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ALIGNMENT AND ALIGNMENT CHANGE IN THE INDO-EUROPEAN FAMILY

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EYSTEIN DAHL

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49
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50
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Contents

Series preface

Modern diachronic linguistics has important contacts with other subdisciplines, notably first-language acquisition, learnability theory, computational linguistics, sociolinguistics and the traditional philological study of texts. It is now recognized in the wider field that diachronic linguistics can make a novel contribution to linguistic theory, to historical linguistics and arguably to cognitive science more widely.

This series provides a forum for work in both diachronic and historical linguistics, including work on change in grammar, sound, and meaning within and across languages; synchronic studies of languages in the past; and descriptive histories of one or more languages. It is intended to reflect and encourage the links between these subjects and fields such as those mentioned above.

The goal of the series is to publish high-quality monographs and collections of papers in diachronic linguistics generally, i.e. studies focussing on change in linguistic structure, and/or change in grammars, which are also intended to make a contribution to linguistic theory, by developing and adopting a current theoretical model, by raising wider questions concerning the nature of language change or by developing theoretical connections with other areas of linguistics and cognitive science as listed above. There is no bias towards a particular language or language family, or towards a particular theoretical framework; work in all theoretical frameworks, and work based on the descriptive tradition of language typology, as well as quantitatively based work using theoretical ideas, also feature in the series.

Adam Ledgeway and Ian Roberts
University of Cambridge

List of figures

List of tables

List of abbreviations

1	first person
2	second person
3	third person
A	bivalent subject/Actor macrorole
A	bivalent subject
ABL	ablative
ABS	absolutive
ACC	accusative
ACT	active
ADV	adverb
AGR	agreement
AOR	aorist
Arm.	Armenian
ART	article
AUX	auxiliary
BC	Before Christ
BO	bivalent object
BS	bivalent subject
C	common gender
CE	Christian Era
CL	clitic object marker
COMP	complementizer
COND	conditional
CONJ	conjunction
CONN	connective
CTH	Catalogue des textes hittites
CVB	converb
DAT	dative [case]
DEF	definiteness marker
DEM	demonstrative
DET	determiner
DIR	direct
DO	direct object
DU	dual
EMPH	emphatic particle
ERG	ergative
F	feminine
FUT	future

GEN	genitive
GER	gerundive
gr.	Greek
hit.	Hittite
IMP	imperative
IMPERS	impersonal
IND	indicative
INDF	indefinite
INF	infinitive
INS	instrumental
INTJ	interjection
INTERR	interrogative
intr.	intransitive
IPF	imperfect
IPFV	imperfective
KBo	Keilschrifttexte aus Boghazköy
KUB	Keilschrifturkunden aus Boghazköy
LOC	locative
LOG	logophore
M	masculine
MArm.	Middle Armenian
MEA	Modern Eastern Armenian
MH	Middle Hittite
MID	middle
MP	mediopassive
MS	Middle script/monovalent subject
MWA	Modern Western Armenian
N	neuter [gender]
NACC	nota accusativi
NEG	negation
NH	New Hittite
NOM	nominative [case]
NONFUT	nonfuture
NONPST	nonpast
NP	noun phrase
NS	New script
O	bivalent object (= P)
O	object [marking]
OBJ	object marker = nota accusativi (NACC)
OBL	oblique
OH	Old Hittite
OPT	optative
OS	Old script
P	bivalent object (= O)
P	past

PART	participle
PASS	passive
PFV	perfective
PL	plural
PLPF	pluperfect
PN	proper noun
POSS	possessive
POST	posteriority; temporal suffix 'since, after'; spatial case 'behind'
PP	prepositional phrase
PP	past/perfect participle
PPP	past passive participle
PRF	perfect
PROG	progressive
PROH	prohibitive marker
PRON	pronoun
PRP	preposition
PRS	present
PRV	preverb
PSTP	postposition
PST	past
PTCL	particle
PTCP	participle
Pth.	Parthian
QUOT	quotative particle
REFL	reflexive
REL	relative
RRG	Role and Reference Grammar
S	monovalent subject
SAP	speech act participant
s.v.	sub voce
sb.	somebody
SBJ	subjunctive
SG	singular
SPLV	superlative
sth.	something
SU	subject
SUP	supine
TNS	tense
TODP	today's past tense
TSA	tense-sensitive alignment
U	Undergoer macrorole
VOC	vocative

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1

Alignment and alignment change in the Indo-European family and beyond

Eystein Dahl

1.1 Introduction

This book explores alignment typology and change in some Indo-European languages. Alignment typology has been the subject of growing interest in recent years, both in synchronic and diachronic perspective (Harris and Campbell 1995, Donohue and Wichmann 2008, Yanagida and Whitman 2009, Whitman and Yanagida 2012, Coon 2013, Hasselbach 2013, Coghill 2016, Dahl and Stroński 2016, Gildea and Zuñiga 2016, Polinsky 2016, Aldridge 2017, Butt and Deo 2017, Haig 2017, Cristofaro and Zuñiga 2018, Zuñiga 2018). However, few existing studies deal with variation and change in the alignment typology across languages belonging to one linguistic family and the present volume aims to fill this gap partially, exploring alignment change in several Indo-European languages, including Vedic Sanskrit, Latin, Ancient Greek, Hittite, Armenian, Lithuanian, Old Italian, Spanish, and various Slavonic languages. Alignment in a strict sense comprises basic alignment patterns expressing core arguments of intransitive, transitive, and ditransitive predicates, but in the present context the term has a slightly extended sense, including both basic alignment patterns and various types of valency-decreasing constructions, most notably passives, anticausatives/middles, antipassives, impersonals/transimpersonals, and A- or P-lability. As will be discussed in somewhat more detail below, there is an intimate diachronic relationship between some of these construction types and certain types of basic alignment patterns, a fact suggesting that valency-decreasing constructions and basic alignment patterns represent two dimensions of the same area of grammar (see Zúñiga and Kittilä's (2019) discussion of so-called symmetrical voice systems found in some Austronesian languages). Moreover, many of the branches/languages belonging to the Indo-European linguistic family show both head- and dependent-marking strategies of argument realization (see e.g. Nichols 1986, 1992) early on and generalize one of these strategies in the course of their recorded history, a fact with intriguing implications for diachronic alignment typology. The contributions in this volume, which we discuss more carefully in Section 1.4, present complementary perspectives on overlapping and analogous

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patterns of variation and change within the broader field of alignment typology as presently defined.

At the beginning of their attested tradition, most branches of the Indo-European linguistic family show a predominantly nominative–accusative organization of their basic alignment pattern. However, in the course of time many of the branches and individual languages under consideration underwent significant changes in their alignment system. There is some evidence that Proto-Indo-European (PIE) at an early stage had a basic alignment pattern with a different alignment type, which according to some scholars was ergative (see e.g. Willi 2017: ch. 9), while others believe it was a so-called stative–active or semantic alignment system (Pooth and Orqueda 2021). These and related issues are addressed in Chapter 2 of this volume. Taken together, these observations suggest that alignment is a diachronically unstable typological dimension in the Indo-European language family. This is somewhat surprising since large-scale typological studies like Nichols (1992) suggest that languages generally tend to show diachronic stability in their alignment patterns both from a genetic and from a geographic perspective. Harris (1990), on the other hand, examines various patterns of alignment change that readily lend themselves to analyses in terms of extension or analogy. Several of the examples provided by Harris (1990) involve Kartvelian languages, this linguistic family thus constituting a case analogous to Indo-European. These two linguistic families seemingly contrast with others like, e.g. Dravidian or Semitic, where alignment change appears to be less frequent.[1]

