

# Grimaldi's "Discovery of the Cat Language": A theory in need of revival (or perhaps not?)

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## Abstract

Recent years have seen a growing number of studies on both felid vocalizations in general and human–felid communication in particular. Frequently considered as the starting point for this line of research is Mildred Moelk's seminal paper from 1944, in which she provides a taxonomy of basic felid vocalizations, complete with phonetic transcriptions. Less known is the fact that Cat Language was decoded in far more detail half a century earlier, by one "Prof. Grimaldi", who sadly never published his findings. However, an English translation of Grimaldi's findings was published by Marvin Clark in 1895, so the astonishing observations made by Grimaldi are not lost to the world. In the present paper a summary of Grimaldi's results will be provided, in the hope that this research will serve as a source of inspiration to present and future researchers of Cat Language.

## Introduction

Cats have lived with humans for thousands of years, and are (most likely) alongside the dog our oldest companions of another species. Thus, it comes as no surprise that research has been devoted to the decoding of the "cat code" (e.g. Schötz, 2013), and how this might help us humans communicate with our companions.

What is less known is that the 'cat language' (CL) was given an ambitious, exhaustive, exhilarating, mind-blowing – and also somewhat controversial – description more than 100 years ago by one "Prof. Grimaldi", who sadly never published his findings in a scientific journal.

Fortunately, an English translation of Grimaldi's findings was published by Marvin Clark in 1895, so the astonishing observations made by Grimaldi are not lost to the world. However, despite the fact that Grimaldi's observations have existed in print for more than a century, this seems to have been largely ignored in the literature, and with the exception of Grown (2014: 82) mentions of Grimaldi seem to be nonexistent.

In this paper a short summary of Grimaldi's results will be provided, in the hope that this research will serve as a source of inspiration to future researchers of Cat Language.

## Background: Clark meets Grimaldi

In the year 1895 a certain Marvin R. Clark published a book entitled "PUSSY and Her Language". Clark was (he tells us) at the time

"editor of a New York morning newspaper" (p. 43; all subsequent page numbers will refer to Clark, 1895). Clark's book is singing the praise of the cat in general, and includes mentions about what famous and historical people loved cats, how the cat was revered in ancient Egypt and so on and so forth.

However, the main part of the book focuses on the linguistic capabilities of the cat. The language part, however, was not written by Clark himself, but by a "French gentleman of about fifty years of age" (p. 43) Clark had previously received the gentleman's card, which read (p. 43):

"Alphonse Leon Grimaldi, F. R. S., F.G. S., M.O.  
D. H. de C., M. F. A. S., M. F. A., et al.  
"Rue du Honore, 13, Paris.  
"Metropolitan Hotel, N.Y."

To make a fairly long story short, Clark and Grimaldi met (they communicated in French, since Clark's mastery of the French was "much more comprehensible" (p. 44) than Grimaldi's English, Clark thought) and during the course of their conversation, Grimaldi revealed to Clark that he (Grimaldi) had "made a life study of the animal kingdom" (p. 44) and presented Clark with a paper that he had written on "Cat language" (p. 44). Grimaldi explained that he had not dared publish his findings, since "he never could have lived through the sarcasm and taunts of those men of science, who would have over-whelmed him with abuse" (p. 45).

The men bid farewell, and Clark forgot about the paper given to him. Years later, however his “meory [sic!] recurred to it”, (p. 45) and he was happy to find it intact. When Clark (finally) read the paper, he “rejoiced /.../ because it verifies my own [i.e. Clark’s; RE] theories, and proves beyond a doubt that the Cat has a language which may be spoken by anybody who will make a study of it” (p. 45). Thus, Clark “made a literal translation” (p. 46) of Grimaldi’s paper, with the title “THE CAT”, which appears on pages 46 through 122, and whose central findings will be summarized in the following sections.

## **Anatomy and physiology**

Not inclined to leave any aspect or consideration unturned, Grimaldi provides an overview of the cat’s anatomy and physiology, with comparisons with other animals. Some of his Grimaldi’s main points are summarized below.

### **General aspects**

Grimaldi devotes a passage to the cat’s organism in general, which more or less in toto sounds like a summary: “Anatomists are unanimous in their opinions and their experiments show conclusively that the Cat has a much finer and more delicate organism than the dog” (p. 66). Moreover, “it is almost universally conceded that Cats are fully as intelligent as dogs, and by many the feline is regarded as the superior animal in every respect” (p. 66).

### **Neurological aspects**

Not only is the cat superior to the dog in general, when studying the feline brain, more surprises are to be found: “The brain of the Cat so closely resembles that of man as to force the unwilling admission from anatomists and physiologists that in form and substance they bear so close and striking a similarity that they are, to all intents and purposes, the same in substance and conformation, and differ only in weight and size” (p. 65). So the inevitable conclusion is, not surprisingly, that: “the intelligence of the Cat is equal to that of man” (p. 65). Modern researchers and research would most likely only agree with Grimaldi up to a point on that one.

