

On the multifunctionality of *-Vr* and *-Dİr* in Turkish

Abstract

The markers *-Vr* and *-Dİr* in Turkish (labeled most often as the 'Aorist marker' and the 'judgement clitic' respectively) are each associated with more than one focal meaning. This paper attempts to identify and specify the semantic categories these forms are associated with, on the basis of a structured semantic space of anchoring categories, constructed using insights from the cognitive linguistics tradition. It shows that the overall areas of multifunctionality of both *-Vr* and *-Dİr* include three anchoring categories that stand for temporal, epistemic, and illocutionary *generality*. In contrast, *-Iyor* and zero-marking (*-Ø*) are characterized by categories of *immediacy* in these three domains.

1. Introduction

In this paper I aim to show that *-Vr* and *-Dİr* in Turkish are complementary markers of a pattern of multifunctionality characterized by temporal, epistemic, and illocutionary *generality* at the level of the finite clause, while *-Iyor* and *-Ø* are associated with *immediacy* in these three semantic domains.

Formal aspects of the analyses will refer to the general strategy of TAM (tense, aspect, mood) marking in Turkish (section 2). In section 3, three main classes of statements associated with *-Vr* and *-Dİr* will be identified. In section 5, these will be semantically decomposed on the basis of a semantic space of TAM qualifications constructed (in section 4) using insights from the cognitive linguistics tradition (e.g., Fauconnier 1984, Langacker 1987, Talmy 1988, Sweetser 1990, Brisard 2002a). Section 6 will draw partial semantic maps to represent the multiple functions of *-Vr/-Dİr* and *-Iyor/-Ø* and will point to 'semantic generalization' as a possible diachronic mechanism in the formation of the relevant patterns of multifunctionality. Section 7 will compare the analyses with previous accounts, and section 8 will point to reflections of the 'immediacy vs. generality' contrast in some other languages.

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2. The general strategy of TAM marking in Turkish and the behavior of *-Vr* and *-DIr*

Sansa (1986) shows that the semantic functions of *-Vr* in verbal sentences parallel those of *-DIr* in non-verbal (adjectival/nominal) sentences. Similarly, the semantic functions of *-Iyor* in verbal predication parallel those of zero marking ($-\emptyset$) in non-verbal sentences. This semantic correspondence between *-Vr* and *-DIr* (and that between *-Iyor* and $-\emptyset$) is reflected as a formal correspondence in the general strategy of TAM marking. Turkish finite clauses display a split strategy as to the verbal vs. non-verbal character of the predicate: A set of *bound markers* apply to verbal predicates, while a set of *postclitics*, zero marking ($-\emptyset$) and inflections of the auxiliary verb *ol* ('be') apply to non-verbal predicates¹ (see Table 1). The *+ol*-series can be further extended by the attachment of postclitics to yield specific semantic combinations.

Bound markers		Postclitics	Inflections of <i>ol</i>
<i>-Vr</i>	'Aorist'	<i>-DIr</i>	<i>+ol-ur</i>
<i>-Iyor</i>	'Continuous'		<i>+ol-uyor</i>
<i>-mAktA</i>	'Progressive'		<i>+ol-makta</i>
<i>-(y)AcAG</i>	'Future'		<i>+ol-acak</i>
<i>-DI</i>	'Past'	<i>-(y)DI</i>	<i>+ol-du</i>
<i>-mIş</i>	'Anterior'	<i>-(y)mIş</i>	<i>+ol-muş</i>
<i>-sA</i>	'Conditional'	<i>-(y)sA</i>	<i>+ol-sa</i>
<i>-mAlI</i>	'Necessitative'		<i>+ol-malı</i>
<i>-(y)Abilir</i>	'Abilitative'		<i>+ol-abilir</i>
<i>-(y)A</i>	'Optative'		<i>+ol-a</i>
<i>-sIn</i>	'Subjunctive'		<i>+ol-sun</i>

Table 1: Three types of TAM markers in Turkish²

¹ For motivations for differential formal treatments of bound inflections and postclitics, see e.g., Erguvanlı-Taylan (1992) and Sezer (2001).

² Dash (-) indicates morphological, plus (+) indicates syntactic combination. Parentheses enclose buffer phonemes. Reflecting the morphophonological processes of vowel harmony and assimilation, *V* stands for (orthographic) *a, e, ı, i, u*, or *ü*; *I* for *ı, i, u*, or *ü*; *A* for *a* or *e*; *D* for *d* or *t*; and *G* for *k* and *ğ*. The negative form of *-Vr* is *-mAz* for the second and third persons and *-mA* with the first person. Where semantic functions of a specific TAM marker is under discussion, glosses use its underspecified phonological representation shown in Table 1. Otherwise, abbreviations of traditional labels are used (see the section 'Abbreviations'). Glosses of examples taken from other sources are also adapted to this standard.

Most bound markers are also 'nominalizers', not because they necessarily derive genuine nouns or adjectives, but because they enable what they inflect to combine with postclitic markers and with the *+ol*-series. The following patterns of formal composition obtain:

(1) Patterns of formal composition in TAM marking³

Non-verbal predication: adjective/noun + postclitic/*ol*-series/zero-marking

Verbal predication: verb + bound_marker + postclitic/*ol*-series

In this picture, *-Dir* appears as the postclitic counterpart of *-Vr*. This correspondence is not only based on (synchronic) semantic and pragmatic analyses (e.g., Sansa 1986, Aksu-Koç 1995), but also supported by diachronic evidence. Markers of non-verbal predication are synchronically or diachronically combinations of an auxiliary verb with a bound marker: The *+ol*-series transparently combines bound markers with the present day auxiliary *ol*, and *-(y)DI*, *-(y)mIş* and *-(y)sA* are historically combinations of bound markers with the Old Anatolian auxiliary verb *i* (from Old Turkic *er*, Lewis 1967/1978: 96)⁴. Similarly, *-Dir* descends from the 'Aorist' (present day *-Vr*) of the once independent auxiliary verb *tur* (now *dur* 'stay' or 'stand') in the form of *tur-ur* (Lewis 1967/1978: 96).

Although *-Vr* and *-Dir* belong to different formal paradigms (of bound markers and of postclitics respectively), the two elements do not combine in modern standard Turkish (e.g., *verb-Vr-DIr* is not well formed, see also Sansa 1986:152). This restriction, coupled with the observation of semantic parallelism, makes the two markers appear to be complementary forms in marking the semantic dimensions they convey.

3. The three illocutionary values associated with *-Vr* and *-Dir*

In the TAM literature of Turkish, *-Vr* and *-Dir* have been ascribed various meanings. Here I will subsume a subset of them⁵ under three classes of illocutionary values⁶.

³ Not all combinations are acceptable. *-DI* can only combine with *-(y)DI* and *-(y)sA*, and *-Dir* cannot attach to *-Vr*, *-sA*, or *-(y)A*, see Erguvanlı Taylan (1992: 166-167). The *+ol*-series does not combine with *-DI*, *-(y)A*, *-sA*, *-(y)Abilir* and *-mAll*, and combinations with other bound markers are subject to semantic compatibility between elements chosen from each paradigm.

⁴ These three forms can still be separated from the stem, respective resuming the forms *+i-di*, *+i-miş*, and *+i-se*.

⁵ *-Vr* and *-Dir* are associated with a number of other meanings not discussed here. For *-Dir*, these mainly include *epistemic modality* ('inference' in Kerslake 1988, 'non-factivity' or 'uncertainty' in Sansa 1986, 'inferred probability' in Kornfilt 1997, 'non-evidential epistemic modality' or 'judgement' in Aksu-Koç 1995, 'präsumtiv' (presumptive) in Johanson 1994, 'supposition' in Lewis 1967/1978). For *-Vr*, they include *indefinite future* ('unsicher' (uncertain) future in Johanson 1994, '*-Ir* future' -contrasting with '*-EcEk*' and '*-Iyor*' futures- in Yavaş 1980, 1982b), *dispositional statements* ('dispositional statements' in Aksu-Koç 1995, 'abilitative' in Savaşır 1986), *deictic willingness-related functions* ('readiness' or 'willingness' in Lewis 1967/1978 and in Yavaş 1980, 'offers and invitations' and 'polite imperatives' in Yavaş 1980), and *narrative-related functions* ('adult plays and fictions' in Aksu-Koç 1995, 'vivid narration' and 'stage directions' in Johanson 1971).

3.1. Gnomic/characterizing statements

Statements with *-Vr*, and less commonly those with *-Dİr*, are often identified as asserting validity of an SoA in an 'extended' or 'unrestricted' temporal range. Such temporal specifications have been associated with statements with generic subjects ('gnomic' statements) as well as those with specific subjects ('characterizing' statements).

Menges (1968: 128) maintains that *-Vr* expresses the 'timeless tense' in sentences like (2a). Yavaş (1980, 1982a) analyzes utterances with *-Vr* as 'characterizing statements', which denote "that a given property is characteristic of or inherent to the entity in question". The utterance in (2b) states that 'selling good meat' is characteristic of the butcher, while the *-İyor* counterpart of the utterance simply reports occurrences of selling good meat. Sansa (1986: 146) states that *-Dİr* normally appears in "all non-verbal sentences expressing generic facts, universal truths, permanent generalizations". She exemplifies the use of *-Dİr* in statements which signal 'long-term validity' on the time-axis (2c):

(2a) *İnsan doğ-ar, yaş-ar, öl-ür.* (Menges 1968: 128)

man be.born-**Vr** live-**Vr** die-**Vr**

'Men are born, they live and die.'

(2b) *Ben-im kasab-ı-m iyi et sat-ar.* (Yavaş 1980: 101)

I-GEN butcher-POSS-1SG good meat sell-**Vr**

'My butcher sells good meat.'

(2c) *Genel olarak dikkatli bir şoförsün-dür de.* (Sansa 1986: 145)

general as careful a driver-**Dİr** CONJ

'And in general you are a careful driver.'

The illocutionary value labeled here as 'gnomic/characterizing' also corresponds to the following semantic identifications of *-Vr*: Johanson's (1971, 1994) classification of *-Vr* primarily as an 'imperfective' which conveys 'non-focal intraterminality'; Dahl's (1985) identification of *-Vr* as instantiating the cross-linguistic category type HABG (used for both 'habitual' and 'generic' statements); Aksu-Koç's (1995, 1998) 'imperfective' which conveys 'habitual/generic aspect'; and Kornfilt's (1997) descriptions of *-Vr* as 'general present tense' and as 'habitual aspect'.

