

THE ADAPTATION OF ONOMATOPOEIAS WITHIN THE LANGUAGE SYSTEM

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Abstract: This paper explores the adaptation of onomatopoeias within language systems, examining their transformation from spontaneous sound imitations to fully integrated lexical items. It discusses how these sound-based forms adapt and evolve through an examination of phonological adjustments, semantic shifts, and morphosyntactic integration. The paper highlights several stages of onomatopoeic transformation, drawing on complementary theories by Flaksman (2017), Körtvélyessy (2020, 2022), and Rhodes (1995). The contrast is primarily drawn between primary onomatopoeias that serve as iconic exclamations, and secondary onomatopoeias – fully conventionalised and grammatically embedded lexical items. By analysing the progression from the former to the latter, the paper offers insights into the broader cognitive and linguistic mechanisms that facilitate the incorporation of iconic forms into structured language.

Keywords: sound symbolism, onomatopoeia, conventionalisation, de-iconisation, institutionalisation.

Highlights:

- The paper explores the varied definitions and classifications of onomatopoeias, highlighting inconsistencies in how different scholars categorize them.
- It examines how onomatopoeias transition from spontaneous, iconic sound imitations to fully integrated lexical items
- It illustrates the semantic flexibility of onomatopoeias, which allows them to both enhance expressiveness in discourse and serve in functional linguistic roles.
- It highlights how the degree of morphosyntactic integration affects the expressiveness of onomatopoeias, with more integrated forms losing some of their iconic vividness.

1. INTRODUCTION

Onomatopoeias, as linguistic representations of natural sounds, occupy a unique space within language systems. Their iconic nature allows them to bridge the gap between human speech and the sounds of the external world. The present study aims to investigate that gap, analysing the processes present in the adaptation of onomatopoeias to a language system and their subsequent use within discourse. However, despite their apparent simplicity, the categorization and functional scope of onomatopoeias remain complex. The paper thus firstly addresses the various

definitions of what constitutes an onomatopoeia. It showcases how the term “onomatopoeia” has been used to describe several different linguistic phenomena, and how that affects our understanding of the concept.

The next section discusses the adaptation of onomatopoeias as lexical items. As words created to imitate external sounds, they provide a direct link between sense and form. However, while some onomatopoeic words retain their imitative character, others undergo processes that obscure their origins, evolving into fully integrated lexical items through various stages of conventionalisation. This transformation is crucial for understanding how such words transition from mere nonce formations to established lexemes. In analysing this transition, the study draws upon Flaksman’s (2017) diachronic analysis of onomatopoeias, Rhodes’s (1995) continuum of wild and tame onomatopoeias, and the work of Bauer (1983) that provides insight into the institutionalization process within language in general.

The research also considers the semantic aspects of onomatopoeias, addressing the distinction between primary and secondary forms. Drawing upon the works of Körtvélyessy (2020), Kita (1997), and Sasamoto (2019) this paper studies the semantic transition that pushes the onomatopoeias to the point at which they cease to function merely as an iconic representation and begin to fulfil a broader linguistic role. This aspect of onomatopoeias is closely linked to their morphosyntactic properties. Using the studies by Dingemanse (2012) and Kadooka (2005) the paper thus highlights the original syntactic independence of onomatopoeias and their gradual integration into grammatical structures.

In summary, the study addresses the classification and transformation of onomatopoeias within language systems, emphasizing their journey from expressive sounds to established lexical items. This investigation contributes to broader discussions on the cognitive processing of sound-based words.

2. THE SCOPE OF ONOMATOPOEIAS

Across the various literature on the subject, the term “onomatopoeia” is used to describe phenomena which not always align. While judging by definitions themselves, it would seem as if the concept of onomatopoeia was clearly defined. Rhodes (1995, p. 279), for example, defines an onomatopoeia as a word “directly shaped by the sound it represents”, Bredin (1996, p. 568) says that “[o]nomatopoeia is a relation of sound to sound”, while Flaksman (2019, p. 378) claims that “onomatopoeia is an acoustic imitation of acoustic phenomena”. Similarly, Catricalà and Guidi (2015, p. 175) consider onomatopoeic words to be “mimetic elements representing sounds and lexicalisations of sounds”; and Körtvélyessy (2020, p. 37), defines them as a phenomenon where “non-articulated sounds of extra-linguistic reality are imitated by articulated sounds chosen from a limited inventory of phonemes of a specific language system”.

But on closer examination it becomes obvious that interpretation of these definitions tends to differ from author to author. As soon as they start explicitly listing examples of words which – in their respective approaches – are supposed to be onomatopoeias, drastic differences start to show.

Bredin (1996), for example, recognises three types of onomatopoeic words – direct, associative, and exemplary – the last of which is quite problematic. While the direct onomatopoeias are words such as *hiss*, which directly resemble and represent a particular sound (or a group of sounds), the associative onomatopoeias include words, which resemble only a sound that is associated with the object they represent, such as a noun *cuckoo*, which resembles the sound of a bird but refers to the bird itself. However, the exemplary onomatopoeias lose the essential connection to the sound that the previous two types had. Bredin (1996, p. 563) defines them as words where the crucial element is the “amount and character of the physical work used by a speaker in uttering a word.” To illustrate the concept, Bredin compares the word *dart*, which, he believes, is predetermined to be said sharply and quickly, with the word *sluggish*, which is to be pronounced slowly and lazily. The problem is, this is not only a highly subjective notion with none (or scarce) empirical evidence, it also strongly diverges from the definitions above, including the definition of Bredin himself. To put it simply, there can be no “relation of sound to sound” in the words *dart* or *sluggish*, as the meanings of these words are in no way connected to any sound.

