Iconicity in Haitian Creole: A Study on Onomatopoeic Aspect of Bird Names

Patrice Kanndèl Edouard[1]

University of Haiti[2]

[1] Correspondence concerning this article should be addressed to Patrice Kanndèl Edouard, 12 Rue D. Bolte, Lilavois 48, HT6311, Port-au-Prince, Haïti. E-mail: kanndeledouard@gmail.com

[2] The institution commonly known as the University of Haiti is originally named Université d'État d'Haïti, which translates to 'State University of Haiti'.

Abstract

This study explores the onomatopoeic aspect of bird names in Haitian Creole, highlighting the significant role of sound-symbolic associations in the evolution and lexical creation within creole languages. It examines a corpus of nineteen Haitian creole ornithonyms formed by onomatopoeia imitating the bird vocalization. The research reveals a high degree of iconicity in Haitian Creole bird names, highlighting the language's capacity to generate ornithonyms through specific sound symbolism relation, morphological flexibility, and reduplication. The study also uncovers the distinctive historical and socio-linguistic background of creole languages that raises an environment conducive to generating a new lexicon deeply rooted in sound symbolism. The findings of this study contribute to our understanding of the relationship between sound and meaning in creole language, enriching our appreciation of the diversity and expressiveness of human languages evolution.

Keywords: Haitian Creole; Iconicity; Onomatopoeia; Sound-Symbolic Associations; Language Evolution; Lexical Creation.

1. Introduction

Form and meaning are tightly related, shaping the very essence of linguistic evolution. This relation is often characterized by **iconicity** - the connection between signs and their referents based on similarities or resemblances (Peirce 1955). Iconicity plays a crucial role in forming ideophones, an open lexical class of marked words that vividly depict sensory imagery representations related to sounds, motions, shapes, colors, and even inner states (Dingemanse 2019, 2023).

The significance of iconicity varies across different languages, with sound ideophone i.e., onomatopoeia serving as a well-studied manifestation of iconic sound symbolism. Numerous

languages utilize onomatopoeia to build portions of their vocabulary, especially in creating bird names (Cabrera & Carlos 2020). For instance, common English examples include Cuckoo (*Cuculus canorus*), Crow (*Corvus cornix*), Eagle-Owl (*Bubo bubo*), and Hoopoe (*Upupa epops*); comparable onomatopoeic labels are found in several unrelated languages for equivalent bird species ((Marttila 2010) cited by (Cabrera & Carlos 2020)), suggesting shared acoustic communication patterns.

In recent linguistic discussions, iconicity has gained prominence; however, limited empirical studies address its effects on the Haitian Creole (HC) lexicon, particularly about avian appellations. While prior research acknowledges the existence of specific onomatopoeic bird terms in HC e.g., (Edouard 2024; Govain 2019), comprehensive analyses are scarce. Therefore, studying HC's naming practices for birds offers promising prospects for exploring iconicity in action.

This paper aims to fill this knowledge gap by highlighting underappreciated links between form and meaning within HC's lexicon using cross-linguistic comparisons of onomatopoeic bird names. Consequently, our work advances broader conversations regarding the implications of iconicity on semantic structures, thereby furnishing valuable contributions to disciplines like cognitive science.

The paper is structured as follows: We begin with a literature review discussing past and present debates around iconicity in bird names, followed by an outline of Haitian Creole, including its ties to ideophones and onomatopoeia. Following sections describe research methods, and data gathering procedures used throughout the investigation. After this, we present significant findings, comparing onomatopoeic bird names from HC against selected equivalents drawn from a sample of 82 Haitian birds. Lastly, we summarize crucial insights, propose potential directions for future exploration.

By investigating into iconicity and its manifestation in the Haitian Creole lexicon, we hope to shed light on the connections between form and meaning, and how these connections shape our understanding of language and cognition.

1. Litterature review

1.1. Iconicity in the lexicon

Iconicity, a concept that refers to the relationship between a sign's form and its meaning, is a fascinating aspect of language study. This relationship is characterized by a resemblance between the signifier and the denoted object or concept (Dingemanse et al. 2020; Perniss et al. 2010, 2020). Iconicity can manifest in several ways, including imagic, diagrammatic, and associative iconicity (Johansson 2023).

Imagic iconicity refers to the directly perceived similarity between the form and meaning of a sign. An example of this is the crowing of a rooster, which is represented quite similarly in various languages, such as English "*cock-a-doodle-doo*", Japanese "*kokekoko*", Hebrew "*kukuRiku*", Kisi "*kukuluukuu*" and Haitian creole "*koukouyikou*".

Diagrammatic iconicity, on the other hand, resides in the relationship between signs and the relationship between their referents. A classic example of this is the temporal sequence of events depicted in Julius Caesar's famous quote, "veni, vidi, vici" ('I came, I saw, I conquered'). Another instance is repetition or reduplication very common in Caribbean creoles as in the word *kouri* for 'run' '*kouri kouri'* for 'run more' or '*kouri kouri kouri* ' for 'run even more' in Haitian Creole.

Associative iconicity creates bonds between sets of signs based on shared attributes, leading to semantic kinship amongst words. For instance, the words glitter, glisten, gleam, glare, glimmer, and glow share the onset /gl-/ and meanings related to 'light' and 'vision', including glamor, glitz, and glory and their figurative sense of 'shining'.

Historically, linguistic theories generally presumed that spoken language vocabularies were fundamentally arbitrary (Saussure et al. 2005 [1916]). However, recent research supports the claim that iconicity exists extensively in spoken languages, challenging the prevailing opinion of scarce onomatopoeic words in any given language as showed by relatively cross-linguistic works and handbooks (Akita & Pardeshi 2019; Hinton et al. 1994; Perniss et al. 2020; Voeltz & Kilian-Hatz 2001). Iconicity plays a significant role in expanding the expressive capabilities of spoken languages. Such marked words, variously labelled as mimetics, expressives, phonaesthemes, and ideophones, facilitate the communication of sensory imagery (Akita & Pardeshi 2019; Kwon 2015).

Moreover, onomatopoeia, a subset of phonological iconicity, seems to constitute a distinct lexical class universal across languages (Körtvélyessy & Štekauer 2024; Meinard 2015). Instances of onomatopoeia are abundant in the description of bird names as body of research has documented the presence of onomatopoeic bird names across various languages and geographies (Abondolo 2007; Berlin 1994; Berlin & O'Neill 1981; Ibarra et al. 2020; Wicaksono et al. 2020; Yuzieva 2012).

Over a third of the terms in Aguaruna and Huambisa ornithological vocabulary originate from onomatopoeia (Berlin & O'Neill 1981). Comparable figures appear in Tzeltal Maya (49%) (Berlin & O'Neill 1981). Mapudungun bird names research by Ibarra et al. (2020) unearthed 135 etymologies attributed to 72 avian species, half of which featured onomatopoeic origins. Ibarra et al. (2020), in a great summary, also reveal that the onomatopoeic origin of bird names was studied among 13 different peoples living in various forested landscapes across the world. In total, 2,585 bird names were recorded, out of which 849 had onomatopoeic origins, making up around 33% of all bird names. The highest percentage of onomatopoeic bird names was found among the Mbuti people of the tropical forests in Congo, with 67%, while the lowest was observed among the villagers from Três Ladeiras in the Atlantic Forest of Brazil, at only 15%.

Other notable percentages include the Delaware people of monsoon forests in Canada with 37%, the Mapuche people of temperate forests in Chile with 47%, and several groups from Papua New Guinea such as the Selepet with 37%, Kaluli with 39%, and Nage with 32%. These findings suggest that onomatopoeia plays a significant role in naming birds for many indigenous cultures worldwide, possibly due to their close relationship with nature and acoustic communication between animals.

Cross-linguistic and regional parallels surface in bird names. Take, for instance, the word 'crow' for most *corvus* species in english. It carries uncanny similarities in its composition across various languages, including Albanian *korb*, Western Armenian *akrav*, German *Krähe*, Japanese *karasu*, and Turkish *karga* ((Marttila 2010) cited by (Cabrera & Carlos 2020). Marttila's (2010) comprehensive examination of corvid nomenclatures reveals that most languages incorporate an imitation of the typical "*kaa/kraa/kar*" call in raven and crow labels (Marttila 2010). Similar trends apply to the distinct call of the cuckoo, producing equivalent expressions in diverse languages, such as Ainu *kakkok*, Basque *kuku*, Itelmen *qekuk*, and Kannada *kukil*. Patterns like these strengthen arguments favoring onomatopoeic forces in bird name creation.

