

Typological perspectives on the nasal prefix

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What is the nasal prefix?

The focal point of this talk is the nasal prefix which occurs on verbs in a variety of languages in Indonesia. Below is example in Standard Indonesian:

Standard Indonesian (Dardjowidjojo 1978, Sneddon 1996, among others)

Syntactically active sentences morphologically mark the verb with the nasal prefix *meN-*.

- (1) Anak itu **mem-** baca buku.
 child that **MEN-** read book
 'The child is reading a book'

What is the nasal prefix?

This nasal prefix has received a multitude of different analyses over the years, with little consensus on its exact function. The most common analysis is that it is an **actor voice morpheme** (Voskuil 2000; Son and Cole 2004; Nomoto and Shoho 2007; Sneddon et al 2013), as many have noted it is in complementary distribution with the passive prefix *di-*.

Standard Indonesian (Dardjowidjojo 1978, Sneddon 1996, among others)

(2)	Buku	itu	di- tulis	oleh	Fera.
	book	that	PV- write	by	Fera
	'The book is written by Fera'				
(2')	*Buku	itu	di-men- ulis	oleh	Fera.
	book	that	PV-MEN- write	by	Fera
	'The book is written by Fera'				

What is the nasal prefix?

However, there have been numerous other analyses proposed for the nasal prefix, including:

- ❖ a transitive marker (Chung 1976; Cole and Hermon 1998)
- ❖ an agentive marker (Wouk 1989; Gil 2002; Englebretson 2003)
- ❖ Case-marking the direct object (Guilfoyle et al 1992; Son and Cole 2004)
- ❖ an antipassive marker (Fortin 2006)
- ❖ having aspectual features (Soh and Nomoto 2009, 2010, 2015)

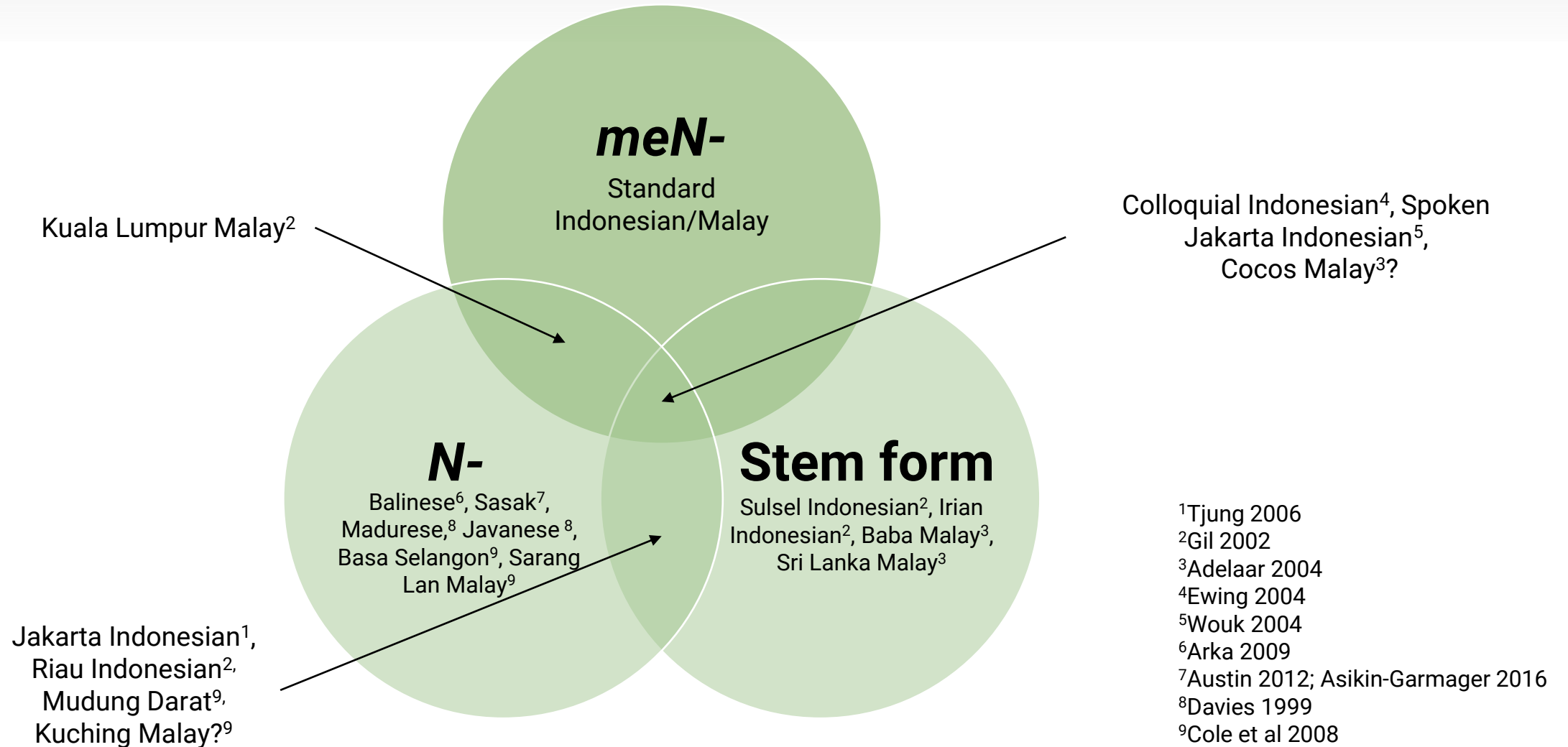
This talk:

I'd like to focus less on **what** the nasal prefix is, and more on **how it patterns** in the many languages of Indonesia. Much of the previous work has focused on its function in more widely-spoken languages (like Standard Indonesian and Malay); I'd like to advocate for a more typological approach, where analyses are built upon patterns among multiple languages, particularly those that are less studied.