⁶ I use the term *illocutionary value* to refer to the total 'convention-bound meaning of an utterance'. An *utterance* is taken as the verbal product of a unitary illocutionary act, and it is represented as a finite sentence. The term *semantic category* is used to denote identifiable components of illocutionary values.

3.2. Strongly factual statements

In the literature, *-Dir* is often described as conveying 'factuality', 'general knowledge', or 'objective judgement'. Gnomonic/characterizing statements made with *-Vr* (as exemplified above) are often also associated with similar epistemic qualifications.

Kornfilt (1997: 376-377) exemplifies the use of *-Dir* in expressing "definitional truths" in scientific language (3a). Sansa (1986) shows that *-Dir* can convey 'factivity' not only in non-verbal sentences with *-Dir* (as in (2c) above), but also with past- and future-oriented statements, as in (3b) and (3c). Underhill (1976/1987: 33) also states that *-Dir* appears in 'statements of general validity'.

(3a) *Balina memeli bir hayvan-dir.* (Kornfilt 1997: 376-377)

whale mammal a animal-**Dir**

'A whale is a mammal.'

(3b) *İnsan doğa-nın iç-i-ne sıkı sıkıya yerleş-miş-tir.* (Sansa 1986: 147)

man nature-GEN inside-POSS-ACC tightly install-ANT-**Dir**

'Man is installed in nature tightly.'

(3c) *Işık o ayna-ya, o ayna-dan da ikinci ayna-ya yansı-yacak-tır.*

(Sansa 1986:149)

light that mirror-DAT that mirror-ABL CONJ second mirror-DAT reflect-FUT-**Dir**

'The light will reflect on that mirror and from that mirror to the second one.'

3.3. Emphatic/authoritative statements

A characteristic effect of statements made with *-Dir* is that they convey strengthened illocutionary force in statements. In the literature, this meaning is associated with a 'definite' or 'emphasized' assertative force and/or with the 'authority' of the speaker.

Lewis (1967/1978:140) states that *-Dir* (in written as well as in spoken language) can signal 'emphasis', yielding strengthened, confident assertions (4a). Kornfilt (1997: 81, 376-377) reports that *-Dir* can express "emphatic, official certainty" and "definiteness and authority" in formal, official style (4b). Sansa (1986:149) qualifies certain future-oriented 'non-factive' uses of *-Dir* as having "guaranteeing, prophesying, ascertaining implications" (4c).

- (4a) *Vesika kasa-da-dir.* (Lewis 1967/1978: 140)
document safe-LOC-**DIr**
'The document is in the safe.'
- (4b) *Bölüm başkanı dekan ol-muş-tur.* (Kornfilt 1997: 81)
department head dean become-ANT-**DIr**
'The department head has become a dean.'
- (4c) *O-nu tan-ır-ım, muhakkak dön-ecek-tir.* (Sansa 1986: 149)
he-ACC know-AOR-1SG definitely return-FUT-**DIr**
'I know him. He will definitely return.'

Lewis (1967/1978: 122) also states that the combinations *-miş-DIr* and *-(y)AcAG-DIr* respectively express 'definite past' and 'definite future' in formal or written language. Underhill (1976/1987: 33) indicates that *-DIr* 'emphasizes' "the truth or definiteness of the statement". Aksu-Koç (1995: 281) analyzes the use of *-DIr* in 'categorical assertions' as a pragmatic convention tied to the 'authority' ('credibility/reliability') of the source, which also licenses a 'high certainty' interpretation.

As will be noticed from this partial review of the literature, 'gnomic/characterizing statements' have more often been associated with *-Vr* rather than *-DIr*, and vice versa for both 'strongly factual statements' and 'emphatic/authoritative statements'. But I will show that the overall areas of multifunctionality of both markers includes three semantic categories that characterize each of the three illocutionary values. In section 4, these categories (to be labeled as ATEMPORAL, GENERAL FACT, and GENERAL STATEMENT) will be delimited and defined on the base of a structured semantic space. The choice of one or the other marker for the expression of a certain combination of these categories will be shown to depend on formal constraints described in section 2 (specifically, the split strategy of TAM marking for verbal vs. non-verbal predicates, and 'nominalization' brought about by bound inflectional markers).

4. A semantic space of TAM categories

In this section, I will draw the outlines of a semantic space for TAM qualifications, meant as a basis for the characterization and decomposition of the meanings of utterances. Analyses of the three illocutionary values associated with *-Vr* and *-DIr* will be made with reference to the categories defined on this semantic space.

The content and structure of the semantic space are conceived as independent of formal strategies of any specific language. They are based on distinctions considered to be central to

human cognition and communication. The framework employs the ideas of 'profiling' and 'grounding' in Cognitive Grammar (e.g., Langacker 1987, 1994, Brisard 2002a, 2002b). It uses insights from the 'mental spaces' approach (e.g., Fauconnier 1984), Sweetser's (1990) metaphorically connected 'content', 'epistemic', and 'speech-act' domains, and Talmy's (1988) 'force dynamics'. It provides a hierarchically organized semantic structure similar to the semantically motivated structures assumed in Functional Grammar (e.g., Dik 1997).

4.1 Utterances and their illocutionary values

An *utterance* is taken as the verbal product of a speaker's *illocutionary act*. An illocutionary act is defined as the minimal unit of human communication associated with a unitary illocutionary force (e.g., Searle 1969, Searle & Vanderveken 1985). I will refer to the 'meaning' of an utterance (i.e., the semantic specification of an illocutionary act) as the *illocutionary value*. The illocutionary value covers all the *convention-bound* aspects of the semantic/pragmatic functioning of an utterance.

Speakers produce utterances eventually to achieve (perlocutionary) goals which may consist of cognitive, emotional, physical, or other effects. But the illocutionary value of the utterance is simply what its producer says in connection with conventional rules. This paper takes illocutionary values of utterances as residing at the level of analysis; both formal and semantic specifications of utterances constitute the initial data for semantic analyses.

4.2. The illocutionary background

Speakers produce linguistic signs on the basis of an *illocutionary background* (i.e., a 'common ground' as in Stalnaker 1974). The illocutionary background consists of the totality of the speaker's assumptions that he also assumes to be shared (or that can be readily taken for granted, or are inferable) by the addressee(s). The illocutionary value of an utterance, while being convention-bound, has close links to this mutually (or, collectively) constructed, presuppositional background. In constructing the semantic space, I will frequently refer to the illocutionary background.

4.3. Anchoring

TAM categories involved in a predicational utterance 'situate' or 'anchor' a referential content (an entity or an SoA) into the illocutionary background. In Cognitive Grammar, this anchoring is seen as 'profiling' of entities or relationships (e.g., Langacker 1987) and is often

termed 'grounding'⁷. The grammatical markers which profile an entity or a relationship are called 'grounding elements' (e.g., Langacker 1994, 2002) or 'grounding predications' (e.g., Brisard 2002a, 2002b).

I will attempt to specify and elaborate the semantic domains and categories involved in the profiling of relationships, with reference to related work in functionally- and cognitively-oriented linguistic traditions. As advised in Nuyts (2002), I will apply the idea of grounding to the purely semantic domain, without initial concerns about formal strategies of expression (such as lexical vs. grammatical)⁸. To avoid confusion with the terms 'grounding elements', 'grounding predications' or 'grounding devices' (which are taken as formal -specifically, grammatical- categories), I will refer to the semantic dimensions involved in grounding as *anchoring categories*. I will be primarily concerned with *SoA-anchoring* (which broadly corresponds to 'clausal grounding', or 'profiling of relationships'). *Entity-anchoring* ('nominal grounding' or 'profiling of entities') is also relevant, but not in focus in this paper.

4.4. Semantic domains, entities, and centers involved in SoA-anchoring

In SoA-anchoring, three special semantic domains are involved. Those are *temporal*, *epistemic*, and *illocutionary domains*⁹. They are special, because every predicational utterance is semantically qualified in each of them. They more or less correspond to Sweetser's (1990) three semantic domains¹⁰.

In connection with these three domains, the illocutionary background includes temporal, epistemic, and illocutionary *centers* (or, 'viewpoints', 'reference points', 'vantage points'). Centers, being part of the illocutionary background, are not strictly subjective, but represent

⁷ Brisard (2002:xi): "Grounding is proposed as a technical term in Cognitive Grammar to characterize grammatical predications that indicate the relationship of a designated entity to the ground or situation of speech, including the speech event itself, its participants, and their respective spheres of knowledge."

⁸ Nuyts (2002) demonstrates that epistemic modality (a semantic paradigm typically associated with grounding) is expressed by alternative formal strategies that involve lexical as well as grammatical forms in Dutch (see also Nuyts 2001). On the basis of this evidence and general cognitive/communicative considerations, he argues that grounding is best seen as a 'conceptual' operation rather than a 'linguistic' one. (Nuyts uses the adjective 'conceptual' for what is considered here as 'semantic', and 'linguistic' for what is considered here as 'formal' or 'morphosyntactic'. This is primarily a terminological issue, though.)

⁹ Langacker (1987: 126-128, 2002: 10) and Brisard (2002a, 2002b) treat grounding elements as primarily 'epistemic' in nature, in the sense that they serve to specify and identify the instructions as to how to locate a designated entity or relationship within a shared knowledge frame. In this paper, I use of the term 'epistemic' in a more restricted sense, to qualify the specific type of semantic ingredient involved in judgement and reasoning. The 'epistemic domain' is taken as one of the three special domains involved in grounding of relationships.

¹⁰ Sweetser (1990) recognizes three metaphorically linked domains in her analysis of polysemy displayed by modal elements, markers of conjunction/coordination/subordination, and conditional constructions in English. Her 'speech-act domain' matches the 'illocutionary domain' in the framework here. Her 'epistemic domain' is conceived and termed likewise. Finally, Sweetser's 'content domain' includes what is labeled here as the 'temporal domain' as well as ingredients of referential content (the 'SoA' as termed here).

intersubjective¹¹ consent or negotiation. Parties of a linguistic interaction align these centers to match the relevant assumptions in the illocutionary background. In casual talk/interactive discourse, these centers are often deictically¹² established, in that they are tied to the actual communicative setting, i.e., to the 'ground'¹³. In special discourse modes, centers can be *displaced* to be associated with other states, with retained links to the ground in discourse.