On the other hand, Körtvélyessy (2020, pp. 35 – 36) is much stricter in her definition. She differentiates between the primary onomatopoeias, where the sound imitation “defines the meaning of the word”, and the secondary onomatopoeias, which are usually derivatives of the primary ones. In other words, Körtvélyessy treats the primary onomatopoeias as pure imitative quotations of a sound and whenever an onomatopoeia functions as, for example, agent, action, or state, it becomes a secondary onomatopoeia. Körtvélyessy’s approach is based on the principles of Slovak morphology, where onomatopoeic words are treated as a part of interjections. This way, onomatopoeic expressions like *meow!* or *boom!* are primary onomatopoeias, and the content words usually derived from them (e.g., *to meow* or *a boom*) are secondary. In a way, this distinction can be equalled to Bredin’s distinction between the direct and associative onomatopoeias (even though the overlap is not absolute) but Körtvélyessy does not consider Bredin’s non-acoustic exemplary onomatopoeias to be onomatopoeias at all.

Non-acoustic onomatopoeias are proposed also by Ullmann (1962, p. 84) who differentiates between onomatopoeias that represent “acoustic experience [...] imitated by the phonetic structure of the word” (termed again “primary”) and onomatopoeias which, by paradigmatic association with certain phoneme clusters,

evoke a type of movement or a physical quality, such as *slick*, *slimy*, and *slither* (termed “secondary”). This distinction is later altered by Rhodes (1995) who renames Ullmann’s primary onomatopoeias to “true onomatopoeias” and pushes his secondary onomatopoeias to the area of “sound symbolism”.

To complicate matters further, often used synonymously with onomatopoeia is the term “ideophone”. The term itself was, in this context, first introduced by the South African linguist Doke (1935, p. 118) in his description of Bantu languages. However, he defines ideophones as “vivid representation of an idea in sound”, the idea in question being anything from smell, colour, state, manner, intensity, action, and sound. In African, South and Southeast Asian, and South American languages, as well as Japanese and Korean, this group represents “enormously rich repertoire” of words that are used with high frequency (Akita, Tsujimura 2016, p. 133). In the grammars of those languages, the term is usually used as an umbrella-term for all kinds of words that “depict sensory imagery” in an iconic way, including sound imitation (Dingemanse 2012, p. 2). That is the case also for Kita (1997), Radden (2021), or Sasamoto and Jackson (2016, p. 45). The latter, for example, claim that onomatopoeia is an “iconic representation of sensory experience via sound, whether the original experience was aural, visual, or of any other sensory type.” Granted, they admit that the term onomatopoeia is “typically defined as an imitation of sound” but argue against this restriction, noting that “it can be very difficult to determine which sensory organs a particular onomatopoeia is linked to” (2016, p. 46).

Nevertheless, it seems that only the sound-imitating words can be singled out as universal. Dingemanse (2012), for example, proposes an *implicational hierarchy* based on different sensory areas that ideophones can imitate, as shown in (1):

- (1) SOUND < MOVEMENT < VISUAL PATTERNS < OTHER SENSORY PERCEPTIONS < INNER FEELINGS AND COGNITIVE STATES

According to this hierarchy, imitations of sound are “universally attested” (Akita, Dingemanse 2019, p. 9), meaning that every language includes at least sound-imitations. They are closely followed by imitations of movement, visual patterns and other sensory perceptions, while the least widespread is the area of inner feelings and cognitive states.

The current paper focuses primarily on the English and Slovak language, where traditionally, only the sound-imitations are recognised. Nuckolls (2004, p. 132) maintains that “the English language, and European languages generally, are ideophonically impoverished”. Similarly, Dingemanse (2011, p. 41), claims that “as a distinct class of words [ideophones] are rare in Indo-European languages”, which is also supported by Körtvélyessy (2020, p. 8), who claims that “there are no ideophones in Slovak.”

However, some exceptions can be pointed out. The above examples provided by Bredin or Ullman, which they classify as “exemplary” or “secondary” onomatopoeias, can, in fact, be considered as such iconic representations of movement or visual patterns. Nevertheless, the term onomatopoeia should not be applied here. As Akita and Dingemanse (2019, p. 1) claim, the term onomatopoeia is “mostly understood to be limited to sound imitatives”. The reason being, that the sound-imitations are the most widespread, and almost the only ‘ideophones’ in the European languages. The 20th century western linguistics thus began to associate the Greek term *onomatopoeia* mostly with them specifically. Both de Saussure (1916) and Sapir (1921) equate the term onomatopoeia solely with sound-imitative words, and even Doke (1935, p. 155) claims the use of the term onomatopoeia to refer to all ideophones is “not strictly correct”, which is the reason why he introduces the term ‘ideophones’ in the first place. The current paper thus suggests limiting onomatopoeias solely to human-made imitations of natural sounds.

