

# The Olfactory Sense and Its Manifestation in Philippine Languages

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As an archipelago composed of numerous islands, the Philippines can be synonymous with diversity. The country's scattered geography has led to the diversity of people, with their unique environments affecting their cultures and languages. An article by Michael Tan (2018) titled "Smellscaping" in his column "Pinoy Kasi" briefly describes the existence of the many "smell words" embedded in Philippine languages and their shared connection with other Southeast Asian and Pacific cultures. Tan noted the contrast between "smell cultures," such as the Philippines and its Southeast Asian and Pacific neighbors; and "non-smell cultures," like most of the English-speaking Western parts of the world—where smells are somehow limited to "nice" (i.e., fragrant, pleasant) and "not nice" (i.e., smelly, stinky, foul); as supported by an article by Ed Yong (2015) titled, "Why Do Most Languages Have So Few Words for Smells? And Why Do These Two Hunter-Gatherer Groups Have So Many?"

To investigate these phenomena, several studies were conducted to record and understand these "smell cultures." A study titled, "Odors are Expressible in Language, as Long as You Speak the Right Language" by Majid and Burenhult (2014) observed the Jahai people of the Malay Peninsula and discovered that these nomadic hunter-gatherers have a proficient vocabulary in describing numerous odors in their native environment. In "Revisiting the Limits of Language: The Odor Lexicon of Maniq," Wnuk and Majid (2014) studied the speakers of Maniq, a language spoken by a small population of nomadic hunter-gatherers in southern Thailand. Over a dozen of Maniq smell terms have complex meanings, and semantically exist in two dimensions, namely pleasantness, and dangerousness. Moreover, these smell words are tightly connected to the community of the speaker's cultural constructs.

## KEYWORDS

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olfaction

senses

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Recently, studies on the olfactory lexicon of these small language communities have been revisited to gather more data. In Majid et al.'s (2018), "Olfactory Language and Abstraction Across Cultures," they returned to study the Jahai hunter-gatherers and Dutch participants in an odor-naming experiment and compared the results from these two groups. Their findings showed that the Dutch participants relied on odor sources in naming the odors, whereas the Jahai participants used their abstract vocabulary to name the same odors; these showed that the Jahai participants were more adept in naming and identifying odors.

After studying the olfactory vocabulary of small hunter-gatherer societies, further studies on larger language communities have been done. Wnuk, Laophairoj, and Majid's (2020) study, "Smell Terms are Not Rara: A Semantic Investigation of Odor Vocabulary in Thai," argues that diverse olfactory vocabulary is not only limited to small language communities. Moreover, they show that the Thai people have a wide lexicon of terms for olfactory qualities despite being a language with a population of tens of millions of speakers. They investigated Thai semantics using a multi-method approach. Their findings concluded that languages with larger groups of speakers can manifest comprehensive smell lexicons, thus not only limited to small and isolated societies.

Despite these developments, studies on the olfactory lexicon in Philippine languages is a field that is not comprehensive. In terms of olfactory lexicons, only mere descriptions of odors and smells exist. For instance, the *Ilocano Dictionary and Phrasebook* by Rubino (1998) includes a chapter on smells that identifies forty-two smells ranging from neutral, pleasant, and unpleasant odors. This leaves a huge gap in documenting olfactory lexicons from other Philippine languages and prevents them from being studied extensively.

This paper aims to explore the olfactory sense, its process—olfaction, and its manifestations in Philippine languages. These aims will be accomplished by creating an olfaction dataset containing lexical items from twenty-five Philippine languages concerning (1) the olfactory sense, (2) the instrument for

olfaction, (3) olfactory pleasantness, and (4) olfactory unpleasantness. The languages chosen for this study were selected and delimited based on their availability online, given that physical fieldwork was not possible due to the ongoing COVID-19 pandemic.

These lexical items will then be analyzed according to the phonological changes and innovations, and lexical distribution and substitutions that have occurred. Moreover, their current forms will be compared to their respective protoforms from comprehensive dictionaries and vocabulary databases.