An *SoA* (state-of-affairs) is an abstract constellation¹⁴ consisting of *non-relative* entities and their relations. It is that part of the predication conceived independently of any contextually (deictically or otherwise relatively) set implicit reference points (centers).

The semantic space of anchoring categories features three types of variables that stand for entities in the three semantic domains. *Time-points*, *judgement-points*, and *projection-points* are variables that respectively stand for temporal states, epistemic states, and discourse states. These are special entities which function as 'containers' for other types of entities, as explained below.

- A *time-point* contains an indefinite number of SoAs, among which one is profiled in an utterance. A qualified time-point associated with a specific SoA corresponds to a discourse entity called a *proposition*. A constellation of such time-points is also a proposition.
- A *judgement-point* contains an indefinite number of propositions, among which one is signaled in an utterance. A qualified judgement-point associated with a specific proposition corresponds to a discourse entity called an *evaluation*. A constellation of such judgement-points is also an evaluation.
- A *projection-point* contains an indefinite number of evaluations, among which one is signaled in an utterance. A qualified projection-point associated with a specific

¹¹ Term borrowed from Nuyts (2001).

¹² The term *deictic* is used in this paper to specify qualifications which rely on reference points which are *directly* tied to the communicative situation. If a TAM qualification presupposes a reference point 'displaced' from the actual communicative situation (with the terms of the Mental Spaces research, they operate within a 'child space'), it is taken as *relative* (but not deictic).

¹³ The 'ground' as conceived in Cognitive Grammar and related research is not to be confused with the 'illocutionary background' as defined here. The term 'ground' has a wider coverage than that of 'illocutionary background'. The former covers all aspects of the actual communicative situation, while the latter only refers to a set of assumptions of the speaker (see section 4.2). This does not mean that the illocutionary background does not contain assumptions about the ground. It critically includes assumptions about the participants, the mutually (or collectively) set reference points, and communicative frames conceived around these centers.

¹⁴ The term *constellation* denotes a group of interrelated entities.

evaluation corresponds to a discourse entity called an *expression*. A constellation of such projection-points is also an expression.¹⁵

The three centers in the three domains are also represented as points. The temporal, epistemic, or illocutionary centers are communicatively set, implicit time-points, judgement-points, and projection-points. They are often tied to the deictic temporal, epistemic, or discursive states, but they can be 'displaced' to be associated with other, non-immediate states.

Centers function as 'landmarks'; they serve as reference points in constellations in special semantic domains¹⁶. The differential status of centers in a temporal, epistemic, or illocutionary constellation is that they are *implicit*, in contrast to *explicit* landmarks that take part in referential SoAs. Hence, the difference between an anchoring relation and an SoA-internal relation is that the landmark is explicit in the former, and implicit in the latter¹⁷. Translated in Langacker's (2002) terms, the former includes 'onstage', and the latter 'offstage' landmarks. I will use the term *signaling* to refer to the expression of entities or constellations that include implicit landmarks (centers) in the three special semantic domains, and retain the term 'profiling' for the expression of non-relative, referential contents.

Every predicational utterance is associated with a primary SoA-anchoring. In complex utterances, subordinate discourse entities (propositions, evaluations, or expressions) are associated with secondary, full or partial anchoring. Here I am mainly concerned with the primary SoA-anchoring in simple predicational utterances (formally represented as finite matrix clauses).

Entities or constellations in the temporal, epistemic, and illocutionary domains may also be profiled (i.e., expressed as referential SoAs). In other words, an SoA can include entities and relations from any semantic domain, and temporal, epistemic, and illocutionary domains are no exceptions.

Anchoring categories involved in clausal grounding cover those components of an illocutionary value which situate an SoA with reference to the temporal, epistemic, and illocutionary centers, as well as those involved in the displacement of the centers from the

¹⁵ In using language, we constantly 'project' discourse-worlds. A projection can be seen as a linguistic representation of the world (the 'world' not being restricted to objective, material reality). An utterance primarily signals our attitude towards such projections. A projection can be acknowledged, admitted, consented with, denied, wished for, appealed for, allowed, etc.

¹⁶ Langacker (1987: 217) defines 'landmarks' as entities that provide "points of reference for locating the trajector" in a profile.

¹⁷ Both implicit and explicit qualifications can be deictic (relative to a center directly linked to the ground) or non-deictic (relative to a center displaced from the ground).

ground. Most categories of tense, aspect, modality, and mood qualify as anchoring categories. But 'inherent aspects' (or, 'Aktionsart' distinctions, e.g., Vendler 1967, Van Valin and Lapolla 1997), 'quantificational aspects' (e.g., Dik 1997: 221), and derivational aspectual categories (e.g., the core meanings of 'bounders' discussed in Bybee & Dahl 1989: 85, and in Bybee, Perkins & Pagliuca 1994: 87-88) make part of the referential SoAs. They do not presuppose any relation to a communicatively set, implicit temporal center. In other words, they are *non-relative* temporal categories.

4.5. Domain-internal forces

Time-points, judgement-points, and projection-points are understood as potentially following one another in their respective domains. This 'flow' is due to *forces* effective in the three domains¹⁸. *Causal forces*, acting on existing SoAs, can transform a temporal state into another (i.e., they unroll time-points, advancing the time-line). *Logical forces*, acting on existing propositions, can transform an epistemic state into another (i.e., they unroll judgement-points, advancing an argument/a line of inference). *Volitional forces*, acting on existing evaluations, can transform a discourse state into another (i.e., they unroll projection-points, advancing a discourse).

4.6. Anchoring categories

4.6.1. Basic relational categories

Reflecting the flow of points in each of the three semantic domains, an anchoring category can specify a point as 'preceding', as 'coinciding with', or as 'potentially following' a center. Points can also be qualified as being 'in the vicinity of' (or, 'close to') a center. Lastly, a point can be qualified as 'unbound' by a center, which yields the semantically 'unmarked' category in a domain. The schema in Figure 1 depicts the basic dimensions this vision creates.

¹⁸ This is an application of the idea of 'force dynamics' originally suggested by Talmy (1988). Sweetser (1990) adopts the idea in her account of metaphorical mappings among the content, epistemic, and speech-act domains.

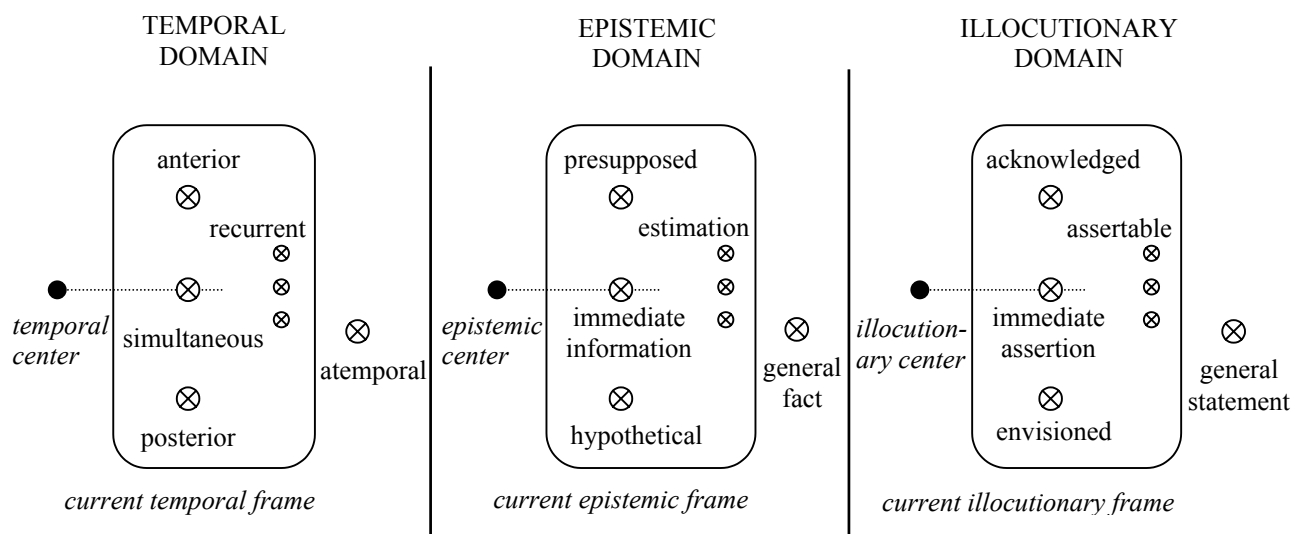


Figure 1: Basic relational categories

The logical space which consists of the range of points 'located' at some (prospective or retrospective) distance from a certain center makes up a *frame*. In other words, a frame is a collection of points *bound by* (i.e., which hold a specific relation to) a certain center. The temporal, epistemic, and illocutionary frames basically correspond to domain-specific 'mental spaces' (e.g., Fauconnier 1984)¹⁹. Points depicted outside the frames in each domain stand for those which are *unbound* by temporal, epistemic, or illocutionary centers.²⁰

The relational temporal qualification of an utterance is a specification of the relation of the time-point(s) it signals to the temporal center. This semantic paradigm minimally consists of the following basic categories: ATEMPORAL (time-point 'unbound' by the temporal center), ANTERIOR (time-point 'preceding' the temporal center), SIMULTANEOUS (time-point 'coincides with' the temporal center), RECURRENT (time-points 'in the vicinity of' the temporal center), and POSTERIOR (time-point 'potentially following' the temporal center).

The epistemic qualification of an utterance specifies the relation of the judgement-point(s) it signals to the epistemic center. This paradigm minimally consists of the following basic categories: PRESUPPOSED (judgement-point 'preceding' the epistemic center), GENERAL FACT (judgement-point 'unbound' by the epistemic center), IMMEDIATE INFORMATION (judgement-point 'coincides with' the epistemic center), ESTIMATION (judgement-points 'in the vicinity' of

¹⁹ In this paper, the term 'frame' is preferred to 'mental space' primarily to avoid confusion with 'semantic space', which covers areas which are inside as well as outside the frames. The temporal frame is basically a 'time-space' (Fauconnier 1984: 29-30). 'Hypothetical spaces' and 'wish-spaces' in Fauconnier (1984: 31-33) respectively correspond to special epistemic and illocutionary frames as conceived here.