3. THE ADAPTATION OF ONOMATOPOEIAS

Having established onomatopoeias as sound imitations, it is now possible to study the cognitive processes involved in transformation of the mere exclamations to the fully integrated linguistic signs. While exclamatory utterances often emerge spontaneously and serve immediate communicative needs, they often lack the structural and conventional properties of true lexical items. Therefore, they need to undergo the transition from a raw, expressive sound to a recognized word, during which phonetic, morphological, and semantic adaptations occur. The present chapter examines the adaptation of onomatopoeias, tracing their journey from the spontaneous, expressive utterances to conventionalised lexical items.

3.1. CONVENTIONALISATION AND INSTITUTIONALISATION

Flaksman (2017, p. 24), in her research into the diachronic development of imitative words, remarks that the life of onomatopoeias often starts in the form of “nonsense words” or “unintelligible, yet extremely expressive noises”. Such utterances are, according to her, the iconic signs in their purest form, as far as human physiology allows. However, the majority of such utterances are created only for a specific purpose in a specific act of communication and never picked up again. Only a tiny percentage, she claims, is “destined to become a part of a language”.

One example of such a word is provided by de Saussure (1916). According to him, the English word *pigeon*, which, based on its etymology, comes from the Vulgar Latin *pīpiō* of the imitative origin. But because of phonetic and morphological evolution, the English word no longer exhibits any imitative features, it has been fully integrated into the system. The *pigeon* case is discussed also by Flaksman

(2017, p. 30), who treats it as an onomatopoeia at the fourth “stage of de-iconisation”, meaning it is “indistinguishable from the rest of the ‘conventional’ vocabulary”. The concept of *de-iconisation* itself she defines as “the gradual loss of iconicity caused by the simultaneous acting of regular changes and regular sense development of an iconic word” (2020, p. 77). Thus, each subsequent stage in the life of onomatopoeias represents an onomatopoeia that is “less iconic” than it was in its previous stage, both formally and semantically (2017).

As mentioned above, according to Flaksman (2017) the life of onomatopoeias usually starts in the form of extremely expressive noises, which she terms the SD-0 stage. Such forms are free to contain phonemes outside the phonemic inventory of a language and are rarely written down. However, some of them may undergo the process of conventionalisation, understood by Flaksman as the usage of the system of phonemes available to a particular language.

As she notes: “An original iconic utterance may include all and any possible sounds in all possible sequences, whereas the phonemic collocations within a word are dictated by conventional phonotactic restraints of the language in question” (2017, p. 25); and thus: “The main difference is that words in a language consist of phonemes, the smallest structural units, the choice of which is limited by the phonemic inventory of a particular language. Once iconic utterances are endowed with these phonemes, they become conventionalised” (2017, p. 24).

Such conventionalised onomatopoeias therefore abandon the highest possible imitative accuracy for the possibility of belonging to the system of language. The process of conventionalisation, as far as English is concerned, is discussed, for example, by Fischer (1999, p. 124). He claims that it is rare to find English words consisting only of consonants or only of vowels, such as *aaaaaa*, *pprrpffrrppffff*, or *shshsh*. Therefore, adding an extra consonant or vowel to form a syllable is traditionally the first step towards the conventionalisation. In the case of the above-mentioned *shshsh*, the resulting conventionalised forms can be *shoo*, *swoosh*, or even *whoosh*. Nonetheless, even the conventionality of a form is not always sufficient for such forms to become established in the language.

As defined by Bauer (1983), the life of a lexeme has typically three stages – nonce formation, institutionalisation, and lexicalisation. Bauer (1983) originally uses these terms in relation to complex lexemes, but they are also applicable to onomatopoeias, as demonstrated below. The previously discussed imitative utterances, even the conventionalised ones, can be considered nonce formations, as they fit Bauer’s (1983, p. 45) definition, that they were coined “on the spur of the moment to cover some immediate need”. Additionally, despite their iconic character, the meaning of such utterances can still be highly context dependent. For example, the meaning of the above-mentioned *pprrpffrrppffff* cannot be properly deduced in

isolation. Therefore, some onomatopoeic nonce formations can exhibit the “potential ambiguity” that Bauer (1983, p. 46) speaks of.

The next stage, institutionalisation, is defined by Bauer (1983, p. 48) as the point “when the nonce formation starts to be accepted by other speakers as a known lexical item.” In the case of onomatopoeias, it is the moment when a conventionalised lexeme becomes part of the lexicon of language. Such a lexeme has a relatively clearly specified form and meaning and is often listed in dictionaries (e.g., *whoosh* ‘to utter or emit a dull, soft sibilant sound, like that of something rushing through the air’, OED).

Thus, returning back to Flaksman’s process of de-iconisation, once the SD-0 onomatopoeias get conventionalised – i.e., they start to use only the phonemes from a language’s inventory – they move to the SD-1 stage. At this stage, their written forms can still be relatively variable (e.g., *bzzz!*, *bwoom!*, or *crashhh!*) until they become fully institutionalised, such as *boom!* or *crash!* However, the key point for Flaksman (2020) is, that they are not used as proper content words, but rather as “iconic interjections”.

