Grammaticalization and reanalysis in Iranian

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10 Grammaticalization and reanalysis in Iranian

1 Introduction

The Iranian (Ir.) branch of Indo-European is a group of languages spoken over a large area and attested over nearly three millennia (see Table 1 and Figure 1). To introduce the Iranian languages mentioned in this chapter in a very rough and brief way I list them broadly from east to west so far as Old and Middle Iranian are concerned, which at the same time arranges them in chronological order of their attestations.

While there are major differences between the Ir. languages, some general trends of development may be identified, and there seem to be clusters of categories where grammaticalization processes are particularly active. Overall, the following groups of functions seem to grammaticalize in parallel ways: (a) transitivity / actionality / control; (b) aspect / durativity / mood; (c) animacy and person marking.

Tab. 1: Iranian languages mentioned in this chapter.

	Eastern Iranian:	**Western Iranian:**
–	*Old Iranian* (ca. 1000 to ca. 300 BC):	
	Avestan and Old Persian	
–	*Middle Iranian* (ca. 300 BC to ca. AD 700):	
	Khotanese (texts from ancient Turkestan, present Xinjiang, China; chiefly Buddhist), Sogdian (along the Silk Road, Central Asia into China; texts from various religions), Bactrian (written in Greek script, chiefly manuscripts from the Sassanian era), Chorasmian (grouped with Middle Iranian for reasons of its grammatical structure although most texts are from the Islamic period)	Parthian, Middle Persian
–	*contemporary Iranian languages* (since the advent of Islam):	
	Ossetic, Yaghnobi, Shughni, Munji, Wakhi, Pashto	Zazaki, Kurdish (Sorani, Kurmanji, Southern Kurdish), Semnani, Taleshi, Tati, Vafsi, Gilaki, Sangesari, Balochi, Bashkardi, Laki, Central dialects, Caucasian Tat, Luri, Bakhtiari, (New) Persian

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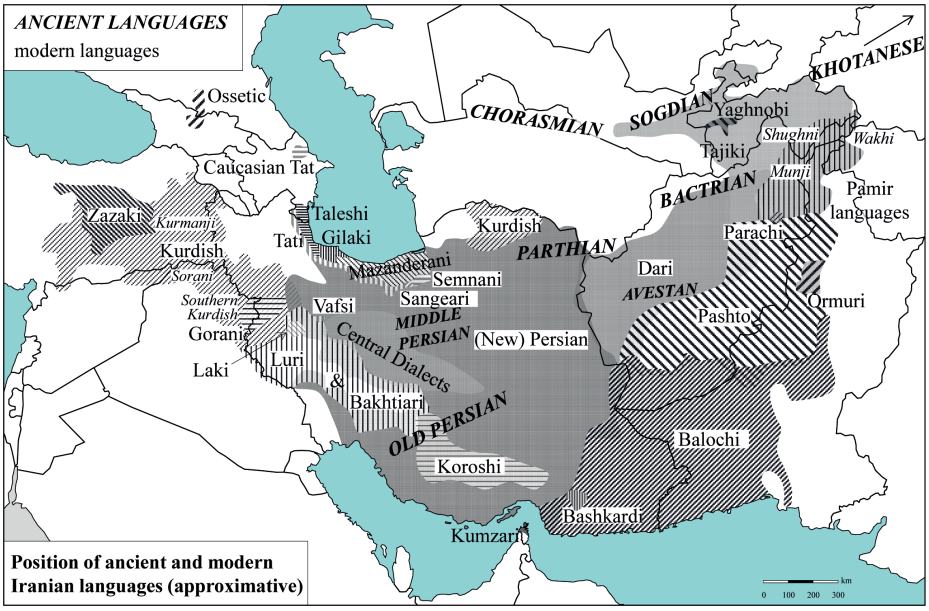

Fig. 1: Map showing the approximate location of Iranian languages (selection).

To illustrate these clusters, the present chapter will also mention processes that are not grammaticalization in the strict sense, such as the reanalysis of suffixes and periphrastic constructions. Needless to say, this chapter is only a selection of what could be discussed.[1]

The starting point is set by the rich morphology of Proto-Indo-European (PIE), both in the nominal (three numbers, three genders, eight cases) and verbal systems (two voices, three verbal stems originally encoding aspect, with several moods each, and additional formations for *aktionsart* and causativity). Owing to phonological changes and related processes, many of these categories are lost during Middle Iranian times. Conversely, new categories arise, which are expressed by grammaticalization of free morphemes or by periphrastic constructions.

1 Unless otherwise noted, references for the points mentioned in what follows are found in Korn (2016a) and Korn (2017a), on which this chapter is mainly based. Old Ir. forms with an asterisk are meant as general Old Iranian, without the phonetic specificities of Old Persian or Avestan. The examples taken from published sources have been somewhat unified in transcription, glossing (which is mostly mine) and translation for the present purposes. Unreferenced Balochi examples are from fieldwork with Maryam Nourzaei, Bashkardi is from the recordings made by Ilya Gershevitch in 1956 (cf. Korn 2017b).

2 Grammaticalization of nominal categories

2.1 Case

Starting within the Old Ir. period, the inherited system of eight cases (still in use in Avestan) is subject to syncretism (cf. Table 2), yielding six cases in archaic Middle Iranian (Khotanese, "light stems" in Sogdian), then three (late Khotanese, Chorasmian). Subsequently, the two-way distinction of direct (DIR) vs. oblique (OBL) is displayed by the older stages of Middle Western Iranian and Bactrian, and by the "heavy stems" in Sogdian.

Numerous New Ir. languages (among them Semnani, Kurmanji, Pashto, Yaghnobi) have preserved this two-case-system, and the far-reaching functions of the oblique case (including the marking of direct and indirect objects, of the possessor, and of the agent in ergative constructions).

At this point, new case marking arises through the grammaticalization of adpositions. For instance, an innovation apparently common in Gilaki and Balochi has led to the functions of the inherited oblique marker being limited to a neo-genitive, while the marker *-ā* was introduced for the remaining oblique functions, perhaps as a "consequence of the functional overloading of the genitive when it became a marker of the direct object" (Thordarson [2009: 169] about the Ossetic dative). This *-ā* might have been copied from New Persian, which has grammaticalized *=rā* (dialectally *=ā*, and originally a postposition 'with respect to') to mark, inter alia, defi-

Tab. 2: Case syncretism in Iranian (simplified).

<table>
<tr><th>Proto-Iranian, Avestan</th><th>I: Old Persian</th><th>II: older Khotanese, Sogdian "light stems"</th><th>III: later Khotanese, Chorasmian</th><th>IV: Sogdian "heavy stems", Parthian, earlier Bactrian & Middle Persian; Kurmanji, Zazaki, Pashto, Yaghnobi, etc.</th><th>V: later Bactrian & Middle Persian; New Persian, Sorani, etc.</th></tr>
<tr><td>NOM</td><td></td><td>NOM</td><td rowspan="3">NOM-ACC</td><td rowspan="3">DIR SG -Ø; PL *-ē;
Pron. 1SG *azam</td><td rowspan="5">SG -Ø,
PL -ān;
Pron. 1SG man</td></tr>
<tr><td>VOC</td><td></td><td>VOC</td></tr>
<tr><td>ACC</td><td></td><td>ACC</td></tr>
<tr><td>GEN</td><td colspan="2" rowspan="2">GEN-DAT (SG *-ahya, PL *-ānām)
Pronouns: 1SG *mana (etc.)</td><td rowspan="4">OBL *-ahya > *-ē > -Ø,
PL *-ānām > -ān
(but INSTR SG *-ana,
PL *-abiš in some
Pamir languages);
Pron. 1SG man</td></tr>
<tr><td>DAT</td></tr>
<tr><td>ABL</td><td>ABL</td><td rowspan="2">ABL-INSTR</td></tr>
<tr><td>INSTR</td><td>INSTR</td></tr>
<tr><td>LOC</td><td colspan="3">LOC</td></tr>
</table>

nite direct and indirect objects (cf. Section 2.2).[2] An OBL marker *-de* employed, e.g., in Sangesari in a parallel way to Persian *=rā* might likewise derive from a locational adposition (cf. Stilo 2009: 707 f.).

case markers can be combined to yield more cases. In Balochi, *-rā* (which would thus have been borrowed twice) may be added to the oblique case (*-ā-rā*) to add pragmatic emphasis, and the oblique marker *-ā* is suffixed to the genitive to yield a locative as in example (1) in the dialect of Turkmenistan and Afghanistan; in the latter, its use is restricted to humans (see Korn [2008a] for the Balochi locative).