²⁰ They can also be considered as belonging to 'generic spaces' as defined in Fauconnier & Turner (1994).

the epistemic center), and HYPOTHETICAL (judgement-point 'potentially following' the epistemic center).

The illocutionary qualification (or, 'force') of an utterance specifies the relation of the projection-point(s) it signals to the illocutionary center. This paradigm minimally consists of the following basic categories: ACKNOWLEDGED (projection-point 'preceding' the illocutionary center), GENERAL STATEMENT (projection-point 'unbound' by the illocutionary center), IMMEDIATE ASSERTION (projection-point 'coincides with' the illocutionary center), ASSERTABLE (projection-points 'in the vicinity' of the illocutionary center), and ENVISIONED (projection-point 'potentially following' the illocutionary center).

4.6.2. Basic categories of linkage

A speaker can also signal a *linkage* between two points in a semantic domain, one of which coinciding with the center. In doing this, he specifies forces that connect the center to a point which precedes or potentially follows it. The specification of *causal forces* yields the categories PERFECT and PROSPECTIVE; that of *logical forces*, INFERENCE and CONJECTURE; and that of *volitional forces*, REPORT and WISH.

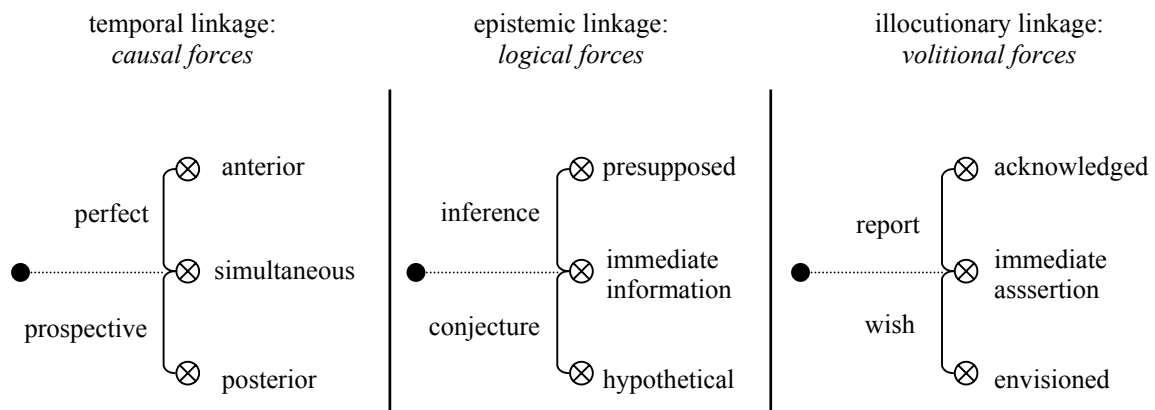


Figure 2: Basic anchoring categories that involve linkage via domain-internal forces.

4.6.3. Categories of displacement, additional dimensions, and finer distinctions

The relational categories and the categories of linkage depicted in Figure 1 and 2 are those which are most often involved in the interactive discourse mode (e.g., in conversation/casual talk). Discourse modes like narration, argumentation, or indirect report are characterized by *center displacements*, where a center (and the frame construed around it) is associated with a state other than the one directly linked to the ground. Center displacement can be triggered by

linguistic or non-linguistic cues. Local displacements also occur in 'when'-constructions, in conditional sentences, in complementation by mental state predicates, or in connection with temporal, epistemic, and illocutionary adverbials.

Categories of displacement refer to the subset of anchoring categories which induce center displacements. These categories are those involved in 'space builders' (see Fauconnier 1984: 16-18, Fauconnier & Sweetser 1996: 10). Every category of displacement is also associated with a relational anchoring (i.e., they induce displacements to points already qualified with respect to centers in the parent frames). *Categories of advancement* exclusively operate in discourse segments which involve center displacements (e.g., sequential/perfective tenses, epistemic or discursive converbs/conjunctions). They advance a time-line, an argument, or a discourse. Lastly, *categories of elaboration* specify the contents of a temporal, epistemic, or illocutionary state associated with a displaced center. They are actually relational anchoring categories which operate within displaced frames. Categories of advancement and elaboration anaphorically receive the relational qualifications associated with the hierarchically superior category of displacement (whether or not there are overt formal devices –such as anaphoric tenses or moods– which indicate this anaphoric relation).

The basic categories of linkage depicted in Figure 2 are those which reflect the speaker's subjective powers of temporal perception, reasoning, and will. A category of linkage can also reflect adjustments as to such powers of the addressee(s) and of third persons, yielding categories by which speakers negotiate on the contents of the current temporal, epistemic, and discourse states, in order to coordinate centers. (Such categories are involved in expressions of admission, acknowledgement, denial, rejection, insistence, indifference, etc.) Negotiation becomes more relevant at higher levels of anchoring, where qualifications reflect a richer array of interactions among subjective attitudes of the interlocutors. Various types of illocutionary acts (e.g., requests, offers, invitations, obligations, permissions, promises, etc.) reflect specific interactions of the will of the speaker with that (those) of the addressee(s).

In addition to the basic relations of 'distance' and involvement of 'forces', a relational anchoring category may contain further ingredients. It can specify other aspects of the forces which connect points, or various properties of the points themselves. For instance, temporal qualifications may be adjusted for 'remoteness distinctions' in temporal distance. The volitional force involved in a command may signal a specific relation of social dominance, and it can be 'mitigated' or 'reinforced' to various degrees. Or, a judgement-point can be associated with different sources or different types of sensory evidence. Such additional dimensions may even be culture-specific. Various combinations of those define a potentially

infinite number of relational anchoring categories. The degree of granularity that yields labeled relational categories is arbitrary; the semantic space can be elaborated to include more fine-grained distinctions and additional dimensions in any of the three semantic domains.

4.7. More on categories of generality and immediacy

In this section, I will expand on the anchoring categories which are most relevant for the decomposition of the three classes of illocutionary values associated with *-Vr/-Dir* and *-Iyor/-Ø*. These are categories defined via 'unbound' points *-ATEMPORAL*, *GENERAL FACT* and *GENERAL STATEMENT-*, and categories of coincidence *-SIMULTANEOUS*, *IMMEDIATE INFORMATION* and *IMMEDIATE ASSERTION*.

On the semantic space, points located outside the temporal, epistemic, and illocutionary frames (i.e., those unbound by the centers) stand for *unmarkedness* with respect to temporality, epistemicity and illocutionary force. These categories (*ATEMPORAL*, *GENERAL FACT* and *GENERAL STATEMENT*) specify *generality* in their respective semantic domains, in that they don't signal any specific relation to the center.

The anchoring category *ATEMPORAL* presents a time-point as being unbound by the temporal center. In other words, the time-point is generic; it has no specific relation (of precedence, coincidence, or vicinity) to the temporal center. The category does not assert 'eternal validity'; it just yields the unmarked option within the paradigm of temporal qualifications. It takes its 'non-contingent, established' meaning from its being free from any specific temporal perspective. This category can coexist with generic as well as specific subjects (i.e., it characterizes both 'gnomic' and 'characterizing/habitual' utterances). Temporal restrictions in *ATEMPORAL* utterance can only be due to the presupposed modes of existence (life-spans) associated with the participants of the SoA.

The category *GENERAL FACT* category signals a judgement-point as devoid of any specific relation to the epistemic center (i.e., as being unbound by the epistemic center). It yields the epistemically unmarked category. The proposition it contains is strongly 'realis', because it is not associated with any degree of uncertainty. No evidentiality is involved either, because there is no contingent dependence on evidence in the current epistemic state, and the judgement is not confined to any specific source of knowledge.

GENERAL STATEMENT signals that a projection is 'unbound' by the current illocutionary center (i.e., without any specific relation to the current discourse state). Neither illocutionary indirection, nor volitional linkage is involved. It represents the 'unmarked' illocutionary qualification, which grants it the strongest assertative force. The choice of this strong

illocutionary force is intrinsically connected to the 'authority' or 'credibility' of the producer of the utterance.

The unmarked categories above are all characterized as lacking any specific relation to the centers. The notion 'specific relation' should not be confused with that of 'relevance'. I reserve the term 'relevance' for categories that signal 'coincidence' with centers as part of their meaning. Not only the three basic categories of coincidence (i.e., SIMULTANEOUS, IMMEDIATE INFORMATION, and IMMEDIATE ASSERTION), but also categories of linkage depicted in Figure 2 specify relevance to the current temporal, epistemic, or discourse states (because they also signal coincidence as part of their meaning). To distinguish these two groups, I will refer to basic categories of coincidence as 'categories of immediate relevance' or briefly, as 'categories of immediacy'.

The anchoring category SIMULTANEOUS stands for temporal immediacy. The time-point it specifies is 'coincident' with the temporal center. In other words, it signals the current (deictically-set or displaced) temporal state itself. It corresponds to the 'continuous' aspect. It can be used with stative as well as dynamic-durative SoAs (yielding 'state-exists' and 'progressive' meanings). It presents an SoA as transitory and contingent to the current temporal state.

IMMEDIATE INFORMATION stands for epistemic immediacy. It signals a judgement-point as 'coinciding with' the epistemic center. In other words, it signals the current (deictically-set or displaced) epistemic state itself, specifying the immediate, circumstantial propositions (i.e., 'evidence') it contains. It is hence associated with a transitory and contingent -rather than established or presupposed- epistemic value.

The IMMEDIATE ASSERTION category signals a projection-point as 'coinciding with' the illocutionary center. In other words, it signals the current (deictically-set or displaced) discourse state itself. Hence, it specifies an expression as immediately relevant to the current linguistic interaction.

4.8. The hierarchical structure of the illocutionary value

Reflecting the three-way partitioning of the semantic space of anchoring categories, the illocutionary value of a predicational utterance can be decomposed into four parts: an illocutionary qualification, an epistemic qualification, a temporal qualification, and an SoA. These are organized in a hierarchy which reflects the relations of containment (or, 'intensionality') among the three types of entities described in section 4. Temporal qualifications take scope over the SoA (a temporal qualification is about an SoA).