Once the onomatopoeias start to operate as verbs, nouns, adverbs, etc. (e.g., *to clap*, *a crash*), they move to the SD-2 stage. As Flaksman (2020, p. 83) remarks, “the iconic interjection *crashhh!* is more expressive and depictive than (still iconic) *to crash* and *a crash*.” Nevertheless, the rule that such onomatopoeias “haven’t undergone any phonosemantically significant sound changes and retain their original meaning” still stands, as they still refer, even though indirectly, to the original imitated sound (Flaksman 2020, p. 95).

Returning to Bauer (1983, p. 48), the final stage in his life of a lexeme is lexicalisation. It occurs when “the lexeme has, or takes on, a form which it could not have if it had arisen by the application of productive rules”. Likewise, an onomatopoeia is lexicalised when its meaning is no longer connected to the sound it originally imitated, or/and its form no longer resembles that sound. Flaksman (2020) in this context speaks of SD-3 and SD-4 stages of de-iconisation.

The significant phonosemantic changes move an onomatopoeia up to the SD-3 stage, where the sound changes decreased its iconic qualities, or it lost its sound-related meaning by semantic shifts (e.g., *laugh*, *clip*, *purr*). Finally, an SD-4 onomatopoeia has lost its imitative qualities completely, its iconic origin visible only via etymological analysis (e.g., *lunch*, *gargoyle*, or the above-mentioned *pigeon*).

According to Flaksman, onomatopoeic words of all stages can be found in modern languages. Nevertheless, she remarks that the SD-0 and SD-1 are optional, as many onomatopoeic words can be created right into the SD-2, as conventionalised and quickly institutionalised content words based on the external sound (Flaksman 2020; Lavitskaya et al. 2022). Additionally, she considers this stage of onomatopoeia

to be the “optimal one”, stating that “on the one hand, the word is clearly iconic; on the other, it is fully integrated into the conventional system” (2017, p. 29). Such onomatopoeias can therefore be used in a sentence in the most natural way, while still being recognisably sound-imitative.

The reason for it, is that the most iconic expressions, like those “iconic interjections” at the SD-0 or SD-1 stages exhibit “very limited collocation ability”. As such, they can seem like intrusions within a sentence. Additionally, they exhibit salient intonational markedness and their semantic meaning is restricted to representing “the sound itself”. Consequently, as Flaksman (2017, p. 28) notes, “once an iconic interjection becomes another part of speech, it automatically loses these qualities,” which allows it to integrate more naturally into linguistic structures while still being recognisably sound-imitative. However, once an iconic interjection transitions into another part of speech, it undergoes a fundamental cognitive shift: speakers begin to recognize it not merely as an expressive sound but as a structured linguistic unit.

The adaptation of onomatopoeias, therefore, is not simply a matter of phonetic modification or of their storage within mental lexicon. It is a process of deeper cognitive restructuring that allows these forms to function as fully integrated linguistic signs. As onomatopoeias move from spontaneous vocalisations to conventionalised words, they shift from being processed primarily as quotations of a sound to being stored and retrieved as lexical items with broader semantic and syntactic potential. The following section thus analyses the semantics of onomatopoeias, followed by the discussion on their morphosyntax in section 3.3.

3.2. SEMANTICS OF ONOMATOPOEIAS

In Chapter 2, Körtvélyessy’s distinction between primary and secondary onomatopoeias was mentioned, where primary onomatopoeias (similarly to Flaksman’s SD-0 and SD-1 stages) are simply exclamations or interjections imitating external sound, while secondary onomatopoeias can function as various parts of speech (as is the case in Flaksman’s SD-2 stage). Körtvélyessy (2022) argues for the semantic uniqueness of primary onomatopoeias as their semantic category is in each case always SOUND. In a similar way, the meaning of Flaksman’s (2017, p. 28) “iconic interjection” is described as “‘X’ (the imitated sound itself)”, while the onomatopoeic verb or adjective she defines as “acting X” or “qualities of X”, respectively. As discussed above, this makes the word lose some of its iconic qualities. Semantics therefore represents one of the crucial properties in onomatopoeias.

From the perspective of cognitive linguistics, several different approaches to the semantics of onomatopoeias have been proposed by different authors. For example, Kita (1997) claims that onomatopoeias operate in their own semantic dimension,

separate from the rest of the lexicon. Tsujimura (2001), on the other hand, maintains that no such distinction is necessary, as onomatopoeias still need to undergo linguistic analysis, while Sasamoto (2019) suggests the onomatopoeias operate on the continuum between “more necessary” and “less necessary” linguistic analysis.

Kita (1997), who focuses mostly on the Japanese onomatopoeias¹, claims they tend to have a unique psychological effect on the native speakers. In his own words, the meaning of such words is “felt, by native speakers, to be direct and real, as if one is at the scene” (1997, p. 386). Drawing from the conclusions in Diffloth (1972), Kita (1997) proposes that onomatopoeias operate in the “affecto-imagistic dimension”, which is separate from the “analytic dimension” of the rest of the lexicon. This dimension is characterised by the activation of affective, emotive, and perceptual facets of experience, instead of the decontextualised objective experience provided by the analytic dimension. It is the same dimension in which the spontaneous gestures and expressive prosody reside, and in fact, onomatopoeias are often accompanied by these elements in an act of communication.