Since basic alignment in general must be considered a core part of the grammar of a language, alignment change represents a surprising diachronic phenomenon. It is reasonable to assume that alignment change, when it occurs, often is an epiphenomenon of changes affecting other parts of the grammar of the language in question, typically involving one or more of its valency-affecting constructions, often involving the emergence of new aspect categories. In such cases, construction-specific developments through a series of reanalyses result in a major typological change in the basic alignment system, as is the case in Indo-Aryan (Dahl 2016, Dahl 2021a, Butt and Deo 2017). This is in line with the more general observation that morphosyntactic change rarely has a catastrophic, macro-scale character, but rather tends to involve discrete small-scale changes (Roberts 2010, Traugott and Trousdale 2010). Many cases of alignment change appear to involve changes in detransitivizing morphosyntax, and it is therefore reasonable to assume that this area of grammar is particularly relevant for understanding the causes of alignment change. It is tempting to suggest that this may be somehow

[1] See e.g. Lehmann 1998 on Tamil, Krishnamurti 2003 on Dravidian more generally; Hasselbach 2013 shows that Semitic languages generally show nominative–accusative alignment, most likely inherited from Proto-Semitic; note, however, that Coghill 2016 shows that alignment change occurs in late stages of Aramaic.

connected with the fact that the main difference between the major alignment types ergative, accusative, semantic, and tripartite concerns how they classify subjects of intransitive clauses. These considerations suggest that intransitivity, detransitivization, and alignment change are intimately interconnected linguistic phenomena, together constituting a potentially very fruitful field of research.

1.2 Alignment typology

There is considerable cross-linguistic variation as to how verbal arguments are morphosyntactically expressed and alignment represents one central parameter of typological variation. Basic alignment patterns express the arguments of intransitive or one-place, transitive or two-place, and ditransitive or three-place predicates. Other terms also used in subsequent chapters are monovalent, bivalent, and trivalent verbs. Here, we shall restrict our attention to one-place, or monovalent and two-place or, bivalent verbs. In alignment typology, the first argument of two-place predicates is represented by the shorthand A, the second argument of two-place predicates by P (or O), and the single argument of one-place predicates by S. Different constellations may hold between the three argument types, representing one of the following alignment types:

- nominative–accusative or simply accusative alignment, where A and S have the same expression, while P is expressed in a different manner;
- ergative–absolutive or simply ergative alignment, where P and S have the same expression, while A is expressed in a different manner;
- split intransitive or semantic alignment, where S in some cases has the same expression as A, for which we use the shorthand S_A, and in other cases receives the same marking as P, for which we use the shorthand S_P;
- neutral alignment, where A, S, and P have the same expression;
- tripartite alignment, where A, S, and P each have a unique expression;
- double-oblique alignment, where A and P have the same expression, while S has a different one.

A schematic representation of the various alignment types is given in Table 1.1.

Table 1.1 Different alignment types

Accusative	Ergative	Neutral	Tripartite	Double Oblique	Semantic
A=S≠P	A≠S=P	A=S=P	A≠S≠P	A=P≠S	A≠P, A = S_A, P = S_P

Among the alignment types outlined in Table 1.1, accusative and ergative have a more privileged status in linguistic theory than the others, partly because these two alignment patterns are more common across the world's languages and partly because they are more widely studied than the other alignment types. In recent work, Creissels (2018) outlines a prototype-based model for ergative and accusative alignment, which he relabels P-unmarked and A-unmarked alignment. He notes (2018: 72) that ergative/P-unmarked systems have the following characteristics:

- A tends to be expressed with a special case form or adposition and P with an unmarked case form;
- if there is verb agreement, the verb agrees with P;
- the coding of P is the default, obligatory type of argument coding, which also characteristically codes S.

Accusative/A-unmarked systems, on the other hand, have the opposite characteristics (Creissels 2018: 73):

- P is expressed with a special case form or adposition and A with an unmarked case form;
- if there is verb agreement, the verb agrees with A;
- the coding of A is the default, obligatory type of argument coding, which also characteristically codes S.

At present, we primarily focus on morphological coding since various patterns of case marking/flagging and verb agreement/indexation constitute the main dimensions of typological variation in the languages under discussion.

Although it is often the case that languages are characterized globally as accusative, ergative, etc., the alignment types defined above characteristically apply to the level of individual constructions rather than the level of overall language typology. Indeed, most of the languages belonging to the Indo-European family and, in particular, the various languages discussed in this volume all show a clear propensity towards nominative–accusative alignment, which, however, interacts in different ways with other alignment types. There are two main ways in which alignment types can interact, which we define as split alignment and mixed alignment. Along the lines of McGregor (2009, 2010), we use the term 'split alignment' to refer to cases where different alignment systems appear in different, well-defined lexical or grammatical contexts. A case in point concerns many of the present-day Indo-Aryan languages, which have an aspect-based split between accusative and ergative alignment, ergative alignment exclusively occurring with perfective forms of the verbal paradigm, and accusative alignment occurring with imperfective

forms of the verbal paradigm, as illustrated by the examples from Hindi in (1) and (2).[2]

(1) a. ***laṛkā*** *kitāb* *paṛh rahā* *hai*
boy:NOM book:F.ABS read PROG.M.SG be:PRS.3SG
'The boy is reading the book.' [Hindi]

b. ***laṛkā*** *sōn rahā* *hai*
boy:NOM sleep PROG.M.SG be:PRS.3SG
'The boy is sleeping.' [Hindi]

c. *ādmī* ***laṛke=ko*** *mar rahā* *hai*
man:NOM boy=ACC hit PROG.M.SG be:PRS.3SG
'The man is hitting the boy.' [Hindi]

These examples unambiguously show that imperfective verb forms have accusative alignment, A and S showing identical marking, in these cases *laṛkā* 'boy' and P showing a different case-marking pattern, the accusative form *laṛke=ko*.[3]

(2) a. ***laṛke=ne*** *kitāb* *paṛhī*
boy=ERG book:NOM read:PST.PFV.M.SG
'The boy has read the book.' [Hindi]

b. ***laṛkā*** *sōyā*
boy:NOM sleep:PST.PFV.M.SG
'The boy slept.' [Hindi]

c. ***tūphān=ne*** *šīšā* *toḍ* *diyā*
storm=ERG glass:NOM break give:PST.PFV.M.SG
'The storm broke the glass.' [Hindi] (adapted from Mohanan 1994: 75)

d. ***tūphān*** *tham gayā*
storm:NOM stop go:PST.PFV.M.SG
'The storm stopped.' [Hindi]

e. *āj* ***tūphān*** *dekhā* *tum=ne*
today storm:NOM see:PST.PFV.M.SG 2SG/PL=ERG
'You saw the storm today.' [Hindi]

Examples like those cited in (2) show that perfective verb forms in Hindi select an A argument with the clitic ergative marker *-ne*, and an S and P argument without this marker, thus instantiating ergative case marking.[4]

[2] Here and in the following, Hindi is used as a shorthand for Hindi/Urdu for convenience.

[3] Note, however, that examples (1a) and (1c) show that Hindi has differential object marking (DOM) in the imperfective, animate nouns like *laṛkā* 'boy' receiving explicit accusative case marking, and inanimate nouns like *kitāb* 'book' appearing in the unmarked form when appearing in P function. Thus, Hindi appears to have a noun–class-based split between accusative and neutral alignment in the imperfective domain, accusative alignment being restricted to animate nouns, inanimate nouns showing neutral alignment.

[4] Even though Hindi is usually represented as a textbook example of an aspect-based split-ergative language, matters turn out to be less straightforward on closer examination. While examples like those

The data from Hindi illustrate how two or more alignment types may interact in different grammatical or lexical contexts, constituting split-alignment systems. On the other hand, we use the term mixed alignment where different alignment types interact in the same lexical or grammatical context. Most notably, mixed alignment obtains in cases where dependent marking and head marking instantiate different alignment types. The Indo-Aryan language Nepali provides an example of this, showing ergative alignment in the nominal morphology and accusative alignment in the verbal agreement patterns (Bickel 2011: 400). Consider, by way of illustration, the examples in (3).