## METHODS

### A. Data Collection

#### I. SELECTION OF LANGUAGES

As a preliminary part of the data collection process, twenty-five Philippine languages and their available dictionaries and/or informants were selected for this paper, with Tagalog as their baseline language, namely:

- ◇ Agutaynen – SIL Philippines (n. d.)
- ◇ Asi (Bantoanon) – SIL Philippines (n. d.)
- ◇ Ayta Abellen – SIL Philippines (n. d.)
- ◇ Ayta Mag-antsi – SIL Philippines (n. d.)
- ◇ Bikol (Standard) – Wintz (1971)
- ◇ Bolinao – SIL Philippines (n. d.)
- ◇ Bontok – Reid (1976)
- ◇ Casiguran Dumagat – Headland and Headland (1974)
- ◇ Cebuano – Cabonce (1983), Wolff (1972)
- ◇ Dupanangan Agta – Robinson (2008)
- ◇ Hiligaynon – Motus (1971)
- ◇ Ibatan – SIL Philippines (n. d.)
- ◇ Ilokano – Constantino (1971)
- ◇ Kapampangan – Forman (1971)
- ◇ Manobo – Gelacio (2000)
- ◇ Mansaka – Svelmoe & Svelmoe (1990)
- ◇ Maranao – McKaughan and Macaraya (1967)
- ◇ Masbatenyo – Wolfenden (2016)
- ◇ Pangasinan – Benton (1931)
- ◇ Sambal – (informant)
- ◇ Tagalog – Panganiban (1972)
- ◇ Tagbanwa – SIL Philippines (1979)
- ◇ Tausug – Hassa et al. (2018)

- ◇ T'boli – Awed et al. (2010)
- ◇ y - Rakji (2007)

The languages chosen for this study were selected and delimited based on their availability online, given that physical fieldwork was not possible due to the ongoing COVID-19 pandemic.

## II. TAGALOG DICTIONARY SWEEPS FOR LEXICAL ITEMS/METAPHORICAL EXPRESSIONS CONCERNING OLFACTION

To begin data collection, dictionary sweeps from reputable Tagalog dictionaries and wordlists were done to collect or “sweep” for lexical items/metaphorical expressions related to olfaction.

## III. CREATION OF DATASET GROUNDED ON TAGALOG OLFACTION LEXICAL ITEMS/METAPHORICAL EXPRESSIONS

Once lexical items/metaphorical expressions were collected from Tagalog dictionaries and wordlists, they were divided further into lexical subdomains, namely, smell (or olfaction), body parts and actions related to smell/smelling, pleasant odors, unpleasant odors, neutral odors, and other related lexical items. Their orthographic and phonetic representations were also recorded.

## IV. DICTIONARY AND INFORMANT SWEEPS FOR OTHER PHILIPPINE LANGUAGES BASED ON THE TAGALOG OLFACTION LEXICAL ITEMS/METAPHORICAL EXPRESSIONS

After creating the olfaction dataset grounded on the collected Tagalog lexical items/metaphorical expressions, dictionary and informant sweeps from other Philippine languages were done. Their orthographic and phonetic representations were also recorded.

## V. CREATION OF A CONSOLIDATED OLFACTION DATASET FOR PHILIPPINE LANGUAGES

As the last step in data collection, olfaction lexical items/metaphorical expressions from the Tagalog dataset were merged with the data collected from other Philippine languages in a spreadsheet to produce a consolidated olfaction dataset for Philippine Languages. Additional data were gathered from Greenhill, Blust, and Gray's Austronesian Basic Vocabulary Database (2008).

### *B. Procedures for Analysis*

After the collection and organization of olfaction-related lexical items/metaphorical expressions from the selected Philippine languages, words directly related to the olfactory sense (i.e., to smell), the instrument for olfaction (i.e., the nose), olfactory pleasantness, and olfactory unpleasantness were each separated and analyzed based on their (1) phonological changes and innovations and (2) lexical distribution and substitutions that occurred.