As evidence for this new dimension, Kita (1997) cites the lack of redundancy in utterances including onomatopoeias. As he claims, in a traditional utterance, some words can feel semantically redundant, such as the adjective *male* in the phrase *male rooster*. But this is not the case with onomatopoeias, as the same information encoded by an onomatopoeia can be encoded also by a verb accompanying it without creating the effect of redundancy. Instead, the onomatopoeia makes the description “more vivid and experiential in tone” (1997, p. 389). According to Kita, this is because the onomatopoeia and the verb operate in two different dimensions – the former in the affecto-imagistic and the latter in the analytic.

Granted, Kita (1997) speaks of onomatopoeias in broader sense, but similar features are observed in purely sound-imitative onomatopoeias as well. For example, Dvonč et al. (1966) maintains that onomatopoeias, understood by him as sound-imitative interjections, function as a sort of expressive “doubling” of what is said by linguistic expression. In (2) an example of such doubling is provided, where an onomatopoeia *prásk* (‘the sound of gunshot’) would be an affecto-imagistic doublet of the analytic expression ‘shoot’:

- (2) *Janko* *pochytí* *kušu* *a* *prásk!*
 Janko-NOM.SG grab-PRS.3SG crossbow-ACC.SG and crash!-INTJ
 odstrelil *jastrabovi* *křídlo*.
 shoot off-PST-MASC.SG hawk-DAT.SG wing-ACC.SG
 ‘Janko grabs a crossbow and crash! he shot the hawk’s wing off.’
 (Dvonč et al., 1966, p. 816)

¹ Kita (1997, p. 381) understands onomatopoeias as words evoking various sensory domains, such as sound, motion, texture, as well as psychological states.

The usage of such doublet does not feel redundant here; on the contrary, it adds a certain degree of expressivity or vividness to the message. At the same time, the omission of such onomatopoeia would not disrupt the conceptual completeness of the utterance (Dvoňč et al., 1966, p. 817).

However, in response to Kita's (1997) proposal, Tsujimura (2001) argues against the necessity of the two-dimensional approach. She claims that the discussed "lack of redundancy" is not the result of different dimensions, but simply of different meanings of the two elements. As she claims, the meaning of onomatopoeias is often much broader than the meaning in their specific usage. Indeed, going back to the onomatopoeia in the example (2), *prásk* does not necessarily mean only the sound of gunshot, but also a generally loud sound of something breaking, or two surfaces hitting each other, or even the lightning strike. Thus, even though the onomatopoeia in question brings a degree of vividness to the speech act, it still needs to undergo linguistic analysis based on the context, just like the rest of the utterance.

Sasamoto and Jackson (2016) provide a different solution to the problem. Their theory is inspired by the distinction proposed by Grice (1957), according to which communication is carried out in two levels – the "showing" level and the "saying" level. In this theory, the saying level, which involves verbal input (e.g., the sentence "I cannot go play tennis, because I broke my arm") is put into contrast with the showing level, which involves providing 'direct' non-verbal evidence (e.g., a communicator showing a broken arm to communicate that they cannot play tennis) (Sasamoto 2019, p. 49). Instead of the levels, however, Sasamoto and Jackson (2016) speak of "continuum", where some cases may involve elements of both showing and saying at the same time. And onomatopoeias are example of such cases.

According to the theory, a communicator may use an onomatopoeia to provide more "direct evidence" of an acoustic experience (e.g., the sound of gunshot from the example (2)) in a similar way that they would show a broken arm to provide direct evidence of their inability to play tennis. As Sasamoto claims, "it may be a simple case of "seeing is believing", where providing direct evidence is more convincing than explaining in words" (2019, p. 57). Therefore, this direct evidence can still be accompanied by a coded conceptual expression (e.g., the verb *shoot* from the example (2)), without it being redundant. And at the same time the omission of an onomatopoeia can still be possible since the coded expression provides all the necessary meaning (Sasamoto 2019).

However, onomatopoeias are rarely perfect imitations of sound and often may represent several different sounds based on context. Therefore, they still need to be decoded by a listener. In this way, onomatopoeias share characteristics with both *showing* and *saying*. In some cases, they may exhibit more features of the former, in others the latter. For example, novel and creative ad-hoc onomatopoeias, such as

hjkrrrh, prioritize similarity to the sound, even at the expense of breaking phonemic rule, their linguistic decoding is thus less necessary (albeit context still plays a crucial role). These onomatopoeias are at the showing end of continuum, but their form is not conventional, nor is it institutionalised.

At the other end of continuum are highly conventionalised onomatopoeias, such as *sizzle* or *chatter*, which exhibit primarily saying features. Although they have some iconic characteristics, they provide more indirect evidence, are much more language-specific, and thus need to be decoded by the listener. The middle ground between the two ends is filled with onomatopoeic interjections or exclamations, such as *pop*, *meow* or Slovak *prásk* from the above-mentioned example (Sasamoto – Jackson 2016; Sasamoto 2019).

