# Javanese Personal Pronoun *Sira*'s Dynamic Change in 10th – 16th Century

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**ABSTRACT**

In the study of language change, often personal pronouns are one of the aspects discussed and these are an important aspect in the study of Javanese too. However, research on Javanese personal pronouns with respect to the scope of language change has not been done. In the study of language change, the data used are diachronic using current approaches such as the use of corpus linguistics. Therefore, this study aims to display the shift of *sira* used in 10-16th century Javanese literature using corpus linguistic and Mair's grammaticalization approach examining data using qualitative-quantitative methods. Frequency is an important aspect in discovering shifts, and the concordance line feature and n-grams in the *Antconc* program reveal that the homonym form of *sira* serves as a modifier and an honorific marker in certain contexts, while the referent shift occurs from the third person to third and second person in the later period Javanese period. Among the various functions of *sira*, the use of *sira* is closely related to honorific aspects. Additionally, the shifts of *sira* into the second person pronoun cannot be separated from its function as an honorific marker.

*Keywords: Corpus linguistics, diachrony, grammaticalization, old Javanese, personal pronoun*

## 1. INTRODUCTION

In Javanese, personal pronouns serve a crucial function in characterizing the linguistic aspects of the text, as shown by Zoetmulder (1985), Hunter (2007), and Kriswanto (2016). Zoetmulder, through his discussion of linguistic characteristics in *Kidung Harsawijaya* text, examined the use of the pronoun *sira* as a referent to the third and second person. Meanwhile, Hunter and Kriswanto discussed the personal pronoun *sira* serving as one of the linguistic characteristics in *Pararaton* and *Bhismaprawa* text. In his study on *Pararaton* text, Hunter looked into the writing-history of the text by observing several linguistic elements, such as the pronoun *sira* being used as a referent to the third and second person. Kriswanto, using the philological approach, also examined the personal pronoun *sira* as one of the linguistic aspects of *Bhismaprawa* text. These three studies mentioned *sira* as one of the linguistic aspects that characterize a text. In this case, then, the research into personal pronouns in the scope of language change has not been done. In the research on language change of Javanese personal pronouns, the available studies provide an overview of personal pronouns in certain texts. Other studies also discuss

personal pronouns and provide an overview of personal pronouns usage, which were carried out by Uhlenbeck (1968) who discussed the morpho-syntax aspect; Becker and Oka (1974) who discussed the deixis aspect; and Zoetmulder and Poedjawijatna (1992) who discussed the Javanese grammar framework. According to Helmbrecht (2004), various facts on personal pronouns can be synchronously placed into a wider scope of discussion (diachronic) employing grammaticalization. As language progresses, a form cannot automatically change into another more grammatical form due to the gradual shifting process that occurs. Grammatically, however, personal pronouns may change into different grammatical forms. Helmbrecht (2004) stated that in the grammaticalization process, generally, personal pronouns can change their form (from independent lexical) to clitics and affixes.

There are several studies in various languages examining the diachronic use of personal pronouns (Donohue & Smith, 1998; Zilles, 2005; Egerland, 2005; Dench, 2008; Kim, 2009; King et al., 2011; Prayogi, 2013; Yamaguchi, 2014; Ishiyama, 2019), which indicate that personal pronouns shift in the aspects of form, referent, and also grammatical function. Research using the corpus-based method was conducted by Kim

who examined the use of the second and first-personal pronouns in English and Korean newspapers. The two pronouns are thoroughly analysed both quantitatively and qualitatively also paying attention to the interpersonal aspects of discourse and the frequency of pronouns usage utilizing *Wordsmith Tools 4*. Chung (2011) and Wu, He, and Feng (2016) also used the corpus linguistics approach, but they did not discuss personal pronouns; Chung discussed the affix *ter-* in Malay, while Wu, He, and Feng used quantitative analysis to see changes in the frequency of the use of the *future* marker "*be going to*" for 200 years. According to Wu, He, and Feng (2016), the use of a corpus-based method in language change research can assist researchers in accurately calculating the frequency in various genres of text. The novelty in this research lies in seeing personal pronouns in Javanese with respect to language change. In the research of language change, the data needed is considerable and within a certain period. Therefore, this study uses corpus linguistics for the accuracy of calculating the frequency of Javanese personal pronouns in the 10th-16th century literature. Corpus linguistics in this study is also