The Facets of Aspect:
A Comparative Study of Hungarian and Italian Systems
Part I: Theoretical Background; Analysis of Hungarian[1]

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Abstract

This essay initiates a typologically grounded contrastive analysis of Italian and Hungarian aspectual systems. It aims to contribute to the theoretical debate on ATAM structures by exploring scalar categorization through prototypicality and *continua*, while supporting second language acquisition of Hungarian and Italian. The study is grounded in Cognitive-Functional Linguistics, integrating insights from linguistic typology, usage-based linguistics and prototype theory to develop a comprehensive framework for understanding language structure and use. The analysis focuses on key features of the Hungarian aspectual system and its graded structure, with some reflections on the role of prototype theory in language acquisition. A forthcoming companion study will investigate Italian aspect, enabling cross-linguistic comparison and informing pedagogical approaches for both languages.

Keywords

aspect; Hungarian; linguistic typology; prototypicality; usage-based linguistics

1. Introduction

This essay inaugurates a study which has a dual purpose: one theoretical and one practical focused on language acquisition. On the theoretical side,

[1] Part II (forthcoming, 2025): «Analysis of Italian; Bridging Aspect: a Comparison of Italian and Hungarian with Practical Implications for Language Acquisition».

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it contributes to the ongoing scholarly discussion on ATAM structures in languages [ATAM is an acronym for Actionality (*Aktionsart*), Temporality, Aspectuality and Modality][1], specifically examining the aspectual systems of Hungarian and Italian through a contrastive linguistic approach grounded in linguistic typology. By applying the concepts of prototypicality and *continua*, the study aims to advance the broader academic debate on scalar categorization. On the practical side, the contrastive analysis of these typologically diverse languages highlights the nuances of their aspectual markers, focusing on both the differences between these markers and the meanings they convey. This analysis identifies areas where targeted teaching interventions could benefit learners of Hungarian and Italian as L2.

The broader theoretical framework underpinning this discussion is Cognitive-Functional Linguistics. A fully unified Cognitive-Functional Linguistics approach, integrating all aspects of both Cognitive Linguistics (CL) and Functional linguistics (FL) into one coherent framework, is not entirely established. However, there is a growing body of work that attempts to merge cognitive insights with functional perspectives. Scholars like Croft (2001) and Givón (2001a, 2001b) have worked to bridge these two traditions and create a more integrated approach, highlighting how cognitive processes shape language use in functional ways. CL (Langacker 1987, 2008, Lakoff 1987, Kövecses, Benczes 2010, Sinha 2007, Talmy 2000, Tolcsvai Nagy 2013, Wen, Taylor 2021) and FL (Halliday 1985, Ladányi, Tolcsvai Nagy 2008, Thompson G. 2004, T. Bischoff, Jany 2013) have grown significantly in the last twenty to twenty-five years, to the point where their distinction as unique fields has largely faded. While some linguists still identify with these labels, the key development is that many foundational insights from these approaches have become widely accepted as common knowledge in the scientific study of language and

[1] In this paper, we will refer to the semantic domain under discussion using the acronym ATAM (Actionality, Temporality, Aspectuality, Modality). This represents a slight departure from the conventional practice of using the acronym TAM. However, as will become evident, the inclusion of actionality is crucial, given its significant role in the semantics and acquisition of Tense and aspect phenomena.

it is suggested that, despite the apparent differences between the two approaches to grammar, there appears to be no fundamental barrier to integrating them into a unified paradigm (Matthews 1990, Siewierska 2013, Sinha 2009, Stoevsky 2007, Tátrai 2011, Tomasello 2014). CL and FL share common ground, especially in viewing language as a reflection of human cognition and as a tool for social communication, leading to natural overlaps. Both frameworks consider language as a usage-based phenomenon and prioritize meaning over syntax, emphasizing the role of semantics and pragmatics and rejecting language modularity (Nuyts 2010, Tolcsvai Nagy 2021, 9-19)[2].

The first part of the paper establishes the theoretical framework for analyzing ATAM structures by critically reviewing relevant literature on usage-based linguistics and prototype theory. These, along with linguistic typology, emphasize the dynamic interplay between language and cognition, illustrating how cognitive processes, language use, and universal typological patterns collectively influence the formation of linguistic structures.

[2] While CL and FL share commonalities, they diverge in focus and methodology. CL examines how language reflects and interacts with cognitive processes such as categorization, conceptualization, and mental representation. It is primarily concerned with individual cognition and the mental mechanisms underlying language use, with a methodological emphasis on introspective analysis and the study of conceptual metaphors, image schemas, and mental spaces. In contrast, FL focuses on the communicative functions of language in social interaction and how linguistic structures serve discourse purposes. It adopts a more systemic view of language, considering sociocultural and pragmatic dimensions, and often employs empirical and cross-linguistic methods, including corpus studies (Gonzálvez-García, Butler 2006, Nuyts 2010). CL emerged in response to the limitations of the Chomskian paradigm (1957, 1965, 1976, 1980, 1981, 1986, 1995), particularly its neglect of cognitive and social aspects of language, as highlighted by figures like George Lakoff (1987) and Ronald Langacker (1987, 1991, 2002, 2008). FL, rooted in the work of Joseph Greenberg (1960, 1974a, 1974b), Talmy Givón (1979, 2001a, 2001b), and the Prague School (Trnka 1982, Procházka, Malá, Saldová 2010), focuses on typological and historical language comparisons and emphasizes communication processes. Although CL and FL emphasize different aspects of language, they can be complementary rather than mutually exclusive. Integrating insights from both approaches offers a more holistic understanding of language as a system shaped by the interplay of cognitive, social, and functional forces. For instance, research on grammaticalization processes can benefit from integrating the cognitive insights of CL with the discourse-driven perspective of FL (Nuyts 2010).

Since the 1980s, there has been an increasing trend to associate grammatical categories with prototypicality. Hopper & Thompson's influential 1984 article, «The Discourse Basis for Lexical Categories in Universal Grammar», played a key role in this shift. Recently, interest in the idea of non-discreteness has surged in both theoretical and descriptive linguistics, as shown by works like Bod, Hay and Jannedy (2003), Aarts *et al.* (2004), Fanselow *et al.* (2006), Aarts (2006). In contemporary linguistics, "gradience" typically refers to the gradient nature of data derived from experimental or corpus studies and the challenge of developing models that accurately capture this empirical variation. Our focus, however, is on gradient categorization, a topic that has been prominent since the 1970s in various branches of theoretical linguistics (for a comprehensive overview of the literature, especially from the late 1950s to the present, see Aarts 2006, Part I).

In the second part of the paper, we provide a brief overview of the grammatical categories of Tense[3] and aspect[4], focusing on temporality and aspectuality, two closely related concepts. This is followed by an analysis of the key morphosyntactic structures and distributional properties of aspectual forms in Hungarian, exploring the graded structure of its aspectual system through the notions of prototypicality and *continua*. We will provide concrete examples of aspectual markers, using authentic linguistic examples to highlight the nuances. This should help readers understand the practical implications of our theoretical analysis.

The last part of this paper includes only preliminary reflections on the role of prototype theory in language acquisition. A forthcoming companion study will explore the Italian aspectual system in depth, provide an interlinguistic comparison, and propose teaching strategies to improve linguistic competence and fluency. The conclusions will suggest potential directions for further research.

[3] We will use capital letters for the names of the Tenses: for example, we will distinguish between "perfect(ive)" (as an aspectual category) and "Perfect" (as a class of Tenses). Similarly, "Past", "Present", and "Future" will be typographically distinguished from their general, non-linguistic meanings, as they refer to specific sets of Tenses.

[4] We will also consider *Aktionsart* at key points in our discussion.

2. Theoretical background

2.1. Linguistic typology as part of the current usage-based movement

Linguistic typology studies interlinguistic variation synchronically, a variation that is not random but obeys underlying general principles; it also proposes a classification of languages based on systematic structural affinities (Rózsavölgyi 2022).

In the context of Cognitive Linguistics, typology informs our understanding of how universal cognitive processes shape language across different cultures. It suggests that language structures emerge from cognitive abilities and that the variation observed in languages reflects different ways humans conceptualize the world.

It has been widely accepted that CL and linguistic typology are interconnected. CL offers a framework to explain cross-linguistic regularities, while typology tests its hypotheses. The key issue is understanding cross-linguistic regularities or universals. Langacker (2013) views them as syntactic categories like nouns and verbs, while Croft (2016) sees them as Greenbergian universal correlations (Shi 2021).

In addition to acknowledging the impact of communicative functional pressures, typologists employ the quantitative examination of properties in unrelated languages, a methodology pioneered by Joseph H. Greenberg (1960, 1974a, 1974b, Greenberg, O'Sullivan 1974), to uncover categorical and gradient relationships between languages. This strategy aligns linguistic typology with usage-based models of language which have become popular in recent years for their effectiveness in explaining regularities within the complexities of grammar.

Usage-based models propose that linguistic knowledge is embedded in mental processes and representations are context-sensitive and influenced by statistical probabilities. They emphasize how the distributional facts of actual language use shape speakers' mental representations of language structures at all levels, from phonetics to pragmatics. As speakers encounter multiple instances of language in various contexts, they develop rich implicit knowledge, enabling them to form sophisticated generalizations without relying on predefined grammatical rules. This approach impacts our understanding of synchronic phenomena, diachronic changes, and

linguistic variability. As usage-based mechanisms can account for both core linguistic phenomena and marginal variations, they offer a compelling alternative to theories emphasizing innate ideas like generative grammar while downplaying established cognitive mechanisms (Boyland 2009, Diessel 2015, 2017, Langacker 2000).

Usage-based enterprises have developed from various strands of research in Functional and Cognitive Linguistics, cognitive psychology and psycholinguistics offering insights into cognitively plausible representations and processes. Additionally, computational linguists bring statistical sophistication and a focus on real usage data (McCauley, Monaghan, Christiansen 2015, Thiessen, Erickson 2015) to the table and phonologists and syntacticians trained in Optimality Theory have also joined the discussion (Hayes 2000, Hayes, Londe, 2006). Each stream emphasizes the significance of linguistic input details in shaping speakers' mental representations of language (Diaz-Campos, Balasch 2023).

Key contributors include Joan Bybee and Ronald Langacker. Langacker (1987, 1991, 2002, 2008), through his Cognitive Grammar framework, introduced the term 'usage-based' and emphasized the cognitive plausibility of linguistic generalizations. His model highlights the interaction and varying strength of representational units based on usage (see also Desagulier, Monneret 2023). Bybee's dynamic usage-based framework, also known as West Coast functionalism (Bybee, 1995, 1999, 2006, 2010, 2017; Bybee, Dahl 1989; Bybee, Hopper 2001; Bybee, McClelland 2005; Bybee, Perkins, Pagliuca 1994; Bybee, Scheibman 1999), which predicts diachronic and typological patterns, extends Langacker's work by focusing on language variation and change. Bybee's empirically tested predictions confirm that usage frequency influences both the occurrence and form of linguistic variations and historical changes. Hopper (1987, 1998, 2015) characterizes grammar as an emergent system of fluid structures, constantly being restructured. Givón (1979) examines how discourse and communication influence the development of grammar over time and during acquisition. Tomasello (2003) equates usage-based linguistics with Cognitive-Functional Linguistics, emphasizing that linguistic structure emerges from usage. He also presents a usage-based theory of first language acquisition. Goldberg (2006) explores the emergence of grammatical generalizations and our

grammatical knowledge, while Bates and MacWhinney (1989) propose the Competition Model, a psycholinguistic model of sentence processing and acquisition closely related to usage-based research. Diessel (2019) offers a network model of grammar that integrates various strands of usage-based research into a unified approach.