## RESULTS

### a. The olfactory sense (to smell)

Based on the consolidated olfaction dataset for Philippine Languages, the lexical items about the olfactory sense are presented below in Table 1.

to smell	
Ibatan	[ma.ʔa.ŋut] [a.ŋot] / maangut, angot
Bontok	['ʔa:.gɔb] / agob
Pangasinan	[a.'ŋob] / angob
Ilokano	[a.ŋu.təm] [a.ŋot] / angutem, angot
Casiguran Dumagat	[ʔa.'hob] / ahob
Dupaningan Agta	[ʔa.rob] / arob
Ayta Abellen	[da.ʔɛp]/[man.da.ʔɛp] / daep, madaep
Ayta Mag-antsi	[da.ʔɛp] [hi.ŋot] / daep, hingot
Kapampangan	[ba.wu.an] / bawuan
Bolinao	[ma.ka.a.ŋot] / makaangot
Sambal	[ʔa.ŋu.tɔn] / anguton
Tagalog	[a.mu.jin] / amuyin
Cebuano	['sim.hot] [hi.ŋus] / simhot, hingus
Masbatenyo	[mag.'hi.ŋos] / maghingos
Hiligaynon	[sim.'hot] / simhot
Waray	['ba:.hɔʔ] / baho
Asi (Bantoanon)	[hú.gom] / hugom
Bikol (Standard)	['pa:.rɔŋ], ['sa:.ŋɔ] [ha.ŋot] / parong, sango, hangot
Manobo	['hiŋ.guk]; ['ŋa.dog] / hingguk, ngadog
Tausug	[ha.mu.tun] / hamutun
Maranao	[sa.ja.mot] / sayamot
Mansaka	[ba.'oʔ] [i.ŋos] / ba-o, ingos
Tagbanwa	[ʔa.rɪk] / arik
Agutaynen	[ʔo.ŋaw] / ongaw
T'boli	[ges.luf]; [u.ŋef] / gesluf, ungef

TABLE 1. LEXICAL ITEMS FOR THE OLFACTORY SENSE IN PHILIPPINE LANGUAGES.

## DISCUSSION AND ANALYSIS

Based on the data in Table 1, a total of 9 out of 25 languages, namely, Ibatan [ma.ʔa.ŋut] [a.ŋot], Ilokano [a.ŋu.təm] [a.ŋot], Bolinao [ma.ka.a.ŋot], Sambal [ʔa.ŋu.tən], Bikol (Standard) [ha.ŋot], Manobo [ʰhiŋ.guk], and Maranao [sa.ja.mot], share some similarities to form the word “to smell” with the final syllable [-ŋot], [-ŋut], and other similar variations. According to Blust and Trussel’s (2010–ongoing) Austronesian Comparative Dictionary, the protoform for “to smell” is the reconstructed PAN \*haŋut or the reconstructed PWMP \*Siŋus, which also means “to sniffle or snuff up.”

Bontok [ʰʔa:.gob], Pangasinan [a.ʰŋob], Casiguran Dumagat [ʔa.ʰhob], and Dupanginan Agta [ʔa.ʰhob] share similarities with their final syllable [-ob]. Moreover, Ayta Abellen [da.ʔep]/[man.da.ʔep] and Ayta Mag-antsi [da.ʔep] use a similar form for the word “to smell”.

Kapampangan [ba.wu.an], Waray [ʰba:.hɔʔ], and Maranao [ba.ʰoʔ] share similarities to form the word “to smell,” with the initial voiced bilabial plosive [b] followed by a front open vowel [a], the middle consonant that is either a voiceless glottal fricative [h] or a voiced velar glide [w], and ends with either a closed-back vowel [u] or a close-mid back vowel [ɔ]. According to Blust and Trussel’s (2010—ongoing) Austronesian Comparative Dictionary, the protoform of the Kapampangan [ba.wu.an] is PWMP \*bahu-an, which means “to give off an odor”; whereas the protoform for the Waray [ʰba:.hɔʔ] and Maranao [ba.ʰoʔ] is PMP \*bahuq, which means “odor; stench.”