(1) Balochi (Afghanistan) (Korn 2008a: 88)
čōrika āt {*watī pis u māṣ* } ***-ay-ā***
boy come.PST.3SG own father and mother-**GEN-OBL**[4]
'The boy came to his parents (lit. father and mother).'

Locational nouns are likewise grammaticalized: a suffix deriving from Old Ir. **arda-* 'side' gives a neo-dative in Shughni and Wakhi; it may be used in Ossetic to reinforce the allative (Weber 1980: 133).

Ossetic shows nine cases, and while it is not clear which ones are inherited, some are clearly secondary, and overall the system seems to have been adjusted to that of the neighbouring Caucasian languages by grammaticalizing combinations with various postpositions (see Thordarson [2009: 124–171], Weber [1980]; for a recent account of the Ossetic case system, see Belyaev [2010]).

There are also grammaticalized adpositions which are used in case-like function. The most important element here is Old Ir. **hača* 'from' (the Khotanese cognate *jsa* is already frequently suffixed to the ablative-instrumental). It forms a genitive of pronouns in Taleshi, Southern Tati and several Eastern Ir. languages (e.g., *čaman, aš-ta* 'from me / you' etc. in Taleshi, *CLI* 299); other prepositions can be prefixed to some Eastern Ir. personal and demonstrative pronouns as well (e.g., Munji *dāmox* 'in/on us'; see Wendtland [2009: 182 f.] for these forms). In several other Ir. languages, free prepositions (usually meaning 'to[wards]') mark direct and indirect objects.[4]

2 Middle Persian shows *rāy* predominantly in lexical function ('on account of' etc.), but also has examples for its use with (similar numbers of) direct and indirect objects; in nearly all instances, *rāy* occurs on objects which are definite and animate (cf. the data in Jügel [2015: 193–216]).

3 Note also the "group inflection", which is regular in many New Ir. languages.

4 The developments of the case system in Iranian are conveniently summarized in Stilo (2009) and Windfuhr (1992). (Needless to say, one might disagree with some point or another.)

2.2 Animacy and the marking of participants

The (partial) loss of inherited categories motivates changes in the ways case and number are marked. The marking of the direct object illustrates this particularly clearly. In the Old Ir. and the more archaic Middle Ir. languages, it is only the syntactic context that triggers a certain case (adapting terminology used by Bashir [2008: 49–52], this might be termed "syntactic object marking", e.g., Avestan *uta druuå aspəm viste* 'the wicked one obtains the / a horse', [JamaspAsa 1982: § 82]), but many New Ir. languages show "Differential Object Marking" (DOM; see Bossong [1985]), i.e., the presence of case marking "depends on inherent semantic properties of the object (animacy, person) or its referential status (definite, indefinite, specific, non-specific)" (Bashir 2008: 52). For instance, identified direct objects ([±animate]) are marked with the particle *=rā* in New Persian (see Section 2.1) while the generic noun is used for an unidentified object, e.g., *asb-Ø mībīnam* 'I see a horse / horses' (unmarked for case and number) vs. *asb=rā mībīnam* 'I see the (specific) horse'. In other Ir. languages, it is animacy (combined with definiteness) that triggers case marking, either by case endings (inherited or new) or by adpositions.

DOM occurs with both inherited case endings and innovated markers and adpositions.

2.3 Number

The widespread loss of final syllables in Middle Iranian also had the effect of eliminating much of the inflectional plural marking although some of it survives in the OBL.PL *-ān* (< Old Ir. GEN.PL) in many Ir. languages (cf. Table 2). This suffix is reanalysed as a plural marker in Middle Persian, Parthian, Bactrian, and many New Ir. languages. Some Ir. languages attach the case markers used in the singular to this plural suffix.

The inflection of secondary plurals is agglutinative as well. Novel plurals arise either from abstract or collective formations, such as Middle Persian *-(ī)hā*, and *-t*, which is found in a number of Eastern Ir. languages. Both come from suffixes deriving abstract nouns (owing to which the Sogdian plural is inflected as a feminine singular). In Middle Persian, there is a difference between the two plural formations in that *-(ī)hā* denotes "individual plurality" (Skjærvø 2009: 205) cf. *kōf-īhā* vs. *kōf-ān* 'mountains' (cf. German *Berge* vs. *Gebirge* 'mountains').

Nouns grammaticalized as plural markers include *-gal* ('group, herd'), which is widely employed, e.g., in the Luri, Bakhtiari and Kurdish groups and in some of the varieties called "Central dialects" and in those found in the province of Fārs.

2.4 Possession, adpositions and noun phrase structure

In Ir. languages that have preserved the two-way distinction of direct vs. oblique case, the latter is also used in genitive function. Ir. languages with a separate GEN case include Balochi (specializing the inherited oblique, cf. Section 2.1).

Alternatively, a clitic, traditionally called "ezāfe", is used systematically in Persian and occasionally in Bactrian to attach dependent elements to their head nouns (2a). This clitic goes back to the Old Ir. relative pronoun (cf. Section 4.2 below). Kurdish and Zazaki also use the *ezāfe* construction, where it has different forms dependent on gender and case.

The pronominal clitics (enclitic pronouns) are used in all functions of the oblique case and are an alternative means to express possession (2b).

(2) New Persian
a. *ketāb* ***=e*** *man*
book **=EZ** I
b. *ketāb* *=am*
book =PC1SG
'my book'

There is no inherited verb for 'to have', and the so-called *mihi est* construction (3a) is used instead. Depending on parameters such as alienable vs. inalienable possession, adpositions may be used instead of an oblique or other case (3b).

(3) a. Balochi (Jahani and Korn 2009: 666)
tarā *brās* *nēst*
you.SG.OBJ brother NEG.exists
'you don't have brothers (lit. for you brother doesn't exist)'

b. *taī* *kirr-ā* *dān* *ast=ẽ*
you.SG.GEN side-OBL rice exists=COP.3SG
'Do you have rice (lit. is there rice at your side)?'

In Persian and some other Ir. languages, the verb *dār-* (originally 'hold') has undergone a semantic shift to 'have'.[5]

New adpositions are formed by the grammaticalization of nouns. These conform to the noun phrase patterns of the language, thus yielding a head-initial pattern, e.g., in Persian (e.g., *rū=ye* 'on [lit. face=EZ]') and a head-final pattern in Balochi as in (3b), lit. 'on the side of'.

5 Noteworthily and in a way entirely parallel to that seen in Western European languages, the same verb is also used as auxiliary for the perfect, and for the progressive in some Ir. languages (see Sections 3.1, 3.4).

2.5 Determiners

While there is no inherited definite nor indefinite article, Ir. languages show a number of inherited demonstrative pronouns, which are also used as pronouns of the 3rd person.

Demonstratives yield definite articles in Sogdian (stems *x-*/*w-*, as in [41] below, and *y-* / *m-*) and in Bactrian (*i* <ι>, *m-* <μο>) while they continue to be used as demonstratives at the same time (see Wendtland [2011a] for Sogdian and Gholami [2011] for Bactrian). The relative pronoun seems to be the origin of the definite article in Chorasmian (e.g., *yā (a)sm-a* 'the sky' [Durkin-Meisterernst 2009: 343]), Digor Ossetic (*CLI*: 468) and probably one of the sources of the Bactrian article ι (Sims-Williams 2000–2012/II: 214).

A suffixed definite article *-ak* is found in Sorani and (in varying forms) in the Southern Kurdish dialects described by Fattah (2000). It appears to derive from **-aka-* (Cabolov 1978: 12),[6] which otherwise is a suffix for nominal derivation (e.g., Middle Persian *haftag*, New Persian *hafté* 'week' from *haft* 'seven'); it is originally diminutive, but used so frequently in Iranian that it largely lost any meaning. Spoken Persian likewise shows the occasional use of a "referential" *-é* (*pesar-é* 'that boy [there]'; Windfuhr and Perry [2009: 432]). Interestingly, the plural suffix *-ān* (see Section 2.3) follows the definite article (*pyāw-ak-ān* 'the men', [McCarus 2009: 598]).