Qualifications in the judgement domain take scope over temporal ones (an epistemic qualification is about an SoA which is already situated in time). Finally, qualifications in the illocution domain take scope over those in the judgement domain (one makes an illocutionary point about an SoA of which already has a temporal and an epistemic status):

- (5) The hierarchical structure of the illocutionary value of an utterance

Illocutionary qualification (Epistemic qualification (Temporal qualification (SoA))

Qualifications in the three domains of SoA-anchoring are not signaled with equal prominence, though. Normally, one of the qualifications receives *signal prominence*. For instance, a 'command' entails not only ENVISIONED (as well as other illocutionary ingredients), but also HYPOTHETICAL and POSTERIOR. But the semiotically prominent dimensions are illocutionary, and the epistemic and temporal dimensions are backgrounded.

4.9. On the strategies of expression of anchoring categories

The distinctions in the semantic space of anchoring categories introduced so far are meant as constituting a metalanguage by means of which illocutionary values of utterances can be decomposed. The space as such is indifferent to mode of expression, hence it has no independent implications on language-specific formal strategies. In principle, anchoring categories can be expressed by grammatical or lexical morphemes, by bound markers, clitics, auxiliary verbs, adverbs, mental state predicates, independent particles, intonational cues, a combination of those, or without overt marking.

Still, broadly delimited anchoring categories fulfill all the criteria for grammatical expression (Bybee, Perkins & Pagliuca 1994: 4-8). They exhibit semantic generality, they are semantically highly dependent and have fixed scope (due to the containment relations among entities in the three domains), and they are very frequently used (one category from each domain is involved in every predicational utterance). Indeed, languages abound with grammatically expressed TAM categories (see, e.g., Dahl 1985, Bybee, Perkins & Pagliuca 1994, Palmer 2001)²¹. But an anchoring category can also be very specific. Increasing the level of granularity and the inclusion of secondary semantic dimensions along which other semantic foci can be located will yield categories at any level of specificity. These categories can form elaborate grammatical paradigms (see, for instance, TAM systems with elaborate

²¹ Broadly delimited anchoring categories can also receive zero-expression. This is presumably facilitated by their strongly context-dependent nature. Their being strongly tied to the context (specifically, to the illocutionary background) often makes their appearance as grammatical markers redundant (see Bybee, Perkins & Pagliuca 1994: 8).

remoteness distinctions in Dahl 1985: 120-128, or grammatical paradigms of evidential sources in Palmer 2001: 35-47). But they can also be expressed by lexical items alone (e.g., with adverbs), or more often, with a combination of grammatical strategies and lexical items (e.g., by complementation with mental state predicates)²². Finally, since grammaticalization is a gradual process, an anchoring category can be expressed with a semi-grammaticalized strategy.

The formal strategies of languages can be seen to be shaped by the interaction of two general principles of form-meaning relations: *expressivity* (or, 'iconicity') and *economy*. Expressivity forces languages to provide more alternative or combinatory strategies that enable speakers to express distinctions at the intended level of specificity. Conversely, formal economy pushes languages to map their markers onto 'regions' on the semantic space rather than onto 'singular points'. This makes multifunctionality a rule rather than exception (for both lexical and grammatical markers), and the specification of the multiple meanings of a form becomes a matter of descriptive granularity²³. Multifunctionality especially pervades TAM systems: languages typically have much fewer TAM markers than what full transparency in semantic composition and paradigmatic differentiation requires. As Wallace (1982: 202) observes, "time, aspectuality, and modality - the semantic fields to which the formal categories of tense, aspect, and mode are supposed to refer - are almost inextricably scrambled together."

But multifunctionality is not random. Semantic maps²⁴ have shown that multiple meanings of a marker map onto 'contiguous' regions on the semantic space, exceptions explainable by particular diachronic developments. In section 6, I will use the semantic space of anchoring categories to draw semantic maps that represent the patterns of multifunctionality associated with *-Vr/-Dir* and *-Iyor/-Ø*.

²² See Nuyts (2001, 2002) for a detailed documentation of the alternative strategies by which epistemic modality is expressed in Dutch.

²³ This statement is indifferent to the types of multifunctionality, including vagueness, polysemy, or homonymy.

²⁴ Semantic maps are tools which have recently gained increasing popularity in representing multiple meanings of linguistic forms. They are typically used in typological investigations in specific areas of grammatical meaning (e.g., Anderson 1982 for 'perfect', Haspelmath 1997 for 'indefinite pronouns', van der Auwera & Plungian 1998 for 'modality'). See Croft (2003:122-156), Haspelmath (2003) and van der Auwera & Temürçü (forthcoming) for further information about and references to semantic maps.

5. Semantic decomposition of the three classes of illocutionary value

I will now analyze and decompose the illocutionary values associated with *-Vr* and *-DIr* identified in section 3 on the basis of the semantic space of anchoring categories. The discussion will also yield a partial semantic analysis of *-Iyor* and *-Ø*.

5.1. Gnostic/characterizing statements

The gnostic/characterizing statements exemplified in section 3.1 characteristically instantiate the ATEMPORAL category. Below are other examples of this class of utterances:

(6a) *Kedi-ler karanlık-ta gör-ür.*
cat-PLU darkness-LOC see-**Vr**
'Cats see in the dark.'

(6b) *Mustafa dondurma-yı çok sev-er.*
M. ice.cream-ACC much like-**Vr**
'Mustafa likes ice cream very much.'

(6c) *Kertenkele bir sürüngen-dir.*
lizard a reptile-**DIr**
'A lizard is a reptile.'

Those utterances are temporally unmarked, in that they do not signal any specific relation to the temporal center (i.e., they entail the anchoring category ATEMPORAL). They predicate an inherent characteristic to their subject, whether the subjects is generic, as in (6a) and (6c), or specific, as in (6b). But they also present the propositions they contain as established facts, and convey illocutionary emphasis and definiteness. In other words, they also entail the GENERAL FACT and GENERAL STATEMENT categories (the category ATEMPORAL receiving signal prominence):

(7) Semantic decomposition of 'gnostic/characterizing statements'

ATEMPORAL + GENERAL FACT + GENERAL STATEMENT

In order to see that epistemic and illocutionary generality are also involved in such statements, let us look at utterances which convey temporally unmarked SoAs with immediate relevance to the epistemic and illocutionary states. Immediate relevance to the current epistemic state (i.e., the IMMEDIATE INFORMATION category) can be due to a recent discovery, surprise, hot news, a reminder, significance for a currently ongoing argument, or an otherwise

direct link to the current knowledge state established between the speaker and the addressee(s). In such cases, the speaker overrides the GENERAL FACT category by using *-Iyor/-Ø* instead of *-Vr/-Dir*. For example, if a scientist has just discovered that lizards see in the dark, or if one has recently realized that Ahmet very much likes ice cream, she would utter:

(8a) *Kertenkele-ler karanlık-ta gör-üyor!*
 lizard-PLU darkness-LOC see-**Iyor**
 'Lizards see in the dark!'

(8b) *Ahmet dondurma-yı çok sev-iyor.*
 A. ice.cream-ACC much like-**Iyor**
 'Ahmet likes ice cream very much.'

A direct link to the current epistemic state can be signaled by an explicit morphosyntactic device. Those include markers of conclusion or inference like *sonuçta* 'in the end/as a result', *o halde* 'then', *demek ki* 'this means that', adverbials of non-conclusive evidentiality like *anlaşılan* 'evidently', *galiba* 'apparently', *öyle görünüyor ki* 'it seems that', and markers of ostention like *baksana* 'look', *gördün mü?* 'see?'. Even when the profiled SoA is temporally-unbound (ATEMPORAL), such explicit linkage to the current epistemic state makes the use of *-Vr* or *-Dir* incongruous, and *-Iyor* or *-Ø* are used instead:

(9) *Sonuçta /O halde /Demek ki*
 in the end /then /this means that

Anlaşılan /Galiba /Öyle görünüyor ki
 evidently /apparently /it seems that

Baksana, /Gördün mü?,
 look /see?

(a) ...*Ahmet dondurma-ya bayıl-ıyor/???bayıl-ır.*
 A. ice.cream-DAT adore-**Iyor**/adore-**Vr**
 'Ahmet adores ice cream.'

(b) ...*Ahmet her sabah traş ol-uyor/???ol-ur.*
 A. every morning shave be-**Iyor**/be-**Vr**
 'Ahmet shaves every morning.'

(c) ...*Kertenkele-ler karanlık-ta gör-üyor/???gör-ür.*
 lizard-PLU darkness-LOC see-**Iyor**/see-**Vr**

'Lizards see in the dark.'

- (d) ...*Kertenkele soğukkanlı bir hayvan-Ø/???hayvan-dir.*
lizard cold-blooded a animal-Ø/animal-**Dir**
'A lizard is a cold-blooded animal.'

The following utterance nicely exemplifies the contrast between ATEMPORAL SoAs presented as GENERAL FACT and those presented as IMMEDIATE INFORMATION. 'Adoring ice cream' is presented as a characteristic inherent to both the speaker and Mustafa. The two utterances only differ as to their epistemic status:

- (10) *Ben dondurma-ya bayıl-ır-ım. Anlaşılan Mustafa da ben-im*
I ice.cream-DAT adore-**Vr**-1SG.Evidently M. also me-GEN.1SG
gibi, o da dondurma-ya bayıl-ıyor/???bayıl-ır.
like he also ice.cream-DAT adore-**Iyor**/adore-**Vr**
'I adore ice cream. Evidently, Mustafa is like me; he also adores ice cream.'

In the examples above, the use of *-Iyor/-Ø* in temporally-unmarked statements to convey epistemic immediacy also makes the utterances 'immediately relevant' expressions: they lose their strong, emphatic, or authoritative illocutionary force (i.e., they become ATEMPORAL + IMMEDIATE INFORMATION + IMMEDIATE ASSERTION). It is also possible that the IMMEDIATE ASSERTION takes scope over temporal and epistemic generality (i.e., ATEMPORAL + GENERAL FACT + IMMEDIATE ASSERTION). Immediate relevance to the current discourse state (i.e., to the current linguistic interaction) in such cases can be due to a discursively significant confirmation, acknowledgement, or focalization of a generally known, temporally-unbound SoA. In this case too, *-Iyor/-Ø* will be used rather than *-Vr/-Dir*. (11a) illustrates an immediate assertion of a general fact about the speaker. (11b) includes a proverb (normally marked with *-Vr*) uttered in close connection with the current discourse. And (11c) illustrates an immediate (and possibly ostensibly conditioned) confirmation of a general evaluation.

