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The Name of Crow: A Cross-Cultural Survey of Terms for the Genus *Corvus*

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Introduction

It often has been claimed that the real utility of human language lies in its arbitrary nature, in our ability to imbue an object, a thing, a thought with transmittable meaning merely by our agreement that certain arbitrary sounds represent it. It is this unnatural character of language that allows us to express abstract ideas, to quibble over semantics, to explain in detail every moment of a day or to condense its many events into a single word (*Good, Bad*).

This conception of language was perhaps first cogently articulated by John Locke in his *Essay on the Human Understanding* (Linksy 1967:31) and eventually became one of the most powerful paradigms in linguistic thought. Ferdinand de Saussure gave this view much of its modern shape when he argued “the bond between the signifier and the signified is arbitrary” (Saussure 1967: 238).

Without disputing that the essential nature of the “signifier” is perhaps arbitrary, I suggest that this maxim does not capture the whole truth. Inquiries into cognition—particularly, transformational grammar—have suggested a structural non-arbitrariness, seeing in syntax the evidence of the linguistic hard-wiring in our brains. The arbitrary nature of the individual terms has also been questioned recently, and Locke and Saussure are more directly addressed by a revival of fairly ancient ideas about a sort of “naturalness” in language. Onomatopoeia—the imitation of natural sounds—has played a role in numerous theories concerning the origin of language. In this century, the possible role of onomatopoeia in lingua genesis

has been largely dismissed, or at least relegated to a minor role:

Some scholars believe that human speech originated in man's attempt to imitate the sounds of nature, as if a child should call a dog ‘bow-wow’ or a cow ‘moo’. No doubt such imitation accounts for a certain number of words in our vocabulary, but there are great difficulties in carrying out the theory to its ultimate results. (Greenough and Kitteridge: 138)

Saussure, arguing the arbitrariness of language, addressed onomatopoeia as follows:

1. Onomatopoeia might be used to prove that the choice of the signifier is not always arbitrary. But onomatopoeic formations are never organic elements of a linguistic system. Besides, their number is much smaller than is generally supposed. Words like French *fouet* ‘whip’ or *glas* ‘knell’ may strike certain ears with suggestive sonority, but to see that they have not always had this property we need only examine their Latin forms (*fouet* is derived from *fagus* ‘beech-tree’, *glas* from *classicum* ‘sound of a trumpet’). The quality of their present sounds, or rather the quality that is attributed to them, is a fortuitous result of phonetic evolution.

As for authentic onomatopoeic words (e.g. *glug-glug*, *tick-tock*, etc.) not only are they limited in number, but also they are chosen somewhat arbitrarily, for they are only approximate and more or less conventional imitations of certain sounds (cf. English *bow-wow* and French *ouaoua*). In addition, once these words have been introduced into the language, they are to a certain extent subjected to the same evolution - phonetic, morphological, etc. - that other words undergo (cf. *pigeon*, ultimately vulgar Latin *pipio*, derived in turn from an onomatopoeic formation): obvious proof that they lose something of their original character in order to assume that of the linguistic sign in general, which is unmotivated. (Saussure: 239)

Saussure's assertions are testable. If the "signifier" is entirely or even usually unconnected (other than semiotically) to the "signified," then the same signified thing will only have the same (or even similar) signifier in two different languages under three conditions:

1. If the languages are close genetic affiliates (so close that the sound shifts Saussure mentions haven't blurred their resemblance),
2. If the word has been borrowed from one language by the other, or
3. By sheer coincidence.

Investigating a single term over a broad geographic region can control for all of these factors. Such a term—the word for "frog"—was investigated in such a way by Brent Berlin, who compiled the names of various frogs in thirty-three languages. He discovered that 91 percent of his sample words contained /r/ or /l/ (Berlin 1992: 250-255). This is certainly a higher than chance distribution. Many of the terms were from South America (though of vastly different genetic stocks), so borrowing might be invoked as an explanation, but this seems unconvincing for two reasons. First, the /r/ /l/ association with "frog" was brought to Berlin's attention by a colleague (Yakov Malkiel) who noticed this same pattern in Indo-European languages—and Berlin's sample does include a few non-South American examples. More importantly, perhaps, invoking diffusion does not explain *why* a word such as "frog" would be so readily transmitted and accepted.

Hypothesis

This paper tests the hypothesis that at least some words in human languages are non-arbitrarily associated with their referents. In the present case, the word is "crow" (*Corvus* spp.), and has been examined in 136 languages from North and Central America, Europe, Asia, Africa, Australia and Oceania; in short, wherever members of the genus *Corvus* range. The results of this comparison are astonishing and patterned in a decidedly non-random way. If, as Berlin says, "...the essence of any animal can be captured by the ways humans have chosen to refer to it, the frog confidently croaks its way first into line" (Berlin 1992: 255),

then the crow provides our amphibian friend with close competition.

Corvus

The genus *Corvus* is a member of the order Passeriformes, one of the largest, most successful, and most recent avian orders. Crows are further members of the family Corvidae, subfamily Corvinae, and of the Corvini tribe, the latter of which they share with jays and their allies (Madge and Burn 1994: xv-xvi). Though there is some minor debate, there are generally 48 recognized species of *Corvus* scattered throughout the world. They are not found in South America, Antarctica, or New Zealand, but are present more or less everywhere else that birds are found. The genus actually exhibits remarkably little variation considering its geographic range, and crows everywhere conform to a very high degree in their characteristics.

Crows are also quite different from other birds in many respects, even their closest relatives. Crows, as a group, are social, intelligent, territorial, endemic, and ground-foraging. They have, as a genus, apparently lost the ability to produce carotenoid pigments or structural blue (Goodwin 1976: 63). They are always black (or black and white) - there are no brightly-colored *Corvus*. This is notable in a tribe which contains such vibrant creatures are the Green Magpie (*Cissa chinensis*) and the Green Jay (*Cyanocorax yncas*) and in a family which boasts the birds-of-paradise. Perhaps more importantly in terms of the present research is a great deal of uniformity in voice within the genus and fairly significant difference between the calls of *Corvus* and members of the genera (Goodwin 1976: 62-63; Madge and Burn 1994: xvi).

