the Sepik area, with no

¹⁴ Aikhenvald (1998) on Warekena, Maslova (ms) on Yukaghir.

evidentials, employs *wuna mawulam* ‘in my thinking, lit. in my inside’. Ashéninka Perené (Chapter 10), Karawari (Chapter 13), Aguaruna (Chapter 11), and Maaka (Chapter 9) have a plethora of expressions to do with belief, disbelief, doubt, and veracity.

Further means and word classes correlate with the ways in which one ‘knows’ what is being talked about, and what one thinks about this. Gestures—such as eye-gaze or hand movements—can be used to indicate doubt or speculation. Ideophones and onomatopoeia reflect sensory perception, and may correlate with sensory information sources (see §5 of Chapter 12, on Tima). The plethora of such means goes well beyond the scope of this volume.

3.2.2 Parentheticals A parenthetical is roughly defined as ‘a word, phrase, or sentence which interrupts a sentence and which bears no syntactic relation to that sentence at the point of interruption’ (Trask 1991: 199). It expresses more than ‘source of evidence’: it is a way of referring to one’s opinion, judgement, belief, inference, assumption, doubt, attitude, and more.¹⁵ European languages tend to have a plethora of parentheticals, such as English *I think*, *I suppose*, Spanish *parece*, Italian *sembra*; and French *dit-on* and *paraît-il*.

Parentheticals in English are an open class. A parenthetical construction ‘can parallel any kind of sentence which includes a THAT complement clause coming after the verb’ (Dixon 2005: 234). A parenthetical may consist of a subject and verb, and also an object, and provides a comment on the clause. It may express opinion (*I think*) or information source (*I am told* or *I suspect*). Adverbs and adjectives may be used in parentheticals. Parentheticals may occupy the same syntactic position as sentential adverbs, with a similar semantic effect:

- (24) a. She will, regrettably, have to sell her car
 b. She will, I regret, have to sell her car

A verb or an adjective used in parentheticals may not have a corresponding adverb. Or the adverb may have a different meaning. In *The King will, it is correct, enter by the front door*, the parenthetical with an adjective indicates that this is a correct statement of what the King will do. But in *The King will, correctly, enter by the front door*, with the corresponding parenthetical adverb, the King will act in a correct manner.

The meanings of parentheticals—just like lexical verbs and adverbs—are broader than those of grammatical evidentials, or of epistemic markers. This is what one expects of an open class. Parentheticals help qualify the utterance; they also have special intonation properties and may require a pause. Parentheticals are not uncommon

¹⁵ Urmson (1952) is a classic study of parentheticals. Dixon (2005: 233–8) provides a typological framework and an in-depth study of parentheticals in English, in terms of their form and their function. (Dehé and Kavalova (2007) and Thompson and Mulac (1991) address a number of facts).

across the world (a further discussion of their grammatical properties in European languages is in Kaltenböck, Heine, and Kuteva 2011). The ubiquitous phrase *nu-a-ka nhua* (1sg-say-subordinator I) ‘I am saying’ in Tariana can be analysed as a parenthetical, functionally similar to ‘I think’ or ‘I am saying’ in Modern English (Aikhenvald 2003b: 583–4). Parentheticals in Hinuq (§3 of Chapter 2) express opinions and assumptions. Parentheticals in Ersu (§7.4 of Chapter 6) may mark, inter alia, reported information. Ashéninka Perené has an array of parentheticals with reportative meanings (including a self-report marker) (§3.2 of Chapter 10).

The range of meanings of the parenthetical ‘sense, intuit’ in Ashéninka Perené is reminiscent of the notion of ‘internal feeling’ (Evans and Wilkins 2000: 554; Aikhenvald and Storch 2013). The range of meanings of parentheticals as exponents of information source go well beyond the limits of recurrent semantic parameters for evidentials as a closed system. Parentheticals help express subtleties of culturally specific ways of perception and cognition. Many chapters within this volume illustrate this.

3.2.3 Modal verbs and particles So-called ‘modal verbs’ frequently combine reference to information source with whatever other meaning they may have. In agreement with Dixon’s (2005) classification, modal verbs express secondary concepts, ‘those providing semantic modification of some other verb with which they are in a syntactic or morphological construction’ (2005: 96). In many languages they are a closed subclass. Secondary verbs of the same semantic group as *seem* (2005: 203–5), and verbs of obligation and permission often extend to cover probability, inference, and assumption.

In Dixon’s (2005: 204) words,

seem is used when the Arbiter is not fully certain whether the adjectival description is appropriate, or whether the statement of the complement clause in a construction like *It seems that Mary found the body* or *Mary seems to have found the body* is correct—perhaps when there is not quite enough evidence. *Appear* has the same syntactic possibilities and a very similar meaning, but may imply ‘can be observed by me’ in contrast to *seem* ‘can be inferred by me’.

A link with information source is obvious—yet information source is an overtone of *seem*, rather than its only meaning. Modal verbs in Hinuq (§3 of Chapter 2) express attitude to knowledge and epistemic meanings, with overtones of inference. Tatar has a number of modal verbs and auxiliary constructions with meanings to do with inference and assumption (§7 of Chapter 3).

A plethora of particles referring to verbal report, or inference, or both may form a largish but closed class. Lithuanian has over twenty-five particles referring to verbal report or inference (Wiemer 2008). None of them is obligatory. Many come from depleted reanalysed verbs of perception, as does *girdi*, literally ‘you hear’, used to mark reported information; or speech, as does *tariamai*, a present passive participle of the verb ‘say, pronounce’. This is another non-obligatory, and yet non-lexical, way of expressing information source.

3.2.4 *Speech report constructions* Every language has a way of reporting what someone else has said. This can be cast as a direct, or often an indirect speech report.¹⁶ Multiclausal speech report constructions can be viewed as lexical ‘paraphrases’ of meanings grammaticalized in closed evidential systems. And, in many languages, speech reports acquire epistemic overtones. Saying ‘He says he is a doctor’ may be meant to cast doubt over his qualifications. In some languages, speech reports are used to transmit something one does not really believe.¹⁷ These connotations are far from universal—they have not been attested in Hinuq, Tatar, or Saaroa.

What someone else had said can be represented in a number of ways—via quotation, direct, indirect, or semi-direct speech report. It will not be appropriate to go into the details of how to differentiate a quote from a direct speech report; and what are the properties of indirect and semi-direct speech; see a summary in Aikhenvald (2011c). Dimmendaal (Chapter 12) discusses some features of indirect and semi-direct speech in Tima.