Therefore, while Kita (1997) claims that onomatopoeias operate separately from the analytic semantic dimension, and Tsujimura (2001) argues against this view, Sasamoto and Jackson (2016) suggest that onomatopoeias are situated on the continuum and can exhibit the elements of both saying (or the analytic dimension) and showing (the affect-imagistic dimension). Their position on this continuum depends on the level of conventionalisation and institutionalisation. As a result, this continuum between showing and saying onomatopoeias is very much in parallel with Flaksman's distinction between the stages from SD-0 to SD-2, or Körtvélyessy's distinction between primary and secondary onomatopoeias.

In this way, the primary (or SD-1) onomatopoeias seem to be placed closer to the showing level of Sasamoto and Jackson's continuum, since even though they are partly conventionalised lexemes, they all belong to the semantic category SOUND and are used to bring a certain degree of vividness and imagery to the utterance. However, they still are not fully institutionalised content words. Their semantic purpose in speech is only to replicate (to "show") the listener the sound event the speaker is talking about. As a result, it is possible to use them as semantic doublets of coded conceptual expressions, as shown in the example (2).

On the other hand, secondary (or SD-2) onomatopoeias, which serve the function of content words, contain more of the *saying* level. Consequently, using them alongside other expressions with similar meanings would be redundant, and their omission would disrupt the meaning of a sentence, as shown in example (3) below:

- (3) a) *And then – crash – he hit the car in front of him.*
- b) *And then he crashed the car in front of him.*
- c) **And then **he crashed and hit** the car in front of him.*

The onomatopoeia *crash* from example (3a) is a primary onomatopoeia, its reference being the sound itself. The use of both *crash* and *to hit* is not redundant

here. In (3b), on the other hand, the reference of the secondary onomatopoeia *crashed* is ‘performed the action (that creates the sound)’, making it more coded and closer to the saying level. Consequently, using both *crashed* and *hit*, as shown in (3c), may seem redundant.

Nevertheless, some ambiguity may still remain. Due to the extensive use of conversion in English, the lexeme *crash*, for example, can be used both as a primary onomatopoeia, as was the case in (3a), and as a noun, as shown in example (4) below:

(4) *I heard a loud crash.*

From a semantic perspective, the meaning of the word is still “the sound itself”, but such use of the onomatopoeia is no longer primary. It has been restricted to a specific word class, which brings with itself the possibility of inflection available for that word class.

To conclude, the semantic nature of onomatopoeias is shaped by their position on the continuum between direct imitation of sound and linguistic meaning. While primary onomatopoeias function as vivid, affecto-imagistic representations of sound, secondary onomatopoeias transition into coded lexical items with defined syntactic roles. The continuum proposed by Sasamoto and Jackson (2016) offers a compelling synthesis between the two, proposing that onomatopoeias simultaneously exhibit elements of both showing and saying. The primary forms thus act as vivid yet optional enhancements of meaning, while secondary ones integrate fully into syntactic structures. This duality explains why primary onomatopoeias enhance vividness without redundancy, whereas secondary onomatopoeias assume grammatical roles that constrain their use. The extent of this integration is ultimately shaped by their morphosyntactic behaviour, which will be examined in the following section.

3.3. MORPHOSYNTACTIC PROPERTIES OF ONOMATOPOEIAS

The integration of onomatopoeias into linguistic structures is a key factor in their conventionalisation and subsequent institutionalisation. While these words originate as imitative expressions, their ability to function within morphosyntactic frameworks varies. The distinction between primary and secondary onomatopoeias (Körtvélyessy, 2020) is not only a matter of semantic function but also of structural adaptability – where primary onomatopoeias tend to remain independent, secondary ones exhibit greater grammatical integration. This section therefore explores the morphosyntactic behaviour of onomatopoeias, examining their ability to enter syntagmatic relations, their use in specific constructions, and their resistance or susceptibility to inflectional morphology. In doing so, it will highlight how that level of integration influences their expressive potential.

One of the key frameworks addressing this integration is Rhodes's (1995) continuum between wild and tame onomatopoeias. Rhodes's wild onomatopoeias are "precise imitations", the closest possible imitations that the human vocal tract allows (1995, p. 279). These are often one-and-done nonce formations, but, as illustrated above, they can eventually adapt to the phonological constraints of the speakers' language and become part of the language system. Rhodes calls the result of this process "tame onomatopoeias", i.e., conventionalised, often institutionalised onomatopoeias.

Between these two extremes, Rhodes (1995, p. 281) identifies a middle-ground, which he terms "semi-wild onomatopoeias." These are already conventionalised (but not necessarily institutionalised) lexemes, which are used in a sentence in a "wild" manner. One of Rhodes's criteria for distinguishing between the tame and wild use is the ability to form a syntactic construction "*to go X*" where X is an onomatopoeia. This construction is typical when imitating a sound but impossible for tame onomatopoeias. The example (5) illustrates this distinction:

- | | |
|----------------|-------------------|
| (5) a) | b) |
| It goes pop. | *It goes rattle. |
| It went boom. | *It went rumble. |
| It goes crash. | *It goes clatter. |

The examples in (5a) are all possible constructions, suggesting that the onomatopoeias used here are at the wilder end of the continuum, despite being already institutionalised conventionalised forms, while the constructions from (5b) may sound odd or even incorrect.