Sorani also has an indefinite article, likewise suffixed, viz. the clitic *=êk*,[7] which surely derives from the numeral 'one' (Old Ir. **aiwa-ka-*, Persian *yak;* cf. Cabolov [1978: 13]). Another variant of this numeral (**aiwa-*) yields a clitic (Middle Persian *=ē(w)*, New Persian *=ī*, similarly in many Ir. languages) that is often called "indefinite article", but "specificity marker" (in the sense of Heine [1997: 72 f.]) might be a better term; it is quite different in use from the Kurdish article (see Section 4.2 for the use of this clitic in relative clauses).

A new 2PL pronoun arises in various Eastern Ir. languages which is based on the 2SG pronoun, giving a form that looks like a combination with the 1PL in Bactrian and some Pamir languages (thus apparently 'you.SG-we'), and other derivations based on the 2SG in Pashto, Ormuri etc. The motive for this innovation is likely to lie in a phonological process *šm* > *m* operating in these languages, which made the 2PL pronoun (**šmāx*) identical with the 1PL pronoun (**māx*), triggering its replacement by a new form (see Korn 2016b: 415–417).

3 Grammaticalization of verbal categories

As in the nominal system, some verbal categories were lost, beginning in later Old Iranian. The Middle and New Ir. verb (Table 3) is based on the dichotomy of present

6 Maybe *-ak* contains **-aka-* with a second suffix.

7 In the plural, *=êk* is replaced by *-ān*. Kurmanji has an indefinite article *-ek*.

Tab. 3: Examples of verbal stem formation.

	present stem (PRS)		past stem (PST)	
'do' (Balochi)	*kan-*	inherited	*kurt*	verbal adj. in **-ta-*
'build' (Middle Persian)	*dēs-*	denominative	*dēs-īd*	PRS + **-ita-*
'believe' (Parthian)	*wurraw-*	loanword	*wurraw-ād*	PRS + **-āta-*

stem (deriving from various present stem formations) vs. past stem (going back to the verbal adjective, see Section 3.1, or derived from the present stem by secondary suffixes).

3.1 Transitivity

Transitivity is a field of high grammaticalization activity in Iranian. Already in inherited verbs, it may be marked by verbal stem formation, where inherited intransitives and original causatives are distinguished by root shape and stem suffix, e.g., Balochi *suč-* 'burn ITR' (**suč-a(ya)-*) vs. *sōč-* 'burn TR' (**sauč-aya-*); Khotanese *hamäh-* 'change ITR' (**fra-miθa-*) vs. *hamīh-* 'change TR' (**fra-maiθaya-*).

Additional means of (de)transitivization arise from suffixes. In Middle Iranian, the inchoative suffix *-s-* (< PIE **-sḱe-*) is used to convert transitive verbs into intransitives, e.g., Sogdian *ywc-* 'teach' → *yɣwsty* 'is taught, learns'. This might seem surprising, but one could say that "the inchoative is typically seen as an action that happens all by itself" (Stilo 2004: 240).

Conversely, newly arising suffixes are used to derive transitives from intransitives, and causatives from transitives, e.g., Ormuri *-āw-*, Parachi *-ēw-*, Parthian, New Persian and Yaghnobi *-ān-*, Middle Persian and Balochi *-ēn-* (the latter also has a double causative in *-āēn-*) while Sorani combines *-ān-* and *-ēn-* in its causative paradigm.

Another strategy to express transitivity (as well as voice and *aktionsart*, as the case may be, see the sections below) is seen in the system of complex predicates, i.e., the combination of nominals (etc.) with semantically bleached verbs ("light verbs"). This phenomenon is extremely common in many New Ir. languages. The most common light verbs are 'do' (as, e.g., in Persian *kardan*, Ossetic *kænyn*, Wakhi *tsar-*, etc.) for complex predicates expressing [+control] or transitive, active and related meanings; and 'become' (Persian *šodan*, Ossetic *uyn*, Wakhi *wots-*, etc.) broadly for the meaning [+affected] or intransitive, mediopassive, etc. as in (4). In Zazaki, 'do' and 'become' are used with some preverbs in a similar way, e.g., /*ā-kar-*/ 'open (TR)' vs. /*ā-bī-*/ 'open (ITR)'. To this system further light verbs are added, chiefly, but by no means exclusively, in languages in contact with Persian (see Korn [2013: 50 f.] for discussion and references for the examples to follow).

(4) New Persian

a. TR

penhān	***kardan***	*tarǰome*	***kardan***
hiding	do.INF	translation	do.INF
'to hide'		'to translate'	

b. ITR/PASS

penhān	***šodan***	*tarǰome*	***šodan***
hiding	become.INF	translation	become.INF
'to hide'		'to be translated'	

In a somewhat similar way, verbs may be combined with "vector verbs", whose choice is triggered in a parallel way to that of light verbs (5).

(5) Balochi (Eastern) (Bashir 2008: 74)

a. TR

bākīγā	*āwār*	*māl*	*išt=ō*	***dāθ-a***
rest.OBL	looted	goods	leave.PST=PTC	give.PST-PRF

'The rest of them abandoned the looted goods.'

b. ITR

darmān	*udarθ=ō*	***šuθ-a***
powder	explode.PST=PTC	go.PST-PRF

'The powder blew up.'

The prominence of the category of transitivity is also enhanced by the fact that the past stem is based on the integration of a nominal form (viz. the verbal adjective / "perfect passive participle" in **-ta-*) into the verbal paradigm; this form has a passive meaning for transitive verbs and an active one for intransitive ones (parallel to English *eaten* vs. *gone*).

While the intransitive perfect / past tense is expressed by the perfect participle / past stem with the copula (as in [6a] and [8a]) in most of Middle Iranian and later on, the transitive paradigm shows different patterns. Khotanese employs an enlarged form of the perfect participle in combination with the copula. Other Ir. languages use a transitive auxiliary.[8] As is common for auxiliaries in grammaticalization processes, phonological reduction occurs; so the verb 'hold / have' that forms the transitive perfect in Sogdian (in a pattern entirely parallel to Germanic and Romance *have* vs. *be* perfects) merges with the past stem, cf. (6b) vs. (44) below.

8 The transitive pattern takes over in the course of Khotanese (enlarged past participle) and Chorasmian. In Sogdian, the 'have' pattern is generalized to intransitive unergative verbs in the later sources (Wendtland 2011b).

(6) Sogdian

a. ITR
ʾʾγt=ʾym
come.PST=COP.1SG
'I came'

b. TR
xwrdʾr-y
eat.PST.hold-2SG
'you ate'

In Ossetic, the origin of the transitive formation (7) is not transparent anymore; the suffix might derive from Ir. **dā-* (< PIE **$d^h eh_1$* 'put'), thus parallel to Latin formations of the type *rube-facio* 'I make red') and also parallel to the Germanic dental ("weak") preterite, which "is usually assumed to be from the same root as the verb *do*" (Fortson 2004: 308, § 1.27).

(7) Ossetic

	INF (ITR/TR)	PST.ITR	PST.TR
a.	*xiz-in*	*xistæn*	*xis-ton*
	graze.PRS-INF	graze.PST.COP.1SG	graze.PST-TR.1SG
	'to graze'	'I grazed (ITR)'	'I grazed (TR)'
b.	*kal-in*	*kald-isti*	*kald-ton*
	pour.PRS-INF	pour.PST-COP.3PL	pour.PST-TR.1SG
	'to pour'	'they are poured'	'I poured'

Alternatively, an ergative pattern arises by the combination of an agent in the OBL case (which includes the pronominal clitics such as *=t* in [8b]) with the past stem, to which the copula or the verbal endings – agreeing with the patient (e.g., *hēm* in [8b]) – are suffixed. This applies, e.g., to Bactrian, Parthian, Pashto, Middle Persian, Kurmanji as well as an older layer of Sogdian.

(8) Parthian (Korn 2008b: 268)

a. ITR
(az) āγad hēm
I.DIR come.PST **COP.1SG**
'I have come'

b. TR
u =t az hišt ***hēm*** *sēwag*
and PC2SG I.DIR leave.PST COP.1SG orphan
'... and you have left **me** as an orphan'

Consequently, ergativity in Ir. languages shows a split that agrees with the typological tendency observed by Trask (1979: 388): if there is a tense / aspect split in a given ergative system, it is the past tense / perfective aspect that shows ergativity while the present or imperfective domain patterns nominative-accusatively. As Ir. ergativity is of the morphological or "surface" type, Trask's statement requires the following modification: it is the forms based on the past / perfect stem ("past domain") that show ergativity, independent of their tense / aspect function (including modal forms). Conversely, the forms based on the present stem ("present domain") may include past tenses (thus, e.g., in Sogdian and Yaghnobi) which pattern nominatively because of their morphology.