1.2. Onomatopoeic ornithonym process

Research suggests that certain aspects of bird vocalizations, such as pitch or amplitude, can predict a bird's size (Brumm 2009). Additionally, previous studies have shown that onomatopoeic words used to describe bird vocalizations can predict the size of birds, with specific phonemes related to specific sizes ('Bodo Winter - YouTube' n.d.; Winter & Perlman 2021). Therefore, it stands to reason that onomatopoeic bird names might also reflect the size of the bird species they represent. This is supported by the fact that bird names have historically served functional purposes, including enhancing communication about animal locations and behaviors during subsistence hunting (Yuzieva 2012). These initial names would have evolved

over time, maintaining essential acoustic qualities that preserve elements of bird vocalizations (Ibarra et al. 2020; Wicaksono et al. 2020; Yuzieva 2012). Given this evidence, it seems plausible that onomatopoeic bird names could offer clues about bird size, making them an interesting area for future investigation.

Formulating onomatopoeic words involves a series of elaborate transformations, consisting of: 1) sound perception, 2) grasping a bird's image and its accompanying vocals, and 3) encoding and reconstructing the bird's singular image and voice in memory. Presumably, as noted by Kurashkina (2012) this process took root during the establishment of human language, when hominids possessed well-developed vocal tracts suited for natural sound duplications and heightened auditory sensitivity to capture the salient components of bird voices.

Overall, every stage involved in the generation of imitations depends on human practical activities, ranging from the earliest reproductive attempts of bird voices to the eventual adaptation of onomatopoeic ornithonyms compliant with specific language guidelines.

1.3. Other ornithonym process

Although there is an evident onomatopoeic ornithonym process in a lot of languages, let us not forget that there are other processes such as colors, sizes, shape, habitat, behavior, and philosophy that participate in the naming process as shown by authors e.g., (Wicaksono et al. 2020; Yuzieva 2012). We can classify these processes into three main categories: Visual attributes, Ecological variables, and Behavioural patterns and instincts.

Visual Attributes: This process involves naming birds based on their physical characteristics such as color, size, and shape. For instance, the Red-winged Blackbird (*Agelaius phoeniceus*) is named for the patches of red on the wings of the male bird. Similarly, the Long-tailed Tit (*Aegithalos caudatus*) is named for its distinctive long tail, and the Snowy Owl (*Bubo scandiacus*) is named for its white plumage that resembles snow. In French *Rouge-gorge familier* 'European Robin' (*Erithacus rubecula*) is named after its distinctive reddish-orange

breast, which is visible when it perches. In Spanish, it is called *petirrojo europeo* also an homage to its color.

Ecological Variables: In this process, naming birds are based on their habitat or geographical distribution. For example, *Bruant des neiges* 'Snow Bunting' (*Plectrophenax nivalis*) inhabits arctic tundra during breeding season and winters in open fields and meadows. Its Spanish name is *escribano nival*. In those three languages the name reflects its preference for snowy environments. The 'Mountain Bluebird' (*Sialia currucoides*) is often found in mountainous regions, while the 'Arctic Tern' (*Sterna paradisaea*) is known for its migration from the Arctic to the Antarctic and back.

Behavioral Patterns and Instincts: This process involves naming birds based on their behavior or instincts. For instance, the 'Laughing Kookaburra' (*Dacelo novaeguineae*) is named for its distinctive call that sounds like human laughter. The 'Fishing Eagle' (*Pandion haliaetus*) is named for its diet and hunting behavior, as it primarily feeds on fish and has a unique method of diving into water to catch its prey.

To sum up, the study of ornithonym processes, from the genesis of onomatopoeic names to the influence of visual, ecological, and behavioral factors, offers a comprehensive understanding of the interplay between form and meaning in language. This understanding enriches our appreciation of the diversity and expressiveness of human languages. By examining bird names through this framework, we gain valuable insights into how humans categorize and conceptualize the natural world around them. These findings have broader implications for cognitive science, anthropology, and linguistics, shedding light on the evolutionary origins of language and cognition, as well as the social and cultural forces that shape communication systems over time.

1.4. Onomatopoeia in Haitian Creole lexicon

Although recognized in various creoles, including Haitian Creole, extensive scholarly examinations focusing on onomatopoeia in these languages are limited. Haitian Creole, also known as Kreyòl Ayisyen, possesses unique characteristics derived from its French lexifier along with distinct African and indigenous American influences (Lefebvre 2011; Sylvain 1936). With more than 11 million native speakers (‘Ethnologue | Languages of the world’ n.d.) in some more 4 million in foreign countries, Haitian Creole occupies a crucial position in creole languages do to its official statues and its number or locutors.

Previous works have acknowledged the presence of onomatopoeia in creoles, albeit sparsely explored e.g., (Bartens 1999; Edouard 2024; Prou 1999). Consequently, there remains a need to investigate deeper into how onomatopoeia materializes and functions within the complex linguistic milieu of Haitian Creole.

The Haitian Creole possesses a rich repository of onomatopoeic expressions, capturing various natural, artificial sound sources. Edouard's (2024) study on ideophones in Haitian Creole (HC) unveils several noteworthy findings across linguistic dimensions that can specifically be applied to sound ideophones i.e. onomatopoeia.

Starting with phonology, HC's phonological inventory reflects a blend of influences from French, African languages, and more. The language as a distinctive syllabic structure and a set of thirty-three phonemes, comprising vowels, consonants, and glides. Notably, ideophones in HC demonstrate typical sound patterns, often comprising one or two syllables, with indefinite vowel lengthening and occasional consonant-only patterns, although these are infrequent.

Moving to morphology, HC's word-formation processes, including compounding, reduplication, and affixation, are well-documented. However, onomatopoeias in HC primarily use replication as their morphological strategy, lacking derivational bound morphemes. Six onomatopoeic ideophones are exceptions, forming verbs through the addition of the suffix "-e" to nouns derived from onomatopoeias.

Syntax analysis reveals the versatility of onomatopoeias in HC sentences, functioning as predicates, complements, modifiers, subjects, and objects. They exhibit a Subject-Verb-Object (SVO) order, with potential changes influenced by pragmatic factors. Onomatopoeias in HC sentences also serve as adverbs, contributing to the semantic depth of verbal constructions and resembling manner adverbials in other languages. Due to the multifunctionality existent in Haitian Creole lexicon, they also can serve as other open lexical classes as verbs, adjectives, or nouns without any inflections.

Semantically, onomatopoeias in HC depict various sound categories, with human-related sounds being the most abundant. Furthermore, synonymous expressions of onomatopoeias across different dialects suggest dynamic socio-linguistic interactions and regional variations.

Listed below are several examples organized by sound source and accompanied by corresponding sound types and events.

Table 1: Some onomatopoeia in Haitian Creole in their sound source

Category	Sound Source	Onomatopoeia and Event
Natural Sounds	Water	*Tchouboum* (Heavy object falling into water), *Tchòw* (Urinating), *chchchchch* (Water flowing gently), *Glouglou* (Liquid trickling from a bottle)
	Air	*Vlaw* (Wind blowing through clothes), *Vou* (Violent wind), *chwiiiii* (Rustling leaves), *ffffffffffffff* (Gentle breeze)
	Earth	*Goudougoudou* (Earthquake rumbling), *Trililili* (Rolling pebbles descending from a mountain), *Godow* (Thunder)
	Fire	*Plapla* (Wood crackling), *Pètpèt* (Charcoal popping)
Animals	Mammals	*Myaouw* (Cat meowing), *Wap wap* (Puppy barking), *Hihan* (Donkey braying), *Houhou* (Owl hooting)
	Birds	*Gragra* (Crow croaking), *Koukouyikou* (Rooster crowing), *Goulougoulou* (Turkey gobbling)
	Reptiles and Amphibians	*Kwòòk* (Frog croaking), *Ssssss* (Snake whistling)
	Insects	*Zzzzz* (Mosquito buzzing), *Vonvon* (Beetle moving)
	Fish and	*Flap* (Fish splashing), *Foufou* (Blowing air from a pufferfish), *Badabadaw* (Fish flapping outside of water)
Human	Voice	*Chwicwhi* (Whispering), *Atchoum* (Sneezing), *Hanm* (Yawning or swallowing), *Wounouwounou* (Mumbling), *Yenyen* or *Nyènyè* (Crying)
	Body	*Bip bip* (Heart beating), *Plop plop* (Quick footsteps), *Pla pla* (Hand clapping), *Hanm* (Eating), *Glòt glòt glòt* (Drinking), *Brrrr* (Vomiting)
Artifacts	Musical Instruments	*Peng peng* (Piano playing), *Teng teng* (Guitar strumming), *Pim pim* (Percussion drumming)