Explaining and describing the full range of linguistic output is challenging because our categories are not clearly defined. Quasi-regularity appears in both regular paradigms and exceptions, showing that rules are not uniformly applied, and irregular forms often follow patterns like regular ones. Usage-based research suggests that it may not be possible to neatly separate ideally regular patterns from partially regular and completely irregular ones, as various degrees of regularity exist in morphological paradigms and syntactic constructions. Gradience matters because it is pervasive in language, with expressions conventionalized to varying degrees, displaying different levels of adherence to rules. A system managing exceptions with a list of arbitrary idioms would face unmanageable length due to pervasive gradient irregularity. Usage-based systems, which do not need a clear distinction between regular and irregular or grammatical and ungrammatical, can capture linguistic regularities more effectively, making them more parsimonious and descriptively adequate than rule-plus-list systems (Boyland 2009).

These models aim to explain relationships between discourse and grammar that emerge when examining language in context by focusing on specific speech instances and building generalizations from these details. Frequency plays a crucial role in the acquisition and retention of knowledge. It reinforces the memory representation of concepts and aids in the execution of cognitive processes (Diessel 2007, 2009, 2016, Diessel, Hilpert 2016). This approach may seem counterintuitive to those used to deriving specifics from rules, but it effectively captures linguistic patterns. The usage-based representational system manages both specific details and broader generalities, ensuring that all relevant information is processed effectively through human cognitive mechanisms.

The primary aim of usage-based models is to establish a foundation for the language sciences that is both empirically and theoretically sound. These paradigms have introduced an alternative framework for understanding

language, moving away from set-theoretic frameworks that aim to define grammatical utterances without error through logical formalisms. They provide alternative formalisms that account for variability and probabilities with the same rigor as those explaining discrete rule-following competence.

2.2. Prototype theory

Prototype theory is a categorization theory in cognitive science, especially within psychology and linguistics, providing insights into how people organize and use linguistic information. It has reshaped our understanding of semantics and cognitive processes in language. It was developed as an alternative to the classical view of concepts, which defined categories through a rigid set of logical rules. This traditional belief was challenged in the 1970s when psychologists, led by Eleanor Rosch (1978, 1983), found evidence suggesting that semantic categories are more flexible and rooted in cognitive processes. Rosch's groundbreaking experiments indicated that our mental representation of categories relies on prototypes, which can be seen as the best and most typical examples of a category, with other items being classified as part of the category based on their similarity to the prototype. This concept, known as the "grading of category membership", allows items within a category to have graded, and thus fuzzy, membership based on prototypes and to be ranked by their degree of typicality[5]. According to Rosch's perspective, prototype structures represent a performative, usage-based approach to language categorization.

Prototypes allow us to organize and categorize language items based on similarities and shared attributes, help us understand a category and organize related concepts; they function as cognitive reference points for making judgements about category membership (Assunção, Araújo, Fernandes 2020; Cuper, Cuper-Ferrigno 2021; Del Pinal 2016; Geeraerts 2006; Giannakopoulou 2003; Taylor 2011; Wierzbicka 1990).

Prototype theory has significantly impacted linguistic research by:

[5] Typicality measures how closely a category member resembles its prototype. In prototype theory, category members exhibit varying degrees of typicality, indicating their relative similarity to the prototype.

- shifting the perspective on semantic categories from a rule-based to a graded and flexible approach;
- enhancing understanding of how concepts are mentally represented and organized, shedding light on cognitive processes in language comprehension and production;
- and influencing language teaching by informing new approaches and materials, aiding learners in grasping and using linguistic information more effectively.

By applying the notions of prototypicality and *continua*, i.e. flexible category membership, we aim to contribute to the broader academic conversation on gradience within linguistic categories, offering insights into the subtle variations that characterize Hungarian and Italian aspectual systems.

3. The semantic domain of ATAM

The semantic domain we examine is represented by the acronym ATAM (Actionality, Temporality, Aspectuality, Modality). While we are going to focus on aspectuality it is to emphasize that all ATAM categories are intertwined in relating to time, which itself is an abstract concept. Tense-aspect systems often exhibit a complex interplay of concepts from different domains: temporal reference, aspect, and actionality, which together form the main subdomains of Tense-aspect systems. In addition to temporal and aspectual values, modal meanings can also add complexity, but we will not address them in this discussion. Prototype theory suggests that these categories are mentally represented around prototypes or typical examples.

We start from the assumption that every statement represents a situation that unfolds within certain temporal coordinates. Regarding these temporal coordinates, the speaker must account for at least three aspects in every utterance:

1. Their opinion regarding the truthfulness of the represented situation – this aspect is expressed through verbal moods or modal verbs, modal particles, etc., which we will not discuss.
2. The second aspect concerns time. There is a recently intensified interest in the question of what the human concept of time is and

how it is represented in language. This is a significant philosophical question, but it does not appear to impact the analysis of Tense as a linguistic category. Therefore, we will not engage in the academic debate about the conceptualization of time in this context. Instead, we will focus on considering the grammatical category of Tense, for which, following Comrie (1985, chapter 1, especially section 1.4), we mean the grammatical expression of the fact that a certain situation is located at a certain point on a temporal axis that includes the moment of utterance (ivi, 6). Our basic understanding of time is linear, we typically envision time as a line extending infinitely from the present towards both the past and the future (following the convention of left-to-right reading):

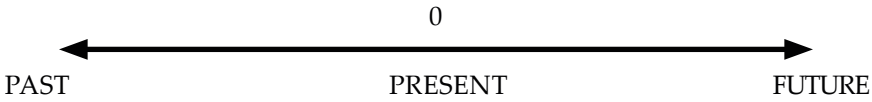

Figure 1 – The Time Axis.

A grammatical expression usually involves the linear conception of time, too. The speaker must evaluate or determine where the represented situation is located on the conceptual timeline and in what relation it stands with other potentially present situations on the temporal axis. This aspect is represented by verb Tenses and time adverbials and is called external temporal structure in the literature.

3. Lastly, the speaker must consider the internal time of the action or the event such as the duration or its delimitative or punctual nature. This internal time, which is the way the described action or event is viewed, structured, and presented by the verb, is traditionally called "aspect" (Bertinetto 1986, 1994, 113). The grammatical category of aspect is the grammatical encoding of a particular perspective on the internal temporal organization of the event, for example, whether it is considered in part of its unfolding or in its entirety (Comrie 1976, chapter 1, see also 3.2 below).

3.1. Tense and aspect

The concept of Tense arises from the interaction of temporal reference[6] and aspect, and it should not be confused with temporal reference itself. This relationship between temporal reference and aspect, that frames physical time within linguistic Tense, is an interplay that can vary greatly across languages giving rise to various, language-specific Tense forms. Tense is the grammatical category that indicates the timing of events along the time axis (Figure 1). We conceptualize time in spatial terms, creating a metaphor based on space and we perceive it deictically, typically in relation to the present moment of the speaker. The term "absolute Tense" is used when the reference point is the present ("now" of the speaker), while "relative Tense" refers to the time defined in relation to another event. The term "absolute-relative Tense" is used when this second event is positioned relative to the speaker's present.

From a typological standpoint, Tense is the specific grammaticalization of universally available options within a language. This means that 1. grammatical Tense and/or aspect in one language may be conveyed differently in another through lexical means or pragmatic inference, but in conveying the same messages, and 2. Tenses in any given language do not capture all possible nuances of temporal reference and aspect. For example, a rich Tense system like Italian's still doesn't cover every nuance. The distinction between Tense (a linguistic concept) and 'time' (a physical concept) highlights this. Some languages may lack a Future Tense but can still refer to future events. Each language imposes its unique system to the universal temporal-aspectual options, leading to significant cases of neutralization. Temporal and aspectual notions sharply differentiated in one language may be conflated in another. For example, a language with only three tenses (Present, Past, and Future) may not express certain anaphoric temporal relations without using lexical devices outside its Tense system, as can be seen in Hungarian (Bertinetto 1994).

[6] Temporal reference defines the relationship of the event in question either to the speech point (deictic reference) or to specific reference points (anaphoric reference) which, in turn, may be understood in relation to the speech point (Bertinetto 1994, 113).

In all languages, time is expressed in vocabulary and often through grammar, particularly with verbs. While no human culture lacks a conceptualization of time, there are tenseless languages (i.e. languages that lack the grammatical category of Tense) like Mandarin Chinese, Thai, some Mayan languages, and several West African languages which manage temporal placement through indirect means, often using an elaborate system of aspects (Comrie 1985, 82-84, Dahl 2001). In contrast, languages like Italian have a rich system of verb Tenses that also expresses aspectual characteristics, though these are not grammaticalized. On the other hand, in Slavic languages, like Russian, aspect is a grammaticalized category, meaning it is consistently expressed and fixed within the verb in all its forms, separate from the concept of Tense. This limits the functions of Russian verb Tenses to providing external temporal reference, thereby reducing them to three: Present, Past, and Future.

Location in time and the internal structure of events can be expressed in various ways, but these are not relevant to Tense and aspect unless they play a systematic role in grammar. Regarding Tense, grammaticalization, as defined by Comrie, refers to a synchronic property where a notion, i.e. a semantic category is reflected in or determines the use of grammatical items. For example, temporal adverbials like *last Sunday* or *in 1961* also locate events in time, but they fundamentally differ from grammatical Tense. Temporal adverbials are used when relevant to the specific message, while Tenses follow general principles that often make their use obligatory, even if redundant. In a sentence like *Last Sunday I went to the beach*, using a Tense other than the Simple Past would make the sentence anomalous, despite *last Sunday* already indicating the Past.

As for grammatical aspect, defining it is challenging due to inconsistent terminology. Some research traditions use the term "aspect" to cover a broad range of phenomena, many of which are not grammatical distinctions (Verkuyl 1972, Tenny, 1994). Others distinguish strictly between grammatical aspect and *Aktionsart* (or 'actionality', following a recent tradition; in Hungarian *akcióminőség*), which pertains to lexical or semantic categories, a distinction tracing back to Agrell (1908). However, there is no consensus

among scholars on the use of *Aktionsart* (Bertinetto, Delfitto 2000)[7]. For a review of the literature on aspect and its relationship to the debated category of *Aktionsart*, as well as its connection to Tense, see Moser (2014)[8]. Our study focuses on grammatical aspect in its narrowest sense, where typological research has advanced enough to define comparable parameters for cross-linguistic comparison. However, due to significant interferences between actionality and aspect, we will address the actional properties of verbs and their relationship with aspect as the discussion necessitates.

As said earlier, Tense and aspect are conceptually close as both deal with time, and they can be intertwined in grammatical systems where a single form combines temporal and aspectual elements. For example, the distinction between imperfective and perfective verb forms seems to be purely aspectual, yet it usually includes temporal reference, with perfective forms often referring to past events. This has a cognitive basis: perfective forms typically view an event as a completed whole, which is generally possible only if the event is in the past (Dahl, Velupillai 2013a, 2013b).