Speech report techniques may have their own epistemic connotations. Here is an example. If a speaker of Arizona Tewa (Kroskirty 1993: 146) chooses to specify who said what, a direct quotation is used. The construction includes the reported evidential accompanied by a complementizer:

- | | | | |
|------|----------------------|---------------|-----------------------|
| (25) | 'o-he: | gi-ba | na-tú |
| | 1SGSTATIVE.PERF-sick | that-REPORTED | 3SGSTATIVE.PREFIX-say |
| | 'I'm sick', he said | | |

An alternative would be to use indirect speech, where the third person prefix replaces the first person. The complementizer remains, and the reported evidential is removed:

- | | | | |
|------|-------------------------|------|-----------------------|
| (26) | na-he: | gi | na-tú |
| | 3SGSTATIVE.PREFIX-sick | that | 3SGSTATIVE.PREFIX-say |
| | He said that he is sick | | |

The two alternatives are not fully synonymous. The difference between (25) and (26) lies in the speaker’s attitude to the veracity of the information. Example (25) means ‘“I am sick”, he is quoted as saying’ and implies that the speaker does not vouch for the information reported. That is, for the native speakers of Tewa, the direct quotation ‘lacks the reliability of facticity of its indirect counterpart’ (Kroskirty 1993: 146). In contrast, the indirect speech in (26) does not contain any overtones of doubt. Similar

¹⁶ See Aikhenvald (2011c) for a summary, and further references.

¹⁷ See, for instance, Dimmendaal (2001), on reported speech as a ‘hedging’ device.

effects of direct speech quotations have been reported for Gahuku, Usan, and Tauya, all from Papua New Guinea.¹⁸ Tauya also has a reported evidential, and Usan and Gahuku have no evidentials. In these three languages direct quotes indicate a false presupposition on the part of the speaker.

Direct quotes in Ashéninka Perené serve to ‘mitigate responsibility for the quoted statement, at the same time meeting ‘the expectation of being accurate and precise’ (§3.2 of Chapter 10).

Direct quotes in the Ambonwari variety of Karawari have epistemic overtones. In Telban’s words (§1.4 of Chapter 13), ‘the Ambonwari are inclined to put words into other people’s mouths in this way to (re)create their intentions’; ‘it is therefore thought that direct quotation is more an expression of opinion or presupposition (anxious, desired, assumed, false, or exaggerated) of the reported than of the original speaker or the person involved in the event’. And so, ‘direct quotations can contain overtones of doubt and lack reliability’. Throughout my fieldwork with the Manambu, another group in the Sepik area of Papua New Guinea, I observed the same principle at work.

A self-quotation in Ambonwari may have epistemic overtones: a listener is likely to doubt the veracity of a self-quote. A self-quotation can be a means of ‘lifting speaker’s importance’, or to justify why the speaker had done a particular thing. This is reminiscent of how speech reports in general can have overtones of causation and intention (Aikhenvald 2011c: 319 and references there; Overall 2008, with special relevance to multifunctional speech reports in Aguaruna).

In other languages, a self-quotation is a way of stressing the veracity of what one is talking about (see Michael 2008, on speech practices in Nanti, a Campa Arawak language). In Ashéninka Perené, a combination of a reportative parenthetical ‘they say’ with the assertive marker emphasizes the credibility of what is being talked about (§3.2 of Chapter 10). Or it may be employed to make sure the author of the report is specified. In Kalapalo, ‘the emotions and motives of characters . . . are realized through their quoted speech’ (Basso 1995: 295).

Reported evidentials and reported speech (including quotations) do essentially the same job: they indicate that the information was acquired from someone else. It is no wonder, therefore, that they can acquire similar semantic extensions. A marker of speech report, or a generic reported parenthetical (as in Ashéninka Perené, §3.2 of Chapter 10), allows the speaker to leave the author of the speech report vague. Other techniques for expressing reported speech allow the source to be stated (see, for instance, §7.2 of Chapter 4, on Saaroa).¹⁹

It thus comes as no surprise that a speech report construction is a frequent source for developing reported evidentials. One such grammaticalization path involves reanalysis of a biclausal quotation or reportative construction whereby the matrix clause

¹⁸ Deibler (1971: 105) on Gahuku; Reesink (1986: 259) on Usan, and MacDonald (1990) on Tauya.

¹⁹ Further comparison is in Aikhenvald (2004: 135–40).

with the verb ‘say’ and a complement clause of this verb become a single clause via the loss or reinterpretation of the subordinator (Aikhenvald 2004: 273–4; 281–3). This is what we see in a marker of reported speech, *dizque*, in Colombian Spanish. Example (27) illustrates this (Travis 2006):

- (27) y eso, **dizque** es peligroso ¿no?
and this REPORTED is dangerous no
And this, it is said to be dangerous, isn't it?

Similar scenarios—whereby speech report constructions have given rise to reported and also to quotative markers—have been described for Hinuq (Chapter 2), Tatar (Chapter 3), Saaroa (Chapter 4), and Ersu (Chapter 6).

3.3 *Information source: a summary*

Meanings associated with information source can be expressed as extensions of non-evidential grammatical categories and also through members of open classes. For the latter, the range of meanings is wider than that of grammatical evidentials. Closed classes of particles and modal verbs tend to share their meanings with evidential strategies.

The choice of a grammatical evidential often depends on the mood or tense of the clause (see §2). The choice of a parenthetical or an adverb depends on what the speaker wants to say. A parenthetical, an adverb, or a modal verb can have an NP or a whole clause in its scope. For grammatical evidentials, these options are restricted. None of the means listed in §§3.1–2 forms a paradigm of any sort. In contrast, grammatical evidentials do.

What may justify putting the various verbs, adverbs, and parentheticals discussed in §§3.2.1–4 together with modal verbs and particles is the fact that they all vaguely relate to the ways in which one knows things. All these devices for marking information source combine reference to inference, assumption, and often speech reports with increasing ‘subjectification’ — a ‘historical pragmatic-semantic process whereby meanings become increasingly based in the speaker’s subjective belief state, or attitude toward what is said’ (Traugott 1996: 185). This is what sets them apart from closed evidential systems—whose primary meaning has nothing to do with subjectification—and makes them similar to prototypical modalities.

One question concerns the means a language may use to express knowledge. Another, and a trickier one, is how and when it is appropriate to talk about knowledge and the ways in which it is acquired. How people discuss knowledge and express attitudes to its reliability and trustworthiness may depend on their status in society, on their age category, and even on their sex. Women and men may differ in their preferred hedging strategies (see, for instance, Bradac, Mulac, and Thompson 1995). Question tags

seeking confirmation are widely—but perhaps incorrectly—believed to be features of women’s speech (Dubois and Crouch 1975). All of this may depend on accepted conventions within a society, on types of knowledge and on types of acceptable information source. In a small Amazonian society one does not use a hedging strategy when talking about a shamanic vision—this is simply not done.