## RESULTS

### *b. The instrument for olfaction*

Based on the consolidated olfaction dataset for Philippine Languages, the lexical items about the olfactory sense are presented below in Table 2.

nose	
Ibatan	[mu.mu.dan] / mumudan
Bontok	[ʔɿ.'ŋɿl] / ingil
Pangasinan	[e.'leŋ] / eleng
Ilokano	[a.goŋ] / agong
Casiguran Dumagat	[du.'ŋos] / dungos
Dupaningan Agta	[do:ŋ] / dong
Ayta Abellen	[ba.lɔ.ŋɔh] / balongo
Ayta Mag-antsi	[ba.lu.ŋuh] / balungu
Kapampangan	[ʔa.ruŋ] / arung
Bolinao	[a.goŋ] / agong
Sambal	[ʔaʔ.lɔŋ] / along
Tagalog	[ʔi.'lɔŋ] / ilong
Cebuano	[ʔi.'lɔŋ] / ilong
Masbatenyo	[i.'rɔŋ] / irong
Hiligaynon	[ʔi.'lɔŋ] / ilong
Waray	[ʔi.'rɔŋ] / irong
Asi (Bantoanon)	[ʔi.'lɔŋ] / ilong
Bikol (Standard)	[du.'ŋɔʔ] / dungo
Manobo	[si.'mud] / simud
Tausug	[i.luŋ] / ilung
Maranao	[ŋi.roŋ] / ngirong
Mansaka	[i.lɔŋ] / ilong
Tagbanwa	[ʔu.ruŋ] / urung
Agutaynen	[ʔo.roŋ] / orong
T'boli	[i.luŋ] / ilung

TABLE 2. LEXICAL ITEMS FOR THE INSTRUMENT OF OLFACTION IN PHILIPPINE LANGUAGES.

## DISCUSSION AND ANALYSIS

Based on the data in Table 2, a total of 17 out of 25 languages, namely, Pangasinan [e. 'leŋ], Ilokano [a. ɣoŋ], Kapampangan [ʔa. ruŋ], Bolinao [a. ɣoŋ], Sambal [ʔaʔ. loŋ], Tagalog [ʔi. 'loŋ], Cebuano [ʔi. 'loŋ], Masbatenyo [i. 'roŋ], Hiligaynon [ʔi. 'loŋ], Waray [ʔi. 'roŋ], Asi (Bantoanon) [ʔi. 'loŋ], Tausug [i. luŋ], Maranao [ŋi. roŋ], Mansaka [i. loŋ], Tagbanwa [ʔu. ruŋ], Agutaynen [ʔo. roŋ], and T'boli [i. luŋ], share a common form for the word “nose.” The initial phoneme is either a glottal stop [ʔ] or a voiced velar nasal consonant [ŋ], and/or followed by a vowel [a, e, i, o, u]. The middle consonant seems to be based on voiced liquids [l, r, ɾ] or a voiced velar plosive consonant [g] followed by a vowel [a, e, i, o, u]. The final consonant is a voiced velar nasal consonant [ŋ]. According to Blust and Trussel’s (2010–ongoing) Austronesian Comparative Dictionary, the protoform for “nose” is the reconstructed PMP \*ijun, with \*ejun, \*ŋijun, and \*ujun as its variations.

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Ayta Abellen [ba. lo. ŋoŋ] and Ayta Mag-antsi [ba. lu. ŋuh] almost share the same word for “nose,” with the difference in [u] and [o]. Moreover, Casiguran Dumagat [du. 'ŋos] and Dupanangan Agta [do: ŋ] bear similarities, with the difference being Casiguran Agta’s addition of the syllable [-os].

Although geographically far apart, Ibatan [mu. mu. dan] and Manobo [si. 'mud] bear similarities with the existence of [-mud]. Upon further investigation of this similarity, both the Ibatan’s and Manobo’s usage of the word nose is synonymized with a snout of an animal.