3.2. Aspect

Aspect can be considered as the particular perspective taken by the speaker or writer on the situation. An event may be viewed from a global or a partial standpoint, forming the basis for the fundamental distinction between perfective (from now on also PFV) and imperfective (from now on also IPFV) aspects. While intermediate cases exist, these two categories

[7] The term *Aktionsart*, also known as lexical aspect, refers to inherent characteristics within the verb's meaning, such as continuity, duration, and telicity, which are similar to those expressed by grammatical aspect. Unlike grammatical aspect, where the speaker chooses to convey a specific, subjective viewpoint regarding the event in a given utterance, *Aktionsart* represents the verb's inherent, objective attributes. It defines the nature of the event indicated by the predicate based on a well-defined list of semantic properties. This feature is present in every language, even if not always explicitly marked morphologically. Thus, *Aktionsart* is a lexical category, while aspect is a grammatical category. It is crucial to distinguish between actional and aspectual categories theoretically, although they cannot always be separated in practice (Tatevosov 2003).

[8] Moser (2014, 117) posits that «The categories that have become known as subdivisions of the imperfective are in fact intermediate categories on the aspect-*Aktionsart continuum*».

are typically distinct and are often expressed through grammatical devices such as Tenses or specific periphrases (Bertinetto, Delfitto 2000). The definition of PFV and IPFV can vary among different authors, who may use different terminology.

Over the past fifty years, various definitions of the basic distinction perfective – imperfective have been proposed in literature. One of the most frequently used characterizations is by Comrie (1976), who asserts that the perfective aspect presents a situation as a single, complete whole, while the imperfective aspect focuses on the internal structure of a situation: «perfective looks at the situation from outside, without necessarily distinguishing any of the internal structure of the situation» (3-4) and «the imperfective looks at the situation from inside, and as such is crucially concerned with the internal structure of the situation» (*ibidem*).

Koss, De Wit, and van der Auwera (2022) provide the latest definition of (im)perfectivity, as far as we know. Their definition builds on but refines Comrie's classic characterization. While Comrie defined perfective aspect as presenting a situation as a "single and complete whole", these authors take a more epistemic approach, defining aspect in terms of identifiability. Perfective constructions entail full and instant identifiability of a situation (based on the speaker's knowledge or their conception of the hearer's knowledge), while imperfective constructions indicate a lack of full and instant identifiability. All this results in a specific interaction pattern with different verb classes.

Stative verbs denote situations instantly identifiable in the ongoing present, while dynamic situations can only be fully identified when situated in a non-present time zone. In the sentence *I* have *my laptop with me right now* (example 6 on page 4 in Koss, De Wit, and van der Auwera, 2022) the state is instantly identifiable at the moment of speaking (stative verbs with perfective aspect). The sentence **I* play *tennis right now* (example 3, *ibidem*), however, is ungrammatical in English because dynamic situations cannot be fully and instantly identified at a single moment since they unfold over time (dynamic verbs with perfective aspect).

The authors argue that their definition improves upon previous approaches by:

1. Moving beyond vague metaphorical descriptions of "wholeness".

2. Focusing on cognitive/epistemic elements rather than just temporal boundaries. Their definition emphasizes how situations are cognitively processed and identified. Consider the difference between *The light is on* (a state) and *The light is flickering* (an event). The state of the light being on can be verified instantly, while flickering requires observation over time to be properly identified as such.
3. Explaining why certain combinations (like present perfective with dynamic verbs) create paradoxical situations. A key concept discussed is the 'present perfective paradox', which highlights the difficulty of expressing dynamic events as both complete and simultaneous with the present moment. This paradox is used as a diagnostic tool to identify perfective meanings in constructions not overtly marked for aspect. For example, in Russian, the present tense with perfective aspect for dynamic verbs automatically yields a future interpretation: *On u-znaet* (he PFV-know.PRS:3SG, example 2 on page 4 in Koss, De Wit, and van der Auwera, 2022) means 'He will find out' rather than 'He knows' (*On Ø-znaet*: IPFV-know.PRS:3SG, example 1, *ibidem*). This occurs because the full identification required by perfectivity cannot align with the instantaneous nature of present reference for dynamic situations.
4. Accounting for cross-linguistic patterns in how languages handle the perfective-imperfective distinction. The definition successfully explains similar patterns across different language families. For instance, in Japanese, dynamic verbs in the present tense typically receive a future reading, while stative verbs refer to the present moment. This mirrors the pattern in English where *I play tennis* cannot refer to the current moment without the progressive aspect (*I am playing tennis*), while *I know the answer* can. Their approach also accounts for variations in how languages resolve the present perfective paradox. Some languages, like English, resolve it by giving dynamic verbs in the simple present a habitual interpretation (*I play tennis* meaning regular occurrence). Others, like Russian, resolve it by shifting to future reference, while some creole languages opt for past interpretation. In some languages, certain markers, originally serving functions like evidentiality or focus,

> can also convey a perfective meaning, reflecting the versatility of non-aspectual markers in adopting aspectual functions and illustrating the dynamic nature of linguistic systems.

This approach helps explain why these patterns emerge consistently across languages with different grammatical systems, suggesting that the cognitive basis of aspect (identifiability) is more fundamental than the specific grammatical mechanisms languages use to express it.

The terms "perfective" and "imperfective" are used in this study as comparative concepts as defined by Haspelmath (2010). These theoretical concepts are not sufficient to fully explain all the distributional properties of aspectual forms in individual languages. Therefore, it is crucial to study the category of aspect of each language on its own terms, considering its unique Tense-aspect system and various aspectual markers within the linguistic system. At the same time, a comparative approach to aspect can offer deeper insights into both crosslinguistic patterns and language-specific differences.

Since verb forms and categories from different languages do not behave identically, PFV and IPFV forms converge on prototypical contexts that serve as the basis for their identification. We will rely on Dahl (1985, 78) for the following definition of PFV, which is easily applicable in comparative analyses:

> A PFV verb will typically denote a single event, seen as an unanalysed whole, with a well-defined result or end-state, located in the past. More often than not, the event will be punctual, or at least, it will be seen as a single transition from one state to its opposite, the duration of which can be disregarded.

The human mind can conceptualize events in two ways: as wholes or as processes, drawing on basic cognitive mechanisms like the foreground – background distinction in Gestalt psychology and the Figure – Ground relationship, where a focal object contrasts with its surrounding space (Sternberg, Sternberg 2012). Language structures temporal and other situations to highlight two elements: the Figure, a conceptually movable entity, and the Ground, a stationary reference entity relative to a reference frame (Talmy 2011). Linguistic categories often align with Figure and Ground properties, with prominent traits linked to the Figure and less noticeable

ones to the Ground. Events depicted as wholes are well-defined with clear boundaries, typically covering the entire event schema[9], and are primarily associated with the Figure in the foreground of attention. See for example[10] 1a (Hungarian) and 1b (Italian):

1a.	*Megette*	az almát.
HU	PART-eat-PST-3SG:PFV	the apple-ACC
	(S)he ate the apple.	
1b.	*Mangiò*	la mela.
IT	eat-PS-3SG:PFV	the apple
	(S)he ate the apple.	

Continuous representation, which lacks natural endpoints, can capture both processes (2)[11] and general states (3) that do not profile any internal changes. This mode of depicting events resembles a homogeneous background:

2a.	(Épp) almát	*eszik*.
HU	(just) apple-ACC	eat-PR-3SG:IPFV
	(S)he is eating an apple.	

[9] The term *event schema* refers to a mental framework that organizes our knowledge about common sequences of events, guiding our understanding and expectations in various contexts (Hard, Tversky, Lang 2006, Kendall 2008).

[10] In this introductory section, we will contrast the typologically different strategies that languages can use to structure their aspectual domain, using examples from Hungarian and Italian.

[11] This does not mean that the only aspectual value of the Hungarian sentence *Almát eszik* lies in indicating a process. This sentence is ambiguous, allowing for both a processual and a general state interpretation:

(Éppen) almát eszik. '(S)he is eating an apple.' (process)

Almát eszik. '(S)he eats apple.' (state)

In the following sections of the paper, we will explore this topic in greater detail.

2b.	*Sta mangiando*	una mela.
IT	is eating:IPFV	an apple

(S)he is eating an apple.

3a.	Szellemek	nem *léteznek*.
HU	ghosts	not exist-PR-3PL:IPFV

Ghosts don't exist.

3b.	I fantasmi	non *esistono*.
IT	the ghosts	not exist-PR-3PL:IPFV

Ghosts don't exist.

This distinction between global and continuous perspectives also impacts the typical textual behavior of aspectual representation modes (Wallace 1982). Holistic representation is more effective in driving the storyline at the heart of narratives compared to the continuous perspective. This effectiveness is due to holistic representation's ability to schematically reference subsequent situations, thereby aiding in the interpretation of sequentiality, as in (4a) and (4b):

4a.	*Megfőzte*	az ebédet,	majd	*elmosogatott.*
HU	PART-cook-PST-3SG:PFV	the lunch-ACC	then	PART-wash-the-dishes-PST-3SG:PFV

(S)he cooked lunch and then washed the dishes.

4b.	*Preparò*	il pranzo	poi	*lavò*	i piatti.
IT	pre-pare-PS-3SG:PFV	the lunch	then	wash-PS-3SG:PFV	the dishes

(S)he cooked lunch and then washed the dishes.

The continuous perspective, on the other hand, is suitable for expressing the simultaneity of events, thus primarily serving to indicate background information outside the narrative sequence, see (5a) and (5b):

5a.	Tegnap	úszni	ment,	nagyon meleg	*volt*.
HU	yesterday	to-swim	go-PST-3SG:PFV	very hot	be-PST-3SG:IPFV

(S)he went swimming yesterday, it was very hot.

5b.	Ieri	è andato	a nuotare,	*faceva*	molto caldo.
IT	yesterday	is gone-M	to swim	do-Imp-3SG:IPFV	very hot

He went swimming yesterday, it was very hot.

Imperfective constructions as in (6) primarily foreground the action itself, highlighting the process, the sequence of movements characteristic of the action, while the perfective-oriented sentences (7), through holistic representation, can direct attention beyond the action to states after the event's completion.

6a.	Árpád	*eszik.*
HU	Árpád	eat-PR-3SG:IPFV

Árpád is eating.

6b.	Árpád	*mangia / sta mangiando.*
IT	Árpád	eat-PR-3SG:IPFV / is eating:IPFV

Árpád is eating.

6c.	Árpád	tegnap 13-tól 14 óráig	a konyhában	*evett.*
HU	Árpád	yesterday between 1 and 2 p.m.	the kitchen-INES	eat-PST-3SG:IPFV

Árpád was eating in the kitchen between 1 and 2 p.m. yesterday.

6d.	Árpád	ieri tra le 13 e le 14	*mangiava / stava mangiando*	in cucina.
IT	Árpád	yesterday between 1 and 2 p.m.	eat-Imp-3SG:IPFV / was eating:IPFV	in kitchen

Árpád was eating in the kitchen between 1 and 2 p.m. yesterday.

7a.	Árpád	*(meg)evett*	egy almát.
HU	Árpád	(PART-)eat-PST-3SG:PFV	an apple-ACC

Árpád ate an apple.