Though the evidence is far from conclusive, a quick glance through the names for crow suggest that *Corvus* is generally recognized as a folk genus, in some cases polytypic. The most obvious evidence of splitting occurs in regions where *C. corax* (truly distinctive, even among other corvids) and some other crow species overlap in range, but often enough the two seem to be seen as varieties of the same thing, as for instance in Cornish **bran**

“crow” and **marxbran** “raven” (literally “horse-crow”).

In sum, crows are perceptually notable, have a global distribution, and are quite similar throughout this distribution, and as such are a good subject for broad comparison.

Method

Method in such a comparative enterprise is fairly simple, but not without its pitfalls. In essence, the words for *Corvus* were sought from various languages. The compilation of *Corvus* terms was not a random one, but stratifies by three concerns. The first of these was geographic universality; since the *Corvus* genus is found on every continent barring only South America and Antarctica, it was desirable to sample languages from each continent, and further, from several places within continental regions—preferable with a fairly even distribution of samples. In North America, for instance, a concerted attempt was made to sample languages from the plains, from the southwest, from the southeast, from the northwest coast, from the interior subarctic, and from the arctic. Further, to control for genetic affiliation, samples were chosen from diverse linguistic groups within the region. Finally, some language families were sampled in greater detail, so that the data is composed of terms from unaffiliated groups punctuated by blocks of terms from quite closely affiliated groups. This was done to get some sense of what part genetic affiliation *might* play in the distribution of crow terms. All terms examined were recorded and included in the data; the list in Appendix A includes all terms found.

However, I tend to think of hypotheses as Fernand Braudel thought of models: as little ships one sails up a river. It is when the ship *sinks* that the fun really begins, since it is, after all, not our ship we are studying but the river. If my hypothesis is that the name for crow will be the crow’s name for itself, my hypothesis is most interesting when it is challenged by the data.

Where “anomalies” (in terms of my hypothesis) seemed to present themselves, I expanded my

sample to give the problem more shape and texture. Encountering **Uwak** in the Philippines and **wag** in Borneo (instead of the expected pattern, to be discussed soon), I expanded my sample of Philippine and Bornean languages, of Austronesian languages in general, and of languages in the area. This, of course, distorted my sample, and thus I have more terms from Australia, Borneo, New Guinea, and the Philippines than from the entire continent of Africa.

A similar local “problem” developed in Central Europe. More often, closer scrutiny revealed no pattern at all, but a singular anomaly. Thus, in Central America, the Mayan data seemed anomalous (though now I think they are not), but expanding the areal sample yielded no consistently odd results (as it did in Europe and Southeast Asia), and so, after pushing at the margins a bit, data collection ceased.

Though this process has, I think, allowed me to suggest some interesting questions (and a few possible answers) it is not (because of this intentional distortion) a statistically valid sample in geographic terms. In fact, since I concentrated on collecting which seemed anomalous, it could even be said that I hurt the cause of my original hypothesis by skewing toward non-typical lexemes. My hypothesis, however, is not so fragile as to need this defense, as we shall see.

There are a few other flaws with the data which should be made explicit. Languages are represented unevenly in published sources. While many sources exist for French and Icelandic, there are no accessible published sources for many of the world’s languages. When they do exist, they are often not indexed in English (or any of the other languages the author can readily read). In fact, those vocabularies collected by anthropologists and linguists are often not indexed at all. For the purposes of a time-limited, global study, indexed lexicons are obviously preferable. The indexed words were found and then carefully referenced against the definition of the native term.

Another problem concerned the genetic relationships. The linguistic distance between

“families” of languages are often not easily comparable and sometimes not explicit. Thus, in the familial bundles of data, some genetic relationships are closer than others: the Muskogean languages, for instance, are more closely affiliated (as a group) than the Austronesian languages.

Finally, though attention was given to standardizing phonological representation as much as possible, many of the dictionaries used simply did not supply enough phonological information to allow one to standardize. Thus some conclusions—especially those involving vowels—are based on less rigorous data than one might hope for. These are problems which can be ameliorated with more attention to and greater familiarity with particular styles of orthography, but this can be a meticulous undertaking, especially with older sources. Nonetheless, it can be said with reasonable certainty that /k/ almost always represents an unvoiced velar stop, /g/ a voice one, and so forth, just as /a/ most likely represents a central vowel. It must be said that most sources used herein *did* have an explicit orthography, often utilizing some variant of the international phonetic alphabet. When they did not (as in, for instance, French or English) they were converted to a more comparable form.

Analysis proceeded at first inductively; frequency of phonemes were noted and compared. Once these were converted to simple percentages, patterns were sought, and the data was subgrouped in ways that seemed meaningful. These patterns—and the new questions and hypothesis they evoked—are discussed in the next section.

A final step in method was to compare the patterned distributions of the terms for crow with the geographical distribution of various *Corvus* species and their calls as recorded by ornithologists in a search for information relevant to those patterns.

Comparisons

A glance at the 181 terms in Appendix A creates an immediate impression. Even with no statistical breakdown it seems evident that the word for “crow” is often similar in vastly different

linguistic families and parts of the world. Impressionistically, the most obvious resemblance to the casual observer is probably the large number of [k]-like sounds. While this is true (and important), it is not actually the point of greatest correspondence phonetically.

The most represented phoneme in “crow”—world round—is the low central vowel /a/. Of the vowels in this sample, 60.1% are /a/. Next most common are the low back vowels /o/ and /u/. Together, these three vowel sounds make up around 85% of the vowel sounds represented here. The remaining few front vowel sounds are most often found in productive terms for *Corvus*, as for instance in Yoruba **eiye iwo** “carnivorous bird”. In the terms themselves, 80% of the *words* for crow contain the phoneme /a/; 98.3% contain either /a/, /o/, or /u/, and these usually occur in the first segment of the word. Tiwi **wakwakini** and Manchu **karaki**, for instance, contain high front vowels, but only in the final portion of the word. A more common pattern in form is for all vowels in the word to be central or back—as in Swahili **kunguru**, Japanese **karasu**, Micmac **ka’kakooch**, Nahuatl **kakalotl**. It seems relatively clear that crows are most often associated with low central and back vowels.