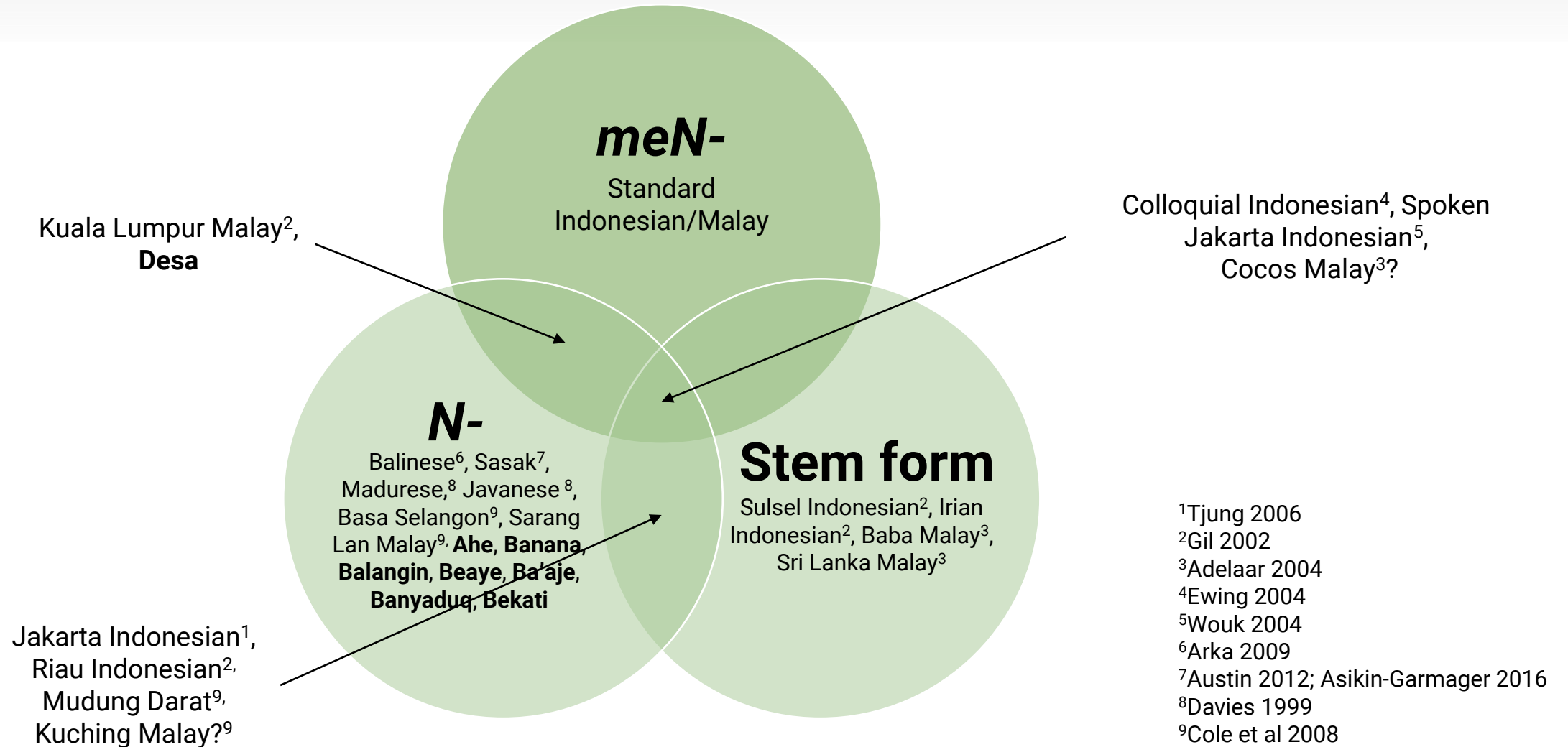
I'm going to focus on how it patterns in **form and distribution** in **three** different sets of languages: a) varieties of Indonesian/Malay, b) closely related languages spoken in and around Java, and c) languages of West Kalimantan, Borneo.