## RESULTS

### *c. The manifestation of olfactory pleasantness*

Based on the consolidated olfaction dataset for Philippine Languages, the lexical items about the olfactory sense are presented below in Table 3.

	to smell
Ibatan	[ma.ʔa.ŋut] [a.ŋot] / maangut, angot
Bontok	['ʔa:.gob] / agob
Pangasinan	[a.'ŋob] / angob
Ilokano	[a.ŋu.təm] [a.ŋot] / angutem, angot
Casiguran Dumagat	[ʔa.'hob] / ahob
Dupaningan Agta	[ʔa.rob] / arob
Ayta Abellen	[da.ʔɛp]/[man.da.ʔɛp] / daep, madaep
Ayta Mag-antsi	[da.ʔɛp] [hi.ŋot] / daep, hingot
Kapampangan	[ba.wu.an] / bawuan
Bolinao	[ma.ka.a.ŋot] / makaangot
Sambal	[ʔa.ŋu.tɔn] / anguton
Tagalog	[a.mu.jin] / amuyin
Cebuano	['sim.hot] [hi.ŋus] / simhot, hingus
Masbatenyo	[mag.'hi.ŋos] / maghingos
Hiligaynon	[sim.'hɔt] / simhot
Waray	['ba:.hɔʔ] / baho
Asi (Bantoanon)	[hú.gom] / hugom
Bikol (Standard)	['pa:.rɔŋ], ['sa:.ŋɔ] [ha.ŋot] / parong, sango, hangot
Manobo	['hiŋ.guk]; ['ŋa.dog] / hingguk, ngadog
Tausug	[ha.mu.tun] / hamutun
Maranao	[sa.ja.mot] / sayamot
Mansaka	[ba.'oʔ] [i.ŋos] / ba-o, ingos
Tagbanwa	[ʔa.rɪk] / arik
Agutaynen	[ʔo.ŋaw] / ongaw
T'boli	[ges.luf]; [u.ŋef] / gesluf, ungef

TABLE 3. LEXICAL ITEMS FOR THE MANIFESTATION OF OLFACTORY PLEASANTNESS IN PHILIPPINE LANGUAGES.

## DISCUSSION AND ANALYSIS

Based on the data in Table 3, a total of 12 out of 25 languages, namely, Ibatan [ba.ŋo], Bontok [baŋ.lɔ], Ilokano [na.baŋ.lɔ], Dupaningan Agta [ma.ba.ŋog], Ayta Abellen [ba.ŋoh], Kapampangan [ma.baŋ.lu], Bolinao [ma.baŋ.lɔ], Sambal [ma.baŋ.lɔ], Tagalog [ma.ba.ŋo], Asi (Bantoanon) [báŋ.jɔ], Mansaka [ma.bal.lɔ], Tagbanwa [ma.baŋ.lu], and Agutaynen [baŋ.lɔ], share a common form for the word “fragrant.” The initial phoneme is a voiced bilabial plosive [b] followed by a front open vowel [a] and a voiced velar nasal consonant [ŋ] and ends with (1) either a closed back vowel [u] or a close-mid back vowel [ɔ], or (2) the syllables [-lɔ] or [lu].

Cebuano [ma.hu.'mut], Masbatenyo [ma.hu.'mot], Hiligaynon [ha.'mɔt], Waray [ha.'mɔt], Bikol (Standard) [ha.'mɔt], Manobo [ho.'mut], and Tausug [ha.mut] share a common form of the word “fragrant,” where the initial syllable is either [ha-] or [ho-] followed by the final syllable that is either [-mɔt] or [-mut].

According to Blust and Trussel’s (2010–ongoing) Austronesian Comparative Dictionary, the protoform for the Ilokano [na.baŋ.lɔ], Agutaynen [baŋ.lɔ], and Ayta Abellen [ba.ŋoh] is PPh \*baŋ(e)lúh, which means “fragrance, pleasant odor”; whereas the protoform for Kapampangan [ma.baŋ.lu], Sambal [ma.baŋ.lɔ], and Mansaka [ma.bal.lɔ] is PPh \*ma-baŋ(e)luh, which means “fragrant, sweet-smelling.”