7b.	Árpád	*ha mangiato*	*/ mangiò*	egy almát.
IT	Árpád	has eaten:PFV /	eat-PS-3SG:PFV	an apple

Árpád ate an apple.

An imperfective event can be interpreted as occurring simultaneously with another event (8), while two perfective events must necessarily be interpreted as occurring in sequence (9):

8a.	Árpád	*főzött*,	és	Nándor	*megérkezett*.
HU	Árpád	cook-PST-3SG:IPFV	and	Nándor	PART-arrive-PST-3SG: PFV

Árpád was cooking and Nándor arrived.

8b.	Árpád	*cucinava*	e	Nándor	*è arrivato / arrivò*.
IT	Árpád	cook-Imp-3SG:PFV	and	Nándor	is arrived / arrive-PS-3SG:PFV

Árpád was cooking and Nándor arrived.

9a.	Árpád	*megfőzött*,	és	Nándor	*megérkezett*.
HU	Árpád	PART-cook-PST-3SG:PFV	and	Nándor	PART-arrive-PST-3SG: PFV

Árpád cooked and Nándor arrived.

9b.	Árpád	*ha cucinato / cucinò*	e	Nándor	è *arrivato / arrivò*.
IT	Árpád	has cooked:PFV / cook-PST-3SG:PFV	and	Nándor	is arrived / arrive-PS-3SG:PFV

Árpád cooked and Nándor arrived.

In an imperfective event, the reference time[12] is within the event time, meaning the event is viewed from the inside. Perfective events, on the other hand, are viewed from the outside and represented as complete, with no reference to their internal structure. This lack of internal structure means that perfective events are represented semantically as indivisible moments or points, regardless of the actual duration of the event. It's important to highlight that aspectually relevant meaning components (such as telicity, completeness, durativity, directness towards a result or goal) are schematically present as potential in verb structures and they determine the event's perspective only in context when considered alongside other linguistic elements. Therefore, aspect should be viewed as emerging during utterance construction.

[12] We use the term "reference time" following Reichenbach (1947), who distinguishes between (a) the point of speech, (b) the point of the event, and (c) the point of reference, which is the perspective from which the event is viewed.

Although the opposition between continuity and completeness can be considered universal, various techniques can be found in individual languages to create aspectual perspectives. According to typological studies (Dahl 1985, Bybee-Perkins-Pagliuca 1994), a common method is that in different languages there is a grammatically and semantically unmarked form, to which if certain inflectional or derivational morphemes are attached, or if it occurs in specific periphrastic expressions or grammatical structures, the perspective of the event changes (Dahl 2000, Dahl, Velupillai 2013a).

According to one technique, the basic verbs of a language schematically encode the entirety of the event schema, from which they can outline the event in progress by elaborating a relatively homogeneous internal time frame and thereby placing it in the foreground of attention. Italian is an example of this type, where prototypically, the continuous perspective structure is the more marked member of the opposition, and accordingly, it is also the more semantically elaborated form, see (10):

10a.	Davide	*mangiò*	una mela.
IT	Davide	eat-PS-3SG:PFV	an apple
		Davide ate an apple.	

10b.	Davide	*stava mangiando**	una mela.
IT	Davide	was eating:IPFV	an apple
		Davide was eating an apple.	

*periphrastic expression with the Imperfect form of the stative verb *stare* 'to be, be positioned' + Gerund

Another possible and widespread method operates exactly opposite to the system outlined above, as schematically, the continuous or imperfective form is the semantically and grammatically less elaborated. Hungarian is an example of this type, where events can only be represented as wholes if some natural boundary point, typically an endpoint (but it can also be the indication of the attainment of a state) is placed in the foreground of attention. In this technique, the holistic representation is the more formally marked, semantically more complex, and more specific form, see (11):

11a.	Árpád	*eszik*.
HU	Árpád	eat-PR-3SG:IPFV
	Árpád is eating.	

11b.	Árpád	*megette*	az almát.
IT	Árpád	PART-eat-PST-3SG:PFV	the apple-ACC
	Árpád ate the apple.		

While a comparative approach to verbal aspect offers valuable insights into crosslinguistic patterns, it is essential to account for the unique characteristics of individual languages. Our typological approach to the study of (Tense and) aspect is cosely aligned with the perspective advocated by Comrie (1976, 1985) and the view developed in Bertinetto (1986) and Bertinetto & Delfitto (2000). The prototypical aspectual distinction lies in the opposition between perfective and imperfective.

To ensure conceptual clarity and avoid terminological ambiguity throughout this study, we will use "perfective" and "imperfective" as theoretical terms. Specifically, "perfective" will denote a global aspectual perspective, treating an event as complete. In contrast, "imperfective" will encompass progressive or continuous aspects for short-term events, as well as habitual and iterative semantic fields for longer-term actions.

After having presented the theoretical reference points that will serve as the basis for our analysis, we now consider the aspectual system of Hungarian.

4. The Hungarian aspectual domain

As we saw in the previous section, grammatical aspectual distinctions are universally confined to the categories of perfective and imperfective, and these categories are found in every language (Csirmaz 2003), but languages do not necessarily grammaticalize every possible conceptual category (Comrie 1981). Moreover, languages can conceptualize differently or partially a semantic domain. In what follows we will focus on the structuring of the aspectual system of Hungarian.

The incredible diversity of human languages stems not from what languages can express but from how they construct meaning. Linguistic expressions form a continuum based on the meanings they convey, with lexical expressions and grammatical structures at opposite ends (Bybee 1985, 11-48). Examining aspectual content presents challenges due to the influence of event schemas in verbs and grammatical structures. Therefore, aspect must be viewed as emerging during utterance construction, carried schematically by the verb structure as potential rather than absolute meaning, and even more so in Hungarian. Vendler's initial classification of situation types (1957) focused on individual verbs[13]. However, more recent studies suggest that the entire verbal predicate, especially the (Direct) Object beyond the verb, should be considered as the unit of classification (Verkuyl 1972, Krifka 1989, 1992, 1998, Parsons 1990) and we will follow this line in our analysis.

Languages with a simple binary PFV – IPFV aspectual system are not common worldwide, and many languages classified as such may have more complex structures or lack clear binary distinctions (Dahl, Velupillai 2013a). Moreover, there are significant language-specific differences within categories like PFV and IPFV, even within the same language family, and different linguistic traditions may emphasize distinct features of aspect, leading to varied conceptualizations. Dahl's approach (1985) and the "Bybee & Dahl approach" (Dahl 2000) treat aspectual categories like PFV as prototype-like, defined by typical properties rather than rigid binary distinctions.

In Hungarian, aspect is not morphologically bound but manifests across various linguistic levels (lexical, morpho-syntactic, pragmatic, prosodic), with the context of the discourse also playing a role. As a result, this language offers speakers a rich toolkit for expressing events in a nuanced manner through a flexible and complex aspectual system.

Basically, two factors contribute to defining the aspect of a situation in Hungarian:

1. the inherent semantics of the verb, and in Hungarian, the added meaning of derivational affixes must also be taken into account. For example,

[13] Vendler's aspectual classification recognizes the following four classes: activity, accomplishment, achievement, state.

the iterative suffix *-gat/-get*, as in *sétálgat* 'to walk aimlessly for a long time', wich contrasts with *sétál* 'to walk';

2. morphosyntactic structures.

In more widely used and taught (Indo-)European languages, such as Italian, aspect marking is combined with Tense marking which is possible because they have a rich system of verb Tenses. In contrast, in contemporary Hungarian, aspect cannot be expressed through verb Tenses, as there are only two Tenses in use: present/future and past[14]. Instead, aspect in Hungarian is primarily determined by a combination of lexical, pragmatic, and morpho-syntactic factors, which represents a central feature of the language (cf. Kiefer 1984, 1992a, 1992b, 1994a, 1994b, 1996, 2006, 2009; Takács 2012; Péter 2008; Németh 2012; Wacha 2001, Tolcsvai-Nagy 2015).

Several elements influence the temporal structure of verbs, such as (long or short) duration, the prominence of starting and ending points, and intensity. The expression of verbal aspect largely hinges on whether the starting and ending points of an event are emphasized or not. This highlighting,

[14] It is important to note, however, that the Tense system of Old (896-1526) and Middle (1526-1772) Hungarian was richer than what is found in contemporary Hungarian, particularly concerning past Tenses (Tolcsvai Nagy 2017). In earlier stages, Hungarian had developed not only simple (synthetic) but also compound (analytic) Tenses, making its Tense system similar to that of Modern Italian. Therefore, the Old and Middle Hungarian Tense systems were complex, indicating both Tense and aspect, much like in present-day Italian. Since the end of the Old Hungarian period (896-1526), and certainly by the beginning of the Middle Hungarian period (1526-1772), this complex Tense system began to disintegrate, leaving only one past tense, marked with the suffix *-t*, in contemporary Hungarian. By the end of the 18th century, this was already the norm, with the other paradigms surviving briefly in literary texts with altered functions. The extreme simplification of the Tense system was completed only in the 20th century in standard Hungarian. This shift significantly impacted the Hungarian aspect system. As the verb Tenses were reduced to a minimal form, the language could no longer express aspect through Tense and turned to other morphosyntactic means, primarily particles. Some scholars suggest that the development of particles coincided with the simplification of the Hungarian Tense system (Szeverényi 2006, 99; Kiefer 1996, 268; D. Mátai 1989, 7; 1991, 440; É. Kiss 2005, 433) because the expansion of the particle system toward the end of the Old Hungarian period would have made the use of verb inflection for aspect redundant in a complex Tense system. However, critics of this view (Honti 2002, 116) argue that in Old Hungarian, the particle *meg* had already adopted a perfectivizing function, even while the language still maintained a rich variety of verb Tenses. This would suggest that the grammaticalization of particles as perfectivizing elements began before the simplification of the complex verb Tense system.

known as profiling[15], guides attention: with an imperfective verb, the focus is on an internal phase of the process, while with a perfectivized verb, the event is perceived as a whole, encompassing both the starting and ending points, or either one (Panther, Thornburg 2009).

4.1. Aspectual values of Hungarian

The perfective and the imperfective aspects constitute a basic dichotomy in Hungarian (Kiefer 1984, 1992a, 1992b, 2006), too (see Figure 2).

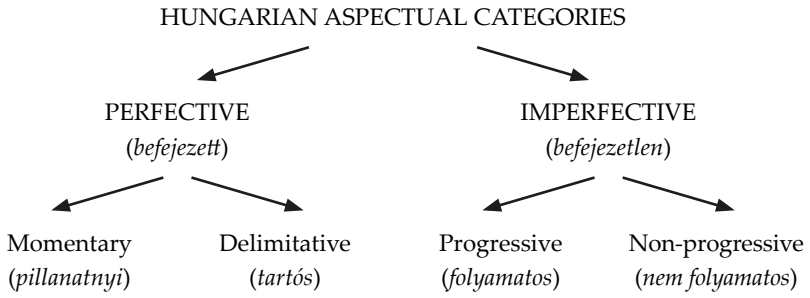

Figure 2 – Aspectual values of Hungarian (based on Kiefer's works).