THE FORM OF THE PREFIX

The form of the nasal prefix



The form of the nasal prefix

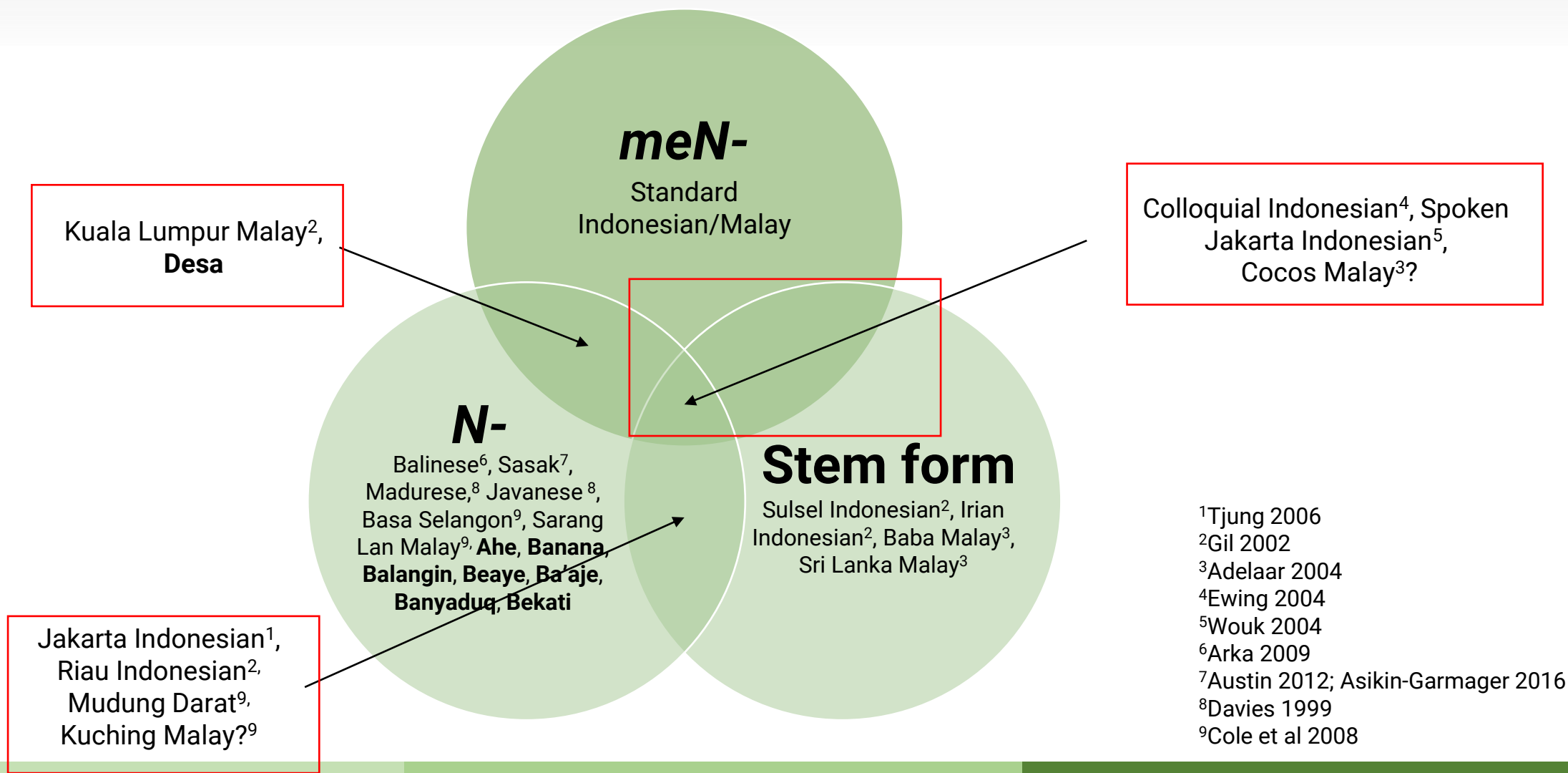


The form of the nasal prefix

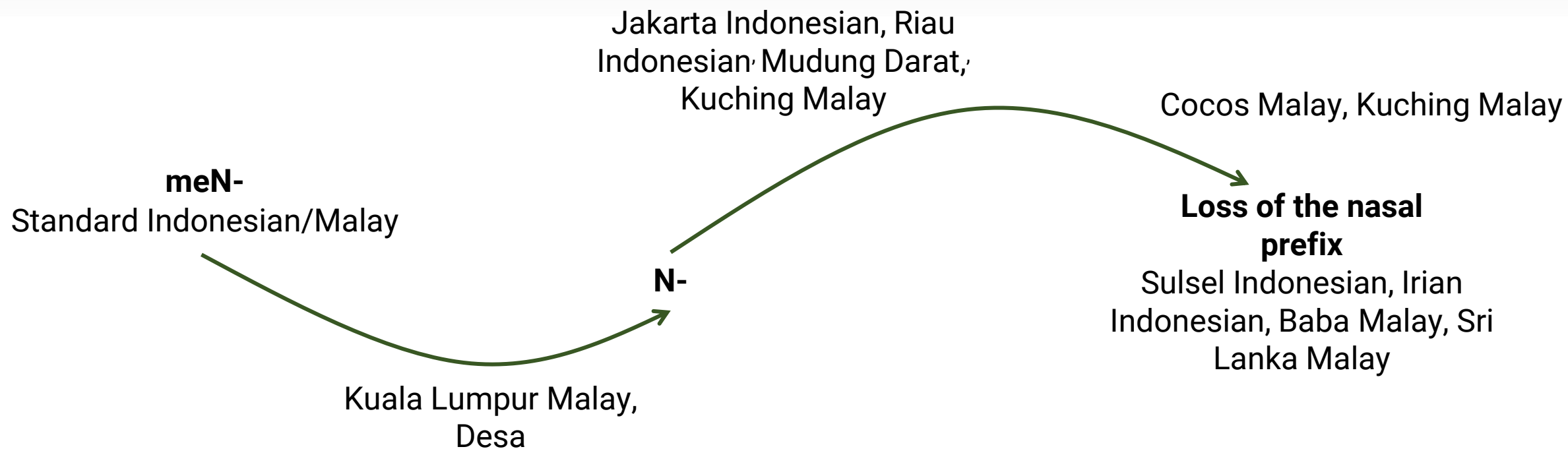
A summary of patterns and observations in the data:

- ❖ It is more frequent for the nasal prefix to occur as *N-* than as *meN-*.
- ❖ The usage of *meN-* exclusively is a feature of the standard variety and style.
- ❖ Several varieties of Indonesian/Malay have lost the nasal prefix entirely.
- ❖ Some languages/varieties have a nasal prefix that is used but not productively (Cocos Malay, Kuching Malay).
- ❖ Varieties of Indonesian/Malay vary the most in what it used, and whether or not it alternates.

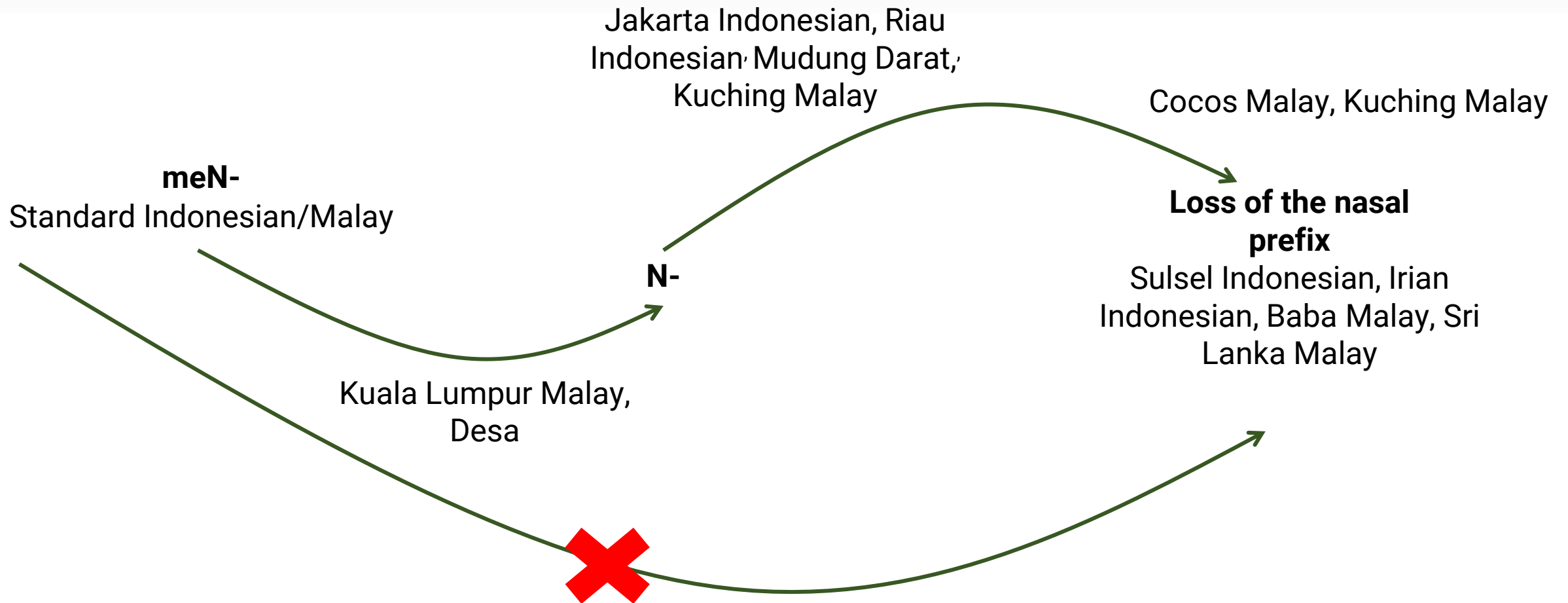
The form of the nasal prefix



The form of the nasal prefix



The form of the nasal prefix



The distribution of 'voice' morphology

meN-

Standard
Indonesian/Malay

Language	Other 'voice' affixes
Standard Indonesian/Malay	<i>di-, ter-, ber-, -kan, -i, etc</i>

The distribution of 'voice' morphology

N-

Balinese⁶, Sasak⁷,
 Madurese,⁸ Javanese⁸,
 Basa Selangon⁹, Sarang
 Lan Malay⁹. **Ahe**, **Banana**,
Balangin, **Beaye**, **Ba'aje**,
Ribun, **Banyaduq**, **Bekati**

Language	Other 'voice' affixes
Balinese (Austin 2001; Arka 2009)	<i>ka-</i> , <i>ma-</i> , <i>-ang</i> , <i>-in</i>
Sasak (Austin 2001; Asikin-Garmager 2017)	<i>te-</i> , <i>-ang</i> , <i>-in</i>
Madurese (Davies 2005)	<i>a-</i> , <i>e-</i> , <i>-agi</i> , <i>-e</i>
Javanese (Vander Klok 2012)	<i>di-</i> , <i>-i</i>

Language (Cole et al 2008)	Other 'voice' affixes
Basa Selangon	<i>di-</i> , <i>*-kan</i>
Sarang Lan Malay	<i>di-</i> , <i>-i</i>

