

## PHONOLOGICAL CONSTRUCTION OF INDONESIAN BLENDS

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### Abstract

Blends are formed by joining two clipped words into one. For example, in English, 'breakfast' and 'lunch' are joined to become 'brunch'. While studies of blends usually focus on the morphological aspect, this study aims at describing the phonological aspects of blend formation, particularly the syllable formation of Indonesian blends. Moreover, the phonological constraints for blend formation are also investigated. The data were obtained from observing blending words used in daily conversations, as well as in media such as television and online news. To gather the data, the researcher asked each of her 20 students to find five samples of Indonesian blends. As a result, as many as 100 Indonesian blends were found. The data were then categorized based on their syllable structures and the phonological constraints for blend formation were analyzed using optimality theory. The results showed that blending words can be categorized into six types, which are (CVC+CVC), (CV+CVC), (CV+CVC), (V+CVC), (CV+CV), and (VC+CVC). For example, the second type (CV + CVC) 'mager' is formed from the first part of the first source word and the first part of the second source word as in 'malas' and 'gerak'. Moreover, there are some possible constraints that make a new blend acceptable or unacceptable in Indonesian, such as the recognizability of blend from its source words and the semantic similarity of the blend with the already existing word. For example, the word 'mantul' is acceptable blend of **mantap** + **betul**, since 'mantul' already exists but it has different meaning. The results of this study imply that forming new words by blending the already existed words is still possible, but their acceptance or usage depend on the users' familiarity with phonological knowledge.

**Keywords:** blend, phonological construction, constraint, optimality theory

### Abstrak

Blend dibentuk dengan menggabungkan dua potongan kata menjadi satu. Misalnya, dalam bahasa Inggris, 'breakfast' dan 'lunch' digabungkan menjadi 'brunch'. Studi tentang blend biasanya berfokus pada aspek morfologi, tetapi penelitian ini menjelaskan aspek fonologis dari pembentukan blend, khususnya formasi suku kata dalam blend bahasa Indonesia. Batasan fonologis dalam pembentukan blend juga dikaji. Data diperoleh dari pengamatan blend dalam percakapan sehari-hari, juga dari berita media daring dan televisi. Untuk mengumpulkan data, peneliti menugaskan 20 mahasiswa untuk mencari lima contoh blend, dan 100 blend didapat sebagai data. Data tersebut kemudian dikelompokkan berdasarkan struktur suku kata dan batasan fonologis untuk pembentukan blend dianalisa menggunakan teori optimalitas. Hasilnya menunjukkan bahwa blend bisa dibagi menjadi enam tipe, yakni (CVC+CVC), (CV+CVC), (CV+CVC), (V+CVC), (CV+CV), and (VC+CVC). Misalnya, tipe kedua (CV + CVC) 'mager' dibentuk dari suku ke-1 dari kata pertama 'malas' dan suku ke-1 dari kata kedua 'gerak'. Selanjutnya, ada beberapa batasan dalam pembentukan singkatan yang berterima dalam bahasa Indonesia, misalnya pengenalan blend dan kesamaan kata blend dengan kata yang sudah ada. Misalnya, kata 'mantul' adalah blend yang berterima untuk 'mantap' dan 'betul', karena kata 'mantul' sudah ada tetapi maknanya

*berbeda. Hasil studi ini mengimplikasikan bahwa membentuk blend dari kata yang sudah ada masih dimungkinkan, tapi keberterimaannya atau penggunaannya tergantung pada pengetahuan fonologis pengguna.*

**Kata kunci:** *blend, konstruksi fonologis, batasan, teori optimalitas*

## INTRODUCTION

Blending is a type of word formation process that is prevalent in almost every language in the world. Yule (2020) defines blending as the combination of two separate words into a single term, typically by taking the beginning of one word and joining it to the end of the other word. For example, the English words ‘breakfast’ and ‘lunch’, can be blended into ‘brunch’ by taking the beginning part ‘br’ from *breakfast* and the last part ‘unch’ from *lunch*. The resulting blend can be coded as F-L (First-Last).

In fact, blends are not only formed by combining the first part of the first word and the last part of the second word. Based on their components, blends in English can be categorized into several types. Enarsson (2006) divides blending into three types, which are blending with overlapping, blending with clipping, and blending with clipping and overlapping. On the contrary, Kremmer (2006) categorizes blending into intercalative blends, overlap blends, and substitution blends.