### **Vocal organs**

Grimaldi first establishes that some “mammalia, such as the giraffe, the porcupine, and the armadillo, have no vocal chords [sic!], and are therefore, mute” (p. 64). The cat (or “Cat”,

which Grimaldi obviously prefers), however, not only have vocal cords (or “chords”, as Grimaldi prefers to spell it), but the vocal organism is treated in some detail: “Cats have a sac between the thyroid cartilage and the oshyiodeum, which have much to do with the modifying and increasing of the tones of the voice. The laryngeal sacs are small /.../ The epiglottis is comparatively small, and there are proportionately small cavities in the thyroid cartilage and the oshyiodeum, which communicate with the ventricles of the larynx and the laryngea-pharyngeal sacs, which give the peculiar softness of musical tone to the feline /.../ one of the most delightful characteristics of the Cat” (pp. 64–65).

## **Of Signs and Sounds**

Grimaldi emphasizes that although CL as an oral and vocal language is much richer than humans usually think, cats preponderatingly express themselves by ‘Signs’, to be described in some detail in a coming section of this paper.

## **A linguistic description of CL**

The vocal/oral language of the Cat will be summarized in the following sections.

### **Vowels and consonants**

Grimaldi provides an insightful and detailed account of the phoneme inventory in CL, and observes that: “Consonants are daintily used, while a wide berth is given to explosives and the liquid letters ‘l’ and ‘r’ enter into the great majority of sounds. The sounds of the labials are not frequently heard, but the vowels, a, e, i, o and u, go far toward making up the entire complement of words in the language” (p. 103).

Of interest is that Grimaldi almost touches upon aspect theory when he mentions that certain phonemes go hand in hand with certain moods. For example, he mentions that the “sounds of the labials, b, f, m, p, v, w, and y, are more frequently heard in words of anger than otherwise” (p 106). As an example he mentions the cat’s “significant war-cry /.../ mie-ouw, vow, wow teiow yow tiow, wow yow, ts-s-s-syow” (p. 106), an expression so bold that Grimaldi refrains from putting it in English. However, given that the word “yow” means “extermination from the face of the earth” (p. 106) one can easily guess what the above utterance is meant to signal.

In fairness, Grimaldi might have been inspired by another Frenchman, Champfleury, who had already pointed out that Cat Language possesses the same vowels as Dog Language, but that CL also includes “six consonnes : l'm, l'n, le g, l'h, le v & l'f” (Champfleury, 1869, p. 191). This, however, must remain mere speculation.

### Vocabulary size

Grimaldi is very careful when discussing vocabulary size in CL: “I say that there are not, probably, more than six hundred primitive words, because I have not, after years of search, discovered more than that number, and am of the opinion that the spoken words will not number more” (pp. 103–104). However, Grimaldi reminds us that Signs constitute the central means of conveying messages in CL, and that spoken words “are never used excepting when actual necessity requires their use” (p. 104). Be that as it may, 600 words can be regarded as a sizeable word list, especially for an animal that resorts to spoken language only when “signs would fail” (p. 104).

### Words in common use

Grimaldi (p. 114) provides a list of seventeen of the most important words in CL, which includes “Aeilo” (food), “Lae” (milk), “Aliloo” (water), “Bl” (meat), “Ptlee-bl” (mouse meat), “Bleeme-bl” (cooked meat; an unexpected item in CL), “Pad” (foot) and, of course “Mieouw” (here).

### Number system and time expressions

Grimaldi is (and was!) the first to express his surprise when realizing how rich CL is when it comes to time expressions, which is partly based on the extraordinarily rich number system CL possesses.

Let's start with the latter. The CL number system seems to be a base-ten system, where the figures 1–12 have unique names, 13–19 have an ending “-do(o)” (tantamount to the English “-teen”), and 20, 30 (etc) add the basic numbers 1–9 to the stem (exactly like English), i.e.:

1=“Aim”; 2=“Ki”; 3=“Zah”; 4=“Su”;  
5=“Im”; 6=“Lah”; 7=“El”; 8=“Ic”; 9=“No”;  
10=“End”; 11=“Est”; 12=“Ro”; 13=“Zah-do”;  
14=“Sudoo” (etc); 20=“Ki-le”; 21=“kile-aim”  
(etc); 30=“Zah-le”; 40=“Su-le”; 50=“Im-le”  
(etc); 100=“Aim-hoo”; 1000=“milli” and “zule”  
means “millions” (pp. 109–110).

Most surprising of it all, however, is perhaps the fact that there is also a word for millionaire: “zuluaim”. That cats can abstract from numbers

to concepts like “millionaire” is, of course, nothing short of astonishing.

Turning to expressing the time of day, CL simply employs its rich number system to create expressions like: “ro sule-im” for 12:45, “im imle-im” for 5:55 etc (p. 111).

### Word order

Grimaldi: “In the feline language the rule is to place the noun or the verb first in the sentence, thus preparing the mind of the hearer for what is to follow (p. 116). Example sentences (which one might assume are all authentic) are: “Milk give me”, “Meat I want”, “Sick I am”, “Going out, my mistress” and “Happy are my babies” (p. 116).