The distribution of 'voice' morphology

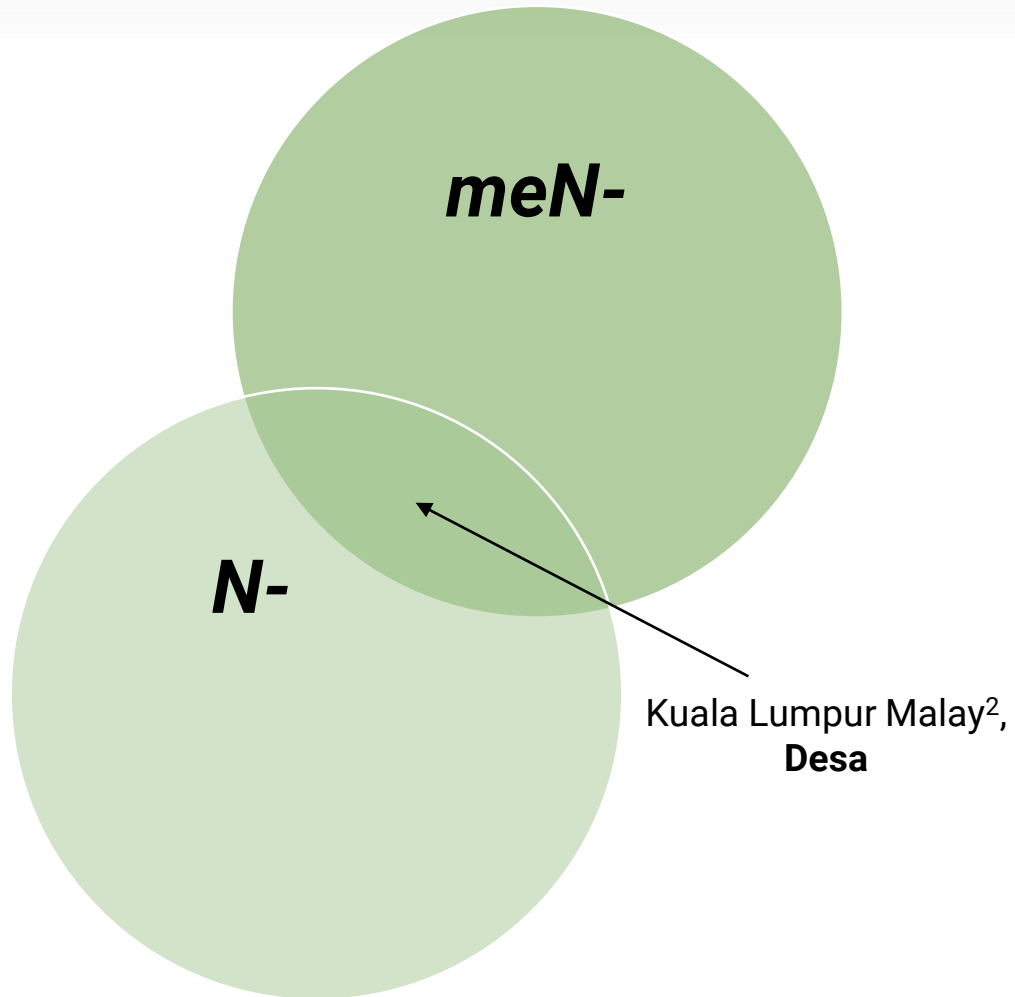
N-

Balinese⁶, Sasak⁷,
 Madurese,⁸ Javanese⁸,
 Basa Selangon⁹, Sarang
 Lan Malay⁹, **Ahe**, **Banana**,
Balangin, **Beaye**, **Ba'aje**,
Ribun, **Banyaduq**, **Bekati**

Language	Other 'voice' affixes
Ahe	<i>di-, ta-, ba-</i>
Banana	<i>di-, ta-, ba-</i>
Balangin	<i>di-, te-, ba-</i>

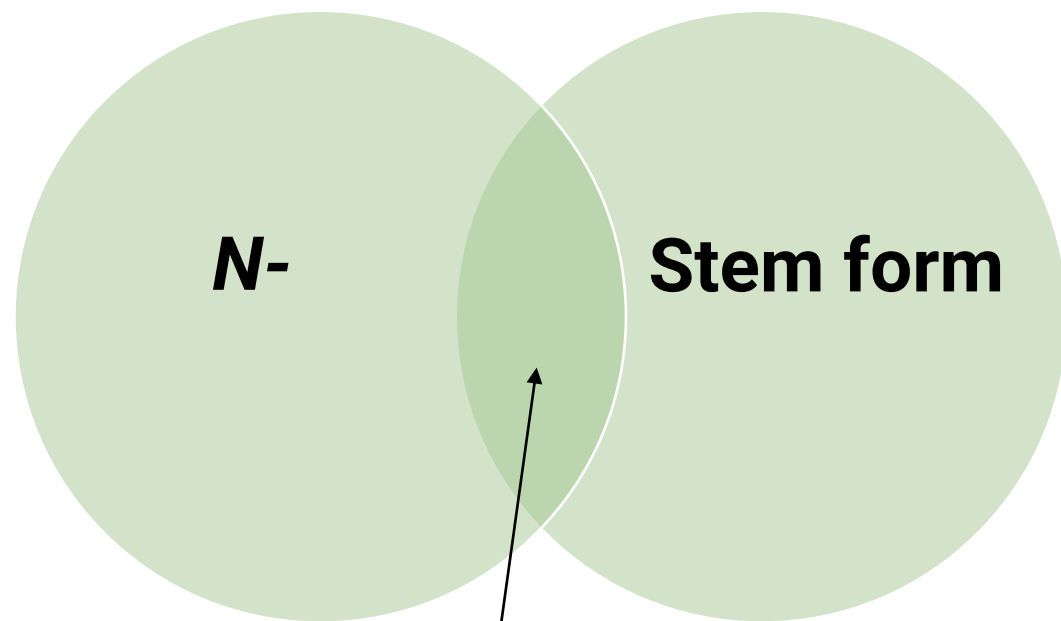
Language	Other 'voice' affixes
Beaye	<i>kunaq/kuniq, ta-</i>
Ba'aje	<i>kanaq</i>
Banyaduq	<i>katn, ta-</i>
Bekati	<i>kan, te-</i>

The distribution of 'voice' morphology



Language	Other 'voice' affixes
Kuala Lumpur Malay (Gil 2002)	* <i>di-</i>
Desa	<i>di-</i> , ?-ken, be-, te-