- (11a) *Yap-ama-yacağ-ım belli-ydi. Bu iş-ten anla-m-ıyor-um işte!*
do-ABIL.NEG-FUT-1SG obvious-PAST this task-ABL understand-NEG-**Iyor**-1SG INT
'It was obvious that I would fail. I don't understand this stuff!'
- (11b) *Ne yap-ar-sın, her koyun kendi bacağ-ı-ndan as-ıl-ıyor.*
what do-AOR-2SG, each sheep self leg-POSS-ABL hang-PASS-**Iyor**
'What can we do? Every man for himself (*lit.* Each sheep is hung on its own leg.)'

- (11c) *Kedi-ler gerçekten de güzel hayvan-lar-Ø!*
 cat-PLU really CONJ beautiful animal-PLU-Ø
 'Cats are really beautiful animals!'

5.2. Strongly factual statements

The class of utterances identified in section 3 with the label 'strongly factual statements' characteristically include the anchoring category GENERAL FACT (i.e., they present the propositions they contain as free from epistemic restrictions). As shown above, the GENERAL FACT category takes part in ATEMPORAL statements made with *-Vr/-Dir*. When temporality is marked by *-(y)AcAG*, *-mİş*, or *-mAktA* (for POSTERIOR/PROSPECTIVE, ANTERIOR/PERFECT, or SIMULTANEOUS/RECURRENT respectively), GENERAL FACT is conveyed by *-Dir*. *-Vr* is not applicable in this morphosyntactic context, because temporal marking 'nominalizes' the verbal predicate. Below are other examples of strongly factual statements:

- (12a) *Homo habilis 2,5 milyon yıl önce evr-il-miş-tir.*
 Homo habilis 2.5 million year before evolve-PASS-ANT-**Dir**
 'Homo habilis evolved 2.5 million years ago.'
- (12b) *Ekolojik denge hızla bozul-makta-dir.*
 Ecological balance rapidly deteriorate-PROG-**Dir**
 'The ecological balance is being destroyed rapidly.'
- (12c) *Hiçbir suç ceza-sız kal-ma-yacak-tır.*
 No crime punishment-DEP stay-NEG-FUT-**Dir**
 'No crime will be left unpunished'

The category GENERAL FACT presents a proposition as being independent of any piece of evidence within the current epistemic state. Hence, 'strongly factual statements' are not compatible with adverbials of evidentiality, since those indicate an 'immediate' conclusion or inference. The attachment of *-Dir* is incongruous in such cases. *-DI*, *-Iyor* (or *-mAktA*), and *-(y)AcAG* will be used for anterior, simultaneous, and posterior time reference respectively²⁵:

- (13) *Sonuçta /O halde /Demek ki*
 in the end /then /this means that

²⁵ *-mİş-DIr* and *-(y)AcAk-DIr* can be marginally acceptable with some of the adverbials, but then *-Dir* will convey epistemic modality (e.g., ESTIMATION or CONJECTURE) rather than strong factivity (e.g., GENERAL FACT).

Anlaşılan /Galiba /Öyle görünüyor ki
evidently /apparently /it seems that

Baksana, /Gördün mü?,
look /see?

- (a) ... *Homo habilis 2,5 milyon yıl önce evr-il-di/???evr-il-miş-tir.*
Homo habilis 2.5 million year before evolve-PASS-PAST/PASS-ANT-**DIr**
'Homo habilis evolved 2.5 million years ago.'
- (b) ... *Ekolojik denge hızla bozul-uyor/???bozul-makta-dir.*
Ecological balance rapidly deteriorate-CONT/-PROG-**DIr**
'The ecological balance is being destroyed rapidly.'
- (c) ... *Hiçbir suç ceza-sız kal-ma-yacak/???kal-ma-yacak-tır.*
No crime punishment-DEP stay-NEG-FUT/-NEG-FUT-**DIr**
'No crime will be left unpunished.'

Just like gnomic/characterizing statements with *-Vr/-DIr*, strongly factual statements with *-DIr* also yield emphatic, authoritative statements. In other words, while the GENERAL FACT category receives signal prominence, such utterances also entail the GENERAL STATEMENT category:

(14) Semantic decomposition of 'strongly factual statements'

(temporal qualification) + GENERAL FACT + GENERAL STATEMENT

In contexts where a specific relation to the current illocutionary center is signaled, even when a general, established fact is involved, *-DIr* will not be used, and other aspectotemporal markers will be chosen depending on the temporal dimension. The strongly factual evaluations involved in (12a-c) above, pronounced in immediate relevance to the current discourse state, will be rendered by *-DI*, *-Iyor*, and *-(y)AcAG* respectively. (15a) exemplifies an immediate acknowledgement, (15b) a discourse-motivated illocutionary foregrounding, and (15c) a personal confirmation of strongly factual contents:

(15a) *Tamam, Homo habilis 2,5 milyon yıl önce evr-il-di.*

OK Homo habilis 2.5 million year before evolve-PASS-PAST

'OK, Homo habilis evolved about 2.5 years ago.'

(15b) *Bil-diğ-imiz gibi, ekolojik denge hızla boz-ul-uyor.*

know-fn-POSS.1PL like ecological balance rapidly deteriorate-PASS-CONT

'As we know, the ecological balance is being destroyed rapidly.'

(15c) *Tabii ki hiçbir suç ceza-sız kal-ma-yacak.*

natural that no crime punishment-DEP stay-NEG-FUT

'Of course no crime will be left unpunished.'

5.3. Emphatic/authoritative statements

As seen above, the GENERAL STATEMENT category takes part in the illocutionary values of 'gnomic/characterizing' and 'strongly factual' statements made with *-Vr* or *-Dir*. But it can also coexist with other temporal and epistemic categories in the form of *-Dir*, yielding the class of 'emphatic/authoritative statements' identified in section 3. Again, *-Vr* is not applicable in this morphosyntactic context, because bound-marking at lower-level paradigms 'nominalizes' the predicate. This illocutionary value has the following semantic decomposition:

(16) Semantic decomposition of 'emphatic/authoritative statements'

(temporal qualification) + (epistemic qualification) + GENERAL STATEMENT

The following statements announce new, immediately relevant information rather than general, strongly factual information, but still have the sense of illocutionary strength and definiteness associated with authority (such statements with *-Dir* are typical in official register):

(17a) *Okul-lar-ın Cuma'-ya kadar tatil-i-ne karar*

ver-il-miş-tir.

school-PLU-GEN Friday-DAT until vacation-POSS-DAT decision

give-PASS-ANT-**Dir**

'It has been decided that schools be closed until Friday.'

(17b) *Bakan-lar kurul-u taslak üzer-i-nde çalış-makta-dir.*

minister-PLU council-POSS draft top-POSS-LOC work-PROG-**Dir**

'The council of ministers is working on the draft.'

(17c) *Tüm daire-ler saat altı-ya kadar çalış-acak-tir.*

All office-PLU hour six-DAT until work-FUT-**Dir**

'All the offices will be working until six o'clock.'

The contents of the statements above, conveyed in an unofficial communicative setting, will normally be rendered by *-DI*, *-Iyor*, and *-(y)AcAG* respectively. The GENERAL STATEMENT

category does not only appear in the official register or in written language. It can characterize 'emphatic/strong' assertion in spoken communication too. For instance, a medical doctor who wants to 'reassure' his addressee will utter the statements with *-DIr* in (18) and (19), in order to strengthen the force of his assertions:

(18) *Bu tür ameliyat-lar-ın hiçbir risk-i yok-Ø/yok-tur.*
 this type operation-PLU-GEN no risk-POSS not.exits-Ø/not.exist-**DIr**.
 'Such operations carry no risk at all.'

(19) *Merak et-me-yin, kız-ı-nız iyileş-ecek/iyileş-ecek-tir.*
 worry do-NEG-IMP.2PL daughter-POSS-2PL get.well-FUT/get.well-FUT-**DIr**
 'Don't worry, your daughter will get well.'

5.4. *-Iyor* and *-Ø* as marking 'immediacy'

The analyses presented so far for *-Vr* and *-DIr* enable us to partially determine the semantic ranges of *-Iyor* and *-Ø*. Conventional descriptions of *-Iyor* characterize it as the marker of 'continuous/progressive aspect' or of 'present tense'. This dimension corresponds to temporal immediacy (i.e. the category SIMULTANEOUS) in the present framework. However, as exemplified on various occasions above, *-Iyor* and *-Ø* can also convey epistemic and/or illocutionary immediacy (i.e., IMMEDIATE INFORMATION and IMMEDIATE ASSERTION).

-Iyor and *-Ø* are restricted to temporal immediacy only when they appear under the scope of certain center displacements (e.g., with *-(y)DI*, *-(y)mIş*, *+ol-acak*, *-(y)sA*, etc.) or of other higher-level qualifications (e.g., epistemic modality by *-DIr*, *+ol-abilir*, *ol-malı*, inference or report by *-(y)mIş*, subjunctive by *+ol-a* or *+ol-sun*, etc.). In verbal utterances where epistemic or illocutionary generality (expressed by *-DIr* attached to the bound-inflected verb) are involved, the SIMULTANEOUS category is marked by *-mAktA* rather than by *-Iyor*²⁶ (see examples (12b) and (17b)).

-Iyor and *-Ø*, due to their 'transitory' values (in contrast to the 'established' values of *-Vr* and *-DIr*), replace *-Vr* and *-DIr* in contexts where epistemic and/or illocutionary contingency is at stake. For instance, when a temporally-unbound SoA is used as a condition for a dependent illocutionary act, *-Iyor/-Ø* replace *-Vr/-DIr*. The protases in (20a) and (20b) are ATEMPORAL, and the functionally similar sub-clause in (20c) is both ATEMPORAL and

²⁶ Although *-Iyor* can also combine with *-DIr*, this conveys a combination of SIMULTANEOUS (or RECURRENCE) with epistemic possibility (e.g., ESTIMATION or CONJECTURE) rather than with GENERAL FACT.

GENERAL FACT. But since they all signal contingent dependence on the immediate epistemic/illocutionary state, they will be marked with *-Iyor/-Ø* rather than with *-Vr/-Dir*:

(20a) *Yüz-me-yi bil-m-iyor-sa-nız/???bil-m-ez-se-niz bura-da kal-ın.*
 swim-INF-ACC know-NEG-**Iyor**-COND-2PL/-**Vr**-COND-2PL here-LOC stay-IMP.2PL
 'If you can't swim, stay here.'