This again illustrates the interplay between showing and saying proposed in the model of Sasamoto and Jackson (2016). The onomatopoeias from (5a) are used to directly "show" what happened, essentially using the construction "*it went like this*" followed by the illustration itself. On the other hand, onomatopoeias from (5b) have been "tamed" to the point they no longer have the necessary "showing" qualities, they need to be decoded, and such use is therefore impossible. It also brings into discussion Körtvélyessy's (2020) distinction between primary and secondary onomatopoeias. Based on the Rhodes's criterion, secondary onomatopoeias, those lexemes that function as content words, would always be tame, while primary ones could either be wild or semi-wild as partly conventionalised, possibly lexicalised linguistic signs with limited use as pure imitations of sound.

This un/availability of a specific syntactic construction for the primary onomatopoeias is brought up by other authors as well. For example, Dingemanse (2012, p. 656) claims that ideophones in general show cross-linguistically "a great measure of syntactic independence". Onomatopoeias specifically display even more

of this independence, as they “tend to have more peripheral syntactic realisation” when compared with the rest of the ideophones. Dingemanse (2012) names four specific tendencies of syntactic independence: a) they occur at clause edges, b) they avoid inflectional morphology, c) they tend to be set off from the clause by a pause, and d) they are often introduced by quotative markers.

In similar manner, Dvonč et al. (1966) describes onomatopoeias as syntactically “amorphous”, since they do not enter any syntagmatic relations. Additionally, Dvonč et al. (1966), Flaksman (2017), or Laing (2019) all claim onomatopoeias can form free-standing sentences on their own, and Flaksman (2017) even maintains that this “limited collocation ability” is a crucial characteristic of the most iconic utterances.

Kadooka (2005, p. 3) introduces the concept of the [QUOTATIVE] marker, which traces how morphosyntactically integrated an onomatopoeia is. He distinguishes three types: [QUOTATIVE+], [QUOTATIVE±], and [QUOTATIVE-]. Onomatopoeias with the [QUOTATIVE+] marker can be used “only for quotation” or as a direct citation of the sound imitated. These are characterised by their introduction via quotative markers, their repetition within a sentence, and their highly limited collocation ability, as they are used only to show the sound event, to use the terminology of Sasamoto and Jackson (2016). An example of such onomatopoeia is *bow-wow*. On the other hand, [QUOTATIVE-] is fully integrated into the system and can be used only as a content word, for example, *chatter*. The middle ground is [QUOTATIVE±], which can be used both as a direct citation and as a content word, as was exemplified by the onomatopoeia *crash* in examples (3) and (4) above.

To reinforce this point, Kadooka introduces the [INFLECTIVE] marker, that traces the possibility of acquiring inflectional morphology. By the nature of onomatopoeias, the marker goes in the opposite direction than [QUOTATIVE] – if an onomatopoeia is [QUOTATIVE+], it is [INFLECTIVE-] – meaning such onomatopoeia has limited (or none) inflectional morphology. Kadooka (2005, p. 6) calls such onomatopoeias “raw” as they are “only quoted as citation”. The onomatopoeia *crash* from the sentence (3a) is thus [QUOTATIVE+] and [INFLECTIVE-], whereas *crashed* from (3b) and (3c) is in both cases conjugated as a verb and therefore [QUOTATIVE-] and [INFLECTIVE+]. Similarly, the instance of *crash* from example (4) is also [QUOTATIVE-] and [INFLECTIVE+], since it is possible to use it, for example, in the plural form as seen in (6) below:

(6) *I heard several loud crashes.*

Therefore, a primary onomatopoeia is used only in (3a), while all the other instances include secondary onomatopoeias. It begs the question, why is this the case? Why are the most iconic onomatopoeias always highly quotative, and without any inflection?

Dingemanse and Akita (2017, p. 507) postulate that this is the result of the universal relation between grammatical integration and expressiveness, which they formulate as “the more expressive an ideophone is [...] the less it is integrated in the morphosyntactic structure of the sentence.” The reason behind this universal relation, they propose, lies in the mode of representation: while general linguistic signs belong to the arbitrary, “descriptive” mode of representation, the onomatopoeias work in the “depictive” mode, attempting to show to the listener the events, instead of describing them. The joining of the two modes within one linear utterance poses challenges, the most iconic onomatopoeias are therefore always “free” from the rest of the utterance.

It becomes obvious, that this notion draws many parallels with Sasamoto and Jackson’s (2016) continuum between saying and showing. This suggests that Körtvélyessy’s primary onomatopoeias, often situated somewhere closer to the showing end of the continuum, are generally “more expressive”, and therefore, based on Dingemanse and Akita’s (2017) universal relation, morpho-syntactically less integrated.

To conclude, primary onomatopoeias are used as quotations of the sound they imitate. They can either form a sentence on their own or be used in the sentence with introductory phrases like “*to go X*” or “*to sound like X*”. Therefore, they have limited collocation ability and no inflectional morphology. However, the primary onomatopoeias can motivate the secondary onomatopoeias – institutionalised content words formed either by conversion or derivation from the primary, which can be used in an utterance in a traditional grammatical manner.