In Indonesian, blending words are also common since blends can show people’s creativity in forming new words. However, Indonesian blends are mostly constructed differently from English blends. To illustrate, the blend *mager* is composed of the first part (*ma*) of the first word *malas* and the first part (*ger*) of the second word *gerak*. Typically, Indonesian blends are constructed by combining the first part of the first word and the first part of the second word, which can be coded as F-F (First-First).

Previous research has demonstrated that blends are constructed morphologically in several ways. Giyatmi et al. (2017) conducted a qualitative study to describe English blends from social media such as Instagram and Twitter. They found ten ways of blend formation, such as blending with overlapping, blending with clipping, and blending with clipping and overlapping. Rahmania & Widodo (2019) did a comparative study to discover the similarities and differences of English and Indonesian blends. They discovered that there are three similar blend constructions and eight different blend constructions in English and Indonesian. The similarities are blends created by the first part of the first word and last part of the second word. Meanwhile the differences are Indonesian blends are sometimes formed with the middle part of the source word, and there are no overlapping blends in Indonesian. Colic (2015) discussed blend structure in Croatian. She found that there are three types of blends in Croatian: typical blending (F-L), blending with phonological overlap, and intercalative blend. While these studies discuss the formation of blends based on the parts of the source words being used in the blends, none of these studies approaches the blend formation from the syllable structure of the blend components. Analysing syllable structure of blend is important to find out the underlying reasons why a certain blend is acceptable, and the others are not.

Up to now, far too little attention has been given to the phonological construction of blends. Phonological aspects such as syllable types and phonotactics can also be important consideration in constructing blends, especially in Indonesian, since Indonesian and English words have different syllable structures. This paper, therefore, intends to analyze the syllable

structuring of Indonesian blends as well as to examine the components that make up the blends. This study uses 100 Indonesian blends taken from daily interactions to determine their phonological and morphological constructions.

### The Formation of Blends

Blending as a word formation process is defined by Gries (2004) as the process of creating a new lexeme by fusing parts of at least two source words of which either one or both are shortened. A similar definition is also offered by Bauer (1983) who stated that blend is a new lexeme formed from parts of two or more words in such a way that there is no transparent analysis into morph. Hosseinzadeh (2014) also mentioned that the term blending refers to the combination of two forms where at least one has been shortened. Due to its word formation process, blending is also called lexical amalgamation, telescoping, merging, fusing, and portmanteau (Giyatmi et al., 2017; Bednárová, 2014).

The above definitions of ‘blending’ as a word formation process or ‘blend’ as the result of this process constitute three criteria for forming a blend. First, there should be at least two source words that are joined together. Then, before blending is formed, it should be commenced with compounding process. Fromkin, Rodman & Hyams (2017) defined compounding as putting two words to form a new lexeme, such as joining ‘book’ and ‘case’ to become ‘bookcase’. Secondly, blending involves shortening either one or both source words. Shortening, in this case, can be equalized to another word formation process of clipping, or reducing a word of more than one syllable to a shorter form (Yule, 2020), as in *fax* for *facsimile*, or *doc* for *doctor*. Either one or both source words indicate the last criteria that the clipping can be done to only **one** source word, either the first or the second word, and the other word is kept in full form. Blending, therefore, is a word formation type akin to both compounding and shortening/clipping (Cannon, 2016).

The shortened parts taken from the source words are termed as *splinters* (Cannon, 1986; Kemmer, 2003; Gries, 2004). As the source words may consist of more than one syllable, the determination of which segment to be used as splinters will determine the type of blends formed from those source words. Typically, blends are formed by combining the initial segment of the first word with the final segment of the second source word (Balieva, 2019; Hosseinzadeh, 2014; Yule, 2020). For example, the blend ‘motel’ consists of splinter ‘mo’ from ‘motor’ and splinter ‘tel’ from ‘hotel’. The first splinter is taken from the first syllable of the first source word, and the second splinter is taken from the last syllable of the second source word.

### Phonological aspects of blend formation

So far, the formation of blends is seen from its morphs. In her definition of blend, Balieva (2014) stated that blend is a lexical item formed by merging two (or more) forms so that only part of their orthographical and/or phonological material is preserved, and they have not been formed by concatenation of morphs. Unfortunately, previous studies rarely touch the phonological aspect of blend formation. Among the few studies regarding the phonological aspects of blend, Arnt-Lappe & Plag’s (2013) study discusses the role of prosodic structure in the formation of blends. Their paper specifically focuses on the role of stress in determining the switchpoint of the two base words in the blend. Another study by Hamans (2021) found that the syllabic structure of the blend is a copy of the syllabic structure of the second source word.