3.2 Agreement (subject/object agreement)

As mentioned in Section 2.1, animacy is an important category for case marking and agreement. In addition to case marking (suffixes or adpositions) being limited to certain types of objects in the present (non-ergative) domain (DOM, see Section 2.2), direct and indirect objects in the past domain are sometimes case marked in the way they would be in the present domain in some Ir. languages (see the summary in Table 4 below).

As a result, case marking is rarely limited to "purely" ergative vs. nominative/accusative types, and exhibits all theoretically possible types of argument marking listed by Comrie (1978: 332), including the "double oblique" type with subject and object both in the oblique, with the verb agreeing (see Section 3.1) variously with the subject (as in Vafsi) or the object (as in Balochi), or with neither of them (as in Taleshi). In Balochi (and perhaps in Yaghnobi), verbal agreement is limited to the marking of number for a third plural patient (as in [48] below, agreeing with the plural 'fish'), while other languages show agreement in person, cf. e.g., Parthian (8b) above, and gender (e.g., in Pashto and Zazaki).

In some Ir. languages, agreement with the indirect object is favoured over agreement with the direct object if the former is human, as is typically the case for verbs such as 'give'. This pattern appears to be regular in Bactrian (Sims-Williams 2011), cf. (9), where the verbal ending *-ēd* refers to the indirect object:

(9) Bactrian (Sims-Williams 2011: 34)
*ud māx lād-**ēd** ei xwēciyau*
and we give.PST-**2PL** this undertaking
'and we gave you this undertaking'

The split ergative system is ousted in various Ir. languages. The transitive pattern is generalized in Pamir languages (all verbs patterning "ergatively").

Another pattern that one could term "ex-ergative" is the generalization of the (pronominal) agent clitics as agreement markers, as, e.g., in Semnani (10a): here,

Tab. 4: Summary of paths of development in the past domain (examples of some Iranian languages).

ergative	agent OBL (including PC) patient DIR verbal agreement with patient (or animate recipient)	Zazaki, Kurmanji, Pashto etc.
mix-ergative	DOM for patient: double OBL patterns various verbal agreement (or none)	Vafsi, some of Balochi
↓ ↓	loss of case distinction agreement with patient (or none)	later Middle Persian, Parthian, Bactrian
 ex-ergative	reanalysis of verbal ending as pronoun reanalysis of PC as verbal ending	Sorani

the past domain has two sets of verbal endings depending on transitivity, the transitive ones using the (former) pronominal clitics and the intransitive ones the inherited verbal endings. In the Jewish dialect of the city of Yazd (10b), the pronominal pro-clitics yield "conjugaisons préfixées" (Lazard 2005: 87).

(10) a. Semnani (*CLI* 308)
darviš-i *bāt-**eš***
dervish-OBL say.PST-3SG
'the dervish said'

b. Judeo-Yazdi (Lazard 2005: 86)
iv-â-râ ***eš-**raxt*
water-PL-OBJ 3SG-pour.PST
's/he poured water'

Persian has come full circle from the Old Ir. NOM/ACC pattern through ergative to a novel NOM/ACC system (and so have some other New Ir. varieties). The use of the pronominal clitics for the subject in the past domain (*goft=eš* 's/he said', *raft=eš* 's/he went') is the only reflex of the former ergative construction.

In Sorani, which has lost case distinctions, agent clitics are obligatorily used in the (ex-)ergative domain and are in this sense agreement markers of transitive verbs (as are the verb affixes in Semnani) even if they can freely occur in various places of a clause (cf. [11], with agent clitic *=y* inside the verb, and *=yān* in [12]). The same development, though less systematic, has occurred in other Ir. languages in the context of loss of case.

By a converse development, the inherited verbal endings develop into oblique pronouns (Jügel 2009): in (11), *-im* is the direct object, and it functions as possessive pronoun in (12):

(11) Sorani (Jügel 2009: 148)
*kart=ī duwam la nāx=awa a=y-xwārd-**ım**=awa*
part=EZ second from inside=DEICT IPFV=PC3SG-eat.PST-1SG=DEICT
'The second part was eating me up from the inside.'

(12) Sorani (Jügel 2009: 153)
*lawē taqrīr=yān wargirt-**im***
there report=PC3PL receive.PST-1SG
'There they took my report.'

Diachronically as well, it seems that some pronominals derive from verbal endings. This explanation appears to be viable for pronominal clitics of the 1SG such as Balochi *=ān, =un* (vs. ending 1SG *-ān* etc.), the 3SG clitic *=te* in Laki and potentially some others (for discussion and references concerning the conversion of copula forms and pronouns, see Korn [2011]).

Conversely, Iranian joins Hebrew, Arabic, Chinese, etc., in showing some copular forms arising from demonstratives. For the Sogdian demonstrative *(')xw*, the phenomenon might be due to language contact, since it is found in Buddhist texts (nearly all of which are translations from Chinese), and in texts from a Turkic milieu, as in (13), which even quotes a Turkish personal name.

(13) Sogdian
*cn'nkl'γy tmyr 'wyzy nβ'nt ctβ'r krmyr 21 'spyty rγzy ''sy **xw***
PN.OBL PN.OBL at four red 21 white (cloth) take.PRTC.FUT DEM
'In Čanglay (place name) four red and 21 white pieces of rayzi cloth are to be taken from Tämir-öz.'

However, other Ir. languages where an areal motivation is less evident likewise show copular forms that either synchronically or diachronically are pronominals. Diachronically, this applies to the Pashto copula 3SG M *dəy*, F *da*, PL *dī* deriving from the Old Ir. demonstrative **aita-*, which is probably also the basis for the Ossetic copula 1SG *dæn*, 2SG *dæ* (with verbal endings attached to the "stem" *d-*) and 3SG *u, i, is* (probably deriving from three different demonstratives). Synchronically, "the pronominal clitics sometimes perform the copular function" in Wakhi (Bashir 2009: 841), as in (14):

(14) Wakhi (Bashir 2009: 841)
*tu=**t** kūi*
you.SG=**PC2SG** who
'who are you?'

3.3 Voice/valency

While Old Iranian expresses mood (see Section 3.5) and voice distinctions by suffixes, these formations are for the most part supplanted by analytical constructions in the subsequent stages. The inherited mediopassive (which includes not only the functions commonly seen for the middle voice crosslinguistically, but also the reflexive, reciprocal and passive) survives in the more archaic Middle Ir. languages (Khotanese, Sogdian), though even there, only a few verbs are used both in the active and the middle; it is lost everywhere else.

Patterns coming close to the range of the Indo-European mediopassive include several of those mentioned for intransitives in Section 3.1: this applies to intransitives derived (diachronically or synchronically) from inchoatives as well as to the choice of light verbs in complex predicates (cf. [4]).

The Old Ir. passive in *-ya-* is preserved to a slightly larger extent; it survives in Khotanese, Sogdian and Middle Persian as well as in some New Ir. varieties. Other Ir. languages have morphological passives as well, among these Sorani (suffix *-rV-*). Eastern Balochi has even acquired a new passive in *-īǰ-* (borrowed from Indo-Aryan). It is typologically noteworthy that such passives co-occur with ergative constructions in the same language (see Section 3.1).

In analytical passives, the most commonly used auxiliary is **baw-* 'become' (as for instance in Sogdian, Parthian, Middle Persian and Balochi). Otherwise verbs of movement are employed, e.g., **čyaw-* 'move forward' in Ossetic, Pashto, some Pamir languages and New Persian (where *šudan* has shifted in meaning from 'move forward' to 'become'),[9] and 'to come' in Kurmanji and Caucasian Tat, see (40) below.

3.4 Tense, aspect and *aktionsart*

Originally, ancient Indo-European languages encode aspect by the choice of the verb stem, viz. present stem (imperfective), aorist stem (perfective), perfect stem (resultative). After the loss of the perfect and aorist, the newly arising opposition of present vs. past stem (see Table 3) indicates tense.