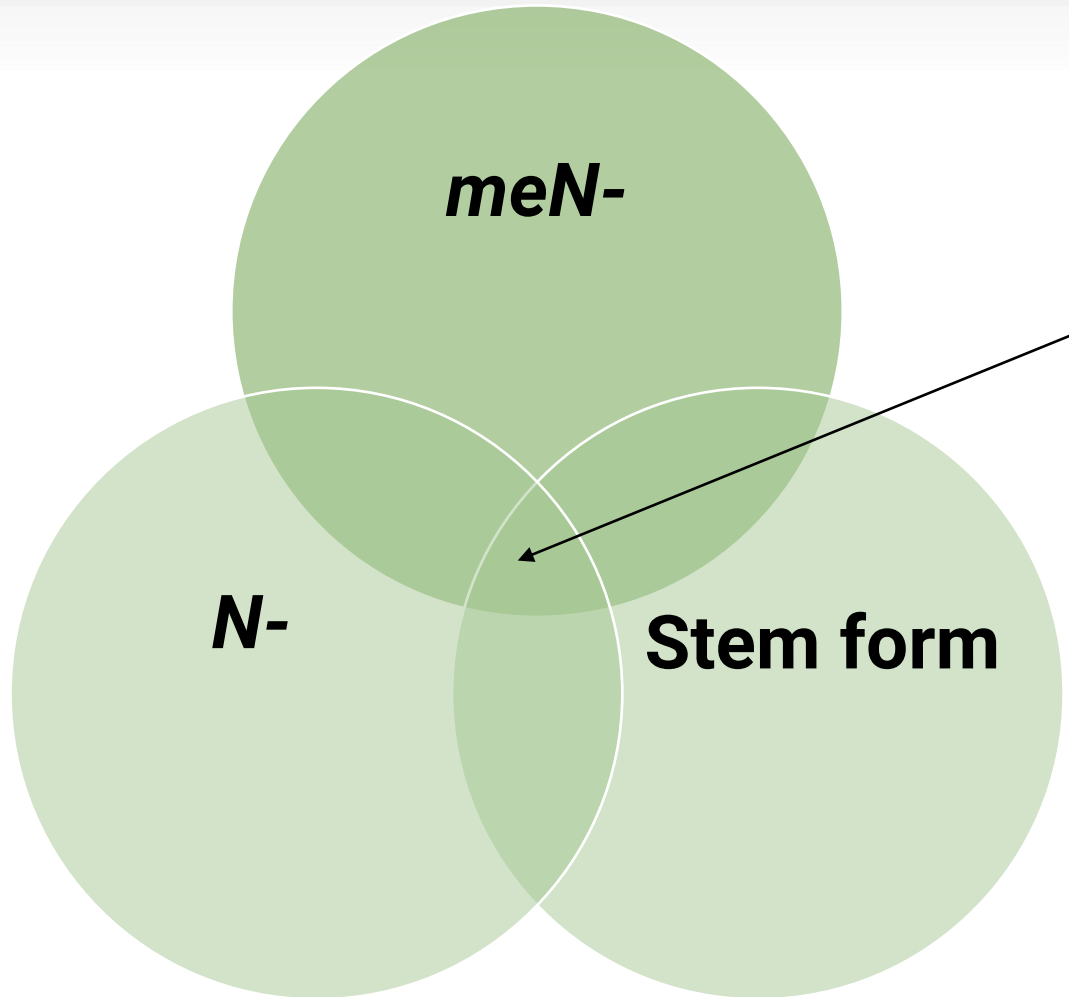
The distribution of 'voice' morphology



Jakarta Indonesian¹,
Riau Indonesian²,
Mudung Darat⁹,
Kuching Malay?⁹

Language	Other 'voice' affixes
Jakarta Indonesian (Wouk 1989, 1999; Tjung 2006)	<i>di-</i> , <i>-in</i> (*-kan, *-i)
Riau Indonesian (Gil 2002)	<i>di-</i> , <i>-kan</i>
Mudung Darat (Cole et al 2008)	<i>di-</i>
Kuching Malay? (Cole et al 2008)	<i>di-</i>

The distribution of 'voice' morphology



Colloquial Indonesian⁴, Spoken
Jakarta Indonesian⁵,
Cocos Malay³?

Language	Other 'voice' affixes
Colloquial Indonesian (Ewing 2004)	<i>di-</i> , <i>-kan</i> , <i>-i</i> , <i>-in</i>
Spoken Jakarta Indonesian (Wouk 2004)	<i>di-</i> , <i>-in</i>
Cocos Malay? (Adelaar 2004)	<i>di-</i> , <i>ber-</i> , <i>ter-</i> , <i>-kan</i>

The form of the nasal prefix

Language	Form of the prefix	Other affixes
SI / SM	<i>meN-</i>	<i>di-, ter-, ber-, -kan, -i, etc</i>
Balinese	<i>N-</i>	<i>ka-, ma-, -ang, -in</i>
Madurese	<i>N-</i>	<i>a-, e-, -agi, -e</i>
Sasak	<i>N-</i>	<i>te-, -ang, -in</i>
Javanese	<i>N-</i>	<i>di-, -i</i>
Ahe / B / B	<i>N-</i>	<i>di-, ta-, ba-</i>
LD languages	<i>N-</i>	UV, <i>te-</i>
Desa	<i>meN- / N-</i>	<i>di-, ?-ken, be-, te-</i>
Kuala Lumpur Malay	<i>meN- / N-</i>	<i>*di-</i>
Mudung Darat	<i>N- / ∅</i>	<i>di-</i>
Riau Indonesian	<i>N- / ∅</i>	<i>di-, -kan</i>
Jakarta Indonesian	<i>(meN-) / N- / ∅</i>	<i>di-, -in (*-kan, *-i)</i>
Colloquial Indonesian	<i>meN- / N- / ∅</i>	<i>di-, -kan, -i, -in</i>

The form of the nasal prefix

A summary of patterns and observations in the data:

- ❖ Most varieties of Indonesian/Malay have lost at least some, if not several voice and valency morphemes (additionally noted by Gil 2002, Adelaar 2004, and others).
- ❖ Several varieties of Indonesian/Malay have lost the nasal prefix entirely (but have not lost other voice morphemes, like *di-*) (Gil 2002).
- ❖ Some varieties have combined multiple morphemes into one (JI *-in* instead of *-kan* and *-i*).
- ❖ Languages spoken in and around Java have significantly more voice and valency morphemes than languages spoken in West Kalimantan and more colloquial varieties of Indonesian/Malay.

ITS DISTRIBUTION

Syntactic distribution

Most analyses of the nasal prefix have centered around one notable feature: its blocking effects. In formal theories, the nasal prefix is known to **block DP movement** over it.

Blocking of A'-movement in Standard Indonesian

- | | | | | | |
|------|------------------------|------|------------------|-------------------|------|
| (3) | Apa | yang | Fera | beli? | |
| | what | COMP | Fera | buy | |
| | 'What did Fera buy?' | | | | |
| (3') | *Apa | yang | Fera | mem -beli? | |
| | what | COMP | Fera | MEN-buy | |
| | 'What did Fera buy?' | | | | |
| (4) | Siapa | yang | mem -beli | buku | itu? |
| | who | COMP | MEN-buy | book | that |
| | 'Who bought the book?' | | | | |

Syntactic distribution

Most analyses of the nasal prefix have centered around one notable feature: its blocking effects. In formal theories, the nasal prefix is known to **block DP movement** over it.

Blocking of A'-movement in Standard Indonesian

- (3) Apa yang Fera beli?
 what COMP Fera buy
 'What did Fera buy?' beli?
buy
- (3') *Apa yang Fera mem-beli?
 what COMP Fera MEN-buy
 'What did Fera buy?'
- (4) Siapa yang mem-beli buku itu?
 who COMP MEN-buy book that
 'Who bought the book?' mem-beli
MEN-buy
- ASYMMETRY in what can be extracted
 (Keenan and Comrie 1977)
-

Syntactic distribution

Additionally, *meN-* in Standard Indonesian **blocks A-movement** as well. This accounts for why neither type of undergoer voice (the *di*-passive or the object voice) can occur with a nasal prefixed verb.

Blocking of A-movement in Standard Indonesian (Cole and Hermon 1998; Nomoto 2008)

- | | | | | |
|------|----------------------|------|-----|-------------------|
| (5) | Buku | itu | dia | baca. |
| | book | that | 3SG | read |
| | 'S/he read the book' | | | |
| (5') | *Buku | itu | dia | mem -baca. |
| | book | that | 3SG | AV-read |
| | 'S/he read the book' | | | |

Syntactic distribution

Of the languages under discussion here, there are a few that mirror the distribution in extraction seen in Standard Indonesian. These are **Balinese, (Kendal) Javanese, Madurese, Jakarta Indonesian, Sarang Lan Malay, Basa Selangon, and Mudung Darat.**

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in (Kendal) Javanese (Sato 2010)

(8) Sapa Esti sun?
who Esti kiss
'Who did Esti kiss?'

(9) *Fernando **nge-sun** Esti.
Fernando AV-kiss Esti
'Fernando was kissed by Esti'

(8') *Sapa Esti **nge-sun**?
who Esti AV-kiss
'Who did Esti kiss?'