(20b) *Ahmet güvenilir bir insan-Ø-sa/???insan-dir-sa gel-miş-tir.*
 reliable a man-Ø-COND/man-**Dir**-COND come-ANT-JCL
 'If Ahmet is a reliable person, he will have come.'

(20c) *Kedi-ler karanlık-ta gör-üyor da/???gör-ür de sen niye gör-me-ye-sin?*
 cat-PLU darkness-LOC see-**Iyor**/see-**Vr** CONJ you why see-NEG-OPT-2SG
 'If cats see in the dark, why wouldn't you do?'

-Iyor's replacement of *-Vr* marks a switch from generality to immediacy other contexts too. For instance, both *-Vr* and *-Iyor* can be used to convey the temporal category 'perfect of persisting situation', as seen in the following pair:

(20) *On yıl-dir bu muhit-te otur-ur/otur-uyor.*
 ten year-since this district-LOC live-**Vr**/live-**Iyor**
 'He has been living in this district for ten years.'

The temporal qualification in both utterances is identical. The difference is that *-Vr* presents the proposition as an established, generally known fact, whereas *-Iyor* focuses on its immediate informative value.

The association of *-Iyor* and *-Ø* with IMMEDIATE INFORMATION opens up an interesting possibility to approach the 'future reference' that can be conveyed by this form. Below are two examples of this use:

(21a) *Tren saat üç-te kalk-ıyor*
 Train hour three-LOC take.off-**Iyor**
 'The train leaves at three o'clock.'

(21b) *Yarın akşam İstanbul'-da-Ø-yız*
 Tomorrow evening İstanbul-LOC-Ø-1PL
 'Tomorrow evening we will be in İstanbul.'

Future pointing utterances with *-Iyor* have often been characterized as 'scheduled' or 'planned' futures. For example, Yavaş (1980, 1982b) concludes that futures with *-Iyor* are

used in the existence of a present decision, plan, arrangement, or schedule for the carrying out a future act, implying a higher degree of certainty than the 'unmarked' futures with *-(y)AcAG*. Although it is evident that *-Iyor* is typically used in contexts where an 'arrangement', 'planning' or 'scheduling' exists towards the realization of the future event, such notions seem to be too specific for the general characterization of futures rendered by *-Iyor* or *-Ø*. It is possible to find examples where such specific premeditation is lacking:

- (22a) *Pazar gün-ü hava aç-iyor/güneş-li-Ø.* (e.g., on the base of whether reports)
 Sunday day-POSS whether open-**Iyor**/sun-with-**Ø**
 'On Sunday clouds will dissipate/it will be sunny.'
- (22b) *(Anlaşılan/galiba) kimse gezi-ye katıl-m-iyor.*
 evidently/apparently nobody trip-DAT join-NEG-**Iyor**
 '(It seems that) nobody joins the trip.'
- (22c) *(Anket-ler-e bak-ıl-ır-sa) seçim-i kaybed-iyor-uz*
 poll-PLU-DAT look-PASS-AOR-COND election-ACC lose-**Iyor**-1PL
 '(According to the polls) we are losing the election'

What is generally involved in such utterances is a present state of knowledge about a future SoA. This epistemic state may be (but is not necessarily) connected to present plans, arrangements, or schedules. This component of epistemic immediacy (i.e., IMMEDIATE INFORMATION) in future-oriented *-Iyor* utterances is also accompanied by illocutionary immediacy (i.e., IMMEDIATE ASSERTION). In some instances of *-Iyor* futures, this latter component (immediate relevance to the current conversational state) can be more prominent than the former. Both utterances in (23) involve the speaker's present decision or intention, and they are expressed with equal degree of certainty. But in (23a), the speaker's immediate illocutionary act (his 'declaration') receives signal prominence, while (23b) sounds more 'descriptive' as to its illocutionary effect:

- (23a) *Hiçbir yer-e git-m-iyor-um!*
 no place-DAT go-NEG-**Iyor**-1SG
 'I'm not going anywhere!'
- (23b) *Hiçbir yer-e git-me-yeceğ-im.*
 no place-DAT go-NEG-(y)**AcAG**-1SG
 'I will not go anywhere.'

-Iyor and $-\emptyset$ receive similar functions of immediacy in narratives. *-Iyor* can replace the sequential/perfective markers *-DI* or *-mIş* (and $-\emptyset$, the anaphoric markers *-(y)DI* and *-(y)mIş*), producing an effect of deictic immediacy throughout or in certain segments of a narrative (e.g., Kornfilt 1997: 339, Johanson 1994: 254; see Erguvanlı-Taylan 1987 and Zeyrek 1994 for examples of such narrative segments).

6. Partial semantic maps and a possible diachronic explanation

The analyses provided above for the illocutionary values associated with *-Vr/-DIr* and *-Iyor* and $-\emptyset$ suggest the partial semantic maps shown in Figure 4 and Figure 5. These are slightly different than conventional semantic maps; they represent meanings as combinations of semantic dimensions rather than as unitary focal points on the space. The maps are partial, because they exclude other meanings of the forms, which would make the patterns extend to certain contiguous areas (*-DIr/-Vr* covering at least ESTIMATION and ASSERTABLE, and *-Iyor* at least RECURRENT, as well as the combination of POSTERIOR with IMMEDIATE INFORMATION and IMMEDIATE ASSERTION). The maps also ignore the semantic contribution of *-Vr/-DIr* and *-Iyor/- \emptyset* in utterances where they are under the scope of another TAM marker (such as *-(y)DI*, *-(y)mIş*, *-(y)sA*, etc.)

In the semantic map in Figure 4, the biggest oval stands for the class of illocutionary value labeled as 'gnomic/characterizing statements', the medium one for 'strongly factual statements', and the smallest one for 'emphatic/authoritative statements'.

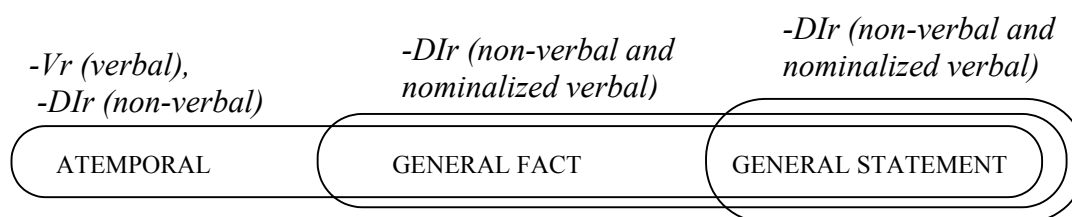


Figure 4: A partial semantic map for *-Vr* and *-DIr*.

The semantic map in Figure 5 depicts three types of illocutionary values associated with *-Iyor* (used with verbal predicates) and $-\emptyset$ (used with non-verbal predicates). The straight oval represents the most frequent uses of the forms, i.e., temporal simultaneity in combination with epistemic and illocutionary immediacy. One of the other patterns depicts the combination of atemporality with epistemic and illocutionary immediacy (see examples (8), (9), (10) and (23)). The last pattern represents assertions where illocutionary immediacy combines with temporal and epistemic generality (see examples (11) and (20)):

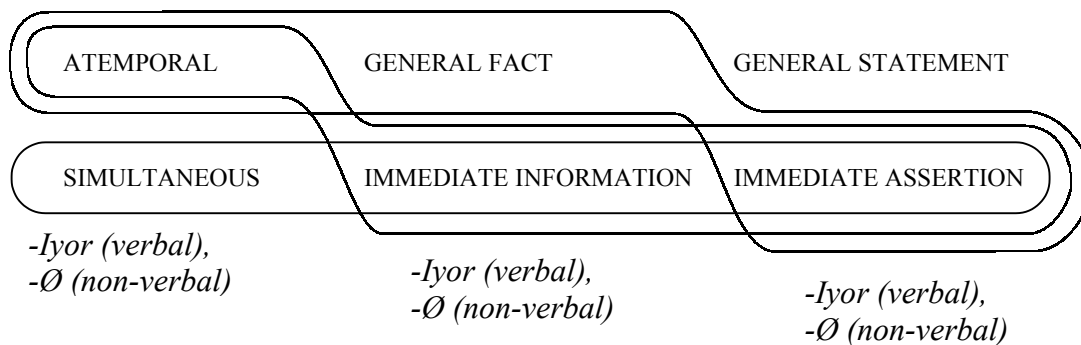


Figure 5: A partial semantic map for *-Iyor* and *-Ø*

Patterns of multifunctionality represented by semantic maps correlate with diachronic developments of sound-meaning correspondences. In particular, contiguity is tied to step-by-step expansion and reduction of semantic applicability in the life of a marker, presumably due to communicative relations among certain meanings in certain communicative contexts. These semantic changes are often accompanied by changes in the phonetic shapes and formal behaviors of markers. The diachronic process where the meaning of a marker gradually becomes more general and abstract while its form undergoes phonetic erosion and becomes more dependent on its morphosyntactic and phonological context is known as 'grammaticalization' (see Heine, Claudi & Hünemeyer 1991, Hopper & Traugott 1993, Lehmann 1995, among others).

In one particular approach to semantic change, semantic relations in more abstract domains are metaphorically derived from relations in similarly structured, more concrete domains. In particular, Sweetser (1990) maintains that the relations in the 'epistemic' and the 'speech act' (i.e., illocutionary) domains are metaphorically extended from those in the 'content' domain. The unidirectionality inherent in metaphoric relations (the mapping from 'source' domains to 'target' domains) is maintained to motivate unidirectional 'chains' or 'paths' of grammaticalization. The uniformity in the internal structuring of the three domains of anchoring encourages one to explain the patterns of multifunctionality of *-Vr*, *-Dir*, *-Iyor* and *-Ø* with semantic shifts motivated by metaphor. From this point of view, the temporal categories associated with *-Vr*/*-Dir* and *-Iyor*/*-Ø* would be both conceptually and historically 'prior' to the epistemic and illocutionary categories. Nevertheless, the fact that what is invariant in all meanings of the forms are the illocutionary components (rather than temporal or epistemic ones) makes one think that the illocutionary and epistemic components have always been there since the time when the two bound markers (*-Vr* and *-Iyor*) came to oppose

each other in the overall TAM system²⁷. This hypothesis is reminiscent of what Bybee, Perkins & Pagliuca (1994: 291-292) propose for the grammaticalization of 'locative' progressives and 'go-futures'. What they maintain is that these processes involve a specific type of 'semantic generalization', where the 'target' (temporal) meanings have been there from the beginning, entailed or constantly implied by the original (spatial) meanings of the constructions.