In terms of consonants, /k/ and its relatives are the clear winners. /K/ (unvoiced velar stop) and its voiced equivalent, /g/, appear in 61.8% of the terms. It is the initial phoneme in 45%. If we include other “guttural” sounds—velar fricatives (/x/, /gh/), uvular stops and fricatives (/q/, /R/, /qh/), and glottal stops and fricatives (/ʔ/, /ʔ/, /h/)—then the percentage jumps higher:

Contains **k** type sound: 78.4%

Begins with **k** type sound: 52%

There are no close runners-up, but the remainder of initial sounds are not evenly distributed around the human phonemic inventory. They break down as follows:

<u>Initial Consonant Sound</u>	<u>%</u>
k	52.0
w	12.7
v	7.1
f	2.2
b	3.8
p	1.7
l	1.1
r	1.7
n	0.5
s	2.2
c,ch	1.1
t	1.7
j	1.1

Compared to **k**, few of these are of any consequence. The semi-vowel /w/ has some importance, and as we shall see is a local—not a global—phenomenon. The same is true of /v/. There is a good reason to think we should probably do /v/ the same courtesy we did **k** and recognize the bilabial stops and labiodental voiceless phonemes as being fundamentally similar; thus, as we shall see, we can speak of **v** (/v/, /f/, /b/, /p/). It remains to be seen whether we might want to think of **v** and /w/ as being comparable. For the moment, suffice to say that 80% of our words for crow being with **k**, **w**, or **v**.

Building the Name of Crow

The most common vowel sounds in the word for crow are this low central and back, the most common consonant sounds are formed from the velum on back. The vowel [a] and the consonant [k] are the most common. Nearly 60% of the words sampled have either an **ak** or a **ka** segment in them. This is a fairly astonishing finding, given the linguistic diversity of the 181 languages from five continents and a number of islands.

Linguistic reduplication of these segments appears as a productive process. Of the terms, 32.5% have the shape **k()k()** (e.g. Pawnee **kaaka'**,

Atakapa **kak**, Toda **kak**, Shinman **kaʔak**, Old Icelandic **kraka**) and 19.8% have the shape **k()r()** (e.g. Amharic **qura**, !Kung **!kwara**, Finnish **kaarne**, Ainu **kararat**).

It is not plausible to explain this high degree of resemblance in terms of genetic affiliation or diffusion. The word for crow is not arbitrary, that much is clear. What remains to be explained is why the crow's name for itself (its call) is so often the name for crow—and why human beings so universally interpret the harsh 'caw' so similarly. To better understand this, we move from the most universal pattern—hereafter called **ka**—to its less widespread competitors, **var** and **wak**. After all, it is by exceptions that we know rules.

The Problem of Var

Europe has such a braided and baroque linguistic history that it is perhaps not surprising to find that, as a region, it does not entirely fit the general global pattern.

English **raven** and German **rabe**, for instance, are both reflexes of Proto Indo-European (PIE) ***Kr-**, and the “echoic root, base of various derivatives indicating loud noises or birds” (Watkins 1985: 29-30). As recently as old English, **raven** was **hraefen**, maintaining at least fricative contact with its onomatopoeic origins. In most Germanic languages, however, some variant of **Kro** remains a preferred term. Indeed, many English dialects—especially rural, non-literary dialects—adopted corby (**korbi**, from French **korbo**) as a vernacular name for the raven. In any event, we expect to find isolated discrepancies of this sort; words once onomatopoeic which sound-shifts have disguised and innovation of borrowing have not replaced.

The distribution of terms for *Corvus* which begin with an initial /b/ or /v/, however, requires further analyses. Terms gathered in my sample are listed in Table 1.

TABLE 1: THE VAR TERMS.

Finno-Ugritic (*C. corone cornix*) (*C. corax*)

Finnish	varis	korpi, kaarne
Lappish	vuorâ'	zâs
Hungarian	varjo	holló
Mordvin	varaka	

Indo-European

Welsh	brân	brân
Cornish	vran	marxvran
Russian	vorona	voron
Czech	vrana	havran
Serbo-Croatian	vrana	gavran ¹
Slovene	vran	krokar
Polish	vrona	kruk
Albanian		Korp
Latvian	varna	krauklis

To these we might tentatively add:

Nahko-Daghestanian

Lezgian	peq ^h	k'wag
Basque	bela	bela

And yet more tentatively:

Sino-Tibetan

Apatni	pua	
Gallong	'pak	
Tibetan	qhata	porΛΛ

Paleo-Siberian

Koryak	valv	
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We first note that the **var** term (as we will succinctly refer to it here) mostly co-exists in the same language with a **Ka** term, the former generally referring to crow, the latter to raven. There is thus a good deal of agreement in Europe that a raven (*C. corax*) is **Ka**. In fact, most interesting, Serbo-Croatian and Czech, while using **vran** for both crow and raven, prefix /ha/ /ga/ to the form for raven. These are reflexes of PIE **gaios**, "raucousness, cawing, jay, magpie or other raucous bird" (Mann 1984: 263).

Next we note that all of the languages listed

above are *not* closely related. We might guess that the Celtic, Slavic and Baltic forms are all from a common ancestor (though, as we shall see, they are not), but not even the most inclusive comparative linguist suggests the Finno-Ugritic languages and Indo-European tongues have any close affinity. The resemblance is, thus, either from borrowing (and relatively recent borrowing) or from some more directly causal factor.

This problem may seem similar to the larger question of the paper, and in some ways it is. If the word for *Corvus* is everywhere similar, then it logically must be from borrowing, from onomatopoeia or from sound symbolism. At the global scale, however, we can dismiss borrowing as a satisfactory explanation. At the continental scale, we do not have that luxury, for in an area known for complex population movements, plus historically and regionally varying levels of social, political and technological complexity and expanding and contracting spheres of cultural hegemony, a more careful examination is due, *especially* when **var** seems more dubious than **ka** as the "natural" name for crow.