	Vehicles	*Vroum* (Engine revving), *Kapvouum* (Starting car), *Katakata* (Helicopter rotor spinning), *Krip* (Braking), *Pwen pwenp* (Car horn honking)
	Mechanical and Electronic Equipment	*Zzzz* (Electric saw running), *Kleng kleng* (Telephone ringing), *Wiwou wiwou* (Police or ambulance sirens), *Ging gong* (Large church bell)
	Instruments of War and Destruction	*Bow* (Gunshot), *Bow bow bow* (Machine gun fire), *Tatatatatata* (Automatic rifle)
	Bells, Gongs and Other Signaling Equipment	*Kling kling* (Small bell), *Tik tak* (Clock ticking), *ding dong* (Medium bell), *Wiwouwiwou* (Fire alarm)

2. Method and materials

This study primarily relies on data collected from two authoritative sources: (Fattier 1998; Séverin 2007). Both texts provide valuable information on haitian bird names, descriptions, scientific classifications, and their equivalents in various languages. We utilize the list of 82 bird names provided by Severin in 2007, recognized as the most comprehensive work on birds in Haiti. Although *Avibase*, the main global source for bird species, reports 273 species, with 15 being endemic and 27 introduced, Severin's list exclusively encompasses species that inhabit Haiti and are integral to Haitian culture. This distinction is crucial, as it highlights the potential reliance of Haitian Creole on ornithonym processes, favoring familiar or vernacular endemic birds.

To understand the link between onomatopoeia and bird names, we consulted the online bird call database Xeno-canto('xeno-canto :: Sharing wildlife sounds from around the world' n.d.). Xeno-canto, dedicated to sharing wildlife sounds globally, facilitated cross-referencing recorded bird vocalizations with the bird names presented in Severin's and Fattier's works. This enabled us to identify possible correlations between the two datasets.

Our analytical process involved a comparison of bird vocalizations with their respective vernacular names to detect any apparent resemblances or discrepancies. In our list, we classified the origin of the names based on features such as size, color, shape, habitat, diet, and

onomatopoeia. We first classified the birds by the main ornithonym processes. Then, we analyzed the remaining names and compared them to the descriptions provided in Fattier's and Severin's works. Onomatopoeic names typically exhibit reduplication (Dingemanse 2015), so we paid special attention to reduplicated forms. As a native Creole speaker, we were able to place particular emphasis on identifying shared phonemes and syllables that could potentially indicate onomatopoeic influences in the formation of bird names. Additionally, we explored historical developments and regional variations in naming practices to better comprehend the factors shaping these linguistic associations.

Further analyses involved scrutinizing the phoneme relations between bird calls and their corresponding names, seeking to determine whether specific sound patterns consistently emerged across different taxonomic groups or geographic areas. This examination aimed to illuminate the potential mechanisms driving the transition from bird calls to their names in Haitian Creole, thus contributing to our understanding of sound symbolism and its role in linguistic evolution.

.

3. Analysis

Our study led us to a list of nineteen onomatopoeic names, representing a 24% of the corpus. As seen in the table below, these names provide a fascinating insight into the relationship between bird vocalizations and their corresponding names in Haitian Creole.

Table 2: Onomatopoeic Haitian bird names

Haitian bird names	***Latin name***	**English**	**Vocalization sample**
TaKo Fran	*Coccyzus longiristris*	Hispaniolan lizard cuckoo	xeno-canto/97182
Ti Tako	*Coccyzus minor*	Mangrove cuckoo	xeno-canto/265338
Ti Tako Vant Blan	*Coccyzus amercanus*	Yellow bild cuckoo	xeno-canto/575074
Tako kabrit	*Coccyzus rufigularis*	Bay breasted cuckoo	xeno-canto/308602
Grigri Fran	*Falco Spaverius*	American kestrel	xeno-canto/681907
Kaw Fran	*Corvus leucognaphalus*	White necked crow	xeno-canto/308607
Kit	*Coeroboa Flaveola*	bananaquit	xeno-canto/838715
Koukou	*Athene cunicularia*	Burrowing owl	xeno-canto/524489
Kwèt-Kwèt Fran	*Turdus plumbeus*	Red legged thrush	xeno-canto/834456

Kwèt-Kwèt Nwa	*Turdus swalesi*	La selle s thrush	xeno-canto/308024
Kikiliki	*Myadestes genibarbis*	Rufus-throated solitaire	xeno-canto/308800
Pèt-Pèt	*Himantopus mexicanus*	Blacked necked stilt	xeno-canto/778463
Pipirit Gri	*Tyrannus dominicencis*	Grey kingbird	xeno-canto/357038
Pipirit Rivyè	*Megaceryle alcyon*	Belted kingfisher	xeno-canto/624467
Pipirit Tèt Fou	*Contopus hispaniolensis*	Hispaniolan pewee	xeno-canto/97171
Ti Kaw	*Corvus palamarum*	Palm crow	xeno-canto/308660
Kwak	*Ardea alba*	Great Egret	xeno-canto/773646
Ti chit	*Elaenia / Microligea*	Various species	-
Sisi	*Melanospiza bicolor*	Black-faced Grassquit	xeno-canto/841606

3.1. Haitian creole Onomatopeic ornithonym

Tako (*Coccyzus genus*)

Coccyzus, is a genus of cuckoos' native to the Americas. It encompasses various species. These birds exhibit diverse sizes, characterized by slender bodies, long tails, and sturdy legs, often featuring black and white undertail patterns. They inhabit a range of environments, from forests and woodlands to mangroves.

In Haiti, we identify four species of *Coccyzus*:

- *Tako fran* (*Coccyzus longirostris*) – 'Hispaniolan Lizard Cuckoo'
- *Tako kabrit* (*Coccyzus rufigularis*) – 'Bay-breasted Cuckoo'
- *Ti tako* (*Coccyzus minor*) – 'Mangrove Cuckoo'
- *Ti tako vant blan* (*Coccyzus americanus*) – 'Yellow-billed Cuckoo'

These birds are known for their vocalizations, emitting persistent and loud calls. Although the calls vary among species, they are generally characterized as repeated cooing. Their calls consist of distinctive series, often described as hollow, wooden-sounding, with harsh and rattling elements, such as "*ka-ka*" "*kow kow*," "*kwakk kowlp*," and "*kk-ow*" syllables. Another common call is a metallic, rattling sound, often described as "*kow-kow-kow,*" which starts slowly, accelerates, and then decelerates. Those vocalizations are the ones that give him is famous name, onomatopoeic cross linguistically.

The local name for these birds in Haiti is *tako* also onomatopoeic although not similar to ethe appellation to the *coccycus*. The name stems from the characteristic "*Tk-rrrr*" sound present at the beginning of the call of the one of the endemic *Coccyzus* species in Haiti, the 'Hispaniolan Lizard Cuckoo' (*Coccyzus longirostris*). As observe in figure 1 its primary call features a rattling, grating sound that decreases in pitch in the yellow rectangle, accompanied by a harsh "*tchk*" clicks, and a "*cwuh-h-h*" observed in the green rectangle (Payne 2020).