[15] Profiling refers to the process by which certain aspects of a conceptual base are highlighted or given special prominence while others remain in the background. The profile is what the expression explicitly designates, while the base provides the essential context needed to understand that designation. In language use, profiling helps explain how different grammatical constructions can present the same situation from different perspectives. For instance, the sentences *The lamp is above the table* and *The table is below the lamp* describe the same spatial configuration, but profile different aspects of the relationship between the objects. Understanding profiling is essential for analyzing how language constructs meaning, as it reveals how speakers can present the same conceptual content in different ways to achieve various communicative goals (Langacker 1987, 1991, 2008).

The perfective domain can be further subdivided as shown in Figure 3.

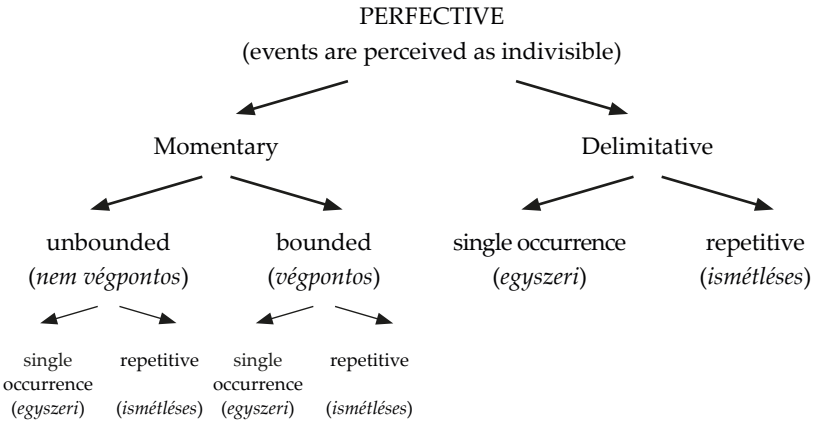

Figure 3 – The structure of the perfective domain in Hungarian (based on Kiefer 1992b)

The perfective aspect can appear in six types of temporal structures:

1. Delimitative, single occurrence: *Megírta a házi feladatát.* '(S)he did her/his homework.'
2. Delimitative, repetitive: *Minden este megírta a házi feladatát.* '(S)he did her/his homework every evening.'
3. Momentary, unbounded, single occurrence: *Tüsszentett.* '(S)he sneezed.'
4. Momentary, unbounded, repetitive: *Sokszor tüsszentett ma reggel.* '(S)he sneezed several times this morning.'
5. Momentary, bounded, single occurrence: *Rájött az igazságra.* '(S) he realized the truth.'
6. Momentary, bounded, repetitive: *Háromszor győzőtt az iskolai sakkversenyen.* '(S)he won three times in the school chess tournament.'

As shown by the examples, the perfective aspect can convey repeated and even habitual events in various contexts (examples 2, 4 and 6). This

challenges the general assumption that habituality aligns exclusively with the imperfective aspect, given its unbounded and repetitive nature.

In a recent study Fortuin (2023) examines the relationship between habitual actions, particularly those involving unbounded repetition, and verbal aspect across languages. His cross-linguistic analysis of 36 languages from various families (excluding Uralic) led to the conclusion that habituality as such is not inherently IPFV; there is no general cognitive or semantic (functional) restriction on PFV's in habituals. He shows that there is a strong but certainly not absolute association between the imperfective and habitual expressions of unbounded repetition with past reference; however, perfective habituals are allowed in many languages. It is argued that understanding the aspectual behavior of habituals requires attention to language-specific properties of aspectual and verbal structures, suggesting that broad comparative concepts like 'perfective', 'imperfective' or 'habitual' are insufficient to fully explain aspectual usage.

As illustrated by the Hungarian example, the perfective aspect can convey habituality when it frames repeated events as a series of bounded instances or emphasizes the occurrence of the action as a whole. The sentence *Minden este megírta a házi feladatát* ((S)he did her/his homework every evening) employs the perfective aspect through the particle verb form *megírta* (lit. 'wrote': PART-write-PST-3SG). While the aspectual particle *meg* typically signals completion (and thus perfective aspect), in this case, it indicates a habitual action conceptualized as repeated and bounded. It is important to recognize that the choice between perfective and imperfective in habitual contexts is not universal but is shaped by the interplay of Tense, aspect, and pragmatic considerations in each language.

The imperfective domain can be further subdivided as shown in Figure 4.

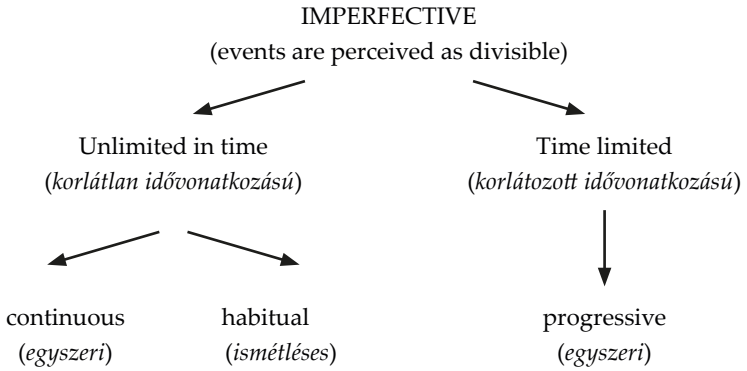

Figure 4 – The structure of the imperfective domain in Hungarian (based on Kiefer 1992b)

The imperfective aspect can appear in three types of temporal structures:

1. Unlimited duration, single occurrence, with interruptions (continuous): *Egész nap olvasott*. '(S)he was reading all day.'
2. Unlimited duration, repetitive, with interruptions (habitual): *Minden este olvasott*. '(S)he read every evening.'
3. Limited duration, single occurrence (progressive): *Éppen jött fel, amikor találkozott a szomszéddal*. '(S)he was coming up when (s)he met the neighbor.'

A further distinction is made by Kiefer (1992a, 1992b, 2006) to identify a third type of aspect, the states (*állapotok*). States do not involve inherent changes or transitions, meaning they are continuous and lack natural boundaries (see also Kearns 1991, 116), they exist continuously and cannot be interrupted. In (12), the disease condition must be present in every subinterval of the affected time phase.

12.	Árpád	egész nap	beteg	*volt*.
	Árpád	all day	sick	be-PST-3SG

Árpád was sick all day.

The domain of states can be further subdivided as shown in Figure 5.

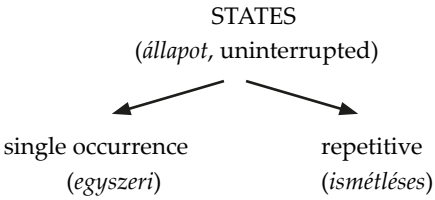

Figure 5 – The domain of states in Hungarian (based on Kiefer 1992b)

States can appear in two types of uninterrupted temporal structures:

1. Single occurrence: *Beteg volt.* '(S)he was sick.'
2. Repetitive: *Gyakran beteg volt.* '(S)he was often sick.'

As seen in Figure 2, nonstates are subdivided into several subclasses. A key criterion for distinguishing between the perfective and imperfective aspects in Hungarian is the divisibility of the time interval affected by an action or process: the time interval of a perfective action is indivisible, while that of an imperfective action is divisible (Kiefer 1984, 1992a, 1992b, 2006). The defining characteristic of perfectivity is the bounded nature of an event presented as a complete whole, with its internal structure inaccessible. It also signifies the completion of the action or process, the attainment of its final point or outcome, and, as a result, possibly the emergence of a new condition. Sentence (13) has a perfective aspect, indicating that the entire duration from 5 to 6 is covered by the act of writing the letter. Thus, it cannot be said that Árpád wrote the letter from 5:00 to 5:30 but not from 5:30 to 6:00. Additionally, it implies that as a result of the action of writing, the letter was produced.

13.	Árpád	5-től	6-ig	*megírta*	a levelet.
	Árpád	5-ABL	6-TERM	PART-write-PST-3SG:PFV	the letter-ACC

Árpád wrote the letter from 5 to 6 (and finished it).

The imperfective aspect relates to situations that can be paused and resumed; the time interval of the action or process can be divided. Unlike the perfective aspect, this allows access to the internal structure of the event. The sentence (14) is in the imperfective aspect, indicating that the action of writing the letter occupies most of the time interval.

14.	Árpád	délelőtt	10-től	11-ig	*írta*	a levelet.
	Árpád	morning	10-ABL	11-TERM	write-PST-3SG:IPFV	the letter-ACC

During the morning, Árpád was writing the letter from 10 to 11.

Momentary aspect is used for a sudden and short-lived occurrence of the event as in (15):

15.	A villany	*felgyulladt*.
	the light	PART(=on)-click-PST-3SG:PFV

The light came on.

Delimitative refers to a situation that lasts a certain amount of time. Sometimes it is called also "durative", see (16):

16.	*Aludt*	egy kicsit.
	sleep-PST-3SG:PFV	a little bit-ACC

(S)he slept for a while.

The progressive indicates an ongoing event as in (17):

17.	A gyerek	*játszik*	a szobában.
	the child	play-PR-3SG:IPFV	the room-INES
	The child is playing in the room.		

The non-progressive aspect views an event as repeated or habitual as in (18):

18.	Árpád	sokszor	*játszik*	a gyerekkel.
	Árpád	several-times	play-PR-3SG:IPFV	the child-INSTR
	Árpád often plays with the child.			

4.2. Hungarian aspectual values' graded membership

Hungarian is generally regarded as a language without explicit grammatical aspectual distinctions. In certain contexts, a single verb form can be interpreted as either perfective or imperfective. This is demonstrated by the ambiguity found in the present tense forms of the verb *jön* 'to come', as shown in (19) below:

19a.	Árpád	(épp)	*jön*.
	Árpád	just	come-PR-3SG:IPFV
	Árpád is coming.		
19b.	Árpád	(gyakran)	*jön*.
	Árpád	often	come-PR-3SG:IPFV
	Árpád (often) comes.		
19c.	Árpád	(majd)	*jön*.
	Árpád	poi	come-PR-3SG:PFV
	Árpád will come.		

Consider also the following examples in (20) where the verb *jön* 'to come' has simultaneous interpretation in the imperfective aspect (20a) and consecutive interpretation in the perfective aspect (20b).

20a.	Amikor	elindultunk,	Árpád	(éppen)	*jött*.
	when	PART-leave-PST-1PL:PFV	Árpád	just	come-PST-3SG:IPFV
	When we left, Árpád was coming.				
20b.	Amikor	elindultunk,	Árpád	(rögtön)	*jött*.
	when	PART-leave-PST-1PL:PFV	Árpád	immediately	come-PST-3SG:PFV
	When we left, Árpád came straight away.				

Hungarian base verbs typically embody an imperfective perspective that emphasizes a general characteristic of the action. Takács (2012) points out that the distinction between imperfective and perfective aspects in Hungarian verbs forms a continuum, with no clear-cut boundary between them. For example, *létezik* 'to exist' is completely imperfective, while *hasonlít* 'to resemble' is slightly less so; *néz* 'to look/watch', *áll* 'to stand', *ül* 'to sit', and *fut* 'to run' are further along the continuum; *olvas* 'to read' and *épít* 'to build' are transitional; *dob* 'to throw' and *nyit* 'to open' lean more toward the perfective side; and *csillan* 'to glint (once)' and *csettint* 'to snap fingers (once)' are fully perfective.