4 Choosing, and using, an evidential

An evidential may have an additional meaning, going beyond information source. This may have to do with certainty or lack thereof, probability, and unexpected information and surprise. Choosing and using an appropriate evidential shapes communication, and may itself be shaped by established and by emerging cultural conventions. Different experiences may require different choices from the evidential system.

4.1 Beyond information source

4.1.1 *Certainty, control, and first person* Evidentials may have non-evidential overtones. One is likely to be certain about what one has seen with one’s own eyes. The visual or a direct experience evidential tends to have overtones of commitment to the truth of utterance, control over the information, and certainty. It may cover information acquired through seeing, and also generally known and observable facts. Every Peruvian knows that there are monkeys in the rainforest. This generally known fact is expressed using a visual evidential. Example (28) comes from Cuzco Quechua:²⁰

- | | | | |
|------|--|-------------------------------------|--------------------|
| (28) | Yunka-pi-n
rainforest-LOC-DIRECT.EVIDENTIAL
In the rainforest, there are monkeys | k'usillu-kuna-qa
monkey-PL-TOPIC | ka-n
be-3person |
|------|--|-------------------------------------|--------------------|

East Tucanoan languages and Tariana have two sensory evidentials—one for visual, and one for non-visual information. You cannot ‘see’ how you feel—so it is appropriate to use a non-visual evidential when talking about yourself this way, in Tucano (Ramirez 1997: 133, 135):

- | | | | |
|------|--|--------------------------|---|
| (29) | yî'i-re
I-TOP.NON.A/S
My tooth hurts | upî-ka
tooth-CL:ROUND | pūri-sa'
hurt-PRES.NONVIS.nonthird.p |
|------|--|--------------------------|---|

²⁰ Eberhard (2009: 464–5) provides similar examples for visual evidential in Mamaindê, a Nambiquara language.

When you talk about how someone else feels, you judge by what you see yourself: you cannot get into their skin and feel what they feel. So, a visual evidential is then appropriate. If I see that Pedro looks very sick I will say, in Tucano:

- (30) Péduru do'átigi wee-mí
 Pedro sick be/do-PRES.VIS.third.person.masculine
 Pedro is sick (I see it)

A non-visual evidential may refer to something I cannot quite see, and am not quite sure about. A Mamaindê man has just taken a second wife, but is not quite certain if he has done the right thing, and so he uses the non-visual evidential in talking about this (Eberhard 2009: 466).

When used with a first person subject, the non-visual, non-firsthand evidentials and reported evidentials in systems of various types may acquire additional meanings to do with lack of intention, control, awareness and volition on the part of the speaker.

Visual evidential has an overtone of certainty—I am sure of what I see. But if I am talking about myself, I can use the non-visual evidential if whatever happened was out of my control. Suppose I broke a plate by accident—it slipped out of my hands. I will then say, in Tucano:²¹

- (31) bapá bope-ásî
 plate break-REC.P.NONVIS.nonthird.p
 I broke a plate by accident

This is what the literature on evidentials calls the ‘first person effect’: when I talk about myself, evidentials have somewhat different overtones. If I was drunk or unconscious, and do not really remember what I did, I can even use a reported evidential to talk about myself: ‘I spent the night drinking-reported’ takes away all the responsibility from my being drunk all night. In Hinuq (§2.2.1 of Chapter 2), if the unwitnessed evidential is used with a first person subject, this implies the speaker’s lack of control over what happened to them, or simply their lack of memory. The reported evidential may occur with a first person subject, with similar meanings—‘lack of control or an unintended, unconscious participation’ (§2.5 of Chapter 2). The reported evidential in Saaroa with the first person has a similar semantic effect (§5.2 of Chapter 4).

Verbs covering internal states may require obligatory evidential choice depending on person: for instance, one may use the non-visual evidential to refer to one’s own state, and the visual or inferred one to refer to a state experienced by someone else (Aikhenvald 2004: 224–5). As a result, evidentials may acquire the implicit value of

²¹ Ramirez (1997, vol. 1: 133).

person markers (this is similar to the distinction between ‘Self’ and ‘Other’ in evidential use in Pastaza Quichua: see Nuckolls 2008).

Evidentials may interrelate with person in other ways. In Mÿky, an isolate from Brazil, visual and non-visual evidential distinctions are obligatory for second and third person, and are not made at all in the first person.

4.1.2 *Expectation of knowledge, and mirativity* Suppose I see something which I did not expect. I can then use a non-firsthand or a non-visual evidential. A speaker of Jarawara saw a dead sloth—he was surprised that the sloth was dead, and used the non-firsthand evidential despite the fact that he actually saw it:²²

- (32) jo abohi home-hino
 sloth(masc) be.dead+COMPL.CL lie-IMMEDIATE.PAST.NONFIRSTHAND.MASC
 A dead sloth lay (there) (non-firsthand: as a marker of surprise)

This meaning is known as ‘mirative’. Many languages employ non-visual evidentials, with this meaning. In Mapudungun, this is one of the uses of the non-firsthand evidential *-rke* (see (4)–(5) above). Unwitnessed past forms in Hinuq (§2.2.1 of Chapter 2) have mirative overtones in the context of first-person subject, especially ‘when there is something mysterious or unexplainable in the event’. That is, an overtone of ‘surprise’ is linked to the lack of previous knowledge of the speaker. Along similar lines, mirative overtones of the non-firsthand past in Tatar (§4.1.2)—found just with the first-person subject—can be linked to the lack of ‘involvement’ by the speaker. Overtones of surprise of the speaker in Saaroa (§4.2 and §5.2 of Chapter 4) may also occur if one is talking about oneself using the reported evidential.

The inferred evidential expresses ‘surprise’ in Mamaindê. When David Eberhard returned to the Mamaindê village after a long absence, speakers were surprised that he could still speak the language, and commented on this, using the inferred evidential. They also use ‘inferred’ in humorous songs about nature which may take surprising twists: for instance, that baby toucans have (inferred) very soft beaks, unlike the young of many other bird species. The indirective marker in Kalmyk can have mirative meanings (§13 of Chapter 7). The particle *ikän* in Tatar usually expresses assumption (§5.2.1 of Chapter 3). In conjunction with the indefinite future tense, it conveys overtones of surprise (example (25), Chapter 3). Just like the inferred evidential in Mamaindê, this particle can be used in joking contexts. How ‘mirative’ extensions—or a special mirative marking if there is one—can be manipulated in jokes and other genres is a further fascinating topic.

²² This example comes from Dixon (2003: 171). ‘Surprise’ can be expressed through other means. A highly unusual system of ‘mirative’ pronouns in Hone was described by Storch (1999).