Welsh Bran and Slavic *vorna

Though a glance suggests these two are reconstructible (especially when we compare Cornish **vran** and Slovene **vran**), they do not, in fact, reconstruct to PIE. The reconstruction of Proto-Slavic ***vorna** (Carlton 1991: 338) makes sense, but stepping further back than this gives us PIE ***wornos**, a hypothetical root for which there are no attestations from any other branch of the IE family (Mann 1987). Initial /b/ in the P-Celtic languages (Welsh, Cornish, Breton, Brithonic, and Gaulish) most often comes from PIE **/*bh/**. Such a root would most likely have the form ***bhranos** but no such form is given in Pokorny or Mann, nor is **Bran** given any etymology by them. While it is possible that ***wornos** is some construction from PIE ***orn-** "large bird, eagle", it is probably

¹ ha- and ga- prefixes from Proto-Indo-European ***Gaio**, ***gei** - "croak, caw, crow, jay, or other raucous bird."

safer to assume that both the Slavic and Celtic words were borrowed from another source: neither has any semantic productivity in either their present forms or in reconstruction, and neither can be shown cognate with any widely attested PIE root. The Celtic term could have been borrowed from Slavic, but P-Celtic interaction with Slavic people was historically very limited, especially when compared to their intense interaction with Latin and Germanic languages and cultures. If Basque **Bela** and Lezgian (a so-called “Caucasian” language) **Peq^h** are in fact cognate (and not merely serendipitous), this might suggest that both P-Celtic and common Slavonic borrowed the term from some Pre-Indo-European substratum language or languages.

Slavic and Finno-Ugritic

The Finno-Ugritic languages further complicate this picture. Finnish and Hungarian may well have borrowed their terms (**varis** and **varjo**, respectively) from Slavic languages, but Mordvin (**varaka**) is more doubtful, surrounded mostly by Turkic languages: Russian influence, while present, is late. Lapp (**vuorâzâs**) has also been relatively isolated, though there were Norse influences in the middle ages and, much later, (and more attenuated) Russian ones. Borrowing still cannot be ruled out; it is worth noting that the most geographically and genetically distant Finno-Ugritic language cited here, Selkup, gives us **KwEre** rather than a **Var** form.

If borrowing occurred it might have been the case that Common Slavonic borrowed ***vorna** from a Finno-Ugritic language rather than the other way around. A problem with this is the close correspondence within the Finno-Ugritic examples. Hungarian and Finnish are most distantly related, having diverged an estimated 6,000 years ago (Honko, Timonen, and Branch 1994: 29), and yet **Varis** and **Varjo** show considerable (and unlikely) affinity.

The Var Name for Crow

To sum up the past few pages:

1. Though the **Var** terms in Europe and Asia are remarkably similar phonetically, they are not genetically affiliated nor are they reconstructible (in any rigorous sense) in any given language family.
2. They may present borrowing, but the source is unclear and it would have to be a recent phenomenon for the words to remain so similar across linguistic boundaries.

Ultimately, the source of the borrowing (if borrowing occurred) is not important. What is salient is that the word was so widely accepted and that it has maintained its phonetic shape so well. It seems likely, then, that **Var**, like **Ka**, somehow represents crow in a more than arbitrary manner. It may be significant that most of the languages with the **Var** term for crow also maintain a **Ka** term for raven: perhaps the **Var** term makes some useful distinction between crow and raven. The raven's call, after all, is often described as being “quite unlike any Corvid call, when known” (Madge and Burn 1994: 180). Perhaps maintaining a second **Ka** term becomes semantically confusing when *Corvus corax*, *C. corone*, *C. corone cornix*, and *C. frugliegus* overlap in their ranges, especially where *C. corax* is a separate folk-genus from the other.²

If **Var-** is also crow for crow (and this doesn't seem that unlikely) it might perhaps explain a few of the “floating” anomalous terms: Koryak **valv**, Apatni **pua**, Kom **uv-aak**, Gallong **'pak**, and Mbum **bamburu**. It might also shed some light on the most striking areal anomaly revealed by the survey. This occurs along the rim of the Southeast Asian Islands—the Philippines, Borneo, New Guinea—but has its clear and unambiguous heartland in Australia: the realm of the crow as **Wak**.

The Land of Wak

Australia is a strange place in many ways, so it is not particularly odd that we find **Ka** inverted

² English “caw” has the same etymology (Mann 1984: 263).

there. The flora and fauna are vastly different from most other parts of the world, the native peoples have a very long (and fairly mysterious) 50,000 year prehistory, and for the linguist the continent is enormously puzzling and uncooperative. The indigenous languages spoken there are grouped, broadly, as Pama-Nyungyun and Non-Pama-Nyungyun. These languages are slow to admit their relationships to one another (though many linguists now believe them to be all ultimately related) and are stubbornly unwilling in demonstrating any affiliation whatsoever with non-Australian languages (Blake 1981: 47; Yallop 1982: 30-31).

The terms for crow listed in Table 2 are taken from a broad geographic and linguistic spectrum of aboriginal languages.

TABLE 2: AUSTRALIAN TERMS FOR *CORVUS*.

Non-Pama-Nyungan

Nunggubuyu	warbag, wuwag wurugurag (wag=caw)
Yiri-Yoront	Minh-waw (Minh= 'animal, bird')
Tiwi	wakwakini
Mulluk-Mulluk	wangkirr
Garawa	wanggola

Pama-Nyungan

Alyawarra	angirla
Walmatjari	waangkarna
Nyungar	wartang
Pitjantjatjara	kaarnka
Wemba-Wemba	wa
Dharawal	wawarnang
Bidyara	waragan
Pitta-Pitta	wakiri
Kalkatunga	waagarla
Mayi-yabi	waya

Of the fifteen languages sampled, only one violates what we may clearly think of as an Australian pattern—and it fits the global pattern, **Ka** (Pitjantjatjara **kaarnaka**). The other fourteen begin with **Wa** (or in one case, **A** - but this is due to certain phonetic peculiarities of Alyawarra (Blake 1981: 109). Six of those close their first syllable with a velar stop—variously /k/, /ng/, and /g/. A

minority pattern is **war**, **wawar** - and eleven of the fifteen languages have a velar stop present somewhere in the word, often finally.

One again, we have a sample of words which resemble each other too closely to invoke genetic affiliation as an explanation, especially between such distantly related languages as Mulluk-Mulluk (**wangkirr**) and Pitta-Pitta (**wakiri**). We may again suggest borrowing—but it would have to be borrowing of a recent sort, and it is difficult to explain why such a term as crow would be the object of such widespread currency.