However, since their studies took English blends as the object of the study, the findings cannot apply to blends in other languages. In particular, determining the syllabic structure in Indonesian blends cannot be done by examining the stress pattern because Indonesian is a non-stress language. Moreover, the syllabic structures will also differ from one language to another due to the different phonotactic constraints in each language.

Since the focus of this paper is the phonological aspects of blend formation, particularly the syllabic structure, there will be five factors to consider. The first one is the nature of syllable itself. A syllable is a construction which consists of two main constituents, which are the onset and the rhyme. The onset is defined as any and all consonants occurring before the vowel. The rhyme may be further subdivided into the nucleus and coda (Carr, 2021). Based on the combination between the onset, nucleus, and coda, Roach (2013) categorized syllables into four types. The first one is called a **minimum syllable**, which consists of a single vowel in isolation, as in the words ‘are’ [ɑ:]; ‘or’ [ɔ:]. These syllables are preceded and followed by silence. Since only the vowel or the nucleus is present, in this paper, this type is called **Peak Syllable**, and coded as (V). The second type is **syllable with an onset**, or a syllable which consists of consonant(s) and a vowel; thus, it is coded as (CV). The examples are ‘bar’ [bɑ:], ‘key’ [ki]. The third one is **syllable with coda**, which is a syllable that has final consonant(s) after the vowel. This type is coded as (VC), and can be exemplified by ‘am’ [æm], ‘ease’ [i:z]. The final type is called **full syllable** because it has both onset and coda and coded as (CVC). Some examples include ‘rat’ [ræt], ‘fill’ [fil]. Onset and coda can contain a single consonant, but in many other languages, including English, onsets may contain up to three segments and codas may contain up to four segments. These complex segments are also termed as consonant clusters. Thus, the three syllable types (CV, VC, and CVC) may be represented differently depending on the number of consonants occur in the onset or coda position. For example, ‘clip’ [klɪp] is a full syllable that can be represented by (CCVC). However, the naming of the syllable types remains the same.

The second factor is determining the **splinters** or surviving parts of the source words. Typically blends are formed in two ways. The first one is  $AB + CD \rightarrow AD$ , as can be exemplified by **breakfast + lunch**  $\rightarrow$  brunch. The second structure is  $AB + CD \rightarrow AC$ , for example **modulator + demodulator**  $\rightarrow$  modem. A and B refer to the first and last part of source word 1, while C and D refer to the first and last part of source word 2. AD type blends are the most preferred pattern of blending because they tend to be orthographically and phonologically similar to each other (Arndt-Lappe & Plag, 2013). Meanwhile, AC type blends are more likely treated as clipped compounds or complex clippings (Gries, 2006; Bauer, Lieber & Plag 2013; Hamans, 2021).

The next factor is **phonotactic constraints**. Phonotactics is a branch of phonology that studies the permissible strings of phonemes in a language (Roach, 2013). Phonotactic constraints rule the sequence of segments which may be combined in syllable structures (Carr, 2021). Phonotactic constraints differ from one language to another, so what is permissible in English might not be possible in Indonesian, and vice versa. For example, the segments [skw] in initial position is possible in English, as in the word ‘square’, but there is no Indonesian word with those consonant cluster segments. In case of blending formation, the phonotactic

constraints should be regarded to determine the type of syllable patterning of the resulting blends.

Relating to the syllable structure, the next step is determining **the switchpoint** of a blend, or the boundary between the first and the second syllable. Roach (2013) suggests that any consonants between the vowels should be attached to the right-hand syllable, not to the left one. Similarly, Carr (2021) proposes the Maximal Onset Principle, stating that CV structure, or syllables with onset consonants are in some sense more basic than those without, and that the presence of onset consonants is in some sense more basic than the presence of coda consonants.

Deciding on the switchpoint of a blend, or the boundary between the first and the second syllable must also be close to the ‘recognition point’ of their source words (Gries, 2006). The recognition points or the point at which one part is distinguished from the other part. **Recognizability** becomes the last factor to consider in blend formation. Kaunisto (2000) stated that each part should be long enough to preserve its recognizability. In other words, splinters tend to consist of sequences of certain length for the words they originate from remain recognizable (Kemmer, 2003). For example, the splinter ‘unch’ can be interpreted as coming from the word ‘lunch’. This is also emphasized by Lehrer (1996) who maintained that the more material for the target word is present, the easier the blend to identify.