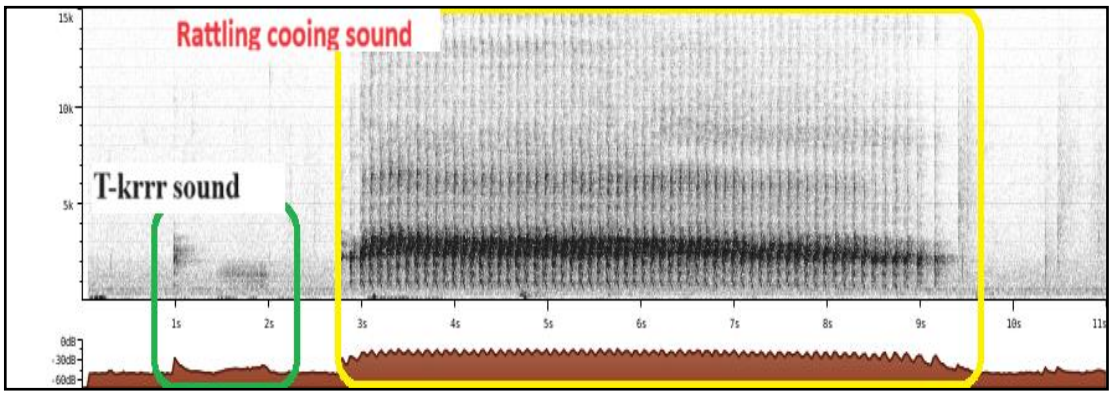

Figure 1 Coccyzus longirostris sonogram.

Adapted by the author from Ian Davies, XC97182. Accessible at www.xeno-canto.org/97182

The 'Bay-breasted Cuckoo' (*Coccyzus rufigularis*), also known locally as *Tako kabrit* as *kabrit* translates to 'goat' inspired by the bird's distinctive vocalizations. Specifically, after the initial rattle, the Bay-breasted Cuckoo produces a peculiar bleating sound that closely resembles a goat's call, hence earning its name.

Alternative names include "*tòkò*" in Haiti and "*coulicou*" in the French Antilles (Fattier 1998), *cuco* in Cuba, or *tacó* in the Dominican Republic, among others, all of which are onomatopoeic.

Koukou (*Athene cunicularia*),

In Haitian Creole, the name *koukou* refers to the ‘burrowing owl’ (*Athene cunicularia*). This small, long-legged owl is widespread across open landscapes throughout North and South America. Burrowing owls inhabit various environments, including grasslands, rangelands, agricultural areas, deserts, and other open, dry regions with sparse vegetation.

The name *koukou* pronounced similarly to cuckoo is onomatopoeic. Burrowing owls can produce a range of sounds such as cooing, warbling, rasping, clucking, screaming, and rattling. The most heard vocalization is a two-note cooing reminiscent of a quail, often made by males during mating and territorial defense. Between the different vocalizations made by the (*Athene cunicularia*), It is the two-note cooing sound that likely inspired its name.

Kaw (*Corvus genus*),

Corvus species are widely recognized for their onomatopoeic names cross linguistically. Among the Caribbean corvids, the *Kaw fran*, or ‘White-necked Crow’ (*Corvus leucognaphalus*), stands as the largest. Endemic to the island of Hispaniola, what sets the white-necked crow apart from other corvid counterparts is its exceptional and idiosyncratic voice. Rather than the typical hoarse croaking associated with crows, the white-necked crow boasts a diverse array of melodious sounds likened to parrot chatter—characterized by sequences of fluid bubbling, sharp squawks, interspersed gentle and rough notes. The source of its onomatopoeic appellation, *kaw* lies within the unique gliding sound "/w/" featured prominently towards the end of the liquid bubbling noise, enabling distinction from the ‘Palm Crow’ (*Corvus palmarum*) as shown in figure 2.

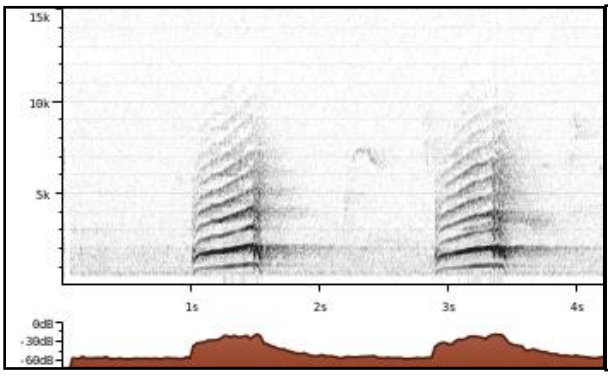

Figure 2 Corvus leucognaphalus Sound from Ross Gallardy, XC308607. Accessible at www.xeno-canto.org/308607

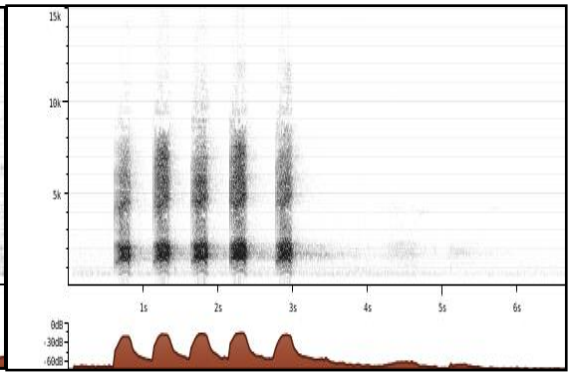

Figure 3 Corvus palmarum vocalization from Ross Gallardy, XC308660. Accessible at www.xeno-canto.org/308660

Speaking of the Palm Crow, it represents a smaller Caribbean corvid species, sharing habitat alongside the white-necked crow solely on Hispaniola. The local names assigned to the Palm Crow vary between Haiti *ti Kaw* and alternative terms like *Gragra*. Indeed, in local parlance, the term *Gragra* is often associated with the bird's flat, harsh guttural "*graaah*" vocalization see figure 3, a stark departure from the varied calls of the White-necked Crow.

Kwak (*Ardea alba*)

In Haitian Creole, the great egret (*Ardea alba*) answers to the onomatopoeic name *Kwak* as well as the common name *krabye*. Residing primarily in warm temperate and tropical regions worldwide, the great egret constructs tree nests near water in colonies.

The great egret isn't a vocal bird, giving off a low, gruff croak when disturbed. During the breeding season, colony residents increase their volume, letting loose loud croaking "*cuk cuk cuk*" sounds and raising the pitch for shriller squawks. This distinctive set of calls gave rise to the bird's secondary name, *Kwak* in Haitian Creole.

Pètpèt (*Himantopus mexicanus*),

The ‘Black-necked Stilt’ (*Himantopus mexicanus*), locally abundant in Haiti, is a shorebird inhabiting American wetlands and coastlines. Black-necked Stilts express sharp, high-pitched calls consisting of "*yap*" "*keek*" or similar variations. Under normal circumstances, these calls occur individually, but when alarmed, they become doubled and issued consecutively. Softer versions function as contact calls between adults and offspring. Intriguingly, the Haitian name *pètpèt* originates from the distinctive alarm call, which resembles the sound of "*put put*" like small bubble of air exploding.

Kwètkwèt (*Turdus genus*)

Two birds share the onomatopoeic name *kwètkwèt* in Haiti:

The *Kwètkwèt Nwa*, ‘La Selle Thrush’ (*Turdus swalesi*) - Endemic to Island of Hispaniola - is a secretive bird species occupying broadleaf and pine in the La Selle forests at altitudes around 1300 meters. Primarily active at dusk and dawn, its song features a mix of fleeting up-slurred and down-slurred notes combined with sweet whistles of varying lengths, presented gradually and repetitively.

The *Kwètkwèt Fran* ‘Red-Legged Thrush’ (*Turdus plumbeus*) - Native to the Caribbean, typically performs a composed whistled duet. Its calls comprise an assortment of squeaks, chuckles, and a sharp "*tsee-up*" sound, with a harsh alarm call like a "*wek-wek*".

Although not their most common vocalizations, the onomatopoeic name *kwètkwèt* perfectly suits these two bird species because their alarm calls contain abrupt, sharp, and high-pitched sounds that resemble the name. The reduplication of the syllable *kwèt* in the name imitates the repetitive nature of the distress signal.

Grigri (*Falco genus*)

The ‘American Kestrel’ (*Falco sparverius*) stands out as the smallest and most widespread falcon across North America. Commonly referred to as *grigri* in Haiti, this diminutive bird of prey sports three main vocalizations - the "*klee*" or "*killy*," the "*whine*," and the "*chitter*" (‘Sounds and Vocal Behavior - American Kestrel - Falco sparverius - Birds of the World’ n.d.). When agitated or thrilled, the kestrel issues the memorable "*klee*" call rapidly, generating a sequence like "*klee, klee, klee, klee*".