Except, of course, that it is onomatopoeic, and this represents crow in a non-arbitrary way. But why **Wak** and not **Kaw**?

A Different Call?

There are five species of *Corvus* native to Australia. Four of them are found only in Australia: the Australian Raven (*Corvus coronoides*), the Little Raven (*C. mellori*), the Forest Raven (*C. tasmanicus*) and the Little Crow (*C. bennett*). A fifth, the Torresian Crow (*C. orru*), is also found in New Guinea and on some nearby islands. The cries of these crows—as described by ornithologists—are listed below in Table 3.

TABLE 3: CALLS OF AUSTRALIAN CROWS.

1. *C. coronoides* "The usual call of the raven is a loud, guttural 'ahhaar, ahhaar, aar, aaaaaaaaaaarrurrur-rarr' the prolonged final note gradually becoming lower in pitch, very mournful and dying away in a gargled splutter; at dawn this call is often shortened to two- noted - a rising "ahh" followed by a sad, fading wail: 'ahhowwww-wwwwwwwww.' A number of other calls have been described from this well-known corvid, including hoarse creaking, clicking and rattling/gargling notes and single or repeated calls" (Madge and Burn 1994: 170).
2. *C. mellori* "The territorial call has been transcribed as a very guttural, almost barking, 'kar-kar-kar' or 'ark-ark-ark-ark'. Other harsh calls may be given at times" (Madge and Burn 1994: 171).

TABLE 3. (CONTINUED)

3. *C. tasmanicus* "The territorial call is relatively loud, deep in pitch and slow in delivery, with the final note somewhat prolonged and 'rolling': 'korr-korr-korr-korr' (Madge and Burn 1994: 1972).
4. *C. bennetti* (compared to *C. orru*) "Quicker, more buzzing nasal call notes of more even length." (Madge and Burn 1994: 166).
5. *C. orru* "Territorial call is a rather dry and quickly repeated 'akh-akh-akh.' More conversational is a slower, inquiring 'Qwak-qwak-qwak-qwaark?' uttered with a frog-like croaking or small dog-like barking quality; often ending in a descending slow growl 'qwaaraarg-aaaaaaarg' (Madge and Burn 1994: 167).

Of the five, *C. coronoides*, *C. orru*, and *C. bennetti* have the widest distribution, *C. tasmanicus* the most limited. Two of the three widely distributed birds are described as having prolonged, rolling, or descending growls "spluttering" away. This is consistent enough with the aboriginal words, which often terminate in /r/, /g/, or both—much like the calls.

These may be contrasted with the "Kaaa-kaaa-kaak" call of the Jungle Crow (*C. macro-rhynchus levaillantii*) of South Asia, the "Kraaa" or "konk-konk" of the Carrion Crow (*C. corone*) in North and Central Asia, and the "short, hoarse, 'ahhh'" of the American Crow (*C. brachyrhynchos*) (all from Madge and Burn 1994). All of these birds are securely in regions where **Ka** names reign supreme.

TABLE 4: VOCALIZATIONS OF CROW CALLS.

Language	Vocalization	Term
Bikol	mag	uwak
Navajo	gaa	gaagi
English	kaw	kro ^a , korbi
German	kraxzen	karhe
Nunggubuyu	wag	warbag, wuwig, wurugurag

This adds evidence to what already seems obvious; that names for crow tend to be based upon their perceived vocalizations. In Australia, the crows seem to name themselves somewhat differently, and so may be differently named.

The Outliers of the Realm of Wak: The Philippines

The name for crow in Australia is not confined to Australia and its native species. Instead, we find it edging the islands which face out to the South Pacific: the Philippines, Borneo, New Guinea, and a few others. The Philippines present an interesting (and cautionary) case in sampling. Originally, only two Philippine languages were included in the list, Tagalog and Bikol:

Bikol	uwák	silí-silí
	(mag=to caw)	(also buzzard)
Tagalog	uwák	

When **wak** began appearing in the data from neighboring regions, however, the sample was increased; four more Philippine languages were included.

Hiligaynon	uwák
Nabaloi	uák
Pangasinan	owák
Ilokano	wak, uwwak

From this, the obvious conclusion was that in the Philippines, as in Australia, the name for crow is **wak**. While in Australia we might explain this in terms of the crow having a different call, in the Philippines this is harder to defend. None of the species of crows native to Australia are also native to these islands. Information on the calls of Philippine crows is sparse and difficult to draw conclusions from, but there is no evidence for the kind of oddness found in Australia (see Table 5). The major species of *Corvus* found in the Philippines are also found in other parts of Asia.

TABLE 5: PHILIPPINE CROW CALLS.

1. *C. macrorhynchus* "Typically a rather loud, dry 'kaaa-kaaa'" (Madge and Burn 1994:163).
2. *C. (enca) violaceus* "Crows on several of the islands to have rather different calls but this has been poorly documented and the degree of variation is very vague" (Madge and Burn 1994:141). *C. enca* is described thusly: "On Borneo *compilator* has a dry, high-pitched 'ahk-ahk-ahk' (much higher in pitch than Large-Billed); this caw is often quite short, but when excited becomes longer and prolonged into a series of cawing 'caaaaw' or 'aaaaaw' notes, varying both in pitch and length of each note; intermingling with this is a remarkable resonant, almost nasal 'pe-yong' or 'ne-awh', the latter usually given in flight" (Madge and Burn 1994:142).

The Philippine languages are members of the Indonesian group of Austronesian languages, and other languages sampled from that group have **ka** (Malay **gagak**, Indonesian **gagak**, Malgasy **goaka**, **gaga**, **gagnake**).

The Philippines seem conclusively **wak**, however, and it was puzzling why they and Australia should so strongly share an anomalous pattern when there are no demonstrable linguistic ties between the two and when their crows are rather different.

Increasing the sample size once more showed this "problem" to be partly illusory. Forty-three additional Philippine language names for *Corvus* were examined. They were not added to the larger survey because, though the evenness of sampling is already distorted by more intensive sampling in "problem" regions, adding forty-three more terms from the same small group of islands seemed extreme. The examined terms, however, are listed below.