In addition to the five factors mentioned above, Prince & Smolensky’s (2013) optimality theory (OT) can be used to test blend formation. The interaction of constraints-innate principles or norms that govern linguistic forms and structures – is central to the notion of optimality. These constraints may conflict with each other, resulting in competition for the optimal output. Put simply, it posits that there is a set of constraints that apply to all languages and are fixed in their ranking. In OT, there are two types of constraints: markedness constraints and faithfulness constraints. Markedness constraints favour simple and unmarked structures and penalize certain linguistic forms that are generally disfavoured in languages. Conversely, faithfulness constraints work to maintain the input forms, so that the result accurately reflects the underlying representations of a linguistic structure.

## **METHODOLOGY**

The data for this study were obtained from observing Indonesian blends used in everyday conversations in non-academic domain. The register used was mainly informal and from online news websites such as Detik.com. The sources of data were chosen because blends usually occur in informal conversations and do not appear in formal academic domain and printed newspapers. To collect the data, the researcher assigned her students to find samples of blends. The students were chosen since they use blends in their daily interactions. Moreover, young people tend to be more update in new language usage (Holmes & Wilson, 2017), meaning that they will be the ones who will know when a new word appears. Thus, to obtain the recency of the Indonesian blends, all the 20 students in the researcher’s Introduction to Linguistics class, were assigned to find ten samples of Indonesian blends that they use in everyday conversations, particularly in friendship domain. In this way, as many as 200 blends were found. However, many of the samples collected were doubled because different students may give similar samples. Moreover, the blends used in this study should only consist of two syllables. The resulting two-syllable blends were chosen as the control mechanism as the starting point for

analyzing the syllable patterns of the blends. Thus, after eliminating the double data and more than two-syllable blends, 100 samples of blends were taken as the data to be analyzed further.

The qualitative analysis of the data was done in several steps. First the blends were categorized based on their syllable structure. Roach (2013) classification of syllable types was used to categorize the data. Then, in each category of blend structure, the samples were further classified and analyzed based on the splinters' type or the parts of the source words that are used in forming the blends. Finally, the phonological construction of Indonesian blends based on Optimality Theory (Prince & Smolensky, 2013) was discussed.

## RESULTS AND DISCUSSIONS

The results of this study are presented in two subsections, namely syllabic construction and phonological construction of Indonesian Blends.

### Syllabic Constructions of Indonesian Blends

Based on their syllabic constituents, Indonesian blends can be categorized into six types.

#### *Full syllable + full syllable (CVC + CVC)*

Blends in this category consist of two full syllables, i.e., syllables with onset and coda, thus the structure is CVC + CVC. A number of 46 samples were found under this category, making it the most frequently used structure for blends. The blends were further analyzed based on the splinters components as can be seen in Table 1.

**Table 1. Blends of two full syllables**

First word	Second word	Result	Splinters type
<b>cari</b>	<b>muka</b>	car-muk	F-F
<b>mantap</b>	<b>betul</b>	man-tul	F-L
<b>beras</b>	<b>miskin</b>	ras-kin	L-L
<b>telepon</b>	<b>selular</b>	pon-sel	L-F

Blends which consist of two full syllables can be further categorized into four types based on their splinters type. The first one, F-F, or the first part of the first word combined with the first part of the second word was found in 38 samples, or 82.6%. One example is the blend 'carmuk' from two source words 'cari' and 'muka' (find face). The first syllable of each source word has CV structure (ca and mu). Yet, in the resulting blend, it should be reconstructed to become CVC, thus the final consonants are taken from the second syllables become 'car' and 'muk'. The second type, F-L, or the first part of the first word combined with the last part of the second word was found in 5 samples or 10.8%. An example is the blend 'mantul' which is derived from the word 'mantap' and 'betul'. The original syllables of source words taken as splinters have already CVC construction ('man' and 'tul'), so no adjustment needed. However, the blend 'mantul' undergoes a semantic extension since the word 'mantul' already exists, meaning *bouncing*, while 'mantul' as a blend means *very good*. Thus, the use of this word will depend on the context of conversation. The third type is L-L or the last part of the first word joined with the last syllable of the second word. The only example for this is 'raskin' from 'beras' and 'miskin'. The splinters taken from both source words happen to be full syllable with CVC construction, thus no adjustment is necessary. The last type is L-F, or the last part of the

first word and the first part of the second word. This type can be exemplified by the word ‘ponsel’ which is derived from ‘telepon’ and ‘selular’. The last part of the first word ‘pon’ happens to be the last syllable which already has CVC structure, while the first part of the second word ‘sel’ is the first syllable ‘se +l’ plus onset consonant of the second syllable, thus forming CVC syllable.