As for the onomatopoeic quality of the local name "grigri," it bears close resemblance to the familiar "*klee*" sound. While the phonetic linkages between "*klee*" and *grigri* aren't immediate, it is worth noting that the "k" and "g" sounds share a place of articulation, i.e., the back part of the tongue touching the soft tissue in the rear region of the roof of the mouth. Additionally, the "l" and "r" sounds are liquids, displaying somewhat similar behaviors concerning oral cavity configurations. However, keep in mind that regional variations exist as noted by (Fattier 1998), as evidenced by other designations such as *kilikili* in certain Haitian communities or "gligli" adopted in Guadeloupe's French-speaking islands.

Kit (*Coereba flaveola*),

Known as the ‘bananaquit’ (*Coereba flaveola*), the *kit* is a species of passerine bird in the tanager family Thraupidae. This small, active nectarivore is found in warmer parts of the Americas and is generally common.

Like other ‘quits’ the bananaquit's sounds are distinctive. Its typical call is a short, high-pitched note, given singly but repeated every few seconds. It also has a lower-pitched call note and sometimes gives a continuous high-pitched twittering. The song varies across the range of quit birds but is usually high-pitched and scratchy. Various forms of its call, noted by Fattier (1998), include *Kit, ti kit, kitkit,* and *ti chit*; and *Sisi* or *Zizi* for the grassquits. All these forms

are onomatopoeic, capturing the essence of the bird's vocalization revealing consistent usage of short, high-pitched, and slightly varied combinations of consonantal and vocalic segments:

1. *Kit***:** This form contains a voiceless velar plosive (k), followed by a high front lax vowel (i), ending abruptly, mirroring the brevity and high pitch observed in the typical call of the bananaquit.

2. *Ti kit***:** Introducing the diminutive prefix "*ti*," emphasizing the small size of the bird, precedes the onomatopoeic segment, maintaining consistency with the base form "*Kit*."

3. *Kit kit***:** Repeating the onomatopoeic segment reinforces the notion of repeating a high-pitched note, representing the continuous nature of the call.

4. *Ti chit***:** Substituting the "k" in "*Kit*" with a sibilant creates a slightly altered sound, while still retaining the overall impression conveyed by the previous interpretations.

5. *Sisi* and *Zizi***:** Substituting the "k" in "*Kit*" with an "s" sound (s) creates a slightly altered sound, keeping the essence of the bird's vocalization. The "s" sound adds a different tonal quality to the call, offering an alternative interpretation while still capturing the high-pitched and repetitive nature of the bird's typical call.

Kikiliki (*Myadestes genibarbis*)

The Rufous-throated Solitaire (*Myadestes genibarbis*) belongs to the Turdidae family and is a medium-sized, year-round dweller of rich, damp montane woods. The Rufous-throated Solitaire thrives in subtropical or tropical humid lowland forests and subtropical or tropical wet mountainsides.

Within Haiti, this bird carries three distinct names: *Mizisyen*, *kikiliki*, and *kikiliflit*. Each title pays homage to the iconic vocalizations of the Rufous-throated Solitaire, notably *kikiliki*,

which constitutes a spot-on onomatopoeia. Often detected initially by its sound, the bird's tune unfolds as a string of extended, unmodulated flute-like peeps manifested at fluctuating frequencies. Similarly, its call shares this description but features sharper pitches. Displaying preening habits combined with vocal performances, the compound phrase *kikiliflit* cleverly integrates onomatopoeic qualities with the instrument-based allusion to flit, literally flute, aptly describing the bird's uniquely identifiable voice.

Pipirit (*multiple genus*)

Three unrelated birds carry the name "*pipirit*" in Haiti, reflecting their shared vocal characteristics:

1. *Pipirit gri* (*Tyrannus dominicensis*) – 'Gray Kingbird'
2. *Pipirit rivyè* (*Ceryle alcyon*) – 'Belted Kingfisher'
3. *Pipirit tèt fou* (*Contopus hispaniolensis*) – 'Hispaniolan Pewee'

The Gray Kingbird is a member of the tyrant flycatchers family Tyrannidae. Initially described on the island of Hispaniola, it got its species name "dominicensis" due to its first discovery location. The loud, rolling trill, as seen in figure 4, "`pipiri, pipiri`" inspires many local onomatopoeic names, such as *pestigre* or *pitirre* in Spanish-speaking Greater Antilles, or *petchary* an *pipieri* in some English-speaking islands.

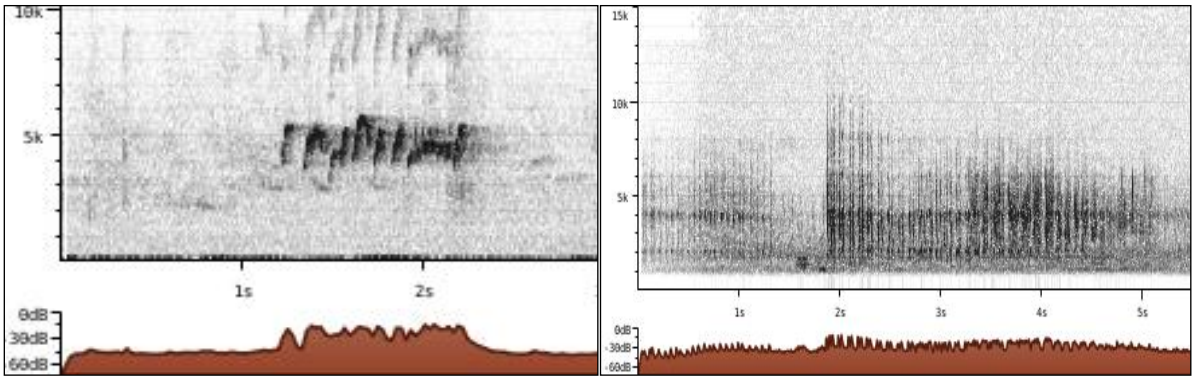

Figure 4 Tyrannus dominicensis sonogram from Paul Driver, XC357038. Accessible at www.xeno-canto.org/357038

Figure 5 Megaceryle alcyon sonogram from Thomas Magarian, XC624467. Accessible at www.xeno-canto.org/624467

The Belted Kingfisher is a large, conspicuous water kingfisher native to North America. It emits a characteristic rattling call (figure 5) while flying about its habitat, and both male and female individuals respond to disturbances with strident, mechanical rattles.

The Hispaniolan Pewee is a *Tyrannidae* family species endemic to the island of Hispaniola in the Caribbean. Known for a lack of distinctive field marks, it emits a repeated mellow "*pip*" contrasting with the more vocal tendencies of other pewees added with repeated weet sound.

Interestingly, these three unrelated birds share the name *pipirit* due to perceived song similarities, displaying the complexity of language and bird identification.

3.2.Basic Onomatopoeic Elements

Our study proves that there a are some basic onomatopoeic elements that contribute to bird naming in Haitian Creole. Individual consonants and vowels directly correspond to the articulation of bird vocalization. Here is an analysis with examples, noting the presence or absence of phonemes:

- **Plosive Consonants (Present: K, P, T):** Often employed to reproduce hard or sharp sound, those are the most common consonant in our corpus as in *Kikiliki, Pipirit, Kaw, Kit, Kwak, Tako*.
- **Liquids (Present: Scarce R, L):** Used to render soft or rugged, continuous, or a rolling flowing sounds. *Grigri, Gragra, Kilikili, Kikiliki*.
- **Sibilants (Scarce: S, Ch):** Typically linked to gentler hissing. It can convey softness or stealth. e.g., *Sisi, Zizi, Ti Chit*.

- **Nasals (Absent):** Typically linked to gentler vocalizations but absent in our data.
- **Open Vowels (Present: A, È,):** Associated with expansive or relaxed oral gestures, often used for amplified sounds. e.g., *Pètpèt, Kwak, Kaw, Kwètkwèt.*
- **Closed Vowels (Present: I):** Symbolizing restricted or constrained oral gestures, usually applied for shorter, clipped and high-pitched sounds. e.g., in *Pipirit, Kilikili, Kikiliki.*

TIER 2: Syllabic Units and Patterns

Building on Tier 1, this layer introduces syllabic units and recurrent sequences, intensifying the correspondence between phoneme composition and intended meaning through diagrammatic iconicity. These arrangements can help accentuate pitch contours, stress distribution, and temporal dynamics, thus making the onomatopoeic segments increasingly recognizable.