From the perspective of this sample, **wak** quickly diminishes to minority state. Sixty-four percent are **ka** terms, 32% **wak**, and the remaining 4% begin with initial **b** and **t**. This distribution reflects the global one represented by the larger survey more closely, even to the minority **b**, **t**. Further, a sample size this large reveals a sort of continuum - **wak**, **uwak**, **quwak**, **ko'wak** - which

seems to suggest that the "two names for crow" are actually very similar onomatopoeic interpretations of the same sound, with **ka** being the preferred and **wak** the secondary interpretation.

TABLE 6: "CROW" IN FORTY-THREE PHILIPPINE LANGUAGES.

Language	Crow
Agta	gAyang
Atta, Pamplona	gaya:ng
Balangaw	'gayang
Batak, Palawan	bangkara
Bilaan, Koronadal	wAk
Bilaan, Sarangani	wak
Binukid	'wak'wak
Bontoc, Guinaang	'gayang
Dumagat, Casiguran	wak'wak
Gaddang	gayyang
Ifugao, Amganad	tala'nu
Ifugao, Batad	ga:yang
Ifugao, Bayninan	wo:ok
Ilongot, Kakiduge:n	gayang
Inibaloi	kabang
Isneg	gaya:ng
Itbayaten, Batanes Islands	quwak
Itneg, Binongan	ko'wak
Ivatan, Batanes Islands	qowak
Kalagan	quwak
Kalinga, Guinaang	'gayang
Kallahan, Kayapa proper	gawwang
Kallahan, Keleyqiq	gawwang
Kankanay, Northern	'gayang
Mamanwa	wakwak
Manobo, Ata	quak
Manobo, Dibabawon	'quak
Manobo, Ilianen	quwak
Manobo, Kalamansig Cotabato	quwak
Manobo, Sarangani	qowak
Manobo, Tigwa	quak
Manobo, Western Bukidnon	quwak
Mansaka	quwak
Samal	oak
Sambal, Botolan	qo'ak
Sangil, Sarangani Islands	'kuag
Sangir	oa
Sabunan, Sindangan	guak
Subanon, Siocon	guak
Tagabili	wak
Tagbanwa, Kalamian	qugak
Tagbanwa, Kalamian	gakgak
Tausug	quak

Borneo and New Guinea

Borneo and New Guinea both show the same mixed pattern of **ka** and **wak**. Unfortunately, paucity of data makes it impossible to guess which pattern is majority and which is minority, especially with the example of the Philippine data set still fresh in memory.

TABLE 7: TERMS FROM NEW GUINEA AND BORNEO.

New Guinea

M(o)oi	Kalém mak (Kalém=bird)
Tehil	owéri
Tolai	kotkot
Melanesian Pidgin	Kotkot

Borneo

Punan (Borneo)	Wag
Uma Juman (Borneo)	Ka

The name for crow is **Wak** (sometimes)

While considerable effort has been expended to explain why crow is sometimes **Wak** and sometimes **Ka** in this region of the world, the real salience lies in two simple facts:

1. The name for crow is overwhelmingly onomatopoeic.
2. The call of the crow is interpreted in essentially only two ways. Of these two, **ka** seems more common, with the exception of Australia and the Philippines, where the sounds made by crows may be different enough to condition the leximic representations differently.

The only real question is why this **wak** interpretation seems limited to the area of Australia and the eastern rim of Indonesia and Melanesia, but not elsewhere in the world. There are two points worth making about this.

First, the information on crows in the region is not particularly good. This part of the world represents a fairly abrupt and peculiar difference in flora and fauna, and though crows (as birds) might seem immune to this, the most “different” crows in the world are those in Australia. Taxonomists

are less certain about the island crows than they might like:

Crows inhabiting the Philippine and Indonesian Islands are a taxonomic nightmare, several of the island taxa having received various treatments by different authorities and it is really a matter of conjecture, on present knowledge, to decide how far some of these forms have traveled along their own evolutionary road. Sudden replacement of different forms on adjacent islands without overlap does not mean that they had the same direct ancestor and even in the interior large landmasses there is often a sudden change in the corvid species present, e.g. with the Hooded Crow and Brown-necked Crow in the Middle East and Central Asia. In the Indonesian Islands speciation is in itself particularly complex, some taxa having Australasian affinities whereas others have oriental ancestry. (Madge and Burn 1994: 141)

Better information on both the Corvids themselves and on the languages of Borneo, New Guinea, and other islands might make the picture clearer.

A second possibility lies back in Europe and Asia with **var**. Phonemically, /v/, /b/, /p/ and /f/ are not very different from /w/. All are produced either bilabially or labio-dentally and function in much the same way to introduce or punctuate vowel sounds. The vowels themselves are still overwhelmingly /a/ /o/ and /u/, and the presence of /r/ is quite common in both sets. In short, **var** and **wak** are similar in many respects and may represent a widespread minority interpretation of the name for crow. The presence of **wungu** in Cantonese further suggests this possibility. The difference might ultimately be conditioned by areal phonemic inventories or affinities.

Historical Change

In the introduction to this paper, I quoted Saussure’s confident assertion that historical phonological changes would work to obliterate onomatopoeic words. He is, to some extent, correct in this; we have already seen how PIE ***Kr-** formed Com-

mon Germanic ***hraban** and eventually English **raven**. Yet the high percentage of onomatopoeic words for *Corvus* suggest that when this happens, there is generally high level of replacement of the term, either for a borrowed source that retained its non-arbitrary nature (as English borrowed **korbi** from French) or from onomatopoeic innovation. The Northern Athapaskan languages have (probably) non-onomatopoeic words for *Corvus corax*. Most of them are productive, built from proto-Athapaskan ***-tceywe**, “grandfather”, referring to the pre-eminent place that the raven holds in their belief systems. Nevertheless, the southern Athapaskans (Navajo and Apache) clearly innovated or borrowed their word for crow, **gaagi**. That they would do this when they had a perfectly good word for *Corvus* already suggests that **gaagi** was deemed somehow more suitable. The wider implication is that while *words* may undergo phonological evolution that removes them from their non-arbitrary origins, *vocabularies* resist losing their onomatopoeic components.