Mirative meanings cover ‘expectation of knowledge’ rather than information source (also see Aikhenvald 2012c). It is thus distinct from evidentiality (see Aikhenvald 2012c, for a cross-linguistic typology and further references). Kurtöp (Chapter 5) is a prime example of a language where information source, expectation of knowledge, and knowledge sharing are linked together (and yet distinguishable). Saaroa has an enclitic with a gamut of mirative meanings (§8 of Chapter 4). Ashéninka Perené has what can be described as a ‘mirative’ strategy: the affect modality in content questions imparts overtones of the speaker’s surprise at some unexpected information (§2.2 of Chapter 10). ‘Surprise’ in Karawari is marked through incorporation of the interjection *kambay-* ‘alas!’ between two verbs, one of which, or both, tend to be perception verbs ‘hear’ or ‘see’ (§5 of Chapter 13). Mirative meanings in Hinuq are expressed with a special verb (Chapter 3). Kalmyk has a mirative particle whose meanings cover surprise, and also newly acquired and unexpected information (§13 of Chapter 7).

4.2 *How to choose the correct evidential*

4.2.1 *Evidentials: an enviable feature?* Having to always express information source in one’s language is often viewed as an enviable feature. Speakers of languages without evidentials wish they had been compelled to always be so ‘precise’. In Palmer’s (1996: 200) words, ‘what a lot of breath and ink this might save us in English if we had evidential suffixes that we could use in the courtroom. Using the Wintun suffix, we might say, for example, “The defendant shoplift-*be* [*be* is a visual evidential] the compact disc”, thereby eliminating the need to ask the inevitable question: “Did you actually see her take it?”’ And, as Boas (1942: 182) put it, ‘we could read our newspapers with much greater satisfaction if our language would compel them to say whether their reports are based on self-experience, inference, or hearsay!’

Evidentiality is ingrained in speech habits and conventions—breach of which may result in losing face and reputation. And the adoption of new means of acquiring information, such as television or internet, results in extending the meanings of evidential categories.

If a language has obligatory evidentials, leaving them out produces a grammatically awkward ‘incomplete’ sentence. Those who have evidentials in their languages complain that languages without evidentials—Portuguese and Spanish included—are somehow deficient and inadequate. Hence the perception of ‘white people’—those outsiders who do not have information markers in their speech—as ‘liars’. Tariana and Tucano speakers grumble that Portuguese sounds like a ‘shortcut’. Hardman (1986: 133) reports how difficult it is for Jaqi (Aymara) speakers to imagine how one can speak a language which does not mark the information source. Finally she and her colleagues had to ‘adjust their English’ and always specify how they knew things, so as not to upset their Jaqi-speaking friends. Speakers are often conscious of how evidentials are to be used.

Among the Mamaindê, a typical way to refer to a ‘good, trustworthy person’ is to call them ‘one who speaks well’. Someone who is ‘untrustworthy or of a questionable moral reputation is labelled as one who does not speak well’ (Eberhard 2009: 468). The correct use of evidentials is the ‘token’ of a good speaker—and henceforth, of a good person.

The same principle applies in Huallaga Quechua (Weber 1986: 142), and among the Tariana and the East Tucanoan peoples in the Vaupés River Basin area. The late José Manuel, a Tariana elder, was sneered at and said (behind his back) to be ‘useless’ because he was not using the correct remote past reported evidential. A major token of ‘correct’ Tariana is the ability to use evidentials in the right way.²³

4.2.2 Cultural conventions in evidential use: dreams, spirits, shamans, and authority Fixed evidential choices may always describe certain types of experience. We call them CULTURAL CONVENTIONS. Consider dreams. In Jarawara and Wanka Quechua, dreams are ‘seen’; they are part of ‘everyday experienced reality.’²⁴ In Hinuq and in Tatar, dreams are ‘seen’, and are recounted as if they were personal experience (§5 of Chapter 2). The Ashéninka Perené use the parenthetical ‘appear clearly in a vision’ and the verb ‘see’ to talk about dreams (§3.2 of Chapter 10). Dreams are ‘seen’ in Karawari, Aguaruna, and also Manambu and Kwoma (from the same area as Manambu). In Kalmyk dreams are ‘seen’, but recounted using the indirect information source marker (example (18) in §4, Chapter 7).

But dreams experienced by ordinary humans are not part of reality in Shipibo-Konibo—and so they are recounted using the reported evidential =*ronki*. However, if a shaman has a dream or a vision induced by the hallucinogenous *ayahuasca* he will retell this experience using direct evidential. In Tariana and Tucano, a simple mortal will talk about their dream using the non-visual evidential. Only a powerful shaman will use the visual evidential when recounting what they saw in a dream. That is, evidentials can be linked to person’s status, access to knowledge and power, in societies which we are accustomed to consider egalitarian at heart.

In their traditional life, speakers of Kagwahiv (a Tupí-Guaraní language, from the Upper Madeira River basin) used to rely on dreams a lot. Dreams were used to forecast the presence of game, to plan the day’s hunt, and to foresee illness and death. In times of wars, dreams were relied upon to predict the victor. Relating a dream and discussing what it may possibly mean used to be an important part of Kagwahiv interactions. And every sentence in a dream contains an evidential, *ra’ú*—a marker of non-firsthand information. This may appear odd: as Kracke (2010: 69) puts it, ‘in our way of thinking about dreams, it would seem that dreams are par excellence events witnessed by the person telling them’. The Kagwahiv ‘dream-marker’ *ra’ú* is cognate to words meaning

²³ See details in Aikhenvald (2002: 213–20; 2004: 336–7).

²⁴ See Floyd (1999: 65), on Wanka Quechua, Dixon (2004: 203), on Jarawara, and Aikhenvald (2004: 345–6).

‘ghost’, ‘augury’, and relating to ‘falsehood’ in general. Dreams can provide information about the future; but they are regarded as essentially deceptive and unreliable: a dream ‘is a message, a message from an unknown source. Hence it cannot be coded as personal experience’ (2010: 73). Or, in the words of Western psychoanalyst Lacan (1988: 135), ‘someone other than ourselves talks in our dreams’. What we have to learn from a psychoanalyst, speakers of languages with evidentials know through evidentiality conventions. Along similar lines, dreams in Tsou (Yang 2000: 82) are recounted using the reported evidential.

Talking about spirits in Dyirbal requires the non-visible noun marker (§7 of Chapter 8). A spirit may appear in disguise—as a rainbow, or a woman. One can see the disguise, or the manifestation, but not the ‘true’ self of the spirit. The non-visible marker is a way of talking about a not-quite-real reality. Along similar lines, my Tariana teachers often talk about their encounters with evil spirits in the jungle. This experience always involves the non-visual evidential.