## RESULTS

### D. THE MANIFESTATION OF OLFACTORY UNPLEASANTNESS

Based on the consolidated olfaction dataset for Philippine Languages, the lexical items about the olfactory sense are presented below in Table 4.

	to smell
Ibatan	[ma.ʔa.ŋut] [a.ŋot] / maangut, angot
Bontok	[ʔa:.gob] / agob
Pangasinan	[a.'ŋob] / angob
Ilokano	[a.ŋu.təm] [a.ŋot] / angutem, angot
Casiguran Dumagat	[ʔa.'hob] / ahob
Dupaningan Agta	[ʔa.rob] / arob
Ayta Abellen	[da.ʔep]/[man.da.ʔep] / daep, madaep
Ayta Mag-antsi	[da.ʔep] [hi.ŋot] / daep, hingot
Kapampangan	[ba.wu.an] / bawuan
Bolinao	[ma.ka.a.ŋot] / makaangot
Sambal	[ʔa.ŋu.ton] / anguton
Tagalog	[a.mu.jin] / amuyin
Cebuano	[sim.hot] [hi.ŋus] / simhot, hingus
Masbatenyo	[mag.'hi.ŋos] / maghingos
Hiligaynon	[sim.'hot] / simhot
Waray	[ba:.hoʔ] / baho
Asi (Bantoanon)	[hú.gom] / hugom
Bikol (Standard)	[pa:.roŋ], [sa:.ŋo] [ha.ŋot] / parong, sango, hangot
Manobo	[hiŋ.guk]; [ŋa.dog] / hingguk, ngadog
Tausug	[ha.mu.tun] / hamutun
Maranao	[sa.ja.mot] / sayamot
Mansaka	[ba.'oʔ] [i.ŋos] / ba-o, ingos
Tagbanwa	[ʔa.rik] / arik
Agutaynen	[ʔo.ŋaw] / ongaw
T'boli	[ges.luf]; [u.ŋef] / gesluf, ungef

TABLE 4. LEXICAL ITEMS FOR THE MANIFESTATION OF OLFACTORY UNPLEASANTNESS IN PHILIPPINE LANGUAGES.

## DISCUSSION AND ANALYSIS

Based on the data in Table No. 4, a total of 9 out of 25 languages, namely, Kapampangan [ma.ba.wú], Tagalog [ba.ho], Cebuano [ba.'huʔ], Masbatenyó [ba.hoʔ], Hiligaynon [ba.'hoʔ], Waray [ʼba.hoʔ], Manobo [bo.'huʔ], Tausug [ba.huʔ], and Mansaka [ba.ɲug], share a common form for the word “smelly, stench”, where the initial syllable is [ba-] followed by a final syllable that is either [hoʔ] or [huʔ], or similar variations. According to Blust and Trussel’s (2010–ongoing) Austronesian Comparative Dictionary, the protoforms for these languages are PMP \*bahuq, which means “odor; stench”; PMP \*ma-bahu, which means “smelly, stinking”; and PWMP \*ma-bahuq, which means “smelly, stinking.”

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In addition, Pangasinan [ba.'ɲet], Ilokano [baɲ.sit], Casiguran Dumagat [beɲ.tet], Kapampangan [ba.n.tut], and Bolinao [baɲ-'et] share similarities. According to Blust and Trussel’s (2010–ongoing) Austronesian Comparative Dictionary, the protoforms for these languages are PWMP \*baɲsit, which means “stench”; and PMP \*baɲ(e)qer<sub>2</sub>, which means “rotten smell, stench.”

## CONCLUSION

The findings in this paper are important contributions to the continuing study and narrative of Philippine culture and history. Unlike most senses, olfaction can be considered the most ephemeral and abstract. With the strong current of trends in our rapidly progressing world, we must document and preserve these fleeting fragments of knowledge that have been passed down to us by our forebears; these fragments offer a glimpse of the evolution and variety of our olfactory sense and our indigenous language communities. Moreover, this paper can strengthen and empower linguistic and cultural communities that are commonly overlooked and prove that our sense of smell is not as secondary as it seems.

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