The Name for Crow

It is not altogether surprising that the name for crow is, by and large, similar around the world. Previous investigations have suggested that onomatopoeia often plays a role in the naming of birds (Berlin 1992: 235-247). What is particularly astonishing about names for *Corvus* species is their nearly universal onomatopoeic properties and more than this, the high degree of similarity in the human interpretation of the crow's call. Many birds have distinctive calls, and we might postulate that the more distinctive, memorable, and identifiable the call the more likely it is to have its call lexicised as its name. The Whip-poor-will, for instance, has an eerie, fascinating voice. However, a quick survey of a few languages shows us the following about terms for this bird.

It is readily apparent that all of these terms are meant to represent the call of the bird, and yet there is no close phonetic agreement among them. There is, rather, an attempt to capture the cadence

of the sound. The actual call is too strange in production, too glissando, to render adequately with human vocal cords.

TABLE 8: WHIP-POOR-WILL.

English	W h i p - poor-will
Muskogean	
Alabama	chokbilabila
Choctaw	chokilakla
Natchez	tukpupúhu
Athapaskan	
Navajo	hoshdódii
Iroquoian	
Seneca	kwe?ko:nye
Cherokee	waku:li

This is not true for the crow. The vowel quality falls easily in the range of human production, and the articulation of the consonant sound also closely parallels certain human vocal sounds. A person can make a convincing attempt to imitate the crow, not just in cadence, but in pitch, intonation, and articulation. Some species of *Corvus* have been known to do the reverse; captive species can learn to mimic human language, though they are not known to do so in the wild (Goodwin 1976: 51).

Bernd Heinrich, a field biologist who has studied the behavior of *Corvus corax* extensively goes farther, suggesting that the voice of ravens is interpretable by human beings in ways that vocalizations of most animals are not:

Many animals make arbitrary sounds that, like codes, have specific meaning. Thus, the mating calls of different grasshoppers, cicadas or birds are very distinct, and to our ears they have no emotional content. Similarly, other calls of a sparrow, dove or warbler also have little meaning to us except through the intellect when we figure them out. It surprises me, therefore, that many of the raven's calls sometimes display emotions that I, as a mammal for whom they are not intended, can feel.

When a raven pair is intimate with each other, they make cooing noises that sound soft and tender. When a situation arises where I expect a raven to

anger to my ears. I also feel I can detect a raven's surprise, happiness, bravado and self-aggrandizement from its voice and body language. I cannot identify such a range of emotions in a sparrow or in a hawk. (Heinrich 1989: 250)

Perhaps it is this interpretability of the crow's "voice" - both phonemically and "emotionally" - that makes it so universally appropriate to name the genus by its call.

The possibility that sound symbolism weaves into the name for crow should not be dismissed. The seemingly universal association of low central and back vowels with largeness and high front vowels with smallness (Berlin 1992: 240-245) could help explain the very high incidence of /a/, /o/, and /u/ in the present sample; *Corvus* species are, as a group, rather large birds. They are also, in the main, dark, and darkness also is believed to be associated with low, back sounds. It would be difficult to separate these possibilities, however, from the rather obvious connection of those same vowels to the cries of these birds.

The high degree of agreement on the interpretation of "caw" might also arise from long intimacy with *Corvus*. *Homo* and *Corvus* have probably been closely associated for a long time. This is addressed by Derek Goodwin in his wonderful book, *Crows of the World*:

Crows, *Corvus orru* and *C. coronoides*, scavenge around the camps of some of the present-day Australian Aborigines and it is extremely likely that many species of *Corvus*, in different parts of the world, became camp-followers of man when he was at the hunting and food-gathering stage. Possibly his dogs were the original attraction. When these animals live largely as scavengers, they still attract the attention of crows as potential food competitors and predators to be mobbed but also as indicators of the possible presence of food (Goodwin 1976: 65).

Heinrich makes a similar observation about ravens and modern Inuit and Indian peoples (Heinrich 1989: 26, 56). Goodwin speculates that, as humanity developed other forms of economy,

Corvus was only too happy to switch from hunting scraps to the leftovers of animal husbandry and cultivated cereals. One human occupation - war - has furnished countless meals to crows and ravens, and the birds are, in many places, deeply associated with war as a result. Crows have often adapted to existence in towns, and at least on species, the House Crow of India (*Corvus splendens*) is apparently *completely* adapted to human-inhabited areas (Goodwin 1976: 95).

This long association (as well as their salience) may account for certain very widely distributed mythological concepts about *Corvus*. In such diverse places as Europe, Northern Asia, Australia, and North America, the crow or raven often acts as a trickster. Myths explaining the blackened state of the crow have a similar explanation (Goodchild 1991: 140-145), almost always relating this blackening either to the results of thieving behavior or some other inappropriate action.³ In many parts of the world, *Corvus* is associated with rain, thunder, and paradoxically, the sun (Goodchild 1991: 145-148). Such widespread associations with the crow perhaps mirror the linguistic phenomenon of its ubiquitous name. If *Corvus* is universally recognized perceptually (as a folk genus), aurally and linguistically (in its name) and symbolically, this represents a very interesting, non-arbitrary cognitive bundle.

To my grandfather - a small-scale farmer from a rural area of central Mississippi - the elaboration in text of this idea (to the extent that I have done it here) would be a bit puzzling. He would agree, I think, with Goodwin, when he remarks: "The typical crows of the genus *Corvus* are, with two or three possible exceptions, all birds that anyone would recognize as 'some sort of crow'" (Goodwin 1976: 62).

I would add one thing to this assertion; to see the crow is not only to recognize it, but to know its name.

Appendix A: Terms for *Corvus*

³ As for instance, in a Talhatan tale in which the raven is blackened for stealing the world's water from its owner (Teit 1919: 198-201).

The following terms are organized in several ways. First, by continent or broad geographic region, then by genetic affiliation, including larger language groups or single languages which are isolates. The language families here are all of the readily (lexically and morphologically) demonstrable sort rather than the sweeping superphyla of a more speculative nature. A few (notably Gulf, PaleoSiberian, and Papuan) suggest little or no genetic affiliation, but are rather conventional ways of grouping geographically proximate isolates. Species are given when the lexical sources explicitly cite them. The division between “crow” and “raven” is to some extent an arbitrary one, but was useful in sorting out data. For purposes of analysis, when the term for “crow” and “raven” are the same (as in Atakapa **kak**) the terms were only counted once.