Knowing which evidential to use, and when, provides an important way of imposing one’s authority. A warrior-ancestor of the Carib-speaking Kalapalo is a strong character, who wishes to make a point in his speech. This attitude is reflected in the evidentials he uses. In Basso’s (1990: 137–40) words, the most assertive and imposing part is marked with distant past firsthand evidential, and ‘the tone is something like, “I bear witness”’.

But if you are neither a respectable authority nor a shaman, and the community feels you have no reason to over-use an evidential, you may be in trouble. Weber (1986: 142) describes a speaker who was using the direct evidential *-mi* too much. To many, this sounded ‘incautious with respect to the information’ conveyed; the man was judged to be ‘not a member of a Quechua speaking community which values his stature’.

Breaching conventions of evidential use results in possible SOCIAL EXCLUSION. There is an obvious connection here with knowledge and its expression, as part of societal norm, and knowledge as a social phenomenon: see §5.

4.2.3 Evidentials, new technologies, and change What happens if speakers of a language acquire access to new ways of knowing things? As Boas put it, ‘when changes of culture demand new ways of expression, languages are sufficiently pliable to follow new needs’ (1942: 183). New practices—reading, television, radio, telephone, and internet—help us understand just how pliable the systems are. A Shipibo-Konibo speaker will now employ reported *=ronki* to talk about what they read in a book. And for this a speaker of Tariana or Tucano will use an assumed evidential, typically used for information acquired by interpretation, reasoning, or common sense.

If a Shipibo-Konibo watches something on television, this implies ‘experiencing the event oneself, since one actually “sees” what is happening’—and so they would use the direct evidential *=ra*. Tariana and Tucano speakers would use a visual evidential.

The Ashéninka Perené use the verb ‘see’ to talk about television shows (§3.2 of Chapter 10). But if a Shipibo-Konibo hears something on the radio, or hears a TV report without seeing the picture, they will use the reported =*ronki*. A similar system has been described for Yongning Na, a Tibeto-Burman language (Lidz 2007). A Tariana or a Tucano would use a non-visual evidential.

In contrast, Magar (Grunow-Hårsta 2007), from the Tibeto-Burman family, employs the inferred evidential to recount what one saw on television. This is consistent with how this evidential is employed in narratives: it is a way of describing a picture book. The reported evidential is only used to recount what one has heard.

Before Tariana speakers acquired regular access to phones, they used a non-visual evidential for the occasional reports of phone conversations. Ten years on, a phone is part of their lives, and a conversation on the phone is being treated as the same as a face-to-face talk. A visual evidential is now preferred in this context. However, one speaker who does not have a phone at home and uses it only occasionally keeps using a non-visual evidential. And for the few speakers who now are in the habit of regularly chatting over the internet, this is also like face-to-face: a visual evidential is preferred.

When a speaker of Hinuq or of Tatar retells something they have seen on TV or heard on the radio, they use unwitnessed forms—since they were not there to see the event for themselves, and are relying on someone else’s account (§2.3 of Chapter 2 and §6.1 of Chapter 3). An evidentiality-neutral form can also be used. For talking about live broadcasts, only neutral past forms are appropriate. In fictional stories, unwitnessed and evidentiality-neutral forms can be employed, with different stylistic effects: using the unwitnessed form makes the story sound like a traditional tale, while using an evidentiality-neutral form sounds as if they actually witnessed the event. A phone conversation in Hinuq is treated just like a face-to-face talk (§5 of Chapter 2).

The attitude to knowledge, and the means of acquiring it, may change over time. Telban (Chapter 13) has been working with the Karawari people for more than twenty-five years. Back in the old days, what people knew was reliable and steady—based on ‘the internal knowledge of the past’. Nowadays, with new technologies coming in, the pace of life quickening and communications improving, speculations are pervasive. And people constantly complain about ‘unreliability of information’ and untrustworthiness of the sources. The frequency of assumptions and ‘wishful thinking’ in actual discourse has dramatically increased (§2 of Chapter 13). As a consequence, the value of different kinds of ‘knowledge’ has shifted.

4.2.4 Evidentials and genres Types of stories may always go together with just one evidential. We call these TOKENS of a genre. In the overwhelming majority of languages, ancestral stories and legends are told using reported evidential. Traditional tales in Jarawara are told using non-firsthand evidential, which in 90 per cent of the cases is followed by the reported suffix. A story about what happened to the speaker can be firsthand, as in Jarawara, experiential, as in Matses, or visual, as in Tariana,

Tucano, and other languages with many evidential options. Fairy tales and legends in Hinuq are cast in the unwitnessed evidential (§2.2.1 of Chapter 2). The non-firsthand evidential is used in legends, folk-tales, and historical accounts in Tatar (§6.2 and Table 1 in Chapter 3 offer an overview of evidentials as tokens of genre in this language). In Ersu, traditional legends are told using the reported evidential (§5.1 of Chapter 6). In Kalmyk, a story to which the speaker was a witness is told using the direct evidential. The indirective marker is preferred in traditional narratives and folk-tales. Reported evidential is used in the modern newspaper style. New genres and new means of communication require new speech practices. In Kalmyk the prospective evidential *-x bolv* is used in newspaper language. It marks reported information about planned future events obtained in personal interviews with their planners (point (c) in §8 of Chapter 7).

Evidentials, and evidentiality strategies, can serve as grammatical means for differentiating genres of stories. A historical account in Aguaruna is typically told using nominalizations as an evidentiality strategy with a non-firsthand meaning. A traditional myth employs this same strategy in addition to the narrative modality marker (§5.2 of Chapter 11). In Tariana, an autobiographical story will be told using the visual evidential. A traditional tale would be cast in reported, and a historical account about one's ancestors—which is based on visible traces of their movements—will involve inferred evidentials. A story about shamans' activities is often cast in non-visual (the explanation given to me was 'because it all happens in the shaman's mind').

Evidentials may be used several times in a clause to make the narrative more vivid: that is, for stylistic effect. This is the case in Hinuq and in Tatar (Chapters 2 and 3). In Saaroa, the reported evidential can be repeated if a constituent on which it occurs is contrastive (§3.3 of Chapter 4).

4.2.5 Truth, lies, and evidentials The 'truth value' of an evidential may be different from that of the verb in its clause. It is simply not the case that those who speak a language with evidentials never lie. Evidentials can be manipulated to tell a lie. As Eberhard (2009: 468) puts it in his grammar of Mamaindê (based on living with the people for eighteen years):

I do not see any basis for the supposition that they have a stronger than a normal concern for truth. The evidential system, in fact, can be taken advantage of and exploited quite ingeniously for the express purpose of lying, not only about the content, but also one's degree of involvement in a given situation.