#### *Syllable with onset + full syllable (CV + CVC)*

The second category of blends consists of syllables with onset followed by a full syllable. There are 40 samples which fall into this category, making this the second most created blend. However, six types of splinters combination can be identified.

**Table 2. Blends with onset and full syllables**

<b>First word</b>	<b>Second word</b>	<b>Result</b>	<b>Splinters type</b>
<b>nonton</b>	<b>bareng</b>	no-bar	F-F
<b>luar</b>	<b>jaringan</b>	lu-ring	F-M
<b>aci</b>	<b>dicolok</b>	ci-lok	L-L
<b>bukti</b>	<b>pelanggaran</b>	ti-lang	L-M
<b>comot</b>	<b>dompet</b>	co-pet	F-L
<b>tenaga</b>	<b>kerja</b>	na-ker	M-F

The first splinters type F-F has 26 samples or 65% of all second category. This type is exemplified by ‘nobar’ from ‘nonton’ and ‘bareng’. The first syllable of the first word ‘non’ has CVC structure, but when it is joined with the second splinter ‘bar’, it is incompatible because alveolar consonant [n] cannot be followed with bilabial consonant [b]. Phonotactically, the sequence [n-b] can not occur at onset position, thus it should be separated as the switchpoint between syllables, becomes ‘non-bar’. However, in the first splinter, the syllable ‘non’ is reduced to ‘no’, forming CV structure. The deletion of coda consonant [n] in ‘non’ is probably due to the relatively few Indonesian words using [n-b] sequence as syllable switchpoint, apart from some loan words such as ‘nonblok’. The second type of splinters F-M usually happens when the second source word has more than two syllables, such as the word ‘jaringan’ which provides more choices for splinter selection. For the second category, there are three samples (7.5%). In the sample ‘luring’, the second splinter is taken from the middle part ‘ring’ of ‘jaringan’, while the first splinter is taken from the first syllable ‘lu’ from ‘luar’. The next type is L-L where both splinters are taken from the last part of both source words, and four samples (10%) were found for this type. An example for this type is ‘cilok’, where ‘ci’ is taken from ‘aci’ and ‘lok’ is taken from ‘dicolok’. Next, on the fourth splinters type L-M, the first splinter is taken from the last part of the first word, and the second splinter is taken from the middle part of the second word. Again, the middle part is taken because the second word usually has more than two syllables. Only two samples belong to this type, constituting 5% of all blends in the CV + CVC category. In this case, the word ‘pelanggaran’ has four syllables, then the choices can be ‘pe – lang – gar – an’. For this word, the middle part or the second syllable ‘lang’ is chosen to be the second splinter. The fifth splinters type is F-L, or the first part of the first word combined with the last part of the second word was found in four samples (10%). This type is exemplified by the word ‘copet’. This word is so common that people are not aware that it is a

blend of ‘comot’ and ‘dompet’. In English it is ‘pick pocket’ while the Indonesian one literally means ‘pick wallet’. So, the first splinter is taken from the first syllable ‘co’ from ‘comot’ and the second splinter is taken from the last syllable ‘pet’ from ‘dompet’. The last type of splinter is M-F, where the first splinter is taken from the middle part of the first word and the second splinter is taken from the first part of the second word. There is only one sample for this type, that is ‘naker’ from ‘tenaga’ and ‘kerja’.

#### ***Syllable with onset + syllable with onset (CV + CV)***

Blends of the third category consist of two syllables with onset. Only three samples of blends fall in this category, and they only have two splinter types.

**Table 3. Blends of two syllables with onset**

<b>First word</b>	<b>Second word</b>	<b>Result</b>	<b>Splinters type</b>
<b>rumah</b>	<b>toko</b>	ru-ko	F-L
<b>gak</b>	<b>jelas</b>	ga-je	F-F/A-F

The sample for the first type F-L is ‘ruko’ where the first splinter is taken from the first syllable ‘ru’ from ‘rumah’ and the second splinter is taken from the last syllable ‘ko’ from ‘toko’. Both splinters have the syllable structure CV. The second sample, however, is quite unusual. The first word ‘gak’ is pronounced as [gaʔ], where the coda consonant [k] is pronounced as a uvular sound, or not pronounced at all. So, for the splinter type, it can either be F-F (first part of first word plus last part of second word) or A-F (all first word plus first part of second word). Since only few Indonesian words consist of one syllable, this sample is still included in F-F type.