<u>Language</u>	<u>Crow</u>	<u>Raven</u>
NORTH AMERICA		
Muskogean		
Hitchiti	laji'co	
Alabama	lak'ca	
Creek	osdiwu	
Chickasaw	fula	
Choctaw	falah	
Gulf		
Atakapa	kak	kak
Eastern	kahaag	kahaag
Natchez	ama(ya)	ahal
Timucua	kaka	
Iroquoian		
Cherokee	khoka	kholviv
(C. brachyrhynchos)		
Seneca	ka?ka	
(C. brachyrhynchos)		
Algonquian		
Micmac	ka'kakooch	'mchekakaakoo
Cree	aha'sew	kakake'w
Siouan		
Biloxi	antcka'	
Dakota		kanggi
Caddoan		
Pawnee	kaalka'	
Athapaskan		
Navajo	gaagji (gaa='caw')	
Apache (western)	gaagi	gaagi
Tahltan		teEski'a
Carrier		teci ⁿ
Ahtna		saghani
Tanaina		'culyen
Other Na-dene		
Tlingit		yedl

Language	Crow	Raven
Salishan		
Puger Salish	kaʔkaʔ	kawqs
Eskimo-Aleut		
Aleut		qalngaaʃ, qalqagaya
Other Amerind		
Wiyot	siswaptihla	
Comecrudo	x'am p'al(bird black)	

CENTRAL AMERICA

Mayan		
'Ízotzil	joj	
Mam	joj	
Huastec	c'ooj	
Chiapaneca	-	na'hao, na'nduluá
Uto-Aztecan		(C. corax)
Nahuatl		kakalli, kakalotl
		(C. corax)
Zapotec	bèkkià	

INDIA

Indo-European		
Pali	kaka	kakola
Dravidian		
Tamil	kakkay	
Toda	kak	
Parji	kakal	
Badaga	kake	

Sino-Tibetan		
Lushai	tsóu-^cak	
Kom	uv-aak	
Apatni	pua	
Gallong	'pak	
Liangmei	n-gek	
Chepang	kawA	
Tai		
Thai	kaa	
Lungchow	Kaa	
Po-ai	?aa	
New Guinea		
M(o)oi	kalém-mak (kalém 'bird')	

<u>Language</u>	<u>Crow</u>	<u>Raven</u>
Tehil	owéri	
Tolai	kotkot	
Melanesian Pidgin	Kotkot	
Borneo		
Punan	wag	
Uma Juma	ka	
Austronesian		
Vietnamese	qua	
Malay	burung-gagak (burung='bird')	
Philippines	uwák (mag-'to caw')	
Bikol	nwák	sili-sili(also buzzard)
Tagalog	nwák	
Hiligaynon	uák	
Nabaloi	owák	
Pangasinan	wak, uwwak	
Ilokano		
Guam	aga (C. kubaryi)	
Chamorro		
Polynesia	'alala	
Hawaiian		

AUSTRALIA

Non-Pama-Nyungan	warbag, wuwag
Nunggubuyu	wurugurag (wag='caw') minh-waw (minh='animal,bird')
Yiri-Yoront	wakwakini
Tiwi	wangkirr
Mulluk.-Mulluk	
Pama-Nyungan	agnirla
Alyawarra	waangkarna
Walmatjari	wartang
Nyungar	kaaruka
Pitjantjatjara	wa
Wemba-Wemba	wawarnang
Dharawal	waragan
Bidyara	wakiri
Pitta-Pitta	waagarla
Kalkatunga	waya
Mayi-yabi	

AFRICA

Semitic	
Amharic	quta

<u>Language</u>	<u>Crow</u>	<u>Raven</u>
Chadic		
Hausa	hànkakà	
Khoi- San		
Kam-ka lke	ho-e (C. capensis)	
S2	xuru, lk'agn (C. albus)	
Nu en	gwa (C. capensis)	
k'au en	oä (C. capensis)	
!kung	kanabe	
!o!kung	!ka (C. albus)	
Naron	!kwara (C. capensis)	
	!nwala (C. capensis)	
	kola kola	
	(C. capensis)	
	!kahabe (C. albus)	
Niger-Congo		
Mbum	bámburu	
Fulfulde (Maasina)	gaagawal, bawngal	
Tiv	gugôô	
Yoruba	kannakánná	ciyi iwo
Bantu		(bird, carnivorous)
Swahili	kunguru	
Austronesian (Madagascar)		
Malagasy	Goaka, Gaga, Gagnake (C. albus)	
MIDDLE EAST		
Semitic		
Arabic (Iraqi d.)	ghuráb	
Indo-European		
Persian	kolâgh	
EUROPE		
Finno-Ugritic		
Finnish	varis	
	(C. corone cornix)	
Lappish	vuorâ'zäs	
Hungarian	varjo	
Mordvin	varaka	
Selkup	kwljrc	
Indo-European		
English	kro ^u , korbi	
German	(das) Krähe	
Dutch	kra:ī	
Danish	krage	
Old Icelandic	kraka	
Welsh	brân	
Cornish	bran, vran	

<u>Language</u>	<u>Crow</u>	<u>Raven</u>
Manx	kra ^{ue}	flagh
Gaelic		flhich
Latin	korniks	korvus
Greek		korax
Russian	vorona	voron
Czech	vřana	havran
Serbo-Croatian	vřana	gavran
Slovene	vřan	křokar
Polish	vřona	křak
Albanian		Korp
Latvian	varna	křauklis
Romanian	křo:are	korb
French	(la) křone	(le) korbo
Spanish	křervo	(el) křervo
Basque	bela	bela
Nahko-Daghestanian		
Lezgian	peq ^h	k'wa'g
NORTH AND CENTRAL ASIA		
Sino-Tibetan		
Tibetan	qhata	pōrΛΛ
Cantonese	wunga	wunga
Mon-Khmer		
Kontoi	akak	
Shinman	kaʔak	
Samtao	alak	
Altaic		
Mongolian	kariya	
Manchu	karaki	
Turkish	karga	kozgun
Ainu	kararat (C. corone) shi-pa'skur (C. coronoides)	
Japanese	karasu	
Korean	ka'c'i'ak gamagwi	gamagwi
Palco-siberian		
kamchadal		kutq
Chukchi		kurkil
Koryak		valv

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