A new aspect opposition is found in various New Ir. languages, often matching aspectual systems in neighbouring languages. It is chiefly adverbs and particles that are grammaticalized to mark aspect: in Persian the prefix *mī-* (deriving from Middle Persian *hamē* 'always') marks the imperfective aspect in the past tense while it has been generalized in the present tense (15), probably because the present tense is seen as an inherently imperfective category.[10]

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9 Examples of a passive with this verb from Khotanese and Christian Sogdian cited in the literature should better be interpreted in other ways (Sims-Williams 2014: 101 f.).

10 The copula and the verb *dār-* 'hold, have' do not use *mī-*.

(15) New Persian

kard	***mī-****kard*	***mī-****kon-ad*
do.PST	**IPFV-**do.PST	**IPFV-**do.PRS-3SG
‘s/he did’	‘s/he was doing’	‘s/he is doing / s/he does’

In various other New Ir. languages, other prefixes (of uncertain origins) fill the same slot in the same or similar functions, such as *di-* in Kurmanji and *a-* in Sorani, Bashkardi (see [20] for additional formations) and some Balochi dialects.

Some Eastern Ir. languages use prefixes for the perfective aspect, such as *wə-* in Pashto (while verbs with preverb are made perfective by shift of accent). Several preverbs are employed to convert verbs into perfective ones in Ossetic. While this system is strikingly parallel to the one found in Slavic languages, influence from Russian does not date back long enough to be the decisive factor, and it is rather language contact with Georgian and other Caucasian languages that may have triggered the Ossetic aspect system.

The prefix *be-*, which in New Persian has modal values (see Section 3.5), has been analysed as marking “completive” *aktionsart*, perfective aspect or the result of an action, or “emphasis” in Middle Persian (cf. the survey in Jügel [2013: 30–33], who assumes several etyma with directional and emphatic meanings that came together in this prefix).

At the same time, *bi-* forms a future in Classical Persian (Jahani 2008) and already in Early Judeo-Persian (16a). It also forms a “close future” in the variety spoken in Abyane in Isfahan province (16b).

(16) a. Early Judeo-Persian (Paul 2013: 125)
*kw b‘d_’z psh ... **by** ’y(m)*
SUB after Pessah ... **PTC** come.PRS.1SG
‘that I (will) come after Passover’

b. Abyanei
*bim na-xös-ā al’ön **be-**vāǰ-ān*
me NEG-hit-IMP.FUT now **FUT2-**say-1SG
‘Don’t hit me! I’ll say [it] at once.’[11]

The notions of imperfective or progressive, sometimes including nuances of prospective or future semantics, may also be expressed by analytic constructions in various stages of grammaticalization. A number of Ir. languages use locational expressions (‘be in [the state of] doing’). In Balochi, where the infinitive in the OBL is combined with the copula (17), the formation is synchronically transparent, while

11 Lecoq (2002: 172): « ne me frappe pas ! Je vais le dire tout de suite ». Note that this future (*be-kar-ān* ‘I will do’) is different both from the present (*a-kar-ān*) and the subjunctive (*ba-kar-ān*).

Jewish Tat uses the bare infinitive, and (as in Persian) the formation has become the general present tense (18), so that there is an aspect opposition only in the past tense.

(17) Balochi (Southern / Western) (Jahani and Korn 2009: 675)
man gušag-ā =un
I say.INF-OBL =COP.1SG
'I am saying'

(18) Caucasian Tat (Jewish) (Authier 2012: 192, 195)
a. *soxden =um*
do.INF =COP.1SG
'I do'

b. *soxden bir-üm* vs. *soxd-um*
do.INF be.PST-1SG do.PST-1SG
'I was doing' 'I did'

The Taleshi present tense is a combination of a verbal noun in a locative expression plus the copula (19).

(19) Taleshi (Schulze 2000: 23 f.)
a. *kārde-da-m*
do.INF-LOC-1SG
'I do'

b. *kārde-da bi-m* vs. *kārd-əm-e*
do.INF-LOC be.PST-1SG do.PST-1SG-AUX.3SG
'I was doing' 'I did'

These patterns also occur with the prefixes mentioned above: in addition to the present tense *a-* + present stem (see above), Bashkardi also shows a progressive with the preverbs *be-* and *a-*. As the pattern employs a verbal noun, it patterns nominatively (the copula agreeing with the agent) although it is based on the past stem (cf. Section 3.1). Muslim Caucasian Tat likewise shows such a pattern (20).

(20) a. Caucasian Tat (Muslim) (*CLI*: 298)
ba-*bāftan =üm*
IPFV-weave.INF =COP.1SG
'I am weaving'

b. Bashkardi (Southern) (Skjærvø 1989: 848)
be-*kert(-en) =īn*
IPFV-do.PST(-INF) =COP.1SG
'I am doing'

c. Bashkardi (Northern) (Skjærvø 1989: 848)
a-*kerden* *=om*
IPFV-do.INF =COP.1SG
'I am doing'

Other languages of the Caspian region have a local copula 'be in' (probably etymologically identical to *dar* 'in'), such as "the Mazandarani verb *dayyen* (present stem: *dar-*) 'to be' (indicating location rather than existence)" (Jahani 2017: 264) in patterns such as (21).

(21) Mazenderani (Sari) (Šokrī 1995: 124 f.)
dar-eme *vače* *ǰem* *xos-embe*
be_in_place.PRS-1SG child with talk.PRS-1SG
'I am talking to the child.'

Likewise bordering on locational constructions is the use of the verb 'stand'. The starting point is seen in Old Ir. uses of 'stand' such as (22), where the semantics tends towards an iterative or durative auxiliary (see Benveniste [1966], from where I also took most examples for this topic):

(22) Avestan
yō *me* *duš.saŋhō* ***hišt-a^{i}te***
REL.NOM.SG.M PC1SG injuring.NOM.SG.M **stand**.PRS-MDL.3SG
'who keeps injuring me (lit. who stands [as someone] injuring me)'

In Khotanese, the participle of 'stand' is added to a finite verb form to yield a meaning of imperfectivity (23).

(23) Khotanese (Emmerick 2009: 404)
u *ttrāyi* ***ṣṭāna*** *vaṃña*
and save.PRS.2SG **stand**.MDL.PRTC now
'[you rescued previously] and you are now rescuing
(lit. you are standing rescuing me)'

In Buddhist Sogdian, a particle deriving from 'stand' forms an imperfective (24).

(24) Sogdian (Buddhist)
wyn-ʾm ***ʾštn*** vs. *wyn-ʾm*
see-PRS.1PL **stand**.PTC see.PRS-1PL
'we are seeing' 'we see'

The end point is seen in Yaghnobi, where the particle has been reduced to a marker of the present tense that is suffixed to the verbal ending, as in (25) and (37a) below.

(25) Yaghnobi
*wēn-om=**išt***
see-1SG=**PRS**
'I see'

The "continuous form" of Tajiki is likewise formed with 'stand'; here, it is the synchronically existing and inflected verb in combination with the perfect participle (26). The predecessor of this pattern is seen in the Middle Persian "perfectum praesens" that uses 'stand' as an auxiliary (27).[12]

(26) Tajiki Persian (Rzehak 1999: 78)
man kitob xond-a ***istod-a**=am*
I book read.PST-PRF **stand**.PST-PRF=COP.1SG
'I am reading a book'

(27) Middle Persian (Manichean) (Andreas and Henning [1933: 299–300], fragment M 9 II r, 16–18)
gyān (...) *andar tan ā'ōn āmixt ud passaxt ud bast*
soul in body thus mix.PST and mingle.PST and bind.PST
ēst-ēd (...)
stand.PRS-3SG
'the soul (...) is (lit. stands) so mixed, mingled and bound in the body ...'

Furthermore, it is possible that the plural stem of the copula in Iron Ossetic, *(y)st-* (e.g., *st-æm* 'we are' etc.) might derive from 'stand' (see Bielmeier 1977: 162 f. and *CLI*: 477).[13]

While Buddhist Sogdian uses 'stand' (see [15]), the other dialects employ 'remain' to express imperfectivity (28).