One can give correct information source and wrong information, as in saying 'He is dead-reported', when you were told that he is alive, or correct information and wrong information source, as in saying 'He is alive-visual', when in fact you were told that he is alive, and did not see this. Having evidentials is not about needing to be 'truthful'. In a similar vein, one does not need to speak a language with grammatical tense to be punctual.

Evidentials are a powerful device for manipulating knowledge. Using them in an appropriate and accepted fashion is a means of safeguarding your reputation. Speaking properly, and using the right evidentials, are a means of saving face. They are often the basis for a value judgement: a good and proper person is the one ‘who speaks well’ (Eberhard 2009: 468). This takes us to our next section.

5 How to talk about knowledge

Epistemological devices—that is, evidentials and other means of expressing information source—reflect the means of acquiring knowledge, and attitudes to it. ‘Knowledge’ is a ‘social phenomenon, an aspect of social relations between people’ (Hill and Irvine 1992: 17). Proper linguistic expression of knowledge promotes mutual understanding as a basis for empathy. But expressing your knowledge in an inappropriate way may result in social exclusion and rejection.

5.1 *On being precise*

Being precise in one’s information source goes together with cultural conventions which appear to be particularly strong in languages with evidentials. Such conventions may include:

- (i) whether one should be as specific as possible when speaking, or whether a high degree of vagueness is a normal social expectation, and
- (ii) how much information is to be shared—whether one should tell people what they want to know, or whether ‘new information’ is regarded as prized goods, only to be disseminated for some appropriate return.

‘Information sharing’ is an obligatory verbal category in Kurtöp (Chapter 5). A similar principle is reflected in the marker of ‘joint perception’ in Maaka (Chapter 9).

In many linguistic communities with evidentiality, being as specific as possible about what one has to say is obligatory. Those who do not obey the cultural conventions of evidential usage are not to be trusted. Quechua cultural postulates summarized by Weber (1986: 138) point in the same direction. These are:

1. (Only) one’s own experience is reliable.
2. Avoid unnecessary risk, as by assuming responsibility for information of which one is not absolutely certain.
3. Don’t be gullible. (Witness the many Quechua folk-tales in which the villain is foiled because of his gullibility.)
4. Assume responsibility only if it is safe to do so. (The successful assumption of responsibility builds stature in the community.)

That is, one should provide the information required, and be specific about it. In a similar vein, McLendon (2003: 113) reports:

Eastern Pomo speakers from whom I have learned Eastern Pomo since 1959 remembered that when they were children their grandparents constantly reminded them to be careful how they spoke. They were told to be especially careful to speak well to, and about, other people, because if they didn't the person spoken about, or to, might be offended and try to 'poison' them, that is, use ritual or other means to bring them misfortune, illness, or even death. Evidentials which distinguish non-visual sensory experience, inference, memory, and knowledge seem a useful means of speaking with care, asserting only what one has evidence for, and making one's evidence clear.

In the context of Amazonian societies, the requirement to be precise in one's information sources may be related to the common belief that there is an explicit cause—most often, sorcery—for everything that happens. So as not to be blamed for something that in fact they had no responsibility for, a speaker is careful always to be as explicit as possible about what they have done (see Aikhenvald 2004). This relates to the desirability of stating the evidence for everything that is said, visually obtained information being the most valuable. The speaker is also careful not to impute their assumption and their information source onto another person. Such imputation could be potentially dangerous: if the speaker is perceived as having access to how other people know things, they may well be regarded as a sorcerer. In a society where sorcery is the most dangerous crime of all, to be accused of it is hardly desirable. Different conventions in stating information source may create conflicts, miscommunication and social exclusion. Evidentials provide grammatical backing for Grice's (1989) Maxim of Manner, helping avoid 'obscurity of expression' and 'ambiguity'.

Being informative has different implications in different cultures. For the everyday exchange of information in Malagasy in remote rural communities 'the basic norm concerning free exchange of information simply does not apply'. New information is a 'premium' to be imparted piece by piece. As Keenan and Ochs (1979: 149) put it, 'possession of new information is possession of a scarce good allowing the possessor to command the attention of others'. But to a Westerner, the Malagasy ways of information exchange sound vague and uninformative. Does this feature of Malagasy discourse correlate with the absence of evidentials in the language? Does it correlate with any specific strategies of talking about what one knows, and the structure of the semantic field of cognition? One wonders.

It is however not the case that once you have evidentials in your language you have to be precise. In some languages with a small evidential system there may be a non-firsthand term which lacks the 'precision' of information source (examples from Mapudungun are in (4) and (5)). There is no indication that many languages with just a reported evidential—such as Basque or Estonian—have a requirement to be 'precise'.

The correlations between the requirement to be precise in one's information source imposed by the grammar, and cultural conventions, are very tempting, but highly tentative. Moreover, the same requirements and conventions appear to hold in languages

with no grammatical evidentiality. Neither Tuvaluan (Besnier 1992) nor Weyewa (Kuipers 1992) have grammatical evidentials. And yet what was said above applies to speakers of these languages, too. Being precise and explicit is important for speakers of Aguaruna (Chapter 11) and Ashéninka Perené (Chapter 10). However, these languages do not have grammatical evidentials.

Australian Aboriginal communities value explicitness. One should be as specific as possible in identification and in description. Only a few Australian languages have grammatical marking for information source. In others, this is achieved by lexical means. In Dyrbal, for instance, there is no verb ‘to know’; it would simply be too vague. When R. M. W. Dixon enquired how to say ‘I know where the money is hidden’, he was told that details had to be provided. One could say ‘I saw where the money is hidden’ or ‘My father told me where the money is hidden’. Evidentials in Dyrbal are limited to a noun phrase (see §2.3 and Chapter 8).

Being specific as to one’s information source appears to correlate with the size of a community. In a small community everyone keeps an eye on everyone else, and the more precise one is in indicating how information was acquired, the less the danger of gossip, accusation, and so on. No wonder that most languages with highly complex evidential systems are spoken by small communities. On the other hand, why is it that some languages spoken in small closed communities have only a reported evidential? Fortescue (2003: 301) is also convincing when he speculates that

presumably life in very small, scattered Arctic communities, where everyone is likely to know of everyone else’s doings and where rumours spread easily, is such as to make being VAGUE [emphasis mine] about one’s source of information . . . a generally sensible strategy.

Speech styles and genres may also correlate with degree of precision, and how attitudes to knowledge and ‘truth’ can be cast. An open debate—or a longhouse address—in a traditional society may reveal power relationships reflected in talking about ‘truth’ and how it is known (see, for example, Lindstrom 1992, on Tanna, an Austronesian-speaking group in Vanuatu). The expression of how one knows things may be different in everyday language, and in a secret language, including ‘avoidance’ styles. The language used in spirit possession and by mediums may also differ from the ‘normal’ style in how knowledge is talked about (see, for instance, Storch 2011, on secret languages and special ‘spirit’ languages in Africa).