- **Repetitions and Reduplications:** Commonly used to strengthen the intensity or duration of represented sounds Repetition in animal communication enhances the signals' effectiveness, ensuring nearby individuals receive warnings quickly.
    - Example 1: *Kwèt kwèt* - The reduplication of "*kwèt*" accentuates the abrupt, sharp, high-pitched alarm calls of these birds.
    - Example 2: *Pipirit* - The repetition of "*pi*" and "*rit*" enhances the rolling trills and mechanical rattle of the bird's call.
    - Example 3: *Kikiliki*, The repetition of "*ki*" and the switch to include "*li*" indicts the rolling peep sound of the bird's call.

TIER 3: Contextual Integration and Interpretation

Finally, this topmost stratum integrates the lower-level onomatopoeic units within the wider context of Haitian Creole morpho-syntax and semantics. Doing so allows the named bird to keep a holistic identity tied to its habitat, biology, and cultural significance.

- **Compounding:** Creating composite structures that merge independent onomatopoeic fragments to form new meaningful constructs.
    - Example 1: *Tako Kabrit* - The compound name combines *Tako* with *Kabrit*, 'goat', reflecting the bird's call and enhancing its cultural significance.
    - Example 2: *Kaw fran* - The compound name combines *Kaw* with "Fran" 'common' suggesting a cultural or geographical distinction.
- **Derived Forms:** Building on set up onomatopoeic bases via affixation or inflection, generating derivative units that signal distinctions in size or location.
    - Example 1: *Ti Kaw* - The derived form includes the prefix "*Ti*" ('small') denoting reduced scale, distinguishing it from other crows and reflecting its smaller size or habitat preference.
    - Example 2: *Pipirit Rivyè* - This name features "*rivyè*" ('river') indicating is habitat.

Overall, this hierarchical model offers a structured perspective on the phoneme-to-meaning mapping in Haitian bird names, isolating critical links between the onomatopoetic portions and their intended referents. By progressively assimilating simpler components into higher-order configurations, the suggested schema underscores the multiplicity of layers operating simultaneously within the sound-based naming tradition, fostering a dynamic, flexible, and culturally informed appreciation of this remarkable linguistic practice.

3.3.Other processes

Haitian Creole has a rich ornithological vocabulary inherited from French, a legacy of historical slavery and bird imports during the slave trade. Words such as *kanna* (*Anas genus*), *poul* (*Fullica and Gallinula genera*), *ranmye* (*Columba genus*), and *toutrèl* (*Zenaida genus*) are examples of this French influence. To differentiate between bird species, additional naming processes are employed.

Visual attributes, including color, size, and shape, are fundamental to bird naming in many languages, including Haitian Creole. Color, or chromatic characteristics, are key descriptors in distinguishing and naming birds. In Haitian Creole, color-based ornithonyms may describe the entire bird or specific body parts. For example, *Békasin zèl blan* (*Catoptrophorus semipalmatus*) translates to 'white-winged godwit'; *Bannann mi fran* (*Icterus dominicensis*) is known as the 'yellow banana' or Hispaniolan Oriole; and *Flaman woz* (*Phoenicopterus ruber*) means 'pink flamingo'.

Size is another key factor in bird naming. For instance, *Ti kaw* (*Corvus palmarum*) is referred to as the 'small crow', and *Gwo malfini savann* (*Circus cyaneus*) is recognized as the 'large savannah hawk'. Additionally, the size of individual bird body parts can lead to specific names, such as *Toutrèl ke fen* (*Zenaida macroura*), or 'Mourning Dove with slim tail' highlighting the unique, slender appearance of its tail.

Distinct physical features also play a crucial role in bird recognition. For example, *Bèk kwaze* (*Loxia leucoptera megaplaga*) emphasizes the peculiar, crooked mandibles of the crossbill; *Espatil* (meaning spatula) denotes the Roseate Spoonbill's uniquely shaped bill; and *sizo* (*Fregata magnificens*) literally 'scissor'.

Ecological variables, such as habitats and diets, are significant in bird naming practices. These factors assist naturalists in identifying specific species. For instance, aquatic ecosystems are reflected in names like *Poul dlo tèt wouj* (*Gallinula chloropus*), interpreted as the 'red-

headed water hen' while terrestrial habitats are represented in names like *Chwèt bwa* (*Asio stygius*)—meaning 'forest owl'—and *Chwèt savann* (*Asio flammeus*)—'savannah owl'. Dietary preferences are also evident in names such as *Krabye ble* (*Egretta caerulea*), literally 'blue crab-eater' symbolizing the Little Blue Heron, a wading bird that primarily consumes fish and crustaceans.

Understanding behavioral patterns enables accurate predictions of bird movements, social structures, and seasonality. For example, the term *Plonjon fran* (*Podilymbus podiceps*), signifying the 'diving duck' incorporates behavioral patterns. Similarly, some birds are named based on their usage. For example, *Wanga nègès* refers to the (*Anthracothorax Dominicus*), also known as the 'Antillean Mango'. *Wanga nègès* literally translates to 'magical spell on negresse'. This naming is influenced by beliefs and practices where these birds are used in the preparation of a magical mixture believed to attract women.

4. Discussion

This study reveals the significant role of sound-symbolic associations in the evolution and lexical creation within creole languages. While earlier studies have highlighted the importance of ideophonic creation in Haitian Creole, this research extends these findings by focusing on the contribution of sound-symbolic connections in forming words in creole languages.

Haitian Creole shows a high degree of iconicity in bird names, proving an extraordinary capacity to generate memorable avian terms through morphological flexibility and reduplication. This linguistic creativity is not just a phenomenon, but also a reflection of the deep cultural connections between the people and their natural environment. The distinctive historical and socio-linguistic background of creole languages—namely, contact, accommodation, and innovation—fosters an environment conducive to generating a new lexicon deeply rooted in sound symbolism.

Considering the multiple vocalizations of birds, it's important to understand what motivates the speaker to use a specific onomatopoeia instead of another. The case of Haitian Creole suggests that people might be more alerted by the bird's alarm call, explaining why, for animals with multiple vocalizations, the name mostly comes from the alarm call. However, this does not particularly explain why *koukou* is related to owl, but not to cuckoo in Haitian Creole, even if the argument of phonological cribble for each language is considered.

While this study highlights Haitian Creole's rich linguistic legacy and its deep ties to the natural world, certain challenges arise when trying to precisely measure the extent of iconicity and trace the development of sound-symbolic motifs across time. Potential future research can tackle these issues head-on by employing cross-disciplinary strategies to dissect the multifaceted relationship among language, culture, and ecology in creole societies.

Furthermore, while this study primarily focuses on Haitian Creole bird names, more investigations should examine various semantic domains to establish whether comparable trends persist throughout different taxonomies. Expanding the scope of inquiry will allow researchers to better understand the pervasiveness and impact of sound symbolism on creole language systems.

Expanding on Séverin's observation (2007) regarding the profound relationship between Haitian culture and birds, one can find these feathered creatures fulfilling multiple roles, serving as sources of nutrition, controlling harmful insect populations in gardens, disposing of deceased organisms, facilitating pollination, providing delightful music, acting as indicators of approaching inclement weather like rain, adorning nature, and much more. A remarkable illustration of the language's creativity lies in the national bird of Haiti, the Hispaniolan Trogon (*Priotelus roseigaster*) figure 6.

Figure 6 Temnotrogon roseigaster from https://abcbirds.org/bird/hispaniolan-trogon/

Known as *Kalson wouj* in Haitian Creole, which translates to “red underwear” is iconic in its own right and directly references the striking crimson and azure feathers donned by the species – color palettes echoed proudly in the Haitian flag itself. This visual correspondence crafts a powerful symbolic tie, further elevating the esteemed standing of the avian mascot within the collective consciousness of Haitians everywhere. This rich symbology allows us to grasp the true extent of Haitian affinity for birds, elucidating the underlying currents of admiration, reverence, and enduring fascination driving this extraordinary linguistic tradition.