(Sato 2010: 11b, d)

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in Madurese (Davies 2010)

(10) buku se e-baca red-mored (Davies 2010: 132, 135)
book REL OV-read RED-student
'the book the students read'

(10') *buku se red-mored m-aca
book REL RED-student AV-read
'the book the students read'

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in Jakarta Indonesian (Tjung 2006)

- | | | | | | | |
|-------|-----------------------------|------|-------|------|-------------------|------------------------|
| (11) | Apa | yang | anak | itu | baca? | (Tjung 2006: 22a, 23a) |
| | what | COMP | child | that | read | |
| | 'What is the child reading? | | | | | |
| (11') | *Apa | yang | anak | itu | nge -baca? | |
| | what | COMP | child | that | AV-read | |
| | 'What is the child reading? | | | | | |

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in Sarang Lan Malay (Cole et al 2008)

- | | | | | | | |
|------|-----------------------------------|------|------|--------------------|--------------|-----------------------------|
| (12) | Sapo | neng | la | ma'ku | jompoti? | (Cole et al 2008: 76a, 79c) |
| | who | COMP | PFCT | mother-1 SG | pick.up-APPL | |
| | 'Who has my mother picked up?' | | | | | |
| (13) | *Sapo | neng | Joni | nge -pok di | kalangan? | |
| | who | COMP | John | AV-hit in | market | |
| | 'Who did John hit in the market?' | | | | | |

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in Basa Selangon (Cole et al 2008)

(14)	Purang	nang	Sitiy	jemput?	(Cole et al 2008: 57, 60a)
	who	COMP	Siti	pick.up?	
	'Who did Siti pick up?'				
(14')	*Purang	nang	Sitiy	ny -emput?	
	who	COMP	Siti	AV-pick.up?	
	'Who did Siti pick up?'				

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in Mudung Darat (Cole et al 2008)

- | | | | | | | | |
|-------|---------------------------------|------|------|-------------|----|----------|-------------------------------|
| (15) | Apo | nang | Siti | bli | di | Jakarta? | (Cole et al 2008: 117b, 118b) |
| | what | COMP | Siti | buy | in | Jakarta | |
| | 'What did Siti buy in Jakarta?' | | | | | | |
| (15') | *Apo | nang | Siti | m-li | di | Jakarta? | |
| | what | COMP | Siti | AV-buy | in | Jakarta | |
| | 'What did Siti buy in Jakarta?' | | | | | | |

Syntactic distribution

Of the languages under discussion here, there are a few that mirror the distribution in extraction seen in Standard Indonesian. These are Balinese, (Kendal) Javanese, Madurese, Jakarta Indonesian, Sarang Lan Malay, Basa Selangon, and Mudung Darat.

However, we additionally see some unexpected patterns in two of the languages: **(Kutó-kuté) Sasak** and **Kuching Malay**.

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in (Kutó-kuté) Sasak (Asikin-Garmager 2017)

- (16) Awan n-tulis surat-no. (Asikin-Garmager 2017: 6a-b)
Awan AV-write letter-DEF
'Awan wrote the letter'
- (17) Surat-no n-tulis isiq Awan.
letter-DEF AV-write by Awan
'Awan wrote the letter'

Syntactic distribution

Does the nasal prefix in other varieties of Indonesian/Malay, and in other related languages, show the same syntactic distribution?

Extraction restrictions in Kuching Malay (Cole et al 2008)

(18) Apa Sya **m-elik?**
what Sya **AV-buy**
'What did Sya buy?'

(Cole et al 2008: 137a, 139a)

(19) Buk ya **di-n-ulis.**
book that **PV-AV-write**
'The book was written'

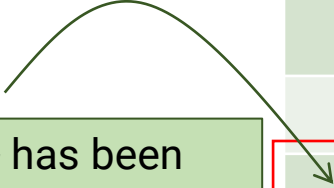
Syntactic distribution

	A'-movement		A-movement
	Subject Extraction	Object Extraction	
Standard Indonesian	✓	X	X
Jakarta Indonesian	✓	X	X
Mudung Darat	✓	X	X
Basa Selangon	✓	X	X
Sarang Lan Malay	✓	X	X
Kuching Malay	✓	✓	✓
Balinese	✓	X	X
Javanese	✓	X	X
Madurese	✓	X	X
Sasak	✓	X(?)	✓

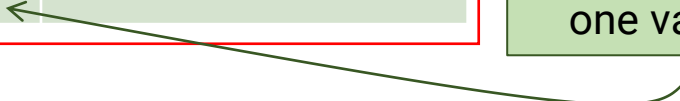
Syntactic distribution

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	Subject Extraction	Object Extraction	
Standard Indonesian	✓	X	X
Jakarta Indonesian	✓	X	X
Mudung Darat	✓	X	X
Basa Selangon	✓	X	X
Sarang Lan Malay	✓	X	X
Kuching Malay	✓	✓	✓
Balinese	✓	X	X
Javanese	✓	X	X
Madurese	✓	X	X
Sasak	✓	X(?)	✓

N- has been grammaticalized



only present in one variety



Syntactic distribution

Of the languages under discussion here, there are a few that mirror the distribution in extraction seen in Standard Indonesian. These are Balinese, (Kendal) Javanese, Madurese, Jakarta Indonesian, Sarang Lan Malay, Basa Selangon, and Mudung Darat.

However, we additionally see some unexpected patterns in two of the languages: (Kutó-kuté) Sasak and Kuching Malay.

To find more robust unexpected patterns, I now turn to Borneo. I'm going to begin with **Desa**, a Malayic language.

Syntactic distribution

Desa alternates between *meN-* and *N-*, making it a largely unique case.

Nasal prefix alternation in Desa

Syntactically active sentences can take either *meN-* or *N-*.

(20) Sidah **men-**anam bunga di taman. (*meN-* + *tanam*)
 3PL MEN-plant flower in field
 ‘They plant flowers in the field’

(20’) Sidah **n-**anam bunga di taman. (*N-* + *tanam*)
 3PL N-plant flower in field
 ‘They plant flowers in the field’

Syntactic distribution

With *meN-*, Desa mirrors languages like Standard Indonesian: DP movement over the prefix is blocked.

Blocking effects of *meN-* in Desa

(21) Opai yang inya boli?
what COMP 3SG buy
'What did s/he buy?'

(22) Kayu inya bewaq.
wood 3SG bring
'S/he is bringing wood'

(21') *Opai yang inya **mem-oli?**
what COMP 3SG MEN-buy
'What did s/he buy?'

(22') *Kayu inya **mem-ewaq.**
wood 3SG MEN-bring
'S/he is bringing wood'

Syntactic distribution

With *N-*, A-movement of a DP is still blocked. This restriction disappears with A'-movement, however.

Blocking effects of *N-* in Desa

(23) Opai yang inya boli?
what COMP 3SG buy
'What did s/he buy?'

(23') Opai yang inya **m-oli**?
what COMP 3SG N-buy
'What did s/he buy?'

(24) Kayu inya bewaq.
wood 3SG bring
'S/he is bringing wood'

(24') *Kayu inya **m-ewaq**.
wood 3SG N-bring
'S/he is bringing wood'

Syntactic distribution

This has several potential implications:

- ❖ It suggests that Desa has **two nasal prefixes** with two differing distributions. While it has been noted that some languages of Indonesia alternate between forms of the nasal prefix (Spoken Jakarta Indonesian, Colloquial Indonesian, Kuala Lumpur Malay), there has not been evidence that these are two distinct forms.
- ❖ It could mean that *meN-* in Standard Indonesian was at one point compositional (*me-* + *N-*).
- ❖ It highlights a distinction between A'-movement and A-movement.

Syntactic distribution

Of the languages under discussion here, there are a few that mirror the distribution in extraction seen in Standard Indonesian. These are Balinese, (Kendal) Javanese, Madurese, Jakarta Indonesian, Sarang Lan Malay, Basa Selangon, and Mudung Darat.