The evolution of *-Vr* into *-Dir* (first *-Vr*'s infection the auxiliary verb *+tur* -yielding *turur-*, then the partial digestion of the auxiliary and cliticization to the root) seems to have given it the ability to attach to other temporal and epistemic markers. As far as the modified form (*-Dir*) alone is concerned, this can be seen as a 'semantic specialization' in the inherent meaning of *-Vr* (since it loses its temporal ingredients). But as far as the overall applicability of the *-Vr*-lineage is concerned, the process is best seen as 'semantic generalization', because the original marker *-Vr*, in a modified form, steps into the territory of a wider semantic context (which includes posteriority, simultaneity, and anteriority). This process of semantic generalization must have been motivated by the 'communicative consonance' among the categories of generality. The use of the ATEMPORAL category mostly (but not necessarily) requires the involvement of the GENERAL FACT category, because temporally-unbound SoAs are normally also those which are generally known. Similarly, GENERAL FACT mostly goes hand in hand with GENERAL STATEMENT, because general facts are normally pronounced by persons 'authorized' to voice general, impersonal statements.

Similarly, *-Iyor*, as a marker of simultaneity, must always have entailed temporal, epistemic and illocutionary immediacy, and gradually expanded its semantic application by covering combinations of ATEMPORAL (and GENERAL FACT) with IMMEDIATE INFORMATION (and IMMEDIATE ASSERTION).

7. Comparison with previous accounts

Although Sansa (1986) does not presuppose distinct semantic domains, her descriptions of statements made with *-Dir* and *-Vr* hint at temporal, epistemic, and illocutionary aspects of the meanings involved. She associates the 'factive' uses of *-Dir* and *-Vr* with "genericity", "permanence", "theoretical generality", "scientific definitions", etc. In contrast, *-Iyor* and \emptyset are associated with "deictic, ostensive observation or instance readings", "temporary or transitory statuses", speaker's interest in "the communication of his observation", or

²⁷ *-Iyor* is a relatively recent introduction to the TAM system, by the grammaticalization of *yor-ir* (the Aorist of the verb *yor*, present day *yürü* 'walk'; Lewis 1967/1978: 110).

"foregrounding, attentive implications" (Sansa 1986: 148). Sansa's general characterization of the opposition between $-\emptyset$ and $-Dir$ is fully consistent with the main opposition between 'generality' and 'immediacy' as defined in this paper:

[The distinction between non-verbal sentences with \emptyset and with DIR] seems to be on a par in general with the distinction between token and type, member and set, observation and description or definition, deictic as opposed to generic, respectively, depending on the context. (Sansa 1986: 154)

Her proposal to represent the 'factive' readings of $-Dir$ sentences "within the framework of a speech act semantics as the predicate of a higher sentence, as an abstract performative verb, which will be represented as ASSERT(S, A), CERTAIN(A)..." is also in tune with the gist of the analyses presented in this paper.

Kerslake's (1986) point in explicating the difference between the utterances in (24a) and (24b) below is also compliant with the contrast between 'epistemic generality' and 'epistemic immediacy' as defined here. Kerslake states that " $-Dir$ implies that the speaker knows about the scent of this species of flower from previous experience, or as an item of common knowledge, and that he is making a generic statement on that basis". Zero marking on the other hand, is what is chosen "for conveying that the speaker is receiving the scent of the flower in front of him as he speaks." (Kerslake 1988: 156-157).

(24a) *Bu çiçeğ-in koku-su güzel-dir.*
this flower-GEN scent-POSS nice-**Dir**
'This flower has a lovely scent.'

(24b) *Bu çiçeğ-in koku-su güzel-∅.*
this flower-GEN scent-POSS nice-**∅**
'This flower has a lovely scent.'

Lewis's (1967/1978) following comment refers to the (illocutionary) 'immediacy' associated with $-Iyor$: "For 'I love you', the Turk says *seni seviyorum*; if he said *seni severim* that would sound far too vague and without immediacy, corresponding rather to 'I like you'".

Yavaş (1980: 133-136, 1982a) associates 'generic' and 'habitual' statements made with $-Vr$ with Carlson's (1977) 'object-level' predication, and the corresponding $-Iyor$ utterances with 'stage-level' predication. The former conveys that a behavior or property is "typical of, characteristic of, or even inherent to" the subject, while the latter asserts truth relative to an

interval of time. In consideration of the fact that 'object-level' predication amounts to a 'temporally unbound', and 'stage-level' to a 'temporally bound' qualification, Yavaş's distinction corresponds to that between anchoring categories ATEMPORAL and SIMULTANEOUS.

Grammars of Turkish and descriptions of TAM categories often acknowledge *-Dir* as a 'third person copula' especially in written language (e.g., Johanson 1994: 253, Lewis 1967/1978: 97). Kornfilt (1997: 81-82) also treats instances of *-Dir* which do not convey 'emphatic certainty' or 'inferred probability' as instances of an 'optional' third person copula. The analyses presented in this paper lend support to Sansa's observation that *-Dir* is "not an innocent third person marker". The reason why it is often seen as a third person copula presumably relates to the fact that first and second persons, as highly specific and deictically immediate entities, are more compatible with categories of immediacy rather than those of generality. Indeed, the official register, which favors general evaluations and general statements due to its very nature, rarely refers to first and second persons. Even in spoken language, a speaker's authoritative or strong statements about himself or the addressee(s) may be judged inappropriate. Still, such strong expressions with *-Dir* are possible with first and second persons and are not too infrequent (see also example (2c)):

(25a) *(Herkes bil-ir ki) bu iş-te usta-yım-dir/usta-yız-dir.*

Everyone know-AOR that this job-LOC master-1SG-**Dir**/master-1PL-**Dir**
'(Everyone knows that) I am/we are qualified in this business.'

(25b) *Zaten sen ilginç bir adam-sın-dir.*

already you interesting a man-2SG-**Dir**
'You are an interesting person.' (As a generally known fact)

8. Crosslinguistic correlates of generality and immediacy

The difference between immediacy and generality seems to be grammatically marked in a number of languages, especially in non-verbal predication. For example, the semantic contrast between the copulas *ser* and *estar* in Spanish closely parallels that between *-Dir* and $-\emptyset$ in Turkish. Maienborn's (2003) characterization of this contrast in a DRT (Discourse Representation Theory) framework is also fully compatible with that between 'immediacy' vs. 'generality' contrast defined in this paper: "...*estar* differs from *ser* only in presupposing a relation to a specific discourse situation. By using *estar* a speaker restricts his or her claim to a specific discourse situation, whereas by using *ser*, the speaker makes no such restriction." A similar phenomenon is observed in Hebrew, where overt marking with a pronominal copula

marks a non-verbal sentence as 'generic', and its absence as 'nongeneric' (Greenberg 1998). Li, Thompson & Thompson's (1982) discussion of the Mandarin sentence-final particle *le* suggests that this marker covers the regions characterized by 'relevance to current states' on the semantic space, including the three categories of immediacy as well as the basic categories of linkage. Li, Thompson & Thompson (1982:22) maintain that "the basic communicative function of *le* is to signal a 'Currently Relevant State'", and exemplify various uses of the form which convey relevance to the current time or to the current informational state, or immediate contribution to the current conversation.

Constraints of formal economy and the pragmatic consonance among the categories of generality (and among those of immediacy) allow us to predict that the higher-level categories of immediacy and generality infrequently receive specialized grammatical marking (i.e., they are expected to be entailed in the meanings of 'present/continuous/progressive' and 'gnomic/generic/habitual' markers)²⁸. Besides, since the categories of generality are semantically unmarked, they are also expected to be formally unmarked as a typological tendency. Indeed, Dahl (1985: 100) reports that "the most frequent case is for generic sentences to be expressed with the most unmarked TMA category, as in English, where the Simple Present is used. Indeed, 'generic' sentences seem to be the cases that are most often unmarked for TMA."

Still, it is possible to spot grammatical forms which specifically convey epistemic or illocutionary immediacy or generality without signaling temporal dimensions. The 'emphatic mood marker' *ski* in Hidatsa can be characterized as a marker of GENERAL FACT, and the 'period mood marker' *c* as one of IMMEDIATE INFORMATION (Palmer 2001: 37, with reference to Matthews 1965: 99-100). The marker *serrenok* in Ladakhi (labeled as 'generic' by Koshal 1979) appears to convey the GENERAL FACT category, as it belongs to the paradigm of epistemic modality markers (Palmer 2001: 38-39). The 'definite knowledge' particle *yot* in this language seems to function as its non-verbal counterpart. The meaning of the marker of 'general knowledge' *-?ma* in Central Pomo (Palmer 2001: 66-67, with reference to Mithun 1999: 191) also matches the anchoring category GENERAL FACT as define here.

However, to say that a specific marker instantiates a certain semantic category is not to say that it exclusively marks that category. For a better semantic analysis and cross-linguistic

²⁸ Dahl (1985) and Bybee, Perkins, & Pagliuca (1994) do not identify any cross-linguistic gram type that can be characterized solely by the GENERAL FACT or GENERAL STATEMENT categories. The gram types GEN and HABG in Dahl (1985) are primarily associated with temporal generality (i.e., 'genericity'). Whether or not they also entail epistemic and illocutionary generality is not mentioned. Dahl (1985: 100) only notes that "these unmarked categories almost always have other uses".

comparison, one needs to look at the overall patterns of multifunctionality and conditions of use of the markers under consideration.

Abbreviations and other conventions

Where a specific TAM marker is the topic of discussion, the underspecified phonological representation for that marker (see Table 1) appears in the gloss, in bold letters. Otherwise, the following abbreviations (based on traditional labels) are used:

1PL	first person plural	FUT	future
1SG	first person singular	GEN	genitive
2PL	second person plural	IMP	imperative
2SG	second person singular	INF	infinitive
ABIL	abilitative	INT	interjection
ABL	ablative	JCL	judgement clitic
ACC	accusative	LOC	locative
ANT	anterior	NEG	negative
AOR	aorist	OPT	optative
COND	conditional	PASS	passive
CONJ	conjunction	PAST	past
CONT	continuous	PLU	plural
DAT	dative	POSS	possessive
DEP	deprivative	PROG	progressive
FN	factive nominalizer		

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