Elaborating on the natural endpoint of a process activates the entire event schema, enabling the representation of the event as a whole in a perfective manner. In the structure of verb phrases, the centrality of natural endpoints appears as a potential for perfectivity. This potential primarily arises from the interplay of semantic components but also relates to morfo-syntactic and pragmatic elements. Importantly, aspectual representation, semantic elaboration, and foregrounding occur within the context of each utterance. Constructions, because the potential for perfectivity and the degree of elaboration of individual verbs may vary, are fundamentally scalar in nature. Let's consider the following sentences (the linguistic elements in uppercase are focused arguments; an apostrophe (') signifies that the element(s) following it are emphasized or stressed.

(21) is a simple sentence consisting of a Subject and a Verb and has two possible interpretations depending on the context: IPFV progressive

in (21a) without any reference to the time when Árpád's eating started or the time it ended; PFV in (21b) representing the event as an unanalyzed whole, including its ending point:

21. Árpád '*evett*. (aspectually ambiguous)

21a.	Árpád	(épp)	*evett*.
	Árpád	just	eat-PST-3SG:IPFV(progressive)
	Árpád was eating.		
21b.	Árpád	(már)	*evett*.
	Árpád	already	eat-PST-3SG:PFV
	Árpád ate (=finished eating).		

In sentence (22), in addition to the Subject and the Verb, there is an indefinite Direct Object (marked by either the indefinite article *egy* or the zero article Ø) serving as a verbal modifier in the preverbal position. This structure can yield three different interpretations: (22a) represents an IPFV progressive reading, similar to (21a); (22b) expresses an IPFV habitual action involving unbounded (atelic) repetition with past reference; (22c) denotes a PFV single event that was completed:

22. Árpád egy / Ø 'almát *evett*. (aspectually ambiguous)

22a.	Árpád	(épp)	egy / Ø 'almát	*evett*.
	Árpád	just	an / Ø apple-ACC	eat-PST-3SG:IPFV(progressive)
	Árpád was eating an apple.			
22b.	Árpád	egy / Ø 'almát	*evett*	(minden nap).
	Árpád	an / Ø apple-ACC	eat-PST-3SG: IPFV(habitual)	every day
	Árpád ate an apple every day.			

22c.	Árpád	egy / Ø ‘almát	*evett*	(vacsorára).
	Árpád	an / Ø apple-ACC	eat-PST-3SG:PFV	dinner-SUP
		Árpád ate an apple for dinner.		

In example (23), the indefinite Direct Object has been moved to the postverbal position. With this word order, the sentence can still have the same three interpretations as in example (22). It is important to note that a structure with a progressive reading does not permit the use of the Ø indefinite article:

23. Árpád ‘*evett* egy ‘almát. (aspectually ambiguous)

23a.	Árpád	(épp)	*evett*	egy / *Ø almát
	Árpád	just	eat-PST-3SG:IPFV(progressive)	an / *Ø apple-ACC
		Árpád was eating an apple.		

23b.	Árpád	*evett*	egy / Ø almát	(minden nap).
	Árpád	eat-PST-3SG: IPFV(habitual)	an / Ø apple-ACC	every day
		Árpád ate an apple every day.		

23c.	Árpád	*evett*	egy / Ø almát.	(vacsorára).
	Árpád	eat-PST-3SG:PFV	an / Ø apple-ACC	dinner-SUP
		Árpád ate an apple for dinner. (completed event)		

Sentence (24) demonstrates that a structure consisting of a bare verb followed by a definite Direct Object can also be interpreted as imperfective:

24.	Nándor	*‘ette*	az ‘almát.
	Nándor	eat-PST-3SG:IPFV	the apple-ACC
		Nándor was eating the apple.	

In (25), we have a series of sentences with an imperfective aspect in its progressive sense, illustrating the primary function of the Hungarian progressive aspect: to establish the temporal frame for another event expressed by a temporal clause (framing effect). The progressive predicate can set the temporal frame for any event whose duration does not exceed that of the progressive event. Here, the interpretation of the imperfective aspect is anaphoric, as it is anchored to another contextually provided event required by the past imperfective predicate. In (25a) and (25b), there is a simultaneous relationship between the two clauses, whereas in (25c) and (25d), the progressive establishes the temporal frame for a momentary event. Sentence (25d) illustrates one of the few contexts where grammatical aspect in Hungarian is explicitly marked using particle verbs. Differences in the word order of particle verb structures correspond to different aspectual interpretations. The word order, with a stressed durative verb followed by a stressed particle denoting an endpoint, creates a clearly identifiable environment for the progressive aspect, provided that a framing effect is present.

25a.	Nándor	egy / Ø ‘almát	*evett*,	miközben	olvasott.
	Nándor	an / Ø apple-ACC	eat-PST-3SG:IPFV (progressive)	while	read-PST-3SG:IPFV
		Nándor was eating an apple while reading.			
25b.	Nándor	*‘ette*	az almát,	miközben	olvasott.
	Nándor	eat-PST-3SG:IPFV (progressive)	the apple-ACC	while	read-PST-3SG:IPFV
		Nándor was eating an apple while reading.			
25c.	Nándor	*‘evett*,	amikor	megszólalt	a telefon.
	Nándor	eat-PST-3SG:IPFV (progressive)	when	PART-ring-PST-3SG:PFV	the phone
		Nándor was eating when the phone rang.			

25d.	Nándor	(épp)	*'ment 'fel*	az emeletre,
	Nándor	just	go-PST-3SG:IPFV su(=PART) (progressive)	the floor-SUP
	amikor	megszó-lalt	a telefon.	
	when	PART-ring-PST-3SG:PFV	the phone	

Nándor was going upstairs when the phone rang.

The notions of progressivity and continuity in aspect are closely related in meaning; the distinction between progressivity and continuity is typologically quite rare. This explains why many languages, including Hungarian, tend to use the same morphological tool to express both values. Hungarian lacks a specific morphological marker for the progressive aspect. However, progressive interpretations can be derived from word order and a particular intonation contour in the sentence (Kiefer 1994a, b). Consider the following examples (26a and 26b), where (‘’) indicates focal stress and (‘) denotes neutral stress:

26a.	Nándor	‘’*ELpakolta*	a könyveket,	
	Nándor	PART(=away)-put-PST-3SG:PFV	the book-PL-ACC	
	amikor	a vendégek	megérkeztek.	
	when	the guest-PL	PART-arrive-PST-3PL:PFV	

Nándor (had) put the books away when the guests arrived.

26b.	‘Nándor	(épp)	*'pakolta 'el*	a könyveket,
	Nándor	just	put-PST-3SG PART(=away): IPFV	the book-PL-ACC
	amikor	a vendégek	megérkeztek.	
	when	the guest-PL	PART-arrive-PST-3PL:PFV	

Nándor was (just) putting away the books when the guests arrived.

In example (26b), although we have a perfective verb form (*elpakol* 'to put away'), the sentence does not convey a perfective aspect. This is due to the word order (V + PART) and the absence of a focal stress element to the left of the verb, which is required for the perfective aspect to apply in Hungarian. In contrast, the word order PART + V in (26a) includes a focalized element (PART) in the preverbal position, enforcing a perfective interpretation.

In sentence (27), the perfectivizing particle *meg* occupies the preverbal verbal modifier position, prompting a perfective reading of the structure (i.e., a single, completed event), while a postverbal indefinite Direct Object with the indefinite article *egy* is present:

27.	Nándor	*'megevett*	egy almát.
	Nándor	PART-eat-PST-3SG:PFV	an apple-ACC
	Nándor ate an apple. (= finished eating an apple)		

Sentence (28) illustrates the prototypical perfective structure in Hungarian for a transitive verb: a verb phrase featuring a verbal modifier in the preverbal position (typically a perfectivizing particle, like *meg* in this case) and a definite Direct Object in the postverbal position.

28.	Nándor	*'megette*	az almát.
	Nándor	PART-eat-PST-3SG:PFV	the apple-ACC
	Nándor ate the apple.		

Sentence (29) includes a focused constituent (in this case, a definite Direct Object: *az almát* 'the apple'). In Hungarian, focus is marked syntactically: the focused constituent must be placed immediately before the verb, which displaces the perfectivizing particle to a post-verbal position. This shift neutralizes the syntactic marking of the perfective aspect, though it can still be interpreted at the lexical and contextual levels:

29.	Nándor	''AZ ALMÁT	*ette meg*,	(nem)	(a körtét).
	Nándor	the apple-ACC	eat-PST-3SG PART:PFV	not	the pear-ACC

It was the apple that Nándor ate (and not the pear).

Sentence (30) illustrates that focused subjects result in a perfective interpretation:

30.	Ezt	''NÁNDOR	*mondta*.
	this-ACC	Nándor	say-PST-3SG:PFV

It was Nándor who said this.

Quantified NPs, both in Subject (31a) and Object (31b) positions, bring about perfectivity, too:

31a.	Két	barátunk	*jött.*
	two	friend-our	come-PST-3SG:PFV

Two of our friends came.

31b.	'*Evett*	egy kis	sajtot.
	eat-PST-3SG:PFV	a little	cheese-ACC

(S)he ate some cheese.

We can see in these examples that analyzing aspectual content poses significant challenges because the representation of events appearing in utterances is influenced also by the event schema schematically present in the structure of verbs along with the grammatical structures operating in accordance with them. Furthermore, aspect, which is an extremely complex linguistic phenomenon, can be related to semantic and grammatical as well as prosodic and pragmatic categories such as external time (Tense), transitivity and grammatical Objects, definiteness, temporal adverbials, sentence stress, word order and the information structure of the sentence.

According to Kiefer (2006, 25), the aspect of a verb is an inherent feature of its semantic structure, which can be further shaped or altered by the sentence's semantic and syntactic organization, as well as by constructional patterns. Nevertheless, Hungarian does offer limited contexts where the distinction between perfective and imperfective is explicitly marked. These contexts cover the perfective and progressive aspect.

As it has already been pointed out above, Hungarian base verbs (and some forms with derivational suffixes) typically embody an imperfective perspective, while elaborating on the natural endpoint activates perfectivity. A noteworthy and significant characteristic of Hungarian perfectivization is that it rarely appears in isolation; it is often accompanied by an indication of actionality (*akcióminőség*). For instance, between the verb *ír* 'to write' and *megír* (where *meg* is a particle added to the verb base *ír*), there is a difference not only in aspect. The base verb *ír* has an imperfective aspect, while *megír* indicates that the event is completed, carrying a perfective aspect. Additionally, *megír* conveys that the action of writing results in an outcome, such as a letter, which means that the complex verb (particle + verb) also expresses the actional value of resultativeness. Let's recall that the grammatical aspect is distinct from *Aktionsart* which pertains to the meaning of the verbal predicate, independent of the morphology it is paired with. In a language like Italian, *Aktionsart* is primarily a lexical category, inherent to the meaning of the verbs, and can also be conveyed using certain verbal periphrases. In contrast, in Hungarian, *Aktionsart* has its own morphosyntactic mechanisms that partially overlap with those of grammatical aspect. As a result, grammatical and lexical aspects are not always easily distinguished, since the same verb form can express both categories due to the multifunctionality of the particles used for both purposes.