Here it would, perhaps, be of interest to learn what the word order of Dog Language, or Horse Language (etc) might be, in order to create a mammal language word order taxonomy?

### Prosodic inflection

When translating the words of CL it must “constantly be kept in mind” (p. 117) that prosodic inflection is central in conveying specific meanings of words. Grimaldi lists the following, elucidating, examples:

“Meouw”, produced with:

1. Ordinary tone, means “how”, “Good morning” or “How d'ye do?” etc;
2. Strong emphasis and a high tone on the first syllable “me”, means “hatred”;

“Purrieu”, produced with:

1. A long roll of the “r” and a rising inflection indicates a mother calling her kittens;
2. A shrill inflection to the last syllable is “a note of warning to her loved ones” (p. 117);

“Yew”, produced:

1. As an explosive, is the cat's strongest expression of hatred, and is a declaration of war (p. 117);
2. In an ordinary tone, indicates that the speaker is not feeling well.

“Poopoo”, produced with:

1. Slight emphasis on the first syllable, means “sleep”;
2. Strong emphasis on the last syllable means “work”.

Summing up, Grimaldi points out that “there is scarcely a word in the feline language whose meaning is not subject to four or more directly opposite interpretations, according to the inflections given in its expression” (p. 117).

Grimaldi acknowledges the fact that prosodic inflection is used in human language, too: “instance the Chinese in particular. The number of words in their language is not great, but in speaking they vary each of their words by not less than five different tones, by which they make the same word signify five different things” (p. 54). The striking similarity between CL and Chinese does not go unnoticed to Grimaldi: “The Chinese language is more nearly like the Cat language than any of the existing languages, and so closely resembles it in very many respects as to almost persuade me that the language of the Cat was derived from it” (p. 104), an hypothesis strengthened by the fact that “no people are more fond of the feline than the Chinese” (p. 104).

### Perception of speech and language

Turning to the perceptual capabilities of the Cat, Grimaldi refers to “Prof. William Lindsay, M. D., F. R. S., F. L. S., Hon. Member New Zealand Institute”, who in his “remarkable work, entitled ‘Mind in the Lower Animals’ /.../ asserts that Cats readily comprehend and thoroughly understand man’s words and the conversation of men” (p. 66).

### The Importance of Signs

Finally, it must be pointed out that impressive as it is, CL is still overwhelmingly a language of “Signs”, something which cannot be done justice by a “tiresome, misleading and fallacious grammar”, or “stuffy, lame, meaningless dictionary” or “hobbling treatise upon syntax” (p. 119). The 600 (or so) “words” uttered vocally are quite obviously hugely surpassed by the expressions conveyed by the language of the ear, tail, limb, body, mouth, nose, eye, brow, chin, lip, and whiskers. Some of these signs are described by Grimaldi, but since there is not enough space here to include his examples I will only list one: when the tail “inclines toward the floor it says that its mistress may go shopping without an umbrella” (p. 121).

### Concluding remarks

Grimaldi ends his paper by pointing out all the traps of human languages (mainly comparing metaphors in English and French), obviously all inferior to CL. He finishes by hoping “for better things for my favourite, the Cat” (p. 122) and bids the reader au revoir.

On the final page of his œuvre Marvin Clark expresses the expectation (and hope, one might presume) that he would “hear from” (p. 123) Grimaldi again. The story does not reveal whether this actually transpired, but Clark nevertheless expresses his firm conviction that there “can be no doubt that with the aid of the phonograph and other modern instruments /.../ great progress will be made in translating and disseminating the feline language” (p. 123). And this, Clark establishes, “is a subject of vast importance” (p. 123).

Given the recent interest in the field, notably by Dr. Schötz, perhaps a corroboration of Grimaldi’s findings will be made, and Dr. Schötz might in the future build upon and refine the observations made by Grimaldi and come up with an updated vocabulary list and so on and so forth. (Although I’ll hedge my bets on that one.)

In any case and summing up, Grimaldi’s devotion to the subject matter cannot be doubted, and this in and by itself might perhaps serve as a source of inspiration for future decoders of the (fascinating) feline language.

### Addendum

Please note that the views expressed by the author in this paper do not necessarily represent the views held by the author of this paper.

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### References

- Champfleury (1869). *Les chats. Histoire – mœurs – observations – anecdotes*. Paris. J. Rothschild.
- Clark M (1895). *PUSSY and Her Language. Including a Paper on the Wonderful Discovery of the Cat Language by Alphonse Leon Grimaldi, F. R. S., etc.* [Publisher unknown.]
- Grown J (2014). *All You Need To Know About Cats*. Neil Playfoot Publisher.
- Moelk M (1944). Vocalizing in the House-Cat: A Phonetic and Functional Study. *The American Journal of Psychology* 57(2): 184–205.
- Schötz S (2013). A phonetic pilot study of chirp, chatter, tweet and tweedle in three domestic cats. In: Eklund R (ed.): *Proceedings of Fonetik 2013*, 12–13 June 2013, Linköping University, Sweden, 65–68.