5. Conclusion

In conclusion, our study of onomatopoeic bird names in Haitian Creole has revealed both the language's uniqueness and its close association with the natural environment. By exploring these associations, we gain a deeper understanding of how language, culture, and ecology intertwine, shaping the way we name and perceive the world around us. It underscores the importance of studying distinct aspects of iconicity in language, offering insights into the interplay between sound, meaning, and culture. Consequently, illuminating the interaction between human cognition, expressiveness, and environmental awareness.

Additionally, focusing on these onomatopoeic terms reveals the resilience and adaptability of Haitian Creole despite external influences—such as dialectal variants,

borrowing, and semantic shifts—that inevitably impact any living language. For instance, even when incorporating foreign words or experiencing modifications in regional dialects, Haitian Creole maintains a consistent ability to innovate and produce captivating bird names deeply rooted in local traditions and experiences.

In turn, this investigation enhances our comprehension on broader questions concerning language evolution, lexicon expansion, and the emergence of novel vocabularies in creoles specifically. Specifically, the sound-symbolism demonstrated by Haitian Creole bird names suggests that sound symbolism serves as a key catalyst for linguistic innovation.

Acknowledgements

I would like to extend sincere gratitude to two anonymous reviewers for their valuable and insightful feedback during the preparation of this work.

Competing Interests

The author declares no competing interests.

Funding

No funding was received for the completion of this project.

Author Affiliations

Patrice Kanndèl Edouard <https://orcid.org/0009-0008-9678-6090>

Affiliation: Université d'Etat d’Haïti, Port-au-Prince, Haïti

Author Address

Correspondence: Email: kanndeledouard@gmail.com

Address: 12 Rue D. Bolte, Lilavois 48, HT6311, Port-au-Prince, Haïti (Residence)

References

Abondolo, D. (2007). 'Phonosemantic Subsets in the Lexicon: Hungarian Avian Nomenclature and *L'Arbitraire Du Signe*', *Central Europe*, 5/1: 3–22. DOI: 10.1179/174582107x235375

Akita, K., & Pardeshi, P. (Eds). (2019). *Ideophones, Mimetics and Expressives*. Iconicity in Language and Literature, Vol. 16. Amsterdam: John Benjamins Publishing Company. DOI: 10.1075/ill.16

Bartens, A. (1999). 'Ideophones and sound symbolism in Atlantic Creoles', *Suomalaisen tiedeakatemian toimituksia. Sarja Humaniora*, 304.

Berlin, B. (1994). 'Evidence for pervasive synesthetic sound symbolism in ethnozoological nomenclature', *Sound symbolism*, 76–93.

Berlin, B., & O'Neill, J. P. (1981). 'The pervasiveness of onomatopoeia in Aguaruna and Huambisa bird names', *Journal of Ethnobiology*, 1/2: 238–61.

Bodo Winter. (n.d.). .

'Bodo Winter - YouTube'. (n.d.). . Retrieved May 14, 2024, from <https://www.youtube.com/watch?time_continue=1816&v=R1ETw21oCGE&embeds_referring_euri=https%3A%2F%2Fwww.google.com%2Fsearch%3Fq%3Dbodo%2Bwinter%2Band%2Bbird%2Band%2Bonomatopoeia%2Band%2Bsize%26sca_esv%3D9ed8fe13a8c6ea88%26biw%3D1536%26bih%3D730%26tbm%3Dvid&source_ve_path=MzY4NDIsMjg2NjY&feature=emb_logo>

Brumm, H. (2009). 'Song amplitude and body size in birds', *Behavioral Ecology and Sociobiology*, 63/8: 1157–65. DOI: 10.1007/s00265-009-0743-4

Cabrera, M., & Carlos, J. (2020). *Iconicity in language: an encyclopedic dictionary*. Newcastle upon Tyne: Cambridge Scholars Publishing.

Dingemanse, M. (2015). 'Ideophones and reduplication: Depiction, description, and the interpretation of repeated talk in discourse', *Studies in Language*, 39/4: 946–70. DOI: 10.1075/sl.39.4.05din

——. (2019). 'Ideophone'as a comparative concept', *Ideophones, mimetics, and expressives*, 16: 13–33. John Benjamins Amsterdam.

——. (2023). 'Ideophones'. Van Lier E. (ed.) *The Oxford Handbook of Word Classes*, 1st ed., pp. 466–76. Oxford University Press. DOI: 10.1093/oxfordhb/9780198852889.013.15

Dingemanse, M., Perlman, M., & Perniss, P. (2020). 'Construals of iconicity: experimental approaches to form–meaning resemblances in language', *Language and Cognition*, 12/1: 1–14. DOI: 10.1017/langcog.2019.48

Edouard, P. K. (2024). *Idéophonie et catégorisation en créole haïtien : une analyse linguistique des idéophones* (Bachelor's degree). Université d'État d'Haïti, Faculté de Linguistique Appliquée.

'Ethnologue | Languages of the world'. (n.d.). . Retrieved May 10, 2024, from <https://www.ethnologue.com/>

Fattier, D. (1998). *Contribution à l'étude de la genèse d'un créole: l'Atlas linguistique d'Haïti, cartes et commentaires, 6 vol.* (phd). Presses Universitaires du Septentrion, Villeneuve d'Ascq.

Govain, R. (2019). 'Convergences lexico-sémantiques entre les créoles haïtien et jamaïcain : rôle de l'analogie'., pp. 75–94.

Hinton, L., Nichols, J., & Ohala, J. J. (Eds). (1994). *Sound symbolism*., Digitally printed 1st pbk. version. Cambridge ; New York: Cambridge University Press.

Ibarra, J. T., Caviedes, J., & Benavides, P. (2020). 'Winged Voices: Mapuche Ornithology from South American Temperate Forests', *Journal of Ethnobiology*, 40/1: 89–100. DOI: 10.2993/0278-0771-40.1.89

Johansson, N. E. (2023). ‘Cross-linguistic vocal iconicity’,. [object Object]. DOI: 10.13140/RG.2.2.20805.63200

Körtvélyessy, L., & Štekauer, P. (Eds). (2024). ‘Purpose and Aim of the Series’. *Onomatopoeia in the World’s Languages*, p. V–VI. De Gruyter. DOI: 10.1515/9783111053226-202

Kurashkina, N. A. (2012). ‘The formation and motivation of onomatopoeic ornithonyms as a result of ecological and communicative interactions of man and birds’, *European Online Journal of Natural and Social Sciences*, 1/1: pp-5.

Kwon, N. (2015). *The natural motivation of sound symbolism* (PhD Thesis). The University of Queensland. Retrieved April 11, 2024, from <http://espace.library.uq.edu.au/view/UQ:372363>. DOI: 10.14264/uql.2015.1013

Lefebvre, C. (Ed.). (2011). *Creoles, their substrates, and language typology*. Typological studies in language (TSL). Amsterdam ; Philadelphia: John Benjamins Pub.

Marttila, A. (2010). *A cross-linguistic study of lexical iconicity and its manifestation in bird names*. Helsinki: Helsingin yliopisto, nykykielten laitos.

Meinard, M. E. M. (2015). ‘Distinguishing onomatopoeias from interjections’, *Journal of Pragmatics*, 76: 150–68. DOI: 10.1016/j.pragma.2014.11.011

Payne, R. B. (2020). ‘Hispaniolan Lizard-Cuckoo (Coccyzus longirostris), version 1.0’, *Birds of the World*. Cornell Lab of Ornithology, Ithaca, NY, USA. DOI: 10.2173/bow.hislic1.01species_shared.bow.project_name

Peirce, C. S. (1955). *Philosophical writings of Peirce*. (J. Buchler, Ed.), 1. Publ., new ed., unabr. and unaltered republ. of the book 1. publ. 1940 under the title: The Philosophy Bof Peirce. New York: Dover Publ.

Perniss, P., Fischer, O., & Ljungberg, C. (Eds). (2020). *Operationalizing Iconicity*. Iconicity in Language and Literature, Vol. 17. Amsterdam: John Benjamins Publishing Company. DOI: 10.1075/ill.17

Perniss, P., Thompson, R. L., & Vigliocco, G. (2010). ‘Iconicity as a General Property of Language: Evidence from Spoken and Signed Languages’, *Frontiers in Psychology*, 1. DOI: 10.3389/fpsyg.2010.00227

Prou, M. E. (1999). ‘Haitian Creole Ideophones: An Exploratory Analysis’, *Journal of Haitian Studies*, 5/6: 96–112. Center for Black Studies Research.