4.3. Two contexts where grammatical aspect is explicitly marked

4.3.1. The perfective aspect

In Hungarian, the perfective aspect is built with various linguistic elements that involve both the morphological and the syntactic levels and encompass the following:

1. In preverbal position, use of verbal modifiers which include:

A. Particles: *el*ment 'he / she left'. Particles have a significant role in representing aspectual meanings as they highlight specific components of event meanings. This capacity of theirs stems from their grammaticalized nature originating from directional adverbs; they have retained their role of schematically elaborating endpoints and thus being perfect candidates for perfectivization (Rózsavölgyi 2021).

B. Indefinite locative (Lative) complement: *moziba* ment 'he / she went to the cinema'.

C. Indefinite Direct Object: *filmet* nézett 'he / she watched a film'.

2. In postverbal position, use of a linguistic element elaborating a natural endpoint that ensures telicity (i.e. the result of the action) along with a VP made up of Particle + Verb. It can be represented by:

A. a definite Direct Object (32a), less frequently an indefinite Direct Object (32b) that makes the objective of the action specific:

32a.	Megnézte	*a filmet.* (definite Direct Object)
	PART-see-PST-3SG:PFV	the film-ACC
	(S)he saw the film.	
32b.	Megnézett	*egy filmet.* (indefinite Direct Object)
	PART-see-PST-3SG:PFV	a film-ACC
	(S)he saw a film.	

B. an NP with Lative cases [Illative (suffixes *-ba/-be*), Sullative (suffixes *-ra/-re*), Allative (suffixes *-hoz/-hez/-höz*)]:

33a.	Elment	*a moziba.* (definite Illative complement)
	PART-go-PST-3SG:PFV	the cinema-ILL
	(S)he went to the cinema.	

33b. Elment *Budapestre.* (definite Sullative omplement)
PART-go-PST-3SG:PFV Budapest-SULL
(S)he went to Budapest.

33c. Elment Árpád*hoz.* (definite Allative complement)
PART-go-PST-3SG:PFV Árpád-ALL
(S)he went to Árpád.

3. Temporal modifiers functioning as arguments (34a); see the agrammaticality of (34b):

34a. *Két órát* dolgozott az előadásán.
two hour-ACC work-PST-3SG:PFV the presentation-his/her-SUP
(S)he worked on his/her presentation for two hours.

34b. *Dolgozott az előadásán.
work-PST-3SG:PFV the presentation-his/her-SUP
(S)he worked on his/her presentation.

4.3.2. The progressive aspect

Another context where grammatical aspect is explicitly marked in Hungarian is the progressive aspect. With simple atelic action verbs, both a progressive sentence (35a) and a non-progressive sentence (35b) can be formed. The verb appears in the same form in both sentences, and the aspectual difference can be grasped based on the context. In (35a), the framing effect is in play (i.e., establishing the temporal frame for another event expressed by a temporal clause), whereas in (35b), the time adverbial (*fél óráig* 'for half an hour') indicates a time frame within which the action is completed and/or the objective of the action is achieved:

35a.	Nándor	éppen	*evett*	a konyhában,
	Nándor	just	eat-PST-3SG: IPFV(progressive)	the kitchen-INES
	amikor	Árpád	bejött.	
	when	Árpád	PART-come-PST-3SG:PFV	

Nándor was eating in the kitchen when Árpád came in.

35b.	Nándor	fél óráig	*evett*	a konyhában.
	Nándor	half hour-TERM	eat-PST-3SG:PFV	the kitchen-INES

Nándor ate in the kitchen for half an hour.

A sentence with a progressive interpretation can be formed using particle verbs (complex verb forms made up of a Particle + Verb), which are generally linked to the perfective aspect. By changing the word order of the phrasal elements within the complex verb phrase, the progressive aspect can be conveyed. When the word order is Verb + Particle, the event is interpreted as having a progressive aspect, occurring concurrently with another action [framing effect, see also examples (25)], even when different subjects are involved, as in (36):

36.	Épp	*ment el*,	amikor	megszólalt	a telefon.
	just	go-PST-3SG PART(=away): IPFV	when	PART-ring-PST-3SG:PFV	the phone

(S)he was leaving when the phone rang.

As shown in examples in (37), the Particle + Verb order can yield both a sentence with a progressive interpretation (37a) and one with a perfective aspect (37b). Piñón (1995) observes that in neutral sentences containing atelic particle verbs expressing actions, the word order for a progressive reading is Particle + Verb, as illustrated in (37a). Conversely, for non-instantaneous telic particle verbs denoting accomplishments and with a compositional meaning, the word order for a progressive interpretation is Verb + Particle, as shown in (37c). For the telic verb class, the Particle + Verb order instead conveys a perfective reading as demonstrated in (37d). In sentences (37b) and (37d), the context, particularly the temporal adverbials *fél óráig* 'for

half an hour' and *egy perc alatt* 'in a minute', help to guide us toward a perfective reading.

37a.	Nándor	éppen	*felolvasott*	a könyvből,
	Nándor	just	PART(=up)-read-PST-3SG:IPFV (atelic verb, progressive)	the book-EL
	amikor	az igazgató	belépett	a tanterembe.
	when	the principal	PART-enter-PST-3SG:PFV	the classroom-ILL

Nándor was reading aloud from the book when the principal entered the classroom.

37b.	Nándor	fél óráig	*felolvasott*	a könyvből.
	Nándor	half hour-TERM	PART-read-PST-3SG:PFV	the book-EL

Nándor read aloud from the book for half an hour.

37c.	Nándor	éppen	*hozta fel*	a csomagot,
	Nándor	just	bring-PST-3SG:IPFV PART(=up) (telic verb, progressive)	the package-ACC
	amikor	találkozott	Árpáddal	
	when	meet-PST-3SG:PFV	Árpád-INSTR	

Nándor was bringing up the package when he met Árpád.

37d.	Nándor	egy perc alatt	*felhozta*	a csomagot.
	Nándor	one minute in	PART-bring-PST-3SG:PFV	the package-ACC

Nándor brought the package up in a minute.

As previously noted, aspect and *Aktionsart* need to be distinguished. Aspect is a grammatical feature, whereas *Aktionsart* is lexical, reflecting how the verb portrays the event in terms of its phases. Nonetheless, there is an important correlation between the two, as certain types of *Aktionsart* tend to appear in specific aspectual constructions and exclude others. Since the progressive aspect emphasizes the ongoing nature of an action, it cannot

be used with verbs that describe instantaneous or time-limited actions. In the case of the Hungarian progressive aspect, we need to consider the actional class of telicity (from the Greek '*télos*,' meaning 'end'), which refers to whether an event has a defined endpoint. Telic verbs are intrinsically oriented toward a conclusion, while atelic verbs lack a defined culmination. In this context, compositional meaning implies that the particle has not fully become a grammatical marker of perfective aspect, and its original Lative sense remains transparent. This is demonstrated by the ungrammaticality of (38a) compared to the fully grammatical (38b). In (38a), the particle *meg*, which is completely grammaticalized as a perfective marker, cannot be used in progressive constructions:

38a.	*Épp	*írta meg*	a levelet,
	just	write-PST-3SG PART:IPFV(progressive)	the letter-ACC
	amikor	megszólalt	a telefon.
	when	PART-ring-PST-3SG:PFV	the phone

(S)he was writing the letter when the phone rang.

38b.	Épp	*írta*	a levelet,
	just	write-PST-3SG: IPFV(progressive)	the letter-ACC
	amikor	megszólalt	a telefon.
	when	PART-ring-PST-3SG:PFV	the phone

(S)he was writing the letter when the phone rang.

Additionally, complex verb phrases with particles are excluded from progressive structures when the particle performs a derivative function, significantly altering the meaning of the base verb as in (39) (*rúg* 'kick', *be+rúg* 'get drunk') and thus losing transparency:

39.	*Épp	*rúgott be*,	amikor	megszólalt	a telefon.
	just	kick-PST-3SG PART:IPFV	when	PART-ring-PST-3SG:PFV	the phone

(S)he was getting drunk when the phone rang.

A change in the order of the phrasal constituents can contribute not only to the creation of an imperfective situation of the progressive type, as seen above, but can also emphasize the imperfective aspect itself. By moving the locative complement after the verb, the progressive aspect is further emphasized with verbs indicating actions of imperfective aspect as shown in (40a) and (40b). Note that the verb *olvas* 'to read' in (40) has an iterative suffix *(-gat*) which emphasizes the imperfective character of the predicate.

40a.	*A szobában*	olvasgatott,	amikor	megszólalt	a telefon.
	the room-INES	read-PST-3SG:IPFV	when	PART-ring-PST-3SG:PFV	the phone

(S)he was reading in the room when the phone rang.

40b.	(Épp)	olvasgatott	*a szobában*,
	just	read-PST-3SG:IPFV(progressive)	the room-INES
	amikor	megszólalt	a telefon.
	when	PART-ring-PST-3SG:PFV	the phone

(S)he was just reading in the room when the phone rang.

4.4. The role of time adverbials

Time adverbials help to define the aspect of a sentence. The use of time adverbials can assist in determining whether the aspect of the sentence is perfective or imperfective.

Temporal modifiers referring to event time are categorized by Kiefer (1992b, 829) into four groups:

1. Those indicating completion and a boundary-point, compatible with the durative-perferctive aspect: e.g., *két óra alatt* 'in two hours', *két órán belül* 'within two hours'.

2. Those referring to continuity and not having a boundary-point, compatible with the imperfective aspect: e.g., *két órán át / keresztül* 'for / throughout two hours', *egész nap* 'all day', *sokáig* 'for a long time'.
3. Those expressing momentariness, compatible with momentary aspect: e.g., *egy pillanatra* 'for a moment'.
4. Those expressing frequency, compatible with habitual aspect: e.g., *gyakran* 'often', *többször* 'several times', *minden héten* 'every week'.

Temporal modifiers play a decisive role in determining aspect in cases of aspectual homonymy, see for example (41a) and (41b).

41a.	*Fél* órán *keresztül*	vasalt	egy inget.
	half hour-SULL through	iron-PST-3SG:*IPFV*	a shirt-ACC
	(S)he ironed a shirt for half an hour.		
41b.	*Fél* óra *alatt*	vasalt	egy inget.
	half hour under	iron-PST-3SG:*PFV*	a shirt-ACC
	(S)he ironed a shirt in half an hour		

Certain types of time adverbials may be compatible or incompatible with different aspects. Generally, sentences with a perfective aspect tend to allow time adverbials that refer to a narrower, more specific time interval and are compatible with verbal structures indicating actions or processes that have a goal or result. In contrast, sentences with an imperfective aspect are typically accompanied by time adverbials that suggest a broader, potentially open-ended time interval.

Szili (2000) identified three types of time adverbials in Hungarian:

1. Those indicating a time viewed in terms of its duration. Within the specified time frame, the action is continuous, interruptions are possible but negligible; these adverbials are compatible with the imperfective aspect and states, see for example (42):

42.	Nándor	*egész nap*	rosszul	*volt*.
	Nándor	all day	unwell	be- PST-3SG:IPFV
	Nándor was feeling unwell all day.			

2. Time adverbials that specify a timeframe marking the completion of the action's goal, or toward which the event is naturally directed as its endpoint, are compatible with the perfective aspect (43):

43.	Nándor	*hatra*	*befejezte*	a tanulást.
	Nándor	six-SUP	PART-finish-PST-3SG:PFV	the studying-ACC

Nándor finished studying by six.