The requirement for precision is a feature of the ordinary Dyrbal. In traditional times, there used to be another register employed when speaking in the presence of in-laws (this is known as ‘avoidance style’). In Dixon’s words (§8 of Chapter 8), ‘while a high value is placed on precision in normal speech, it is considered appropriate to be deliberately vague in an avoidance situation. There you have it—different levels of specificity and generality, each in its proper place’.

5.2 *The value of knowledge*

A requirement to be precise may correlate with the value placed by the community on a particular type of knowledge (which may be restricted). If something was seen, heard, inferred, and also assumed, the ‘visual’ source is likely to be the first option in a ‘hierarchy’ of evidential choices. Visual perception is the most ‘valuable’ source.

In many languages with evidentials, it is a feature which speakers are prepared to discuss. An evidential can be ‘rephrased’ with a verb of perception which roughly corresponds to its meaning. The late Américo Brito was the only person among the Tariana to have witnessed the Offering Ritual. He told a story about it using visual evidentials. Some of the audience looked at him incredulously. Reacting to this, he added ‘I saw this-visual-remote-past’. Metalinguistic perception of evidentials opens a gateway to our understanding of representation of knowledge, and non-evidential ways of expressing epistemological nuances (see also Aikhenvald 2008).

Being a ‘good’ speaker—proficient and ‘correct’ in one’s evidential choice—is equated to a being a reliable citizen in numerous Amazonian societies (see Eberhard 2009: 468, on Mamaindê, and Aikhenvald 2013, on the Vaupés area and beyond).

Speakers of mainstream European languages tend to think of ‘hearsay’ as unreliable. But for predominantly oral cultures, valuable knowledge used to be embodied in, and transmitted through, traditional stories and speech reports. As Overall (§5.2 of Chapter 11) puts it, ‘the canon of oral literature . . . is a means by which the community can maintain a body of knowledge that is more than one person can handle alone’. Within an essentially oral tradition of transmitting knowledge, ‘marking a narrative as hearsay’ has the opposite effect of what you expect in English: ‘it imparts the legitimacy of precedent to the narrative being related’. This provides a reason why in many essentially oral cultures reported information has no epistemic overtones of doubt.

The value of types of knowledge changes over time. With the spread of new technologies and new and faster means of communication, the Karawari started relying more on assumptions and speculations than on the traditional knowledge of the past (§1.4 of Chapter 13). And as oral cultures throughout Amazonia acquire literacy systems (see Aikhenvald 2012a: 60, 381), the value of the ‘written word’ increases dramatically. The impact on evidentiality systems is yet to come.

Epistemological expressions (which subsume evidentials) tell us something about the speech community. They may be used to show power, authority, and agency. An omniscient shaman ‘sees’ everything. That his special knowledge can be cast in visual evidential highlights his power and authority. As Duranti (1990) puts it, ‘language does not simply reflect the world, it also shapes it, fashions it’.

This is directly related to language ideologies and theories of knowledge, including the nature of theories of mind, the role of intention in linguistic communication and social interaction, and the importance of empathy. The requirement to mark information source in Western Apache (a language with evidentiality: de Reuse 2003: 96) may

go together with 'Athabaskan attitudes about the autonomy of the person . . . , resulting in a reluctance to speak for another person, or to impute feelings to another person'. The use of evidentials in Pastaza Quichua (Nuckolls 2008) reflects the distinction between 'Self' and 'Other'. It appears that the linguistic expression might help us solve the puzzle of the 'opacity' of other's minds, in an endeavour to understand 'other's' motivation and to cooperate with each other (in the spirit of Robbins and Rumsey 2008, Rumsey 2008 and Duranti 2008).

It is undoubtedly the case that some categories are particularly open to diffusion and contact-induced change. Evidentials are a case in point. It appears that the attitudes to precision in communicating one's information and information source are as well.

5.3 *Why evidentials?*

When we look for extralinguistic explanations for linguistic categories, we should avoid the danger of being circular. Do Tucano or Quechua have an elaborate system of evidentials because of a cultural requirement to be precise about one's information source lest one is accused of sorcery? Or is the explanation the other way round?

At present, all that can be suggested is that some communities in some areas—for instance, in the Amazonian area, and those in the adjoining Andean region—in some way share a common set of beliefs, mental attitudes, and behavioural conventions, as well as discourse genres; and that these are compatible with the independent development of evidential systems with their requirement to be as precise and as specific as possible about information source. This could help explain why evidentiality has independently evolved in at least six (possibly, more) places in Amazonia, and also why it is so susceptible to being diffused in their language contact.

Knowledge correlates with power and control. Storch and Coly (§5 of Chapter 9) hypothesize that a tendency towards exclusive control of knowledge among the Maaka may be responsible for the development of its complex system of evidentials and epistemics. The requirement to be precise, and the importance of expressing oneself well, appear to be a major motivation for having evidentials in one's language. As Eberhard (2009: 469) puts it,

The avoidance of being wrong is intrinsically related to the avoidance of losing face. The entire Mamaindê evidentiality system, then, may have the larger social function of providing the speaker with a way to avoid losing face within a society where one's words are connected to one's character.

6 **About this volume**

We aim at a cross-linguistic overview of the gamut of epistemological devices across a selection of languages in terms of parameters and issues outlined in this chapter. The volume contains in-depth discussion of twelve languages, from a variety of families

and areas. None of them have been previously described with regard to grammatical and other expressions of knowledge, and its sociolinguistic status. Some languages included here have evidentiality systems, others do not. Each chapter systematically addresses grammatical and other devices involved in the expression of knowledge and information source, and their cultural and sociolinguistic features, and practices.

Eight of the twelve languages described here have grammatical evidentiality. Languages with small systems of grammatical evidentials are discussed first. Chapter 2, by Diana Forker, addresses ‘The grammar of knowledge in Hinuq’, a Nakh-Daghestanian (north-east Caucasian) language with a non-firsthand (or non-witnessed) evidential contrasted to evidentiality-neutral terms. Chapter 3, by Teija Greed, focuses on evidentials and epistemic expressions in Tatar (‘The expression of knowledge in Tatar’). Evidentiality in Tatar, a Turkic language, is of the same type as that of Hinuq. Both languages have a plethora of other grammatical and non-grammatical means of expressing knowledge, including speech reports and quotes. Saaroa, an obsolescent Formosan language, is discussed by Chia-jung Pan in Chapter 4 (‘The grammar of knowledge in Saaroa’). This language has just one reported evidential. Pan addresses the intricacies of its use, and other means of referring to how one knows things.