However, we additionally see some unexpected patterns in two of the languages: (Kutó-kuté) Sasak and Kuching Malay.

To find more robust unexpected patterns, I now turn to Borneo. I'm going to begin with Desa, a Malayic language.

The last set of languages I will discuss are four **Land Dayak** languages of Borneo, which diverge even more.

Syntactic distribution

The Land Dayak languages Beaye, Ba'aje, Banyaduq, and Bekati serve as the most divergent in the distribution of the nasal prefix. This is because *N-* occurs significantly more frequently in these four languages, in **both active and undergoer constructions**.

- ❖ *N-* freely occurs with undergoer markers in all four languages.
- ❖ The only construction that appears to actively reject the nasal prefix is the 'accidental' passive, which is marked by a variant of *te-*.

Furthermore, while these languages display an asymmetry in *A'*-movement extraction, it cannot be attributed to the nasal prefix blocking movement.

Syntactic distribution

N- in Land Dayak active sentences

(25)	Belayuqu 3PL.I 'They picked many flowers'	n-awoq AV-pick	uda many	bunga. flower	<i>Beaye</i>	
(26)	Kitn 1SG.I 'I catch two fish'	n-akap AV-catch two	dua two	ca. fish	<i>Bekati</i>	
(27)	Diri 1PL.I 'We plant flowers in the field'	m-ura AV-plant	bunga flower	kaq in	taman. field	<i>Banyaduq</i>
(28)	Kedn 1SG.I 'I buy a shirt'	m-iri AV-buy	baju. shirt		<i>Ba'aje</i>	

Syntactic distribution

N- in Land Dayak undergoer sentences

- | | | | | | | | |
|------|------------------------------|------------------|--------------------|--------------------------|------------------------|---------------------------|-----------------|
| (29) | Dokter
doctor | dah
PFT | kuniq
UV | n-aru.
AV-call | | | <i>Beaye</i> |
| | 'The doctor was called' | | | | | | |
| (30) | Buah
fruit | doh
that | atiq
FUT | katn
UV | kitn
1SG.I | ny-ataq.
AV-cut | <i>Bekati</i> |
| | 'I'll cut the fruit' | | | | | | |
| (31) | Ikan
fish | kan
UV | mu
2SG.II | n-ele
AV-see | kaq
in | sungi.
river | <i>Banyaduq</i> |
| | 'You see fish in the river' | | | | | | |
| (32) | Keranjang
basket | | kedn
1SG.I | kanaq
UV | n-ao
AV-take | ko.
2SG.I | <i>Ba'aje</i> |
| | 'My basket was taken by you' | | | | | | |

Syntactic distribution

	A'-movement		A-movement
	Subject Extraction	Object Extraction	
Standard Indonesian	✓	X	X
Jakarta Indonesian	✓	X	X
Mudung Darat	✓	X	X
Basa Selangon	✓	X	X
Sarang Lan Malay	✓	X	X
Kuching Malay	✓	✓	✓
Balinese	✓	X	X
Javanese	✓	X	X
Madurese	✓	X	X
Sasak	✓	X(?)	✓
Desa	✓	X	✓
Land Dayak languages	✓	X*	✓

Syntactic distribution

To sum up:

- ❖ The extraction pattern found in Standard Indonesian is reflected in several other related languages as well as in more colloquial varieties. However, **we do see languages where it is not**, and these languages can tell provide us with more information on the nasal prefix in general.
- ❖ Looking at more languages, and languages that are not as closely related reveals even more divergence from the expected pattern, expanding upon the possible distribution of this prefix.
- ❖ I argue that the Borneo data can be used to expand upon the formal analysis not just in languages of Borneo, but in Standard Indonesian and many of its related languages as well.

Insights from Desa

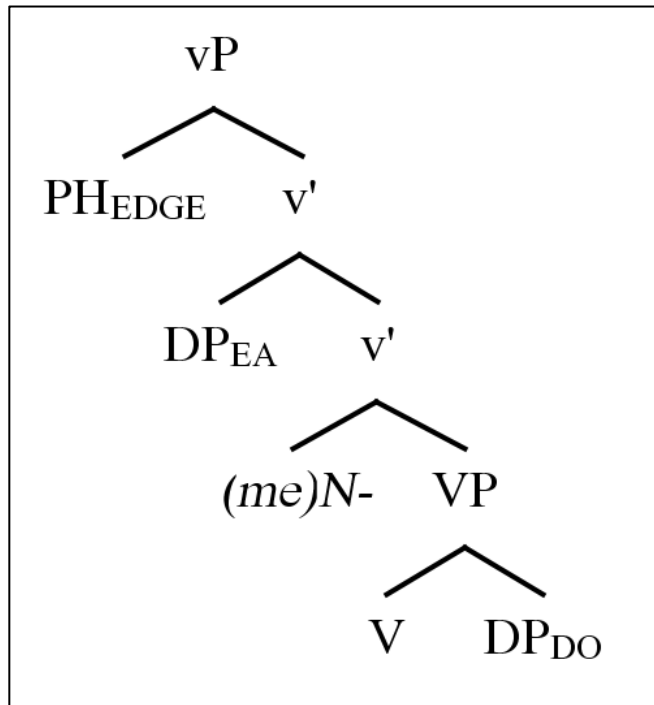
I am using the Desa data to propose a new account of the nasal prefix for both Desa and Standard Indonesian: I argue that the two separate prefixes in Desa represent **two separate functions in the syntax** that are bundled together in Standard Indonesian.

Crucially, I'm arguing that Desa has a **split-Voice projection** (Pylkkänen 2002; Harley 2017) while Standard Indonesian only has one verbal projection. The nasal prefix in Standard Indonesian has 'bundled' the functions that *me-* and *N-* have separately in Desa.

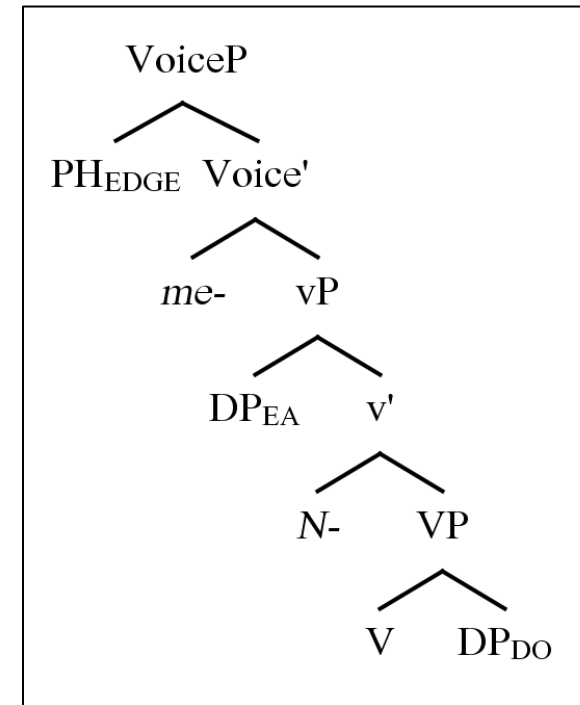
In Desa, I analyze *me-* as the voice morpheme, while *N-* introduces the external argument and assigns Accusative case. In Standard Indonesian, *meN-* has both of these functions on one head.