3. Time adverbials that represent a temporal unit as an interval during which the action only occupies a portion of the time, possibly with interruptions. These adverbials can be used with both perfective and imperfective aspect verbs, depending on the context: the action can be viewed in its progression, making it compatible with the imperfective aspect as in (44), or as completed, making it compatible with the perfective aspect as in (45):

44.	Nándor	*tegnap*	sokat	*tanult*.
	Nándor	yesterday	much-ACC	study-PST-3SG:IPFV

Nándor studied a lot yesterday.

45.	Nándor	*tegnap*	*megtanulta*	az irodalom leckét.
	Nándor	yesterday	PART-learn-PST-3SG:PFV	the literature lesson-ACC

Nándor learned the literature lesson yesterday.

On the basis of these distinctions, the relationship between time adverbials and aspect in Hungarian can be summarized as follows:

a) In situations with an imperfective aspect, time adverbials indicating duration (1st type) are used.

b) In situations with a perfective aspect, time adverbials of a punctual nature (2nd type) are used.

c) For time adverbials that indicate an interval (3rd type), it is necessary to evaluate whether the specific adverbial is compatible with an event of imperfective or perfective aspect, depending on the context.

4.5. The relationship between verb Tense and aspect

As previously mentioned, in Hungarian the connection between Tense and aspect is not as strong as it can be in Indo-European languages like Italian. Nevertheless, the two verb tenses in Hungarian (Past and Present/Future) can combine with *for*-adverbials (see 47)[16] to express different aspects. The Past Tense denotes an action that has been completed within a closed time frame triggering a perfective reading as in (46):

46.	Nándor	*két het-e*	*játszott*	a csapatban.
	Nándor	two week-ago	play-PST3SG:PFV	the team-INES
	Nándor played in the team two weeks ago.			

The Present Tense can indicate an action that began in the past and is still ongoing giving birth to an imperfective use as in (47):

47.	Nándor	*két het-e*	*játszik*	a csapatban.
	Nándor	two week-for	play-PR-3SG:IPFV	the team-INES
	Nándor has been playing in the team for two weeks.			

4.6. Constructing aspect on multiple levels

In Hungarian, aspect can be constructed on multiple levels and may remain consistent or change from one level to another. For instance, structures with particle verb forms like *bejött* 'he/she came in' or *bejött a szobába* 'he/she came into the room' have a perfective aspect, while adding a time adverbial specifying the repetitivity of the event like *időnként* 'sometimes' changes the aspect into imperfective. Consider sentence (48):

[16] In Hungarian, *for*-adverbials can be expressed using the suffix *-e*, as in the example (46) *két hete* 'for two weeks', or with the postposition *óta*, as in *1999 óta* 'since 1999'. When

48.	Míg	én	vasaltam,	Nándor
	while	I	iron-PST-1SG:IPFV	Nándor
	időnként	*bejött*	a szobába.	
	sometimes	PART-come-PST-3SG:IPFV	the room-INES	

While I was ironing, Nándor sometimes came into the room.

Moreover, reduplication of the particle (*be* 'into') brings about iterative interpretation as in (49):

49.	Míg	én	*vasaltam*,
	while	I	iron-PST-1SG:IPFV
	Nándor	*be-bejött*	a szobába.
	Nándor	PART-PART-come-PST-3SG:IPFV	the room-INES

While I was ironing, Nándor kept coming into the room.

As already mentioned above, the aspect of a verb is an inherent feature of its semantic structure, which can be further shaped or altered by the sentence's semantic and syntactic organization, as well as by constructional patterns. Consider examples (50a) and (50b) from Pátrovics (2004, 20). In sentence (50b), the postpositional phrase *egymás után* 'one after the other' lends an imperfective aspectual value to the structure.

50a.	*Döntött*.
	decide-PST-3SG:PFV
	(S)he decided

time adverbials with the suffix *-e* are combined with a verb in the past tense, they convey a perfective aspect as in (45) *két hete* 'two weeks ago'. In contrast, when paired with a verb in the present tense, they result in an imperfective interpretation as in (46).

50b.	*Egymás után*	*döntötték el*	az ügyeket.
	one-another after	decide-PST-3PL PART:IPFV	the case-PL-ACC

They decided the cases one after the other.

Finally, consider the following pair of sentences from Pátrovics (2004, 20). In (51b), compared to (51a), the quantified noun phrase *egy kicsit* 'a little bit' induces perfectivity:

51a. *Ült.*
sit-PST-3SG:IPFV
(S)he was sitting.

51b.	*Ült*	egy kicsit.
	sit-PST-3SG:PFV	a little bit-ACC

(S)he sat for a while.

5. Prototype theory's role in L2 acquisition

Acquiring a second language consists in comprehending how a language operates, requires deciphering the relationships between forms, structures, and context, as well as recognizing the cultural differences embedded in conceptualization. Learning an L2 involves not only understanding a new language but also adopting a new worldview alongside the conceptual framework of the L1 worldview (Bańczerowski 2008).

Recently, a new discipline known as Applied Cognitive Linguistics[17] has emerged. Scholars widely agree that the fundamental principles of CL make

[17] Applied Cognitive Linguistics, as its name suggests, applies CL to practical linguistic issues, focusing on areas like language acquisition and pedagogy, among others. It serves two purposes: using CL to address linguistic and social problems and testing cognitive linguistic theories through real-world phenomena, making it a promising research field (Wen, Taylor 2021, 5).

it highly suitable for understanding second language acquisition (SLA), with the usage-based principle being central to this connection (Luo 2021).

In the context of CL, prototype theory has played a significant role in bridging philosophical and psychological concepts and language learning practices. Although prototype theory has been applied in SLA and language teaching since the late 20th century, its use has primarily been limited to vocabulary teaching in English L2 contexts. However, we would like to emphasize that it can also be effectively employed in mastering grammar. Every grammatical construction can be viewed as part of a category.

This theory suggests that items closer to the prototype are more easily categorized and recognized, whereas those that are less typical may require more cognitive effort to process (Rosch 1975, Rosch *et al.* 1976, Ellis, Ferreira-Junior 2009, Wulff *et al.* 2009).

The traditional method of learning grammar through rules, exceptions, and rote memorization has proven to be ineffective (Newby 2015). Prototype theory provides insights into how cognitive representations may be influenced by prototypes and typicality. A prototype-based pedagogy aligns more closely with human cognitive categorization processes (Achard, Niemeier 2004; Littlemore 2023).

Prototype Theory, originating from cognitive psychology, significantly influences language acquisition by helping learners identify central features of linguistic categories and by revealing the connections between core and peripheral grammar. It emphasizes the use of prototypes – mental representations of typical examples within a category – which guide learners in understanding and categorizing language elements.

By focusing on prototypes, students form stronger mental representations, leading to better retention and application of language concepts. Learners build a network of interconnected prototypes through exposure to various instances, which helps in language comprehension and usage. As they encounter new linguistic inputs, their prototypes adapt, reflecting the continuous nature of language learning. Understanding how prototypes shape language categories enhances effective language acquisition.

In teaching, prototype theory can inspire new methods and materials that use prototypical examples to help learners grasp linguistic informa-

tion more effectively. This approach also considers cultural variations in prototypes, aiding cross-cultural communication.

Prototype theory can also be applied in contrastive analysis between the second language and the native language. By showing that different languages have distinct conceptual systems, we can enhance positive transfer and reduce negative transfer in L2 acquisition. The new approach of conceptual contrastive analysis, grounded in prototype theory, focuses on comparing and contrasting the concepts and categories of different languages. This approach can be applied at all levels of language; for example, we might compare the marked nature of the Italian Tense system with the unmarked nature of the Hungarian Tense system.

Exploring the role of prototypes across different languages and cultures can offer valuable insights into the connection between language, cognition, and cultural context, potentially leading to more effective approaches for cross-cultural communication and language teaching.

As stated above, the application of Prototype Theory to the Hungarian–Italian L2 context, specifically in the acquisition of the aspect systems of these languages, will be addressed in a forthcoming study. This future work will explore Italian aspect in detail, providing an interlinguistic comparison and proposing teaching strategies.

6. Conclusions

Usage-based models draw on established mental representations and processes to explain linguistic knowledge and its regular operations, providing a concise and empirically supported approach to understanding language (Boyland 2009). In natural language, the categories of Tense and aspect represent the linguistic encoding of time. Verb Tenses indicate whether an action or event occurs in the past, present, or future, while grammatical aspect, referred to as internal tense by Comrie, reflects how the action is viewed, structured, and presented. Aspect signals the duration or completeness of an event, and possibly its initiation, continuation, completion, or repetition, among other features. From a typological perspective, these are typical verbal categories, meaning that if they are morphologically marked in a language, the morphemes are attached to the verb. Often, Tense and

aspect are intertwined and cannot be easily separated.

Acknowledging the inherent diversity in linguistic encoding, we have undertaken an analysis to highlight the key characteristics of the Hungarian aspectual system, with a future investigation planned for the Italian system. This typologically grounded research has practical implications, identifying subtle distinctions in aspectual markers that can inform targeted language teaching strategies, a topic to be addressed in subsequent work. The ultimate goal is to facilitate the acquisition of Hungarian as an L2 for speakers having as mother tongue Italian, and conversely, to support Italian L2 learners in navigating the challenges posed by the differing aspectual systems. By integrating theoretical insights with practical applications, this study aims to enhance our understanding of how ATAM structures shape linguistic expression and inform effective language pedagogy.

Hungarian's aspectual system contrasts imperfective and perfective forms, with base verbs typically embodying an imperfective perspective, while elaborating on the natural endpoint of the event represented by the verbal phrase activates perfectivity. The representation of events in utterances is influenced by the event schema present in verb structures and grammatical structures operating in accordance with them.

In our analysis, we used prototype theory, which posits that categories are organized around prototypes, i.e. typical or representative examples that serve as cognitive reference points. Mental categorization is achieved based on the resemblance of items to these prototypes, resulting in a graded organization where category membership varies in degrees. Tense and aspect display a graded membership, where the inclusion of their specific realizations within the category depends on their degree of proximity to the prototype. This leads to a hierarchical structure of category members, with typical members being more central, and boundaries between categories being fuzzy or indistinct, allowing for ambiguous or uncertain memberships. As demonstrated, the distinction between imperfective and perfective aspects in Hungarian verbs exists on a continuum rather than as a clear-cut division (see also Pete 1986, 1994).

As our understanding of cognitive processes and language structure evolves, the study of prototype theory continues to be a vital area for both research and practical application. This line of inquiry holds great prom-

ise in shedding light on the fundamental nature of human cognition and language processing, and in contributing to advancements in teaching and learning methods. Research into the role of prototypes in SLA can provide valuable insights into how vocabulary development and syntactic processing occur, leading to more effective pedagogical strategies and materials for language learners.

Abbreviations

1, 1st person; 2, 2nd person; 3, 3rd person; ABL, Ablative Case; ALL, Allative Case; ACC, Accusative Case; EL, Elative Case; ILL, Illative Case; Imp, Italian Imperfect Tense (*Imperfetto*); INES, Inessive Case; INSTR, Instrumental Case; IPFV, imperfective; PART, particle; PFV, perfective; PL, plural; PR, present; PS, Simple Past (Italian *Passato Remoto*); PST, past; SG, singular; SULL, Sullative Case; SUP, Superessive Case; TERM, Terminative Case (Terminalis); V, verb.

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