#### ***Peak syllable + full syllable (V + CVC)***

The fourth category of blends consists of peak syllable combined with full syllable. There are two samples with different splinters type.

**Table 4. Blends of peak and full syllables**

<b>First word</b>	<b>Second word</b>	<b>Result</b>	<b>Splinters type</b>
<b>anak</b>	<b>layangan</b>	a-lay	F-F
<b>ojek</b>	<b>online</b>	o-jol	F-Acr

The first splinter, which consists of only one vowel (V) (thus forming peak syllable) is usually chosen because the first syllable of the first source word also consists of one vowel such as the word ‘a-nak’. The second splinter, however, must fulfill CVC structure, then from ‘layangan’ the first part ‘lay’ is taken. The second sample ‘ojol’ should be analyzed differently, since it presents complicated processes. The first source word ‘ojek’ has two syllables, peak ‘o’ and full ‘jek’. Theoretically, the peak syllable ‘o’ should be taken as the first splinter. The second syllable is a borrowing word ‘online’ which consists of two syllables, ‘on’ and ‘line’. Thus, the resulting blend is supposed to be ‘o-on’. However, following the maximal onset principle that the second syllable should have an onset, and the switchpoint constraint in which the syllable boundary should be occupied by onset syllable, an onset consonant should be



present in the second splinter. Since there is no consonant in the second syllable, it should be taken from the first source word, thus consonant [j] is assigned to be the onset of the second splinter becomes ‘jon’, which fulfills the CVC structure. It turns out that the resulting blend ‘ojon’ still needs some modifications. As the second source word is a borrowing word on-line, which is more familiar with the acronym ‘ol’, then this rhyme is taken to replace ‘on’. Thus, the final result is ‘ojol’, with V + CVC structure.

#### ***Syllable with coda + full syllable (VC + CVC)***

Blends consisting of a syllable with coda followed by a full syllable belong to the fifth category. Only seven samples can be included in this category, and they can be further classified into three splinters type.

**Table 5. Blends with coda and full syllables**

<b>First word</b>	<b>Second word</b>	<b>Result</b>	<b>Splinters type</b>
<b>Asli</b>	<b>Garut</b>	As-gar	F-F
<b>Asal</b>	<b>Bunyi</b>	As-bun	F-F
<b>Asal</b>	<b>Tebak</b>	As-bak	F-L
<b>Emang</b>	<b>Benar</b>	Em-ber	F-Fc

All the first words in this category begin with a vowel, such as ‘asal’ and ‘emang’, but these words can be divided into two syllable structures: (1) VC + CV in ‘as-li’ and (2) V + CVC in ‘a-sal’ and ‘e-mang’. However, the splinters taken from the first source words have the VC structure, or syllable with coda. While the first sample ‘as-li’ has already had VC structure, it can be taken directly as the first splinter. The other two samples, ‘asal’ and ‘emang’ need syllable restructuring by taking the onset of the second syllable to be the coda of the first syllable, thus forming the splinters ‘as’ and ‘em’. The reason for this is probably the recognizability factor. The word ‘asal’ will be more identified from the splinter ‘as’ rather than ‘a’. The second splinters, though, can be taken from the first part of the second word such as ‘gar’ from ‘Garut’, the last part of the second word such as ‘bak’ from ‘tebak’. Then, the blends ‘asgar’, ‘asbun’ and ‘asbak’ are formed. The last sample ‘ember’ constitutes another process. It is supposed to take the first splinter ‘ben’ from ‘benar’ to form ‘emben’. However, the coda consonant [n] is replaced by [r], thus forming the word ‘ember’. The word ‘ember’ has another semantic meaning as a water carrying container; meanwhile, ‘ember’ as a blend means *off course/indeed/certainly*. Although ‘ember’ is semantically ambiguous, people can use it properly in conversation, and probably it is why ‘ember’ is used instead of ‘emben’.

#### ***Full syllable + syllable with onset (CVC +CV)***

The last category of blends consists of full syllable and syllable with onset. There is only one sample for this category with the splinter type F-L.