(28) Sogdian (Manichean) (Gershevitch 1954: 100)
*tʾš-nd=**skwn***
cut-IPF.3PL=**IPFV**
'they were cutting'

Just as 'stand' and 'remain' just mentioned, Sogdian and Chorasmian also show a future particle that is suffixed to the finite verb (29a). In Sogdian, it exists at the same time as a finite verb (29b).[14]

12 Cf. Durkin-Meisterernst (2014: 384 f.), who points out the resultative meaning of this pattern. It has also been suggested that the Persian forms of the structure *dādast-īm* contain a contracted form of 'stand' (Jeremiás 1993: 106 f.).

13 For an alternative explanation (3PL from **asti*, other plural forms based on the new stem *st-*), see Weber (1983). The plural copula in Digor might derive from the Old Ir. copula. For the singular forms, see 3.2.

14 See Korn (2017c) for future and prospective formations in Iranian.

(29) Sogdian
a. *ʾβyzy L' βrt wn-ʾy=**k'm***
bad NEG carry.PST do.PRS-2SG=**FUT**
'you will not be able to bear the hardship' (Sims-Williams 2007: 378)

b. *L' k'm*
not want.PRS.1SG
'I do not want' (Sims-Williams 1996: 182)

Similarly, the verb 'hold' forms a progressive in New Persian (30) and several other Ir. languages. Sogdian also has duratives composed of an **-aka*-participle plus (transitive) *δʾr-*, (intransitive, passive) **ah- / wmʾt- / ʾskw-* (Gershevitch 1954: 126). In Middle Persian, the pattern PST + 'hold' has the meaning of "preservation of a state obtained after an event" (Henning 1934: 247).

(30) New Persian (Jahani 2008: 169)
quč'alī če be mouqe' āmad-ī.
PN what to moment come.PST-2SG
*man **dār-am** mī-r-am.*
I **have**.PRS-1SG IPFV-go.PRS-1SG
x^{w}āhar=at=rā tanhā na-gożār
sister=PC2SG=FOC alone NEG-leave.IMP.2SG

'Quchali, how well on time you came.
I am leaving (i.e., I intend to leave any moment).
Don't leave your sister alone.'

Verbs meaning 'want' are also used as auxiliaries in Persian and Kurdish (31), and at the same time keep being used as full verbs.

(31) a. Persian
***x^{w}āh-**am raft*
want.PRS-1SG go.PST
'I will go'

b. Mukri Kurdish (Öpengin 2016: 83)
*de=y-**hewē** bi-bār-ē*
IPFV=PC3SG-**want**.PRS.3SG SBJV-rain.PRS-3SG
'it is going to rain'

kām- is an auxiliary (used in combination with the past stem) in Abyanei (32) and yields a prefix in Sistani (33).[15] Otherwise, inherited subjunctives (see Section 3.5) may be used to express future.

15 It has been suggested that the prefix *k-*, which is used with certain present stems in Balochi, also derives from *kām*.

(32) Abyanei[16]
*čūn tūp sedāy ziād a ... **kömö** tārsā*
as canon voice much COP.3SG **FUT.3SG** fear.PST
'since the noise of the cannon is enormous, he'll be afraid'

(33) Sistani (Lazard 1974: 80)
***kma-** rasīdan-o*
FUT- arrive.INF-1SG
'I will arrive'

3.5 Mood and modality

While some of the Old Ir. moods survive in Middle and New Iranian (the subjunctive is generally preserved in Middle Ir. languages and in Ossetic), modal categories are predominantly expressed by novel formations in other New Ir. languages.

In most cases, this is achieved by the grammaticalization of particles such as Middle Persian *hēb*, see (43) below. Interestingly, several prefixes mentioned in Section 3.4 as markers of imperfectivity are also found in modal function (subjunctive and/or conditional). This particularly applies to *bi-*.[17] For the clitic *a* in Balochi and Bashkardi, the modal function appears to be the older situation ([34], paralleling the Persian subjunctive marker in [35]). Perhaps its reanalysis as a marker of imperfectivity, and its generalization to mark present tense is due to Persian influence (this goes so far as the verb *dār-* 'have, hold' being an exception in not taking the prefix, cf. Buddruss [1988: 62]).[18]

(34) a. Balochi (Coastal, Iran)
man raw-ān āb dast =a kan-ān
I go.PRS-1SG water hand IPFV do.PRS-1SG
'I am going to wash / to the toilet (lit. I go; I do the ablution).'

b. Bashkardi (Northern)
*be-yår-ie ke gwar=e hamie kabåb-ōn **a-**xwar-om*
SBJV-bring.PRS-2PL SUB side=EZ DEM meat-PL **IPFV-**eat.PRS-1SG
'Bring [the bread] so that I might eat it with the meat.'

In Persian, but also elsewhere, modality is chiefly expressed by analytic constructions with the main verb in the subjunctive and the modal element either an inflected verb (35a–c) or a fossilized verb form (35d).

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16 Lecoq (2002: 221): « (comme le bruit du canon est considérable, il aura peur ».

17 Some languages also show a subjunctive past: in Gilaki and Balochi, *bi-* is combined with *-ēn-* suffixed to the verb stem.

18 See note 10.

(35) Persian

a. *mī-tavān-am* *be-x^{w}ān-am*
IPFV-be_able.PRS-1SG SBJV-read.PRS-1SG
'I am able to read'

b. *mī-x^{w}āh-am* *be-x^{w}ān-am*
IPFV-want.PRS-1SG SBJV-read.PRS-1SG
'I want to read'

c. *del=am* *mī-x^{w}āh-ad* *be-x^{w}ān-am*
heart=PC1SG IPFV-want.PRS-3SG SBJV-read.PRS-1SG
'I wish to read (lit. my heart wants to read)'

d. *bāyad* *be-x^{w}ān-am*
it_is_necessary SBJV-read.PRS-1SG
'I have to read'

Among the periphrastic modal constructions that can claim the longest traceable history and widest use in Iranian is the potential construction composed of the past stem or the perfect participle (see Section 3) plus a finite form of 'to do' as an expression for 'to be able'. This pattern is attested already in Old Persian, and it is found in Chorasmian, Parthian, Khotanese and Sogdian, see also (29). It is still in use in several New Ir. languages today, among these the Eastern Ir. varieties Munji and Yaghnobi (36) and in Balochi. The distribution of the auxiliaries 'do' for the transitive pattern vs. 'become' for intransitives may have provided a starting point for the use of these verbs in complex predicate pairs (cf. Section 3.1; see Korn [2013: 35–40] for more discussion and references on the potential construction).

(36) Yaghnobi

a. TR
moγ *na-žoyt* ***kun-****im=išt*
we NEG-read.PST do-1PL=PRS
'we cannot read'

b. ITR
be *hamra* *na-ed* ***višt***
without comrade NEG-go.PST become.2SG
'one (lit. you) can't go without a comrade'

It is only in Chorasmian that 'do' has been phonologically reduced as might be expected from grammaticalization processes, and yields a particle (=*k*-) that is suffixed to the past stem of the main verb and carries the verbal inflection (37).

(37) Chorasmian *kfʾmʾny* *prdk̄ⁱ*
ka=fa=ma *ne=* *pard=k-i*
for=PTC=PC1SG NEG= restrain.PST=POT-2SG
'for you cannot restrain me'

Conversely, in Ir. languages where the particles and locational constructions have yielded a general present tense (see Section 4.4), the inherited present sometimes assumes a modal meaning, such as the subjunctive / imperative in Caucasian Tat (38).

(38) Caucasian Tat (Jewish) (Authier 2012: 175, 173)
a. *xun-it* *kele kele*
read.PRS-2PL big big
'Read out aloud!'

b. *čü* *sox-um* *me imohoy*
what do.PRS-1SG I now
'What should I do now?'

Synchronically, one might interpret these patterns as "old presents" in the sense of Haspelmath (1998). However, it is actually not so that an inherited present would be "pushed aside" into modal function by the rise of a new present formation: as shown by Middle Persian and Parthian, the present was already used in future (39) and modal functions long before these new presents came into being.