(3) a. ***ma*** *gaẽ*
I:NOM go:PST.1SG
'I went.' [Nepali] (adapted from Bickel 2011: 401)

b. ***mai=le*** *timro ghar* *dekhẽ*
I=ERG your house:NOM.SG see:PST.1SG
'I saw your house.' [Nepali] (adapted from Bickel 2011: 401)

c. ***hasan=le*** *gāṛi* *chalauncha*
Hassan=ERG car:NOM drive:NONPST.3SG
'Hassan drives cars.' [Nepali] (adapted from Butt and Poudel 2007)

d. ***hasan*** *gāṛi* *chalauncha*
Hassan:NOM car:NOM drive:NONPST.3SG
'Hassan drives cars.' [Nepali] (adapted from Butt and Poudel 2007)

e. ***hasan=le*** *nacyo*
Hassan=ERG dance:PST.M.3SG
'Hassan danced.' [Nepali] (adapted from Butt and Poudel 2007)

f. ***hasan*** *nacyo*
Hassan:NOM dance:PST.M.3SG
'Hassan danced.' [Nepali] (adapted from Butt and Poudel 2007)

cited in (2ab) are indicative of clear-cut ergative case marking, examples like (2c) and (2e) seem to be rather restricted, since the P argument strongly tends to be marked with the accusative clitic *=ko*, as illustrated by examples like the following:

ādmī=ne ***laṛke=ko*** *dekhā*
man-ERG boy=ACC see:PST.PFV.M.SG
'The man looked at the boy' [Hindi]
bādalō-ne ***sūraj=ko*** *gher* *liyā* *hai*
clouds=ERG sun=ACC surround take:PFV.M.SG be:PRS
'The clouds have surrounded the sun' [Hindi] (adapted from Mohanan 1994: 75)

This constellation seems to reflect influence from the DOM in the accusative alignment pattern in the imperfective domain of the verb. Indeed, the tendency of using the marked *=ko* forms to express the P argument appears to be almost exceptionless with animate referents, a fact indicating that this particular noun type shows tripartite rather than ergative case marking in the perfective domain. Moreover, the fact, noted by Mohanan (1994: 75), that the ergative marker does not appear with inanimate nouns creates further complications. However, a more extensive exploration of these intriguing issues will have to be undertaken elsewhere.

Examples (3a) and (3b) clearly show that case marking follows an ergative pattern, while verb agreement follows a nominative pattern. Nepali also shows alternation between ergative and nominative case with unergative predicates both in the non-past and the past tenses without any change in verb agreement, as illustrated by the examples in (3c)–(3f).[5] It is tempting to hypothesize that these two phenomena are related. At any rate, examples like those cited in (3) show that case marking/flagging and verb agreement/indexation are independent dimensions of morphosyntax, that may, but need not converge on the same alignment type.

Along the lines of scholars like Donohue (2008), ergative and accusative alignment may be defined as syntactic patterns, since they assign case marking and/or agreement to the argument types irrespective of semantic factors. In semantic alignment systems, on the other hand, the realization of the various argument types depends to a smaller or greater extent on the lexical semantic properties of the predicate. Semantic alignment often represents a special case of either accusative or ergative alignment, where accusative or ergative case marking is extended to the S argument of certain verbs. Two slightly different types of semantic alignment are often distinguished: fluid-S and split-S. Restricting the present focus to flagging/case marking strategies, fluid-S alignment obtains when the argument of certain one-place predicates may alternately select the same case marking as A or P, as illustrated in (4).

(4) a. ***ram=ne*** *royā*
Ram=ERG cried:PST.PFV.M.SG
'Ram cried (intentionally).' [Hindi] (adapted from Butt 2017: 817)

b. ***ram*** *royā*
Ram:NOM cried:PST.PFV.M.SG
'Ram cried.' [Hindi] (adapted from Butt 2017: 817)

c. ***ʔa:*** *k'lú:k'lu:w*
1SG.NOM cough
'I coughed (intentionally).' [Central Pomo]
(adapted from Arkadiev 2008: 111)

d. ***ṭo:*** *k'lú:k'lu:w*
1SG.ACC cough
'I coughed (accidentally).' [Central Pomo]
(adapted from Arkadiev 2008: 111)

Butt (2017: 816) notes that unergative one-place verbs generally select an ergative-marked subject in Hindi, as illustrated in (4a). However, they may alternately take a nominative-marked subject, as illustrated in (4b). Along the lines of Ahmed's

[5] It should be noted that in Nepali, this alternation only marginally occurs with one-place unergative predicates in the past tense, where the ergative case is predominant. Two-place agentive predicates exclusively select the ergative case. According to Butt and Poudel 2007, the alternation between the ergative and nominative with non-past forms of agentive two-place predicates often conveys a distinction between stage-level and individual-level predication.

(2010) analysis, semantic factors such as animacy, agency, dynamicity, or telicity determine whether a given one-place predicate behaves as unergatively or unaccusatively. In other words, the alternation in (4a) and (4b) is semantically, not syntactically determined, the ergative implying that the action is initiated by the subject and the nominative expressing that the action may have been due to an external cause (Butt 2017: 816). As regards the examples in (4c) and (4d), on the other hand, Arkadiev (2008: 111) notes that the alternation between the nominative and accusative in Central Pomo has a similar effect, the nominative implying that the subject coughed on purpose, whereas the accusative implies that the coughing happened spontaneously. In both these cases, semantic notions play a central role in argument realization, thus suggesting the conclusion that these constructions show fluid-S alignment.

In a split-S system, the case marking of the argument is lexically determined, and does not alternate, as illustrated in (5).

(5) a. ***Jon*** *erori* *da*
Jon:ABS fall:PFV TNS:root
'Jon has fallen.' [Basque] (adapted from Berro and Etxepare 2017: 792)

b. ***Jonek*** *dantzatu* *du*
Jon:ERG dance:PFV TNS:root
'John has danced.' [Basque]
(adapted from Berro and Etxepare 2017: 792)

c. ***vaikas*** *dainuoja*
child:NOM.SG sing:PRS.3
'The child is singing.' [Lithuanian]

d. *skauda* ***kelį***
hurt:PRS.3 knee:ACC.SG
'(My) knee hurts.' [Lithuanian]

According to Berro and Etxepare (2017), Basque represents an ergative language where the expression of S depends on the lexical semantic features of the predicate. Specifically, change-of-state verbs, verbs denoting a spontaneous event, and a subset of aspectual predicates select absolutive case marking, as illustrated in (5a), whereas one-place verbs denoting volitional acts, emission, and involuntary bodily processes typically select ergative case marking, as illustrated in (5b). Lithuanian, on the other hand, has predominantly accusative alignment, as illustrated by the nominative-marked S argument in example (5c), but several experiential predicates select an S argument with accusative case marking, as illustrated in (5d).

The examples given in (4) and (5) illustrate that fluid-S and split-S alignment patterns involve non-canonically case-marked S arguments, in that the predicates in (4b), (4d), (5b), and (5d) do not select the expected absolutive or nominative

case marking, respectively.[6] While Fluid-S and split-S alignment represent salient types of semantic alignment, it seemingly makes sense to include other types of non-canonical argument realization patterns under the broader notion of semantic alignment. Consider the examples from Latin in (6).