**Table 6. Blends of full syllable and onset**

<b>First word</b>	<b>Second word</b>	<b>Result</b>	<b>Splinters type</b>
<b>senjata</b>	<b>api</b>	Sen-pi	F-L

The last category is exemplified by the word ‘senpi’ which is derived from the first word ‘senjata’ and the second word ‘api’. The splinters are taken from the first syllable of the first word ‘sen’ (CVC) and the last syllable of the second word ‘pi’ (CV).

### Phonological Construction of Indonesian Blends

In the literature review section, the researcher has already detailed the phonological aspects of blend formation. Following the theories and the findings of this study, the section will illustrate the phonological process of creating blends in Indonesian.

The first step is choosing two source words that will be blended. Seo (2021) posits that a blend must be a morphologically and phonologically new word that differs from its source words. Thus, the first constraint for blend is uniqueness constraint. So, let us take two source words, for example ‘jalan’ and ‘pagi’. For Indonesian, there should be another requirement that the source words must at least have two syllables each, because there is a limited number of one-syllable words. In addition, the resulting blends should also have two syllables, as the control mechanism for analysing the syllabic patterning of the blends. Two-syllable blends are the most prevalent blends in Indonesian.

The second step is choosing or determining the splinters from each source word. Since the source words only consist of two syllables, then splinters can be taken either from the first or the last part of the base word. Besides choosing the word’s parts, we can also determine the syllable structure of each splinter. Here, we have two options for shortening. If we follow the source words’ original syllable structure, the available splinters would be: ‘ja’(CV), ‘lan’ (CVC), ‘pa’ (CV), and ‘gi’ (CV). However, there are other possibilities of splinter formation, which involve shifting the onset consonant of the second syllable to become the coda consonant of the first syllable, resulting in four other splinter patterns. These are: ‘jal’ (CVC), ‘an’ (VC), ‘pag’ (CVC), ‘i’ (V). In total, eight possible splinters can be taken from both source words.

After getting the shortened parts, the next step is combining the splinters into blend candidates. The eight splinters combination can produce 16 blend options that can be seen in table 7 below.

**Table 7. Choices of splinters**

		SW2: Pagi			
		Pa (CV)	Pag (CVC)	Gi (CV)	I(V)
SW 1: jalan	ja (CV)	ja-pa	ja-pag	ja-gi	ja-i
	jal (CVC)	jal-pa	jal-pag	jal-gi	jal-i
	lan (CVC)	lan-gi	lan-pag	lan-gi	lan-i
	an (VC)	an-pa	an-pag	an-gi	an-i

To find the best candidate for blend formation, we can apply several constraints using optimality theory (Prince & Smolensky, 2009). Based on the results of this study, I would propose the following constraints for Indonesian blends. First, there are two splinter constraints demanding that Left splinter should correspond with the first part of SW1 the blend, and Right splinter should also correspond to the first part of SW2. This rule differs from English blends where the right splinter is occupied by the last part of the second word (Plag, 2013; Gries, 2006). The next constraint is determining the switchpoint. Indonesian blends tend to have the switchpoint at the syllable constituent boundary, not within a syllable (Arndt-Lappe & Plag,

2013; Seo, 2021). Moreover, based on the data, one of the syllables in the resulting blend should have CVC structure or onset rhyme structure. The syllable switchpoint is chosen as the markedness constraint in this study that will show the characteristic of Indonesian blend formation. The next constraint is phonotactic constraints, which relate to the maximum onset principle (Carr, 2021). All syllables must have onsets that follow Indonesian phonotactic rules. Otherwise, resyllabification will occur. The last constraint is recognizability constraint. Recognizability of the source words is a key factor that affects blend formation (Balieva, 2019). That means, the source words should be easily identified from the splinters used in the blend. Recognizability can also be regarded as the faithfulness constraint, which demands that certain aspects of the input should be preserved in the output. Table 8 displays the operation of the constraints to find the best candidate for blend.