Insights from Desa

STANDARD INDONESIAN



DESA



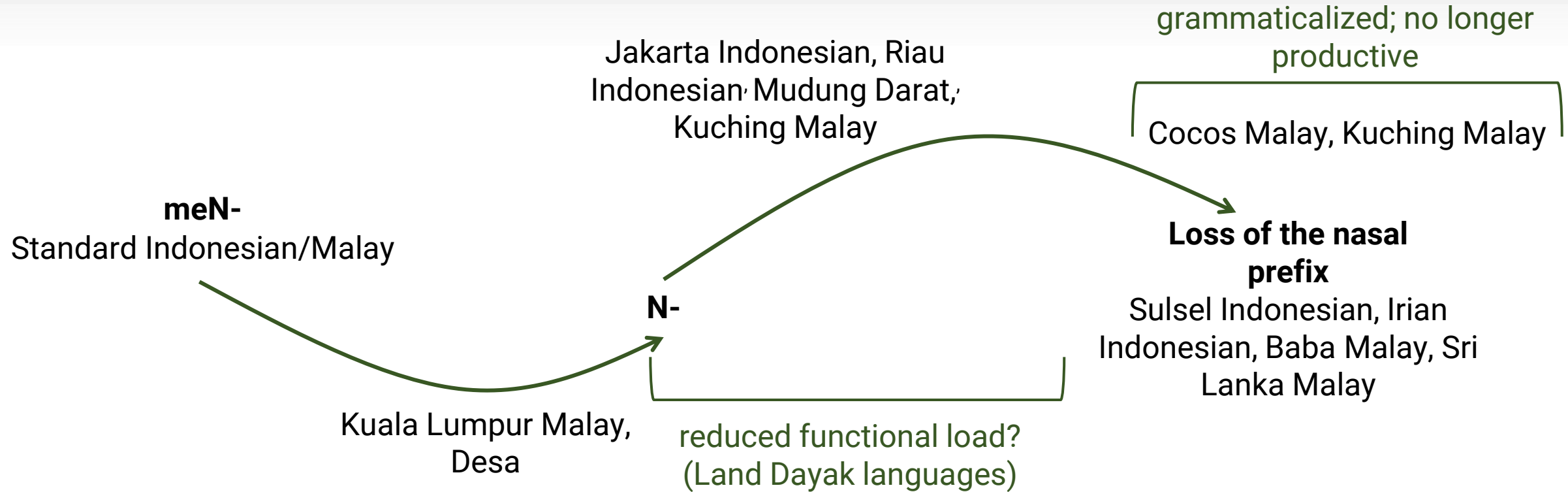
Insights from Land Dayak languages

For the four Land Dayak languages I discussed here, I further argue that the nasal prefix present in these languages has a **reduced functional load**: it lacks the ability to assign Accusative case, but still introduces the external argument. This accounts for why it is able to occur in the undergoer voice when this is not possible in the other languages discussed.

Like Desa, in these languages this prefix is located in vP instead of VoiceP, which allows it to co-occur with undergoer voice markers like *kunaq*. This VoiceP projection is thus not present in active constructions.

CONCLUSION

The form of the nasal prefix



Conclusion

Much of formal syntactic theory is based upon data and patterns that exist only in one language (and it is typically a more well-studied, widely-used language). For features like the nasal prefix that are prolific among related languages, this ignores a large portion of data.

Utilizing a larger set of languages instead allows for a more accurate analysis. This is particularly important in areas where many languages are understudied (like Indonesia).

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APPENDIX A: Ahe, Balangin, and Banana distribution facts

The syntactic distribution in Ahe, Balangin, and Banana is interesting as well. It has been noted that Kendayan-Salako languages allow the nasal prefix in the undergoer voice, like Land Dayak languages (Adelaar 2002, 2006).

N- in Kendayan-Salako undergoer constructions

(A1)	Padi	di- n -aliq	(gawe)	nang	laki	na.	<i>Banana</i>
	rice	PV-COMP-steal	by	person	male	that	
	'The rice is stolen by a boy'						
(A2)	Karusi	koa	dah	kamuda	koa	n -ipaq.	<i>Ahe</i>
	chair	that	PST	child	that	COMP-kick	
	'The chair was kicked by the child'						

APPENDIX A: Ahe, Balangin, and Banana distribution facts

Adelaar notes, and I discuss the same in Sommerlot (2020), that this nasal prefix clearly has aspectual features. It cannot co-occur with any sort of future marker / morpheme in any of the three languages.

N- marks completive aspect

(A3) *Awutn-ku friend-1SG.II 'My friend will be given a book'	di-m-ari-qa PV-AV-give-FUT	buku. book			<i>Ahe</i>
(A4) *Makanan food 'Food will be sent to Meliau'	mau FUT	di-n-irim PV-NONCOMP-send to	kaq Meliau	Maliau. Meliau	<i>Banana</i>

APPENDIX A: Ahe, Balangin, and Banana distribution facts

I'm positing that this *N-* that occurs in these examples is **not** the nasal prefix under discussion here. Rather, Kendayan-Salako languages have a nasal prefix that occurs in syntactically active sentences like Standard Indonesian, but additionally has a nasal prefix that only occurs in the undergoer voice and has aspectual features.

I propose that this second nasal prefix, while homophonous, is historically derived not from PMP **mAN-* (as argued for the voice morpheme) but rather is a shortened form of *ni-*, which a completive aspect marker found in undergoer voice in other languages of Borneo (like Begak, Goudswaard 2005).

This aspectual *N-* does not occur in the active voice. This accounts for why active sentences show no restriction with voice *N-*, unlike undergoer constructions.

APPENDIX B: More Desa distribution data

N- in extraction contexts in Desa

(B1)	Opai what	yang COMP	sidah 3PL	ny-ual? N-sell		
	'What are they selling?'					
(B2)	Opai what	yang COMP	lelaki man	yen that	m-igang? N-hold	
	'What is the man holding?'					
(B3)	Buku book	to, that	opaq-ku father-1SG	m-oli. N-buy		
	'That book, my father bought'					
(B4)	Beiju shirt	yang COMP	inya 3SG	tongah PROG	m-oli N-buy	mahal. expensive
	'The shirt that s/he bought is expensive'					
(B5)	Tolong please	makan eat	buah fruit	yang COMP	aku 1SG	n-ungkong. N-cut
	'Please eat the fruit that I cut'					

APPENDIX C: Evidence for the function of *N-* in Desa

I argue that *N-* in Desa introduces the external argument and assigns Accusative case.

One piece of evidence for this comes from *N-*'s behavior with intransitives. *N-* does typically occur on unergatives, and when it does, it takes another prefix *be-* (likely suggesting that these are borrowings and not a productive application of the prefix). *N-* is ungrammatical on unaccusatives.

Unergatives	Unaccusatives
be-kejar 'run'	jetu 'fall' (*ny-etu)
be-jalan 'walk'	detang 'come' (*n-etang)
be-nyani 'sing'	tumbuh 'grow' (*n-umbuh)
be-nafas 'take a breath'	tidoq 'sleep' (*n-idoq)
be-diri 'stand'	roboh 'collapse' (*ny-oboh)

APPENDIX C: Evidence for the function of *N-* in Desa

There is one environment where *N-* can occur on an unaccusative, where it increases the valency.

N- with unaccusatives in Desa

(C1) Inya jetu.
3SG fall
'S/he falls'

(C2) Inya **ny**-etu pinang yen.
3SG N-fall cup that
'S/he drops the cup'

(C3) Aku tidoq.
1SG sleep
'I sleep'

(C4) Aku tauq **n**-idoq onaq bijaq yen.
1SG can N-sleep child that
'I can put the children to sleep'