(6) a. *Em, nunc tu* ***mihi*** *places*
PTCL NOW 2SG.NOM.SG 1SG.DAT please:PRS.2SG
'Well, now you are pleasing me.' [Latin] (Plaut. *Merc.* 911)

b. *quoius* ***me*** *nunc* ***facti*** *pudet*
which:GEN.SG 1SG.ACC now deed:GEN.SG be.ashamed:PRS.3SG
'Of which deed I am now ashamed.' [Latin] (Plaut. *Bacch.* 1016)

Example (6a) illustrates that the verb *placeo* 'please, be pleasing' consistently selects a nominative–dative case frame instead of the expected nominative–accusative case frame, a fact reminiscent of the non-canonical marking of certain S arguments in split-S patterns. Example (6b), on the other hand, illustrates that the verb *pudeo* 'be ashamed' tends to select an accusative–genitive case frame instead of the expected, canonical argument realization pattern. Also, the verb appears in the default third singular form *pudet* a characteristic feature of impersonal forms in Latin rather than the first singular form *pudeo*. As noted above, causative–transitive verbs imply an asymmetric relation between the first and second participant, and other types of two-place predicates often have similar implications. It should be observed, however, that the experiential verbs *placeo* 'please' and *pudeo* 'be ashamed' illustrate two distinct ways of representing the relationship between the experiencer and the stimulus. The first verb selects the stimulus as the first participant, which receives the nominative case-marking characteristic of A arguments, while the second verb selects the experiencer as its first argument, which, however, has non-canonical accusative case marking. Bossong (1998) distinguishes between direct experiential constructions, that is, constructions where the experiencer is the first argument, and inverse constructions, that is, constructions where the stimulus is the first argument. The Latin data in (6) provide an intriguing illustration of how a predominantly nominative–accusative language may single out both types of experiential predicates vis-à-vis other types of two-place predicates.

A growing body of evidence suggests that semantic alignment patterns may arise from so-called transimpersonal constructions (e.g. Malchukov 2008). Transimpersonal constructions are transitive impersonal constructions, that is, impersonal constructions with an implicit agentive argument. Restricting our attention to the Latin verb *pudeo* 'be ashamed', we may note that it is marginally attested as an intransitive personal verb and even as a causative–transitive verb with something like a dummy subject, as illustrated in (7).

[6] Dixon (1994: 187) notes that 'A split-S system (…), for instance, may arise through "grammaticalization" of a fluid-S system.'

(7) a. *ita nunc* ***pudeo*** *atque ita nunc paveo*
thus now be.ashamed:PRS.1SG and thus now be.afraid:PRS.2SG
'I am now so ashamed and I am now so afraid.' [Latin] (Plaut. *Cas.* 877)

b. ***nil****-ne* *te* *pudet?*
nothing:NOM.SG-PTCL 2SG.ACC make.ashamed:PRS.3SG
'Doesn't anything make you ashamed?' [Latin] (Plaut. *As.* 933)

c. *Nimio id* ***quod*** *pudet* *facilius*
by.far that:NOM.SG REL.NOM/ACC.SG make.ashamed:PRS.3SG easier
fertur *quam illud* ***quod***
be.carried:PRS.3SG than that:NOM.SG REL.NOM/ACC.SG
piget.
annoy:PRS.3SG
'That which makes (one) ashamed is far easier to endure than that which makes (one) annoyed.' [Latin] (Plaut. *Ps.* 281)

These examples illustrate that the verb *pudeo* has labile behaviour, being compatible with intransitive readings, as in (7a), and transitive readings, as in (7b) and (7c).[7] In the present context, the transitive readings clearly show that the Latin verb *pudeo* had a transimpersonal use. The examples in (6) and (7) are found in Early Latin sources, Classical Latin only has the construction in (6b) with the verb *pudeo*. Hence, Latin appears to instantiate an unambiguous instance of the development from transimpersonal to semantic alignment.[8]

We now turn to the three last types of basic alignment: tripartite, double oblique, and neutral alignment.[9] Both tripartite and double-oblique patterns are comparably rare across languages. Classical Armenian seemingly represents an instance of tripartite alignment, as illustrated in (8) (see Meyer 2016; Chapter 9 in this volume, for discussion).

(8) a. *ʔočʿ* ***z-gir-n*** ***z-ayn*** ***icʿē***
NEG NACC-writing:ACC.SG-ART NACC-DEM.ACC.SG be:PRS.SBJ.3SG
ənt'eṙcʿeal ***jer***
read:PTCP 2PL.GEN
'Should you not have read this writing?'
(NT, Mk. 12:10 [Classical Armenian], adapted from Meyer 2016)

b. ***or*** *ustekʿ ustekʿ* ***ekeal*** ***haseal*** *ēin*
REL:NOM.SG/PL from.all.over come:PTCP arrive:PTCP be:PST.3PL

[7] Example (7c) illustrates that the verb *pigeo* 'be annoyed, annoy', which also tends to select the accusative–genitive pattern illustrated in (6b), behaves in a manner analogous to *pudeo*, indicating that the behavioural pattern is not restricted to one lexeme.

[8] It should be noted that an admittedly small group of experiential predicates show a behaviour analogous to *pudeo*. These are *pigeo* 'be offended', *taedeo* 'regret', *paeniteo* 'repent', and *misereo* 'pity' as well as their derivatives and compounds.

[9] For ease of exposition, the following discussion only considers case-marking patterns, leaving out agreement.

i *tʻikuns* …
in aid:ACC.PL
'[W]ho had arrived from all over in aid …'
(Agatʻangełos 21.1 [Classical Armenian], adapted from Meyer 2016)

The examples in (8) show that the Classical Armenian predicated verbal adjective in *-eal* may occur with a genitive-marked A (*jer* in (8a)), an accusative-marked P (*z-gir-n z-ayn* in (8a)), and a nominative-marked S (*or* in (8b)), instantiating tripartite alignment (Meyer 2016).

As regards double-oblique alignment, Rushani, a variety of the Pamir language Shugni, provides an instance of this rather rare alignment pattern, which is restricted to the past tense, as illustrated in (9).[10]

(9) a. ***čï*** *mum* *kitōb* *x̌ēyč?*
who:OBL this:OBL.SG book:SG read:PRF
'Who has read this book?' [Rushani] (adapted from Payne 1980: 156)

b. ***čāy*** *yat?*
who:NOM come:PST
'Who came?' [Rushani] (adapted from Payne 1980: 156)

c. *tā* *virōd* ***čï*** *wunt?*
your brother who:OBL see:PST
'Whom did your brother see?' [Rushani] (adapted from Payne 1980: 156)

These examples illustrate that the interrogative pronoun has the same form in A and P function (*čï*), and a different form in S function (*čāy*).

Both tripartite and double-oblique alignment tend to be regarded as inherently unstable, transitory alignment types, representing stages in the development from ergative to accusative or from accusative to ergative alignment.[11] Moreover, both of these alignment types typically appear in languages with an ergative–accusative split, as an extension of one of the case-marking patterns from one domain to another.[12] Nevertheless, certain languages with tripartite alignment show considerable stability, as seems to be the case in the Pamir language Yazgulyami (Meyer 2016).[13]

[10] Like other languages of the Shugni or Shugni-Rushani branch of the North Pamir languages, Rushani has case-marking distinctions only in the pronouns, while bare noun forms are unmarked for case, accompanying demonstratives/articles providing case (Payne 1980, Edelman and Dodykhudoeva 2009).

[11] See e.g. Payne (1980) and Bubenik (2016).

[12] See e.g. Harris (1990), Harris and Campbell (1995). The Hindi data discussed above illustrate the rise of a tripartite pattern through extension, appearing to bear witness of a situation under development in the perfective domain where A is marked by the ergative clitic *=ne*, P is marked by the accusative clitic *=ko*, and S is unmarked, the use of *=ko* probably reflecting influence from the nominative–accusative pattern in the imperfective. As regards the rise of double-oblique systems, Payne (1980, see also Harris 1990, Harris and Campbell 1995) cites Rushani as a language where the extension of the use of the oblique case to express the P argument has spread from the accusatively aligned imperfective system to the (originally) ergatively aligned perfective/past tense system, yielding a double-oblique alignment pattern.