(39) Middle Persian (Manichean, verse)
nāz-ēnd *awēšān kē griyīd hēnd*
rejoice.PRS-3PL DEM.PL REL cry.PST COP.3PL

ud ***griy-ēnd*** *imīn kē nūn xann-ēnd*
and **cry.PRS**-3PL DEM.PL REL now laugh.PRS-3PL
'those who cried are now rejoicing and these who are now laughing will cry'[19]

4 Grammaticalization of complex constructions

In ancient Indo-European languages, there are few, if any, subordinating conjunctions, and inherited means of subordination include participle and infinitive constructions for complement and adverbial clauses. Even if the formation of verbal nouns has

19 Durkin-Meisterernst (2014: 374): 'Sie frohlocken, die geweint haben. Und diese werden weinen, die jetzt lachen.'

Tab. 5: Subordinators etc. in Persian diachronically.[19]

Old Iranian	**kū*	**kat*	**kahya*	**yat*
	'where'	NOM/ACC.N of INTERR/REL pronoun – 'when'	GEN of INTERR / REL pronoun	NOM/ACC.N of REL pronoun
Middle Persian	*kū*	*ka*	*kē*	*ī*
	– 'where' – COMP – QUOT	'if, when'	INTERR, REL	– REL – EZ
New Persian	*kū*	*ki* > *ke*		*=e*
	'where'	SUB: COMP, REL, QUOT, 'if' etc.		EZ

changed over time, they continue to be employed in rather complex patterns containing what in other languages would be subordinate clauses in the form of participial or infinitive constructions. These patterns may even be strengthened in contact with languages that routinely use such patterns, namely Turkic and Indo-Aryan.

The inherited relative pronouns are generalized as subordinators in a number of Ir. languages. Subordination with conjunctions and finite verbs is largely parallel or even identical for relative, complement and adverbial clauses; i.e., many Iranian languages use the same subordinators for all of them (cf. English *that* as relative particle and complementizer). Table 5 shows the development seen in Persian. The New Persian clitic *ke* can be called a general subordinator (SUB) as it introduces complement clauses (COMP), relative clauses (REL) and quoted speech (QUOT) as well as adverbial clauses of various kinds while Middle Persian uses the subordinator *kū* (as does Early Judeo-Persian, see [16a] above).

The subordinators may be combined with nominals to yield subordinates that essentially are relative or complement clauses, e.g., New Persian *barā-ye īn ke* entirely parallel to, e.g., French *par-ce que* 'lit. for that which, i.e., because'.

4.1 Complement clauses

Inherited means of expressing complement clauses include the use of verbal nouns, e.g., an abstract noun formed from the infinitive as in the second part of (40).

20 See Öhl and Korn 2008 for more details on the development of this system.

(40) Caucasian Tat (Jewish) (Authier 2012: 230)
{{ *ä=qäd* *en=u* *küšd-e* *omor-e* } *odomi-ho* *ye* *done*
LOC=inside GEN=PC3SG kill.PST-PRF come.PST-PRF person-PL one piece
ʕ*osir* *ne=**debire-i**=re=š* } *mi=danüsd-i*
rich NEG=be_in.INF-ABS=DAT=also IPFV=know.PST-2SG
'Did you know that there was not even one rich person among those who were killed?'

In many Ir. languages, a subordinator has developed, either a fossilized form of a relative or interrogative pronoun (see Table 5), or alternatively a connective particle such as the Sogdian clitic *(ə)t(i)*, enclitic to the first noun phrase of the last clause in (41).

(41) Sogdian (Yoshida 2009: 315)
rti=šī *xā* *xatēn* *māθ* *ə̲ti* *baγa* *menu*
and=PC3SG ART queen thus SUB lord.VOC think.PST.1SG

čan *xwēr-baγī* *ə̲ti* *əβt* *čintāman* *ratni* *nīži*
from sun-god.OBL SUB seven PN jewel.NOM go_out.PST.3SG
'The queen said to him: "O Lord! I thought thus: from the sun god went out the seven cintāmaṇi jewels".'

This element may at the same time be used to introduce quoted speech, as does the first instance of *əti* in (41). Conversely, the use of a quotative particle (probably a calque on Azeri Turkish) is one of the subordinating strategies in Caucasian Tat (42), while *=ho* seen in Section 4.2 may also be used in this way.

(42) Caucasian Tat (Jewish) (Authier 2012: 241)
danüsden=üm *biror=me* *soq=i* ***=gufdire***
know.INF=COP.1SG brother=PC1SG safe=COP.3SG **=QUOT**
'I know that my brother is alive.'

4.2 Relative clauses

Relative clauses are inherited from Proto-Indo-European, and Iranian shows two inherited relative pronouns: the stems **ka-* (which at the same time is the interrogative pronoun) and **ya-* (see also Table 5).

Within Middle Iranian, the relative pronoun becomes fossilized in the form of a relative particle, such as Middle Persian (uninflected) *kē* for animates vs. *čē* for inanimates (although the distinction is not always observed), deriving from the Old Ir. genitive **kahya*, *čahya*.

In a parallel way (and starting within Old Indo-Iranian), the neuter NOM/ACC.SG **yat* is employed for relative clauses independent of agreement. It also yields the

relative particle (Middle Persian) *ī* (43) and the "ezāfe" in New Persian (cf. Section 2.4).

(43) Middle Persian (Manichean) (Durkin-Meisterernst 2014: 270)
*ud abar dāmān=iz { **ī**=šān pidēnag-ān } abaxšāyišn hēb kun-ēnd*
and on being=also **EZ**=PC3PL meat_meal-PL mercy OPT do.PRS-3PL
'And they should practice mercy on the beings which are their meat meals.'

The more common strategy, however, is the use of the subordinator. In Sogdian, the subordinator seen in (41) is added to the relative pronoun (44).

(44) Sogdian (Yoshida 2009: 318)
*yunē čakraβart čintāmani dārani **ke=ti** əzu parβērāt-dār-ām*
this PN spell **REL=SUB** I.NOM explain.PST-hold.PRS-1SG
'this Chakravart Chintamani spell which I explained'

In addition to the subordinator *ki* and participial relatives such as the clause with *küšde omore* in (40) above, Caucasian Tat also has a relativizing element *=ho* that attaches to the finite verb (45). It is likely to be identical in origin to the PL marker *-ho* (Persian *-hā*), and might preserve a trace of the latter's origin as an abstract suffix (see Section 2.3).

(45) Caucasian Tat (Jewish) (Authier 2012: 252)
*eri vosdore { e=čum=yu xuš bi=yo-v=**ho** } či=re*
for buy.INF LOC=eye=PC3SG well SBJV=come-3SG=**NOM** thing=DAT
'(he had come) to buy something that pleased him'

In Persian (and, probably under Persian influence, to some extent also in Balochi), the clitic *=ī* (Balochi *=ē*), in all likelihood deriving from Middle Ir. *ēw* 'one' (cf. Section 2.5), is obligatorily used on the head noun of restrictive relative clauses (46) and thus marks the relative clause as restrictive.

(46) Persian (Windfuhr and Perry 2009: 503)
ān doxtar=ī { ke Alī dust dār-ad } īnǰā =st
DEM girl=SPEC SUB PN friend have.PRS-3SG here =COP.3SG
'That girl who loves Ali is here.'

4.3 Adverbial clauses

Just like in the case of complement clauses (see Section 4.1), non-finite subordinates are used with verbal nouns of various types (including novel formations, such as the infinitives in (47) and (45) above.

21 Text published by Farrell (2008: 131), his translation.

(47) Balochi (Karachi)
allāh rabb-ul-izzat-ā
god (epithet)-OBL
'Allah the Lord of Glory,

{ *insān-ē bīnāī-ē* ***pač kanag-ē*** *wāstā* }
man-GEN view-GEN open do.**INF**-GEN for
for the sake of opening the sight of humans,

{ *insān-ē dimāg-ē* ***pač kanag**-ē* *wāstā* }
man-GEN mind-GEN open do.**INF**-GEN for
for the sake of opening the mind of humans,

{ *insān-ārā* ***samǰāinag-ē*** *wāstā* }
man-OBJ make_understand.**INF**-GEN for
for the sake of explaining to humans,

dunyā-ē tōkā nabī dēm kut-a
world-GEN in prophet forward do.PST-PRF
sent prophets into the world.'[20]

As mentioned above, overt finite subordination is achieved with a subordinator (such as New Persian *ki*), with or without the addition of nouns (e.g., *vaqt-ī ki* 'when [lit. the time that]'), so that this pattern is essentially a relative clause.

Another alternative, not studied until now, is the repetition of a clause, with the second one being liable to interpretation as a subordinate. In (48), literally 'And our mother went to the wedding the second day. Our mother went to the wedding, and we ate the fish', the second clause seems to function as a temporal subordinate. This use of repetition is a kind of "Tail-Head-Linkage" (apparently not observed yet for Indo-European).