4. CONCLUSION

The purpose of this paper was to explore the adaptation of onomatopoeias within language system, emphasizing how these sound-imitative forms evolve from mere exclamations to established lexical items. It was demonstrated that while onomatopoeias originate as spontaneous, iconic representations of natural sounds, their adaptation into conventional language involves significant phonological, morphological, and semantic transformations. Through processes of conventionalisation and institutionalisation, these sound-imitative forms eventually transition into fully integrated lexical items, exhibiting varying degrees of syntactic and semantic independence.

The distinction between primary and secondary onomatopoeias proposed by Körtvélyessy, as well as the stages of de-iconisation developed by Flaksman, highlight how the increasing structural and functional integration of onomatopoeias within language results in the gradual loss of their depictive, sound-imitative properties. This loss is evident in the semantic analysis of onomatopoeias. It was shown that less conventionalised primary onomatopoeias can often be inserted into

an utterance alongside their arbitrary counterparts without appearing redundant or repetitive. However, as they become secondary and more conventionalised, the redundancy becomes more noticeable and undesirable. The morphosyntactic analysis further underscores this aspect, demonstrating how primary onomatopoeias tend to be syntactically independent, avoiding inflectional morphology and requiring introductory phrases, while secondary onomatopoeias are fully integrated into the system.

Ultimately, the adaptation of onomatopoeias reflects the cognitive and linguistic processes that show how sound-based expressions evolve within human language. The research demonstrates how this dynamic between the iconic depiction and vividness of onomatopoeias on one hand and their linguistic functionality and integration on the other can shape their phonological, morphological, and semantic makeup.

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Adaptácia onomatopojí v jazykovom systéme

Resumé

Štúdia sa zaoberá adaptáciou onomatopojí v jazykových systémoch, pričom analyzuje ich transformáciu zo spontánnych zvukových imitácií na plne integrované lexikálne jednotky. Práca sa zameriava primárne na procesy, ktoré umožňujú začlenenie týchto zvukomalebných slov do štruktúrovaného jazyka, vrátane fonologických úprav, sémantických posunov a morfosyntaktickej integrácie. Hlavným konceptom v tejto práci je delenie zvukomalebných slov podľa Körtvélyessy (2020) na primárne, ktoré slúžia ako priame zvukové imitácie alebo výkriky (napr. *buch!*, *mňau!*), a sekundárne, ktoré predstavujú už slová konvencionalizované a gramaticky začlenené do jazykového systému (napr. *mňaukať* alebo *buchot*). Práve prechod z primárnych onomatopojí na sekundárne je oblasťou skúmania v tejto štúdii. Štúdia čerpá z prác viacerých lingvistov, ako sú Flaksman (2017), ktorá predstavila koncept de-ikonizácie, teda postupnej straty ikonickosti onomatopojí, alebo Rhodes (1995), ktorý predstavil koncept tzv. „divokých“ (*wild*) a „skrotených“ (*tame*) onomatopojí. V práci sa poukazuje na to, že počas procesu konvencionalizácie onomatopoje prispôbujú svoju formu fonotaktickým pravidlám konkrétneho jazyka, čím strácajú časť svojej pôvodnej zvukovej identity. Počas ďalšieho procesu inštitucionalizácie sa tieto slová stávajú súčasťou bežného lexikónu a získavajú stabilné gramatické funkcie. Napríklad zvukové výrazy ako *prásk!* môžu byť používané ako interjekcie v expresívnom prejave, zatiaľ čo ich sekundárne formy, ako *prasknúť*, sa stávajú plnohodnotnými slovesami v gramatickej štruktúre vety. Sémantická flexibilita onomatopojí je ďalším dôležitým aspektom tejto štúdie. Primárne onomatopoje sú priamo späté s konkrétnym zvukom, ktorý napodobňujú, zatiaľ čo sekundárne môžu nadobudnúť širšie významy a plniť rôzne funkcie v texte. Táto zmena je úzko spätá s ich morfosyntaktickými vlastnosťami – čím viac sú onomatopoje integrované do gramatických štruktúr, tým menej si zachovávajú svoju pôvodnú ikonickosť a expresívnosť. S tým sa spája aj vzťah medzi expresívnosťou a gramatickou integráciou onomatopojí, podľa ktorého tie najikonickejšie a najexpresívnejšie formy majú tendenciu byť syntakticky nezávislé, často sa nachádzajú na okrajoch viet, vyhýbajú sa flexii a môžu byť prezentované ako priame citácie zvukov. Naopak, sekundárne onomatopoje, ktoré sú viac gramaticky integrované, strácajú časť tejto expresivity, ale získavajú širšie použitie v rámci jazykového systému. Záverom štúdie je, že adaptácia onomatopojí nie je len otázkou fonetickej úpravy alebo lexikálneho začlenenia, ale predstavuje hlbší kognitívny a jazykový proces, ktorý umožňuje transformáciu ikonických zvukových foriem na plnohodnotné jazykové jednotky. Tento proces odhaľuje, ako sa jazyk vyvíja a prispôbuje, pričom integruje prvky, ktoré spočiatku slúžili výlučne na expresívne účely, do svojej štruktúry a funkcie.

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