**Table 8. Choosing the best candidate using optimality theory**

Candidate	First SW 1	First SW 2	Switchpoint	Phonotactic	Recognizability
japa	✓	✓	*	✓	*
⇒jalpa	✓	✓	✓	✓	*
langi	*	*	✓	*	*
anpa	*	✓	*	*	*
japag	✓	✓	✓	*	*
⇒jalpag	✓	✓	✓	✓	✓
lanpag	*	✓	✓	✓	*
anpag	✓	✓	✓	*	*
jagi	✓	*	*	✓	*
jalgi	✓	*	✓	✓	*
langi	*	*	✓	*	*
angi	*	*	*	*	*
jai	✓	*	*	*	*
jali	✓	*	*	*	*
lani	*	*	*	*	*
ani	*	*	*	*	*

The typical rule of blending is  $AB + CD = AD$  (Plag, 2013; Hamans, 2021). Yet, Indonesian blends tend to follow the other rule  $AB + CD \rightarrow AC$ , which is often termed as clipped compounds or complex clippings (Bauer, Liber & Plag, 2013; Gries, 2006). Thus, instead of taking the last part of the second source word, the blend takes the first part as the splinter. Consequently, the syllable structure of blend should follow the structure of the splinter of the source words. For example, the first source word ‘jalan’ has [CV-CVC] structure and the second source word ‘pagi’ has [CV - CV] structure, thus if we follow the rule of  $AB + CD \rightarrow AC$ , the resulting blend should be ‘japa’ with [CV-CV]. Although ‘japa’ passes the splinter constraints, it has to pass the switchpoint constraint which says that one of the syllables should consist of onset plus rhyme or full syllable with CVC structure. Since the first parts of both source words have CV structure (ja and pa), there should be a resyllabification by moving the onset of the second syllable as the coda for the first syllable (ja – lan  $\rightarrow$  jal – an). Thus, we get two candidates for splinters that fulfill the switchpoint constraint, *jal* and *pag*. These two

candidates also meet the phonotactic constraint, in which the onset and coda consonants are permitted in Indonesian words. Finally, the combination *jal-pag* also fulfills the Recognizability constraint. Balieva (2019) maintains that the source words should be easily identified from the splinters used in the blend as the increased complexity of form will cause lower recognizability of constituents. Similarly, Kemmer (2003) posits that splinter should be long enough for the words they originate from to remain recognizable. In other words, when looking at the splinter, readers should be able to relate it with the source word. So, the splinter *jal* will possibly be related with its source word *jalan*, compared to the splinter *ja*. Subsequently, the splinter ‘pag’ will be more associated with *pagi*, rather than the splinter *pa*. Therefore, the best candidate of blend for *jalan pagi* is *jalpag* with CVC-CVC (full syllable + full syllable) structure and the splinter type F-F (the beginning of the first word with the beginning of the last word).

The above analysis, however, does not apply to all Indonesian blends. It will depend on the phonological properties of the source words, such as the number of syllables and the phonotactic structures. Moreover, the recognizability of the source words from its splinters may vary from one person to another. For example, the splinter ‘ja’ may be associated with several words such as ‘jamu’, ‘jalan’, ‘jaga’, or any other words beginning with ‘ja’. However, the discussion of people subjective associations with the source words is beyond the scope of this study. This issue might be addressed in the follow-up studies regarding blend recognition.

## CONCLUSION

The findings of this study demonstrate that two-syllable Indonesian blends can be categorized into six groups based on the combination of their syllable structures, which are (CVC+CVC), (CV+CVC), (CV+CVC), (V+CVC), (CV+CV), and (VC+CVC). The most common structure is blend consisting of two full syllables (CVC + CVC) which amounted 46% of all samples. The second most frequently used structure is CV + CVC (syllable with onset + full syllable) consisting of 40 %. The least used category is full syllable plus syllable with onset (CVC + CV) which only has 1 sample. Five of these six types contain full syllable type in the second syllable, while ten out of twelve syllable structures contain an onset consonant. These findings indicate that Indonesian blends prefer syllable with onset in the first position and syllable with onset and coda in the last position. This finding conforms to the maximum onset principle stated by Carr (2021).

As for the composition of splinters, eight types were found, which are (F-F), (F-L), (L-F), (L-L), (L-M), (F-M), (M-F), and (F-Acr). The most used combination is F-F, in which the first part of the first word is joined to the first part of the second word. This type of splinter combination can be found in almost all categories, amounting to 71 samples. The analysis using optimality theory found that Indonesian blends are formed by meeting these constraints: first splinter SW1, first splinter SW2, full syllable switchpoint, phonotactic and recognizability. These findings indicate that the construction of Indonesian blends follows specific phonological rules which differ from other languages such as English.

The present study only discusses blends which consist of two syllables although the source words may comprise of more than two syllables. For future study, more than two syllable blends can be analyzed, since they present more complicated problems, either morphologically or phonologically.

## NOTE

The author would like to thank two anonymous reviewers for very helpful comments on the earlier draft.

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