Saussure, F. de, Bally, C., & De Mauro, T. (2005). *Cours de linguistique générale*. Grande bibliothèque Payot, Éd. critique, [Nachdr. der Ausg. 1916]. Paris: Payot.

Séverin, F. (2007). *Ti zwazo kote w a prale*. Societé Audubon Haïti.

‘Sounds and Vocal Behavior - American Kestrel - Falco sparverius - Birds of the World’. (n.d.). . Retrieved May 10, 2024, from <https://birdsoftheworld.org/bow/species/amekes/cur/sounds>

Sylvain, S. (1936). *Le creole haitien: morphologie et syntaxe, Suzanne Sylvain*. Wetteren.

Voeltz, E. F. K., & Kilian-Hatz, C. (Eds). (2001). *Ideophones: papers presented at the 1st International Symposium on Ideophones held Jan. 1999, St. Augustin, Ger.* Typological studies in language. Presented at the International Symposium on Ideophones, Amsterdam: Benjamins.

Wicaksono, Y., Macaryus, S., & Ermawati, E. (2020). ‘Birds Names: Embodyment of The Relationship Between Human and Environment’. *Proceedings of the First International Conference on Communication, Language, Literature, and Culture, ICCoLLiC 2020, 8-9 September 2020, Surakarta, Central Java, Indonesia*. Presented at the Proceedings of the First International Conference on Communication, Language, Literature, and Culture, ICCoLLiC 2020, 8-9 September 2020, Surakarta, Central Java, Indonesia, Surakarta, Indonesia: EAI. DOI: 10.4108/eai.8-9-2020.2301450

Winter, B., & Perlman, M. (2021). ‘Size sound symbolism in the English lexicon’, *Glossa: a journal of general linguistics*, 6/1. DOI: 10.5334/gjgl.1646

‘xeno-canto :: Sharing wildlife sounds from around the world’. (n.d.). . Retrieved May 10, 2024, from <https://xeno-canto.org/>

Yuzieva, K. (2012). ‘The semantics of bird denominations in the Mari language’, *Eesti ja soome-ugri keeleteaduse ajakiri. Journal of Estonian and Finno-Ugric Linguistics*, 3/1: 395–408. DOI: 10.12697/jeful.2012.3.1.19

Appendix A

Haitian Creole Bird Names	Scientific Names	English Names
Bannann mi fran	Icterus dominicensis	Hispaniolan Oriole
Bannann mi mòn	Spindalis dominicensis	Hispaniolan Spindalis
Bèk kwaze	Loxia leucoptera megaplaga	Hispaniolan Crossbill
Bekasin zèl blan	Catoptrophorus semipalmatus	Willet
Boustabak	Crotophaga ani	Smooth-billed Ani
Chanwan lasèl	Pterodroma hasitata	Black-capped Petrel
Chwèt bwa	Asio stygius	Stygian Owl
Chwèt savann	Asio flammeus	Short-eared Owl
Espatil	Ajaia ajaja	Roseate Spoonbill
FlamanwoZ	Phoenicopterus ruber	American Flamingo
Frize	Tyto alba	Barn Owl
Frize Kiskeya	Tyto glaucops	Ashy-faced Owl
Grangozye	Pelecanus occidentalis	Brown Pelican
Grankola	Aramus guarauna	Limpkin
Grigri fran	Falco sparverius	American Kestrel
Gwo krabye blan kwak blan	Ardea alba	Great Egret
Gwo malfini savann	Circus cyaneus	Northern Harrier
Jako	Amazona ventralis	Hispaniolan Parrot
Kalson wouj	Priotelus roseigaster	Hispaniolan Trogon
Kanna nwa	Aythya collaris	Ring-necked Duck
Kanna plonjon	Oxyura jamaicensis	Ruddy Duck
Kanna sasèl	Anas discors	Blue-winged Teal
Kanna siflè	Dendrocygna arborea	West Indian Whistling Duck
Kanna souche	Anas clypeata	Northern Shoveler
Kanna tèt blan	Anas bahamensis	White-cheeked Pintail
Kanna tèt nwa	Aythya affinis	Lesser Scaup
Kanna zèl blan	Anas americana	American Wigeon
Kanna zonbi	Nomonyx dominicus	Masked Duck
Katje nò	Phaenicophilus palmarum	Black-crowned Palm Tanager
Katje sid	Phaenicophilus poliocephalus	White-fronted Quail-Dove
Kaw fran	Corvus leucognaphalus	White-necked Crow
Kit	Coereba flaveola	Bananaquit
Kolobri fran	Todus subulatus	Broad-billed Tody
Kolobri mòn	Todus angustirostris	Narrow-billed Tody
Koukou	Athene cunicularia	Burrowing Owl
Krabye ble	Egretta caerulea	Little Blue Heron
Krabye gad bèf	Bubulcus ibis	Cattle Egret
Kwèt kwèt fran	Turdus plumbeus	Red-legged Thrush
Kwèt kwèt nwa	Turdus swalèsi	Forest Thrush
Madan sara	Ploceus cucullatus	Village Weaver
Malfini karanklou	Cathartes aura	Turkey Vulture
Malfini ke wouj	Buteo jamaicensis	Red-tailed Hawk
Malfini lanmè	Pandion haliaetus	Osprey
Malfini mouche	Accipiter striatus	Sharp-shinned Hawk

Mèl fran	Quiscalus niger	Common Grackle
Mizisyen	Myadestes genibarbis	Rufous-throated Solitaire
Pèdri fran	Geotrygon montana	Ruddy Quail-Dove
Pèdri vant blan	Geotrygon chrysia	Key West Quail-Dove
Pentad	Numida meleagris	Helmeted Guineafowl
Perich	Aratinga chloroptera	Hispaniolan Parakeet
Pèt pèt	Himantopus mexicanus	Black-necked Stilt
Pipirit gri	Tyrannus dominicensis	Gray Kingbird
Pipirit rivyè	Megaceryle alcyon	Belted Kingfisher
Pipirit tèt fou	Contopus hispaniolensis	Hispaniolan Pewee
Plonjon fran	Podilymbus podiceps	Pied-billed Grebe
Poul dlo jidèl	Fulica americana	American Coot
Poul dlo tèt blan	Fulica caribaea	Caribbean Coot
Poul dlo tèt ble	Porphyrula martinica	Purple Gallinule
Poul dlo tèt wouj	Gallinula chloropus	Common Moorhen
Ranmye kou wouj	Columba squamosa	Scaly-naped Pigeon
Ranmye mile	Columba inornata	Plain Pigeon
Ranmye tèt blan	Columba leucocephala	White-crowned Pigeon
Sèpantye fran	Melanerpes striatus	Hispaniolan Woodpecker
Sizo	Fregata magnificens	Magnificent Frigatebird
Tako fran	Coccyzus longirostris	Hispaniolan Lizard Cuckoo
Tako kabrit	Hyetornis rufigularis	Bay-breasted Cuckoo
Ti kaw	Corvus palmarum	Palm Crow
Ti plonjon	Tachybaptus dominicus	Least Grebe
Ti malfini savann	Buteo ridgwayi	Ridgway's Hawk
Ti tako	Coccyzus minor	Mangrove Cuckoo
Ti tako vant blan	Coccyzus americanus	Yellow-billed Cuckoo
Toutrèl ke fen	Zenaida macroura	Mourning Dove
Toutrèl wouj	Zenaida aurita	Zenaida Dove
Toutrèl zèl blan	Zenaida asiatica	White-winged Dove
Wanga nègès fran	Anthracothorax dominicus	Antillean Mango
Wanga nègès mòn	Chlorostilbon swainsonii	Hispaniolan Emerald
Wosiyòl	Mimus polyglottos	Northern Mockingbird
Zègrèt blan	Egretta thula	Snowy Egret
Zotolan	Columbina passerina	Common Ground Dove
Zwazo mouch	Mellisuga minima	Vervain Hummingbird
Zwazo palmis	Dulus dominicus	Palmchat