[13] I am unaware of any examples in the literature of languages with a diachronically stable double-oblique system.

Before concluding the discussion of the various alignment types, a brief note should be added regarding neutral alignment. This alignment pattern is found in modern Romance languages like Italian, or Germanic languages like Norwegian. Consider the examples in (10) and (11).

(10) a. *se* ***un ospite*** *ama* *la* *vita notturna*
if a guest:SG love:PRS.3SG the life nightly
'If a guest enjoys nightlife.' [Italian]

b. *é* *arrivato* *un ospite*
be:PRS.3SG arrive:PRF.PTCP a guest:SG
'A guest has arrived.' [Italian]

c. *ho* *visto* ***un ospite*** *particolare*
have:PRS.1SG see:PRF.PTCP a guest:SG special:SG
'I have seen a special guest.' [Italian]

(11) a. ***Mann-en*** *mater* *hund-en*
man:SG-DEF feed:PRS dog:SG-DEF
'The man feeds the dog.' [Norwegian]

b. ***Mann-en*** *løper*
man:SG-DEF run:PRS
'The man runs.' [Norwegian]

c. *Hund-en* *biter* ***mann-en***
dog:SG-DEF bite:PRS man:SG-DEF
'The dog bites the man.' [Norwegian]

These examples illustrate that nouns have an identical form in all pertinent argument functions in Italian and Norwegian. These two languages instantiate two ways in which neutral alignment may arise. In general, the immutable Italian noun forms derive from Latin accusative forms (e.g. *ospite* < Lat. *hospitem* acc. sg. of *hospes* 'host, guest'). The immutable noun forms in Norwegian, on the other hand, arose in Middle Norwegian through a phonologically determined merger of the Old Norse nominative and accusative forms (see e.g. Mørck 2005).

At this point, a brief clarification of the status of the analytical notions A, S, and P/O, distinguished above is in order. Haspelmath (2011) notes that these typological terms are often taken for granted as unspecified primitive notions which, however, are used with (at least) three different meanings in the extant literature, which he labels Dixonian, Comrian, and Bickelian. Under Haspelmath's (2011) analysis, these definitions differ along three dimensions: their nature (syntactic functions or generalized roles); scope (subclass of verbs or all verbs); and purpose (comparative and descriptive or descriptive only). Table 1.2 provides an overview of the implications of the different approaches.

In his discussion of these three approaches, Haspelmath (2011) concludes that the Comrian approach, where A and P/O are defined as syntactic functions

Table 1.2 Three approaches to S, A, P

	Dixonian	**Comrian**	**Bickelian**
Nature:	syntactic functions	syntactic functions	generalized roles
Scope:	(only subclass of verbs)	only subclass of verbs	all verbs
Purpose:	comparative + descriptive	comparative	comparative + descriptive

Source: adapted from Haspelmath (2011: 539).

associated with core transitive verbs ('kill', 'break', etc.) and employed as comparative concepts, is preferable to the Dixonian and Bickelian approaches. In the present context, we may note that a Comrian definition of A, P, and S has been explicitly adopted in at least two of the contributions to this volume (Chapters 2 and 3). Given that these terms are defined as comparative concepts, terms such as bivalent subject/first argument of bivalent predicates, bivalent object/second argument of bivalent predicates and monovalent subject/sole argument of monovalent predicates will be used in language-specific descriptions in this chapter as well as the two others already mentioned. On this background, basic alignment pattern(s) can be defined as the alignment pattern(s) shown by core transitive verbs in the unmarked voice in a given language. Another important parameter of variation is what Haspelmath (2015) labels 'transitivity prominence', which is understood as a scalar notion intended to capture to what extent different types of binary predicates adopt the morphosyntactic properties of the basic alignment pattern(s). This essentially quantitatively defined notion plays an important role in the contribution of Seržant et al. to this volume (Chapter 10).

After having defined some basic theoretical and terminological notions in this section, we proceed with a brief outline of some diachronic dimensions of alignment change in the following section.

1.3 Alignment change in Indo-European and beyond

Along the lines of the recent state-of-the-art survey of Zúñiga (2018), one can distinguish three mechanisms of alignment change, namely analogical extensions of alignment patterns, reanalysis of low-transitivity constructions, and borrowing/contact (see also Harris 1985, 1990, Plank 1985, 1995, Harris and Campbell 1995). While clear-cut cases of borrowing seem to be comparably rare, examples of alignment change via reanalysis and extension are more common.

One can distinguish two main types of reanalysis that impact alignment systems. First, there is broad agreement that languages with ergative basic alignment can develop (split-)accusative patterns by a process where an antipassive or other type of voice construction is reanalysed as an unmarked transitive construction. A

recent study by Katarzyna Janic and Charlotte Hemmings (2021) shows that this has happened in Inuktitut, a language of the Eskimo–Aleut family, and in certain Western Austronesian languages, where the so-called Actor voice is generalized as an unmarked voice marker. On their analysis, these developments are motivated by a process of functional markedness reversal (Janic and Hemmings 2021). Interestingly, there seem to be no uncontroversial instances of the opposite development, ergative alignment arising from passives in languages with predominantly accusative alignment.

In other cases, alignment change arises as a by-product of the grammaticalization of newly emerging tense/aspect morphosyntax, as discussed in some detail in Creissels (2018). This is, for instance, the case in Indo-Aryan, where a predicated P-oriented resultative verbal adjective develops into an anterior past tense with ergative alignment (see Dahl 2021a for discussion). The grammaticalization of a new tense/aspect category in Indo-Aryan was motivated by the fact that the aspectual distinctions associated with the inherited synthetic aspect stems were gradually lost and replaced by temporal remoteness and evidentiality distinctions (Dahl 2015). The inherited alignment system of Old Indo-Aryan had a predominantly nominative–accusative character, that developed a split-ergative character through the rise of an analytic construction with ergative alignment (see Dahl 2016, 2021a for discussion). The examples in (12) illustrate that the predicated verbal adjective in *-tá-* had a resultative function in Early Vedic, the oldest attested stage of Indo-Aryan (12a), an anterior function in Pāli, a later stage of Indo-Aryan (12b), and is a general past tense in Epic Sanskrit (12c).

(12) a. *ásti* *sómo* *ayáṁ* *sutáḥ*
be:3SG.PRS soma:NOM DEM.NOM extract:PPP.NOM.SG.M
píbanty *asya* *marútaḥ* /
drink:PRS.3PL 3SG.GEN Maruts:NOM
'This soma is pressed. The Maruts drink of it.'
(RV VIII 94.4 after Jamison 1990: 5 [Early Vedic])

b. *Udenena upāsakena […] vihāro* *karapito* *hoti.*
Udena:INS layman:INS monastery.NOM.SG let.build:PPP copula:PRS.3SG
'The layman Udena has had a monastery built […]'
(Mahavagga 111:5 after Peterson 1998:93 [Pāli])

c. *śruto* *mayā* *śabdo*
hear:PPP.M.NOM.SG 1SG.INS sound:M.NOM.SG
'I heard a sound.' (Rāmāyana 2.58.13, adapted from Bynon 2005: 11 [Epic Sanskrit])

The development from resultative via anterior to (perfective) past tense is a well-known grammaticalization path and therefore unsurprising. An important point worth noting here is that example (12a) reflects the use of the predicated verbal adjective in a tense/aspect system with two other semantically specific

perfective/anterior categories, the aorist indicative and perfect indicative,[14] while both (12b) and (12c) reflect stages of the language where no other semantically specific aspect categories exist, the predicated past participle being in complementary distribution with a simple preterite category.[15] Thus, the rise of split ergativity in Indo-Aryan seems to be a direct consequence of the decline of inherited aspect categories in this branch. Here, the resultant ergative pattern is consistently ergative regarding both case marking/flagging and verb agreement/indexation.