(48) Balochi (Karewan, Iran)
o mē mā ēdga rōč-a šed-a sīr-a
and our mother other day-OBL go.PST-PRF wedding-OBL

{ *šed-a sīr-a mē mād* } *o mā māhī wārt-ā*
go.PST-PRF wedding-OBL our mother and we fish eat.PST-3PL
'... and our mother went to the wedding the second day. { **[When]** she [had] gone, } we ate the fish.'

Instances such as this are marked by a rising intonation of the clause that is liable to interpretation as a subordinate. This intonation alone may also mark subordination, without any repetition, such as in (49).

(49) Balochi (Konarak, Iran)
goš-ī { *šēr ē* *šo* } *naparok=ē* *kāt*
say.PRS-3SG lion DEM go.PST person=SPEC come.PST
'They say: { **[When]** the lion had gone (lit. went), } some person came.'

There are also instances of tense switch (past vs. present) that might be interpreted as indicating subordination, as in (50), for which Jügel (2015: 86) suggests the possible interpretation 'When he had put a crown of thorns on his head, they came to praise him (...)'.

(50) Parthian (Jügel 2015: 86)
xārtāg *pad sar* *aweštād ō* *namāǰ ās-ēnd* (...)
crown_of_thorns on head put.PST and praise come.PRS-3SG
'He (?) put a crown of thorns on [his] head, and they come [for his] praise (...)'

4.4 Clause chaining

There are additional strategies in Iranian for chaining sentences, yielding patterns that oscillate between juxtaposition of main clauses and subordination.

One such strategy is the use of connectives. In Bactrian (*ud* [written οδο], as in [9] above, or the clitic *=d* [=δο]) and Sogdian (*rti* as in [41], alternatively the enclitic subordinator *=(ə)t(i)*), they are generalized to occur after the first word of virtually every clause. Note also the clause-introducing *o* 'and' in (48) and (50).

Another common strategy is the use of converb-like non-finite forms, frequently the past stem (which is identical to the 3SG) or the perfect participle. In (51) the oblique *kiṭag-ā* shows the appropriate case for the (transitive) second and third verbs, but not for the first (intransitive) one. The sentence may conveniently also be understood as containing a subordinate ('After having gone to buy rice, the grasshopper brought it back.') in the sense of the pattern mentioned in Section 4.3 above.

(51) Balochi (Karachi) (Farrell 2003: 203)
kiṭag-ā *šu* *dān* *gir* *ārt*
grasshopper-OBL go.PST grain seize.PST bring.PST
'The grasshopper went, bought [some] rice [and] brought it [back].'

In Yaghnobi, it is also possible to use the bare PRS stem in this way, as in the case of the second and third verb in (52).

(52) Yaghnobi (Jügel 2015: 419)
man sitiriyon a-šaw-im
I day_before_yesterday IPFV-go.PRS-1SG

xor=im xapar a-nos ki a-vow
sister=PC1SG news IPFV-take.PRS SUB IPFV-come.PRS
'Two days ago, I went, paid a visit to my sister and came [back].'

5 Summary

Iranian shows a number of grammaticalization processes well known cross-linguistically, such as the grammaticalization of adpositions as case markers in the nominal system, or the grammaticalization of auxiliaries for mood and voice categories in the verb system. Table 6 shows grammaticalization phenomena as found in Iranian, chiefly those discussed in this chapter, although, of course, many additional items could be cited.

At the same time, there are also grammaticalization processes not shown in Heine and Kuteva 2002 (such as 'come' yielding a passive auxiliary, or the agent in Ir. ergativity coming from the GENITIVE / DATIVE).

Notably, the same verbs that are used as auxiliaries (then showing typical grammaticalization phenomena such as phonological reduction etc.) are also the most important light verbs in complex predicates (Table 7); and their distribution is parallel to that of the auxiliaries ('do', 'hit', 'hold/have' etc. for [+control] and 'be, become' and verbs of movement for [+affected]). This even applies where the verbs are etymologically not related (there are various roots each for 'do' and 'become'), suggesting that the rise of complex predicates is a process parallel to the grammaticalization of auxiliaries. The categories of transitivity, control and actionality thus form one cluster of particularly high grammaticalizational activity in Iranian.

Another cluster is the field of aspect, durativity and mood. Progressives (often becoming present tense formations) may be grammaticalized from particles or locational constructions. Auxiliaries are also found, among which, again, is 'hold/have' and the verb 'stand', the latter recalling the use of verbs of movement in the patterns just mentioned.

A third field of particular interest is animacy and person marking, which is seen in the nominal and verbal system. Differential marking of direct and indirect objects is common throughout Iranian (though not universal), and to some extent it is also found in the ergative domain, where differential marking of agents is also found.

The verbs mentioned in Table 7 are not the only elements to be grammaticalized in multiple ways. In the nominal system, we find relative pronouns yielding the "ezāfe" (see Section 2.4) in Persian etc. and the direct article (Chorasmian, Bactrian). Demonstratives give not only articles, but are also found as copular forms, while pronominal clitics can be reanalysed as verbal endings and as agreement markers.

Tab. 6: Grammaticalization phenomena in Iranian according to the classification of Heine and Kuteva (2002).

Source	Target
head forehead face breast	front
back behind	after
belly	in
bottom foot	down
footprint	behind
there	demonstrative
demonstrative	copula definite
pers-pron, third pers-pron, third plural thing piece	copula impersonal indefinite pronoun classifier
one	singulative
do	causative pro-verb
give beat keep copula, locative copula exist go	causative pro-verb continuous h-possessive obligation continuous change-of-state
stand	continuous copula
leave want in (spatial) locative dative possessive	permissive future continuous subordinator b-, h-possessive perfect
w-question relative	complementizer
VP-and or continuous future complementizer	subordinator s-question present epistemic modality purpose

Tab. 7: Auxiliary uses of common light verbs.

verb	function	languages
COPULA	ITR past	(generally)
**dār* 'hold, have'	TR past PROGRESSIVE	Sogdian, Chorasmian Persian
**dā* 'put; give'	TR past	Ossetic
verbs of movement	PASSIVE	(many Ir. languages)
**kar* 'do' **baw* 'become'	TR potential ITR potential	(many Ir. languages) Khotanese, Sogdian, Balochi, Pashto

A topic for future research would be converse processes that can be described as degrammaticalization: verbal endings yield pronouns in Sorani Kurdish, and so do pronominal clitics (cf. Section 3.2).

A number of affixes gain autonomy such as case endings occurring in group inflection in many Ir. languages, and sometimes follow the articles, and the Kurdish articles are likely to come from a suffix deriving nominals.

Similarly, some 3SG modal endings are reinterpreted as mood affixes following the verbal ending in the Bactrian subjunctive (-ινδ-αδο -3PL-SBJV.3SG) and optative (-ινδ-ηιο -3PL-OPT.3SG, also used for the 1PL), for which a parallel formation is found in Parthian.

Iranian is thus a convenient study case for long-term perspectives. The widely different characteristics among these languages may (also) to some extent be due to language contact.

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Abbreviations

ABL = ablative case, ACC = accusative case, ART = article, *CLI* = Schmitt (ed.) 1989, COMP = complementizer, COP = copula, DAT = dative case, DEICT = deictic element, DEM = demonstrative pronoun, DIR = direct case, EZ = ezāfe, F = feminine, FOC = focus marker, FUT = future, GEN = genitive case, IMP = imperative, INF = infinitive, INSTR = instrumental case, INTERR = interrogative, IPF = imperfect, IPFV = imperfective, Ir. = Iranian, ITR = intransitive, LOC = locative case, M = masculine, MDL =

middle, N = neuter, NEG = negation, NOM = nominative case, OBJ = object marker, OBL = oblique case, PC = pronominal clitic (enclitic pronoun), PIE = Proto-Indo-European, PL = plural, PN = name, POT = potential, PRF = perfect participle, PRS = present (stem), PRTC = participle, PST = past stem, PTC = particle, QUOT = quotative, REL = relative, SBJV = subjunctive, SG = singular, SPEC = specificity marker in the sense of Heine (1997: 72 f.), SUB = subordinator, TR = transitive, VOC = vocative case

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