We then turn to languages with more elaborate systems of grammatical evidentiality. Chapter 5, by Gwendolyn Hyslop, ‘The grammar of knowledge in Kurtöp: evidentiality, mirativity, and expectation of knowledge’, focuses on a highly complex system of intertwined information source, attitude to knowledge, and whether or not it is unexpected to the speaker or the audience. This is followed by Sihong Zhang’s discussion of ‘The expression of knowledge in Ersu’, another Tibeto-Burman language, with a more straightforward three-term system of evidentials, and a plethora of evidentiality strategies and other means of expressing source of information and its reliability.

Kalmyk, a Mongolic language from Central Russia, is discussed, by Elena Skribnik and Olga Seesing, in Chapter 7 (‘Evidentiality in Kalmyk’). This discussion reveals a highly complex system of grammatical marking of information source with a basic distinction between direct and indirect evidentials, with an additional option to specify inference, assumption, and reported information in various tenses and aspects (including the future). The time of inference does not have to be the same as the time of the actual event; this is also reflected in the evidential system of Kalmyk.

Information source may be encoded just within a noun phrase. Dyrbal, an Australian language, analysed by R. M. W. Dixon in Chapter 8 (‘The non-visible marker in Dyrbal’) is a prime example of this. In Chapter 9, ‘The grammar of knowledge in Maaka (Western Chadic, Nigeria)’, Anne Storch and Jules Jacques Coly address a complicated system of expressing information source within a noun phrase, and also within a clause. This is in addition to further evidentiality strategies with their own epistemic overtones.

How do languages without grammatical evidentiality express knowledge? In Chapter 10, ‘Expression of information source meanings in Ashéninka Perené (Arawak)’;

Elena Mihas offers a detailed discussion of evidentiality strategies, parentheticals, and other knowledge-related expressions in the language. In his 'Nominalization, knowledge, and information source in Aguaruna' (Chapter 11), Simon E. Overall discusses various ways of expressing knowledge in this language from the small Jivaroan family in the Andean foothills. These include a narrative modality, and nominalizations. In Aguaruna- and in Ashéninka Perené-speaking communities, being precise in stating one's information source is a cultural requirement. These languages make do with numerous devices, none of which are fully grammaticalized. Tima, from the small Katla-Rashad group in the Nuba mountains of the Sudan, does not have grammaticalized evidentials. In Chapter 12, 'The grammar of knowledge in Tima', Gerrit J. Dimmendaal looks at the ways in which knowledge, its sources and speakers' attitudes to it can be expressed through various constructions, including ventive, logophoric markers, speech reports, and ideophones.

Chapter 13, 'Saying, seeing, and knowing among the Karawari of Papua New Guinea', is somewhat different from the rest. Correlations between linguistic expression of knowledge and the conceptualization of its value in a changing society are an important issue to address. The Sepik region of Papua New Guinea is renowned for its focus on the value of knowledge in its varied guises. This value easily translates into monetary terms: as shown by Harrison (1990), words, spells, and other pieces of knowledge can be bought and sold. Karawari is a highly synthetic language from Lower Sepik family. Similarly to other languages of the region, there are no grammatical evidentials. And yet, the ways of talking about knowledge, its sources and reliability, are highly elaborate. Based on more than twenty-five years of work among the Karawari, Borut Telban, an eminent anthropologist, explores the nature and the expression of knowledge, and concomitant changes in recent years.

Evidentials as closed grammatical systems are different from information source marked in other ways (just like time, a real-life concept, is different from tense, realized in grammar). Meanings related to information source may be expressed through open classes of verbs (of perception, opinion, speech, and others), adverbs, and parentheticals.

These tend to be richer in their semantic range than closed systems of grammatical evidentials. Information source may be expressed via a closed subclass of modal verbs, or via particles (often grammaticalized from verbs). They are much closer to grammatical evidentials in their nature, and their meanings.

As Heine (1997: 14–15) put it:

the way people in Siberia or the Kalahari Desert experience the world around them can immediately be held responsible for the way they shape their grammars. Although conceptualisation strategies are perhaps the main driving force for linguistic categorisation, conceptualisation is not the only force that can be held responsible for why grammar is structured the way it is. . . . Another, equally important, force is communication.

This volume spans languages with and without evidentiality systems, focusing on knowledge across the borders of grammar and lexicon. How do communicative practices shape the expression of knowledge through grammatical and other means? This is what the volume is about.

Appendix. On terminological clarity

The term 'evidential' primarily relates to information source as a closed grammatical system. The term 'information source' relates to the corresponding conceptual category. This is akin to the distinction between the category of 'tense', as grammaticalized location in time, and the concept of 'time'. This was addressed in §1 of the main chapter.

The view of evidentiality which goes back to Boas' work, and is followed here, is that it is a grammatical category in its own right with information source as its primary meaning. Talking about 'lexical evidentiality' is unhelpful. It would be similar to referring to words like *today* and *tomorrow* in English as 'lexical tense'.

Evidentiality is a verbal grammatical category in its own right. It does not bear any straightforward relationship to truth, the validity of a statement, or the speaker's responsibility. Evidentials may have extensions to do with certainty, uncertainty, probability, doubt, and commitment or lack thereof. But the presence of such extensions does not make evidentials into 'modals', a subcategory of epistemic or any other modality, nor of irrealis. This can be compared to gender systems: in many languages feminine gender is associated with diminution, or endearment (see numerous examples in Aikhenvald 2000), and masculine gender with augmentative. This however does not mean that gender is a type of diminutive or augmentative category.

Evidentiality does not offer 'justification' for a statement, nor 'evidence' (as one expects in a court). Neither does a tense on a verb offer 'justification', or evidence for something being done in a particular time frame. Gender marking and agreement in Indo-European languages is not a means of 'justification' for the existence of men and women.

We can now summarize a number of misconceptions concerning evidentials.

Some misconceptions concerning evidentials

1. Evidential marking provides justification for a statement: **WRONG**.
2. An evidential reflects attitude to evidence: **WRONG**.
3. Evidentiality is a type of modality, mood, or aspect: **WRONG**.
4. Evidentiality is universal, because every language has a way of expressing how one knows things: **WRONG**.
5. If a language has verbs meaning 'see', 'hear', and 'smell', it has evidentiality: **WRONG**.
6. If a language has a way of saying 'probably', it has evidentiality: **WRONG**.
7. Evidentiality is a gradient category: **WRONG**.

8. Evidentiality is the same as evidence: **WRONG**, just as grammatical gender is not the same as biological sex.
9. Speakers of languages with evidentials have to always tell the truth: **WRONG**.
10. Languages with evidentials divide into those where evidentials have epistemic extensions and those where they do not: **WRONG**.

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