Extension can impact alignment systems on different levels. It was noted above in connection with so-called mixed-alignment patterns in Nepali that case marking/flagging and verb agreement/indexation are independent morphosyntactic dimensions, that often, though not always converge on the same alignment type. Broadly speaking, one may distinguish two distinct but analogous constraints on alignment change via pattern extension (Dahl 2021a).

One has global scope, and roughly corresponds to Creissels's (2018) Obligatory Coding Principle, 'according to which all verbal predicative constructions in a language must include a nominal term showing a particular type of coding that can be viewed as the default type of argument coding in question' (Creissels 2018: 59–60). Following Dahl (2021a), this principle may be interpreted as a tendency to generalize a particular alignment pattern across constructions. For example, as discussed in Meyer's contribution to this volume, Armenian instantiates a clear-cut case of a language where a split-alignment pattern is replaced by a consistently nominative–accusative pattern (Chapter 9). Moreover, another analogous principle seems to operate on a more fine-grained level, levelling out mismatches of the type represented by mixed alignment, where case marking/flagging and verb agreement/indexation instantiate different alignment types. This may be illustrated by the development of verb agreement with neuter plural subjects in Ancient Greek. As discussed at length in Chapter 2 of this volume, Ancient Greek had inherited an alignment system where neuter plural subjects generally did not trigger verb agreement. However, in Homeric Greek there is an incipient tendency to generalize plural agreement marking with neuter plural nouns/pronouns as well. Given that neuter nouns show neutral case marking, this development, motivated by the principle of generalization, leads to a situation where neuter nouns show mixed alignment with neutral case-marking and accusative agreement. However, unlike in other related languages like Vedic Sanskrit or Latin, where the mixed pattern prevails, it becomes obsolete at an early stage in Ancient Greek, neuter subjects showing consistent singular agreement throughout the Classical period. This is arguably a case where a mixed neutral–accusative alignment pattern is ousted by a consistently neutral pattern (see also Dahl 2021a, 2021b).

[14] See Dahl (2010) for a survey of the Early Vedic tense/aspect system.

[15] See Oberlies (2001: 228–243) for discussion of the past tense system of Pāli and Oberlies (2003: 143–170) for a survey of the uses of the tense categories in Epic Sanskrit.

Works such as Harris (1985, 1990) and Plank (1985, 1995) show that extension plays an important role in the development of case-marking systems. A much-discussed case is the so-called extended accusative in Late Latin (Plank 1985, Cennamo 2009, 2011). Like many Indo-European languages, Latin has a nominative–accusative basic alignment pattern and appears to have a high transitivity prominence in the sense of Haspelmath (2015). In Late Latin, however, accusative forms tend to show up in monovalent and bivalent subject function, as illustrated by the examples in (13).

(13) a. *fit* *orationem*
become:PRS.3SG prayer:ACC.SG
'A prayer is said/takes place.' [Late Latin]
(Per. Aeth. 24.3 after Rovai 2014: 127)

b. *si iumentum morbum renalem temptavit*
if beast.of.burden:ACC.SG illness:ACC.SG renal:ACC.SG affect:PRF.3SG
'If kidney disease has befallen the beast of burden.' [Late Latin]
(Mul. Chir. 55 adapted from Cennamo 2009: 325)

Cennamo (2011) argues that the spread of accusative to monovalent subject function of unaccusative predicates (13a) and, subsequently, to subject function of unergative predicates and then to bivalent subject function, as in (13b), originates from impersonal constructions with an expressed object argument, as illustrated by the examples in (14).

(14) a. *Pessumis me modis despicatur domi*
worst:ABL.PL 1SG.ACC manner:ABL.PL despise:PRS.MP.3SG home:LOC
'I am despised in the worst manner at home (lit.: It despises me (...)).'
[Early Latin] (Plaut. *Cas.* 186, see Cennamo 2011: 178))

b. *Faciatur, si tibi videtur, et* ***triclinia***
make:PRS.SBJ.MP.3SG if 2SG.DAT.SG see:PRS.MP.3SG CONJ table:ACC.PL
'It should be arranged for dining tables, if it seems appropriate to you.'
[Silver Latin/Vulgar Latin] (Petr. Sat. 71, see Cennamo 2011: 178)

Under this analysis, the accusative-marked object argument in impersonal constructions of the kind illustrated in (14) were reanalysed as unaccusative subject arguments, a change causing the accusative to be generalized as a marker of the monovalent subject function and then, by extension, to bivalent subject function (see Cennamo 2009, 2011 for elaborate discussion). From a diachronic typological perspective, this would instantiate a development from an accusative via a semantic to a neutral alignment system through the gradual extension of a P marker via S_P and S_A to A function. The insight that marginal constructions may furnish a point of departure for changes in basic alignment implies that individual languages may maintain remnants of archaic morphosyntax that in turn may serve as a cause of further innovations, also within the realm of alignment typology.

Having briefly addressed some recurrent mechanisms of alignment change, we now turn to a brief outline of the chapters in this volume.

1.4 The contributions in this volume

Chapter 2 'Alignment in Proto-Indo-European' by Eystein Dahl provides a comparative–historical reconstruction of the PIE alignment system based on comparative evidence from Anatolian, Indo-Iranian, Greek, and Italic, and a brief account of the most central hypotheses concerning the prehistory of the reconstructed system. Comparative data from these branches suggest that PIE had an NP-based split between non-neuter and neuter nouns and pronouns, non-neuter pronouns showing consistently nominative–accusative alignment, while neuter nouns display a behaviour reminiscent of semantic alignment. First, neuter nouns/pronouns only appear in monovalent subject and bivalent object functions. Second, neuter nouns/pronouns do not have distinct forms for nominative and accusative. Third, nouns and pronouns of this type do not trigger verb agreement when used in monovalent subject function. It is argued that these properties show that neuter nouns/pronouns show consistently different behaviour from non-neuters, a behaviour that involves neutral case marking, neutral alignment, and semantically motivated distribution over the core argument functions. The restriction of neuters to monovalent subject and bivalent subject function precludes an analysis in terms of neutral alignment, since this would presuppose that the non-distinct case forms of neuter nouns were also used in bivalent argument function in PIE, which does not seem to have been the case. Given this, it seems preferable to derive the PIE alignment system from a semantically aligned system, along the lines of Pooth and Orqueda (2021), since this hypothesis has a stronger explanatory power than the competing ergative hypothesis, as formulated by Willi (2017).

In Chapter 3, 'Split alignment, mixed alignment, and the spread of accusative morphosyntax in some archaic Indo-European languages', Paola Cotticelli and Eystein Dahl explore the interaction between nominative–accusative alignment and other alignment types, including various patterns of non-canonical argument marking in Latin (Italic), Ancient Greek (Greek), Vedic Sanskrit (Indo-Iranian), Hittite (Anatolian), Classical Armenian (Armenian), and Lithuanian (Baltic). Taking the reconstruction model outlined in Chapter 2 as their frame of reference, the authors explore the various developments that have led to the various discrepancies between the languages under consideration. While the languages under consideration have analogous typological properties such as a predominantly nominative–accusative alignment, they show important differences on a more detailed level of analysis. A case in point concerns the morphosyntactic properties of neuter nouns, which show intriguing discrepancies across the

various languages. Another dimension of Cotticelli and Dahl's contribution concerns whether and to what extent these languages show evidence of the same notion of morphosyntactic subjecthood, finding that Latin and Lithuanian have a more clear-cut, consistent, and complex notion of subjecthood than the others. Intriguingly, they are also the languages with most uncontroversial instances of non-canonical subject marking. An important finding of Cotticelli and Dahl's analysis is that the variation shown by the languages is suggestive of a diachronic cline where a noun–class-based split between accusative and neutral alignment, reflected both in case marking and agreement, is replaced by a noun–class-based split between accusative and mixed neutral–accusative alignment. The former pattern is found in Hittite and Ancient Greek, the latter pattern is characteristic of Vedic Sanskrit and Latin. The last stage of this development is seen in Armenian and Lithuanian, which show consistently nominative–accusative alignment in the inherited part of their finite verbal systems. These observations lead the authors to postulate a diachronic drift towards consistently accusative morphosyntax in the Indo-European languages, instantiated in a series of small-scale changes affecting the inherited head-marking and dependent-marking structures. This process, which they label 'accusativization', did not impact Anatolian, which is the topic of Chapter 4.

In Chapter 4 'The origin of ergative case markers: The case of Hittite revisited' Silvia Luraghi and Guglielmo Inglese reassess the controversial issue of the rise of split ergativity in Hittite. Hittite has two classes of nouns: common and neuter, which differ fundamentally in their syntactic behaviour. While bare common gender nouns formally distinguish between nominative and accusative case and occur in any type of core argument function, bare neuter nouns have a syncretic form for these two cases and, significantly, are restricted to S and P functions. However, Hittite has a marker *-anza /-ants/* which is variously interpreted as a derivational suffix with an individualizing function or as an ergative marker. The authors explore the origin and development of this suffix, which appears to represent a clear-cut example of a change from derivation to inflection. Through a careful examination of the various functions of the suffix *-anza-*, the chapter makes a convincing case for the claim that this suffix, in spite of its relative wide set of uses, has a unitary set of derived meanings ultimately arising from an original possessive meaning. As regards its development as an ergative marker, however, the authors assume with Goedegebuure 2018 that it is directly related to the use of the suffix as a means of individualization, an assumption supported by the fact that neuter nouns often indicate a low degree of individualization. The authors show that diachronic data from Hittite provide strong support in favour of the hypothesis that the inflectional, ergative use of the suffix *-anza-* gradually developed from its use as a derivational individualizing suffix in the oldest attested stage of the language. Comparative data from the closely related languages Luwian and Lycian suggest that the suffix had an individualizing function in Proto-Anatolian as well,

a fact supporting the hypothesis that the ergative use of the suffix *-anza-* is not inherited but represents a secondary development specific to Hittite. The chapter also contains an appendix by Petra Goedegebuure.

In Chapter 5 'Passives and anticausatives in Vedic Sanskrit: Synchronic and diachronic perspectives' Hans Henrich Hock reassesses the vexed question concerning the relationship between passives with suffix accent like *ṛc-yá-te* 'be recited, praised' from *arc-* 'recite' and a formally closely related group showing alternating accent and often considered as anticausatives, e.g. *múc-ya-te /muc-yá-te* 'be/become released' from *moc-* 'release'. There is general agreement that neither of these formations is inherited from PIE, where there was no dedicated passive or anticausative construction, the middle voice covering both. The development of a distinct passive formation with *-yá-* suffix is at least of Proto-Indo-Iranian age, as indicated by the fact that Iranian has analogous constructions. Hock explores the relationship between these two Vedic constructions, firmly establishing that accent does not provide a reliable cue for distinguishing between passive and anticausative functions. Absence of agent NPs, on the other hand, does not provide a reliable criterion for distinguishing between passives and anticausatives in Vedic, since even generally accepted passive constructions only have an explicit agent NP in about 11 per cent of their occurrences, including a number of somewhat uncertain cases. Converb control constitutes a more reliable parameter, since the S of anticausatives but not the promoted P of passives may show subject coreference with converbs. In spite of the seemingly close formal relationship between the two constructions, Hock suggests that they may in fact derive from two PIE present stem formations, one with zero grade root and suffix accentuation and another with full grade root and root accentuation. The Vedic data explored in this chapter provide a clear illustration of how a passive formation may develop into an anticausative formation.

Chapter 6 'Non-nominative arguments, active impersonals and control in Latin' by Michela Cennamo and Claudia Fabrizio provides a systematic analysis of different types of impersonal constructions in Latin. Within the Indo-European family, Latin has a particularly rich array of impersonal/non-canonical argument realization patterns, which partly show consistent case marking with specific groups of lexemes and partly alternate between different case-marking patterns. Cennamo and Fabrizio contrast the range of uses associated with impersonal constructions in the active voice with personal active and mediopassive forms, making a strong case for the claim that these construction types are part of a complex system of transitivity marking in Latin, where the notion of control plays a central role. Their analysis is based on a definition of control as a scalar or spectral notion, that mirrors the relative direct responsibility a given discourse participant has over the situation denoted by the verbal predicate. This rather complex notion includes or interacts with a variety of transitivity features such as agentivity, volitionality, individuation of participants, and the aspectual properties of

the predicate, according to Cennamo and Fabrizio. They convincingly show how certain verbs showing multiple argument realization options illustrate the ways in which different constructional patterns give rise to subtle semantic distinctions, often additionally enriched by contextual factors. Based on previous work by Cennamo (1997, 2005, 2016), they show how the various constructions instantiate different points on the so-called Passive-Impersonal Continuum, ranging from agent-defocusing/suppression via stativization, subjectization of a non-agent and topicalization of a non-agent to affectedness of the surface subjects. An important observation is that many of the constructions involved in the complex system of transitivity marking in Latin resemble constructions found in languages displaying semantic alignment. On Cennamo and Fabrizio's analysis, the alignment system of Latin may be analysed as a syntactically based nominative–accusative pattern that interacts with various semantically oriented alignment patterns.

In Chapter 7 'Infinitives and subjecthood between Latin and Old Italian', Claudia Fabrizio examines the syntax of infinitives in Latin and the transition to Old Italian. In Latin, the use of infinitives in subject function is restricted to unaccusative one-place predicates denoting non-agentive states and achievements, as well as passive forms of activity predicates. In itself, the fact that infinitives appear as undergoers of intransitive and transitive predicates, that is, in S_P and P function, and not as actors of intransitive and transitive predicates, that is, in S_A and A function, is remarkable. However, as Fabrizio points out, adverbal infinitives in S_P and P function show no difference in morphology, thus manifesting a behaviour apparently diverging from the predominant nominative–accusative alignment pattern of Latin. In this respect, infinitives show a marked contrast to deverbal action nouns, which has case inflection and are compatible with all argument functions. Given that adverbal infinitives in Latin only express the undergoer role, they represent a restricted type of semantically oriented alignment in the language. In Old Italian, on the other hand, infinitives are found in all argument functions, a fact suggestive of neutral alignment on Fabrizio's approach. The chapter convincingly claims that experiencer verbs represented a plausible bridging context, since infinitives frequently appear as the stimulus argument of such verbs already in Latin. This assumption is strongly supported by the fact that a majority of the infinitives in subject function of two-place predicates in Old Italian have experiencer objects. Interestingly, Old Italian also developed a pattern where different PPs involving an infinitive are used to single out the various core argument functions, a remarkable example of the continuous realignment process in Romance languages.

In Chapter 8 'Alignment changes with Spanish experiental verbs', Chantal Melis explores the argument realization patterns of experiencer predicates in Spanish from a diachronic perspective. Experiential verbs are known to show considerable variation both within and across languages, a fact Melis takes to reflect the nature

of experiencer arguments, which appear somewhat ambiguous or vague when contrasted with more prototypically agentive or patientive arguments. The present study focuses upon a subclass of such predicates, emotional causatives, which characteristically have stimulus subjects. Given that predicates of this type show a somewhat unexpected or inverse constellation of their arguments, they often show diachronically unstable behaviour regarding argument realization, being particularly prone to adopting valency-affecting strategies that may contribute to singling out the experiencer argument. Through the history of Spanish, three argument realization patterns are employed with varying degrees of frequency, a middle construction inherited from Late Latin, a dative alignment pattern competing with the middle construction from the fifteenth century onwards, and a more recent split-intransitive pattern arising via a transimpersonal structure. Quantitative data from different stages of Spanish clearly show how the dative gradually invades the realm of the middle construction, being the preferred choice of many individual predicates in present-day Spanish. Melis shows that there is a clear propensity towards using the dative with first-person experiencers as opposed to third-person experiencers with most of the verbs under scrutiny, even if not all predicates behave alike in this respect. Interestingly, first-person experiencers also constitute the focal point where the admittedly rare transimpersonal construction of Modern Spanish appears, and characteristically involves cases where some unbounded discourse element furnishes the stimulus argument. Thus, Spanish experiential verbs constitutes a fruitful field for exploring how competing strategies contribute to forming a highly dynamic area of alignment typology that may ultimately be the starting point of more radical development patterns within this part of grammar.

Chapter 9 'Armenian morphosyntactic alignment in diachrony' by Robin Meyer examines the development of a periphrastic perfect in Classical Armenian, which represents an ergative/tripartite construction in an otherwise consistently nominative–accusative system. Thus, the Classical Armenian alignment system represents a clear-cut example of aspect-based split alignment. However, the tripartite alignment associated with the periphrastic perfect was gradually replaced by a nominative–accusative pattern, predominant in the synthetic tenses of the verb. A central problem in Armenian linguistics that has not been previously resolved concerns the origin of the periphrastic tenses. Having discussed the merits and shortcomings of previous proposals, Meyer makes a case for the claim that the Classical Armenian periphrastic perfect arose through the contact relationship between Armenian and West Iranian languages, most notably Parthian. During the time when the Armenian kingdom was subject to Iranian rule extended language contact took place, as shown by the considerable number of Iranian loanwords in Armenian. According to Meyer, this contact situation may be safely assumed to have been sufficiently intense as to have influenced Armenian syntax as well. On this background, he concludes that it is necessary to consider the possibility that the Armenian periphrastic perfect originated as a syntactic loan from Iranian.

This assumption is among other things supported by the fact that West Middle Iranian languages also show tense/aspect-based split alignment, with accusative alignment in the present system and ergative alignment in the periphrastic tenses. Moreover, through close comparison of Armenian and Parthian periphrastic constructions, Meyer convincingly demonstrates that the ergative pattern of the Armenian perfect arose through pattern replication, imitating the corresponding construction(s) in Iranian. The Armenian construction subsequently developed a tripartite alignment pattern, which in turn was replaced by an accusative pattern that became predominant in the later stages of Classical Armenian, yielding a consistently nominative–accusative alignment system across the board, which is still found in Modern Armenian.

The last contribution of this volume is 'Areal and diachronic trends in argument flagging across Slavic' by Ilja A. Seržant, Björn Wiemer, Eleni Bužarovska, Martina Ivanová, Maxim Makartsev, Stefan Savić, Dmitri Sitchinava, Karolína Skwarska, and Mladen Uhlik. They examine the areal and diachronic patterns of case marking of core arguments across ten modern Slavic languages (Bulgarian, Macedonian, Serbian, Slovenian of the South Slavic sub-branch, Czech, Slovak, Polish of the West Slavic sub-branch, and Belarusian, Russian and Ukrainian from the East Slavic sub-branch), comparing them with Old Church Slavonic, the oldest attested Slavic language, which they employ together with data from other ancient Indo-European languages as a proxy for Proto-Slavic. The study mainly having an explorative character, its main aim is to arrive at a better understanding of the mechanisms causing divergent case-marking patterns in genetically closely related languages. In this respect, the Slavic languages provide a close to ideal case for study, given that their development into separate sub-branches is comparatively recent. The authors delimit three factors that have contributed to the relative homogeneity in case marking across modern Slavic languages, namely shared morphosyntactic inheritance, a historically relatively unitary areal dispersion, and common innovations resulting from typological pressure. The two first factors favour the comparably high degree of homogeneity in morphosyntax and lexicon across the modern Slavic languages, including their core argument-marking patterns. As regards typologically motivated factors, the authors point to the fact that the inherited Proto-Slavic alignment pattern with phonologically overt nominative and accusative case markers in most noun classes has been replaced by a system with morphologically unmarked subjects and objects with differential marking based on animacy in modern Slavonic languages. Nevertheless, there are some intriguing differences between modern Slavic languages, which the authors take to reflect their different geographic locations. The exploration of the diachronic and areal patterns in the development of the case marking across the Slavic languages is based on a database created by the authors, comprising translations of 46 verb meanings into each of the languages, disambiguated through different discourse contexts. Drawing on Haspelmath's (2015) scalar notion of

transitivity prominence, their sample mainly includes verbs located somewhere towards the middle of the scale, where variation can be expected. Among other findings, the chapter identifies some important tendencies across modern Slavic languages. For one thing, there is a marked reduction across the board as regards the number of available case frame for individual verbs. In some languages, e.g. Polish, Macedonian, and Bulgarian, this has led to a stronger degree of rigid and uniform government in case marking. Other languages, such as Slovak and Russian, display a less rigid character in this respect. In the case of Slovak, this appears to reflect an ongoing alignment change, in which the basic transitive pattern is generalized. As regards transitivity prominence, there is a clear-cut trend across the Slavic-speaking areas dividing them into a North-East Slavic area, including Russian, Belarusian, Ukrainian, and Polish, and a South-West Slavic area, including the remaining languages, a split that can be explained as a reflection of a macro-areal tendency towards more morphological case marking in the eastern part of Eurasia and less or no cases in its western and South-Western parts.

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2
Alignment in Proto-Indo-European

Eystein Dahl

The purpose of this chapter is threefold. First, it provides a critical assessment of the comparative evidence that forms the basis for the reconstruction of the Proto-Indo-European (PIE) alignment system, arguing that the resulting system shows a fundamental split between nominative–accusative and semantic alignment. Second, it attempts to evaluate this reconstructed system against competing hypotheses in recent contributions to the field (Carling and Cathcart 2021, Keydana 2018, Pooth and Orqueda 2021, Willi 2018). Third, it has the overarching aim to present readers with modest or little background knowledge of Indo-European studies in general, and alignment patterns in Indo-European languages more specifically, with an introduction to this intriguing but controversial field of research. The chapter is organized as follows. Section 2.1 is its main empirical part, giving a comparative survey of the primary data from Hittite, Vedic Sanskrit, Homeric Greek, and Early Latin that serve as basis for a comparative–historical reconstruction of the (late) PIE alignment system, on which the discussion in Chapter 3 is also based. Section 2.2 explores three hypotheses concerning the prehistory of the PIE alignment system, evaluating them in light of the analysis of the data given in Section 2.1. Section 2.3 contains a summary and conclusion. Theoretically and terminologically, the present chapter is in line with Chapter 3 in this volume.

It should be noted from the outset that there has long been some controversy regarding the PIE alignment system. Broadly speaking, one can distinguish three different hypotheses. According to what may be regarded as a mainstream view, PIE had consistently nominative–accusative alignment. This assumption is rooted in the neogrammarian school of the late nineteenth and early twentieth centuries, representing the outcome of the pioneering comparative–historical syntactic work of Berthold Delbrück and Karl Brugmann (Brugmann and Delbrück 1893, 1897, 1900), which is still adhered to in state-of-the-art handbooks within the field (e.g. Keydana 2018). According to another hypothesis, PIE had what is now commonly labelled ergative–absolutive alignment, an assumption originating from the work of the Dutch scholar Uhlenbeck (1901, 1907) and reflected in refined form in Willi (2018). A third line of thought assumes that PIE was a language with semantic alignment, a hypothesis first developed by Soviet scholars from the 1940s onwards (Willi 2018: 521ff. for discussion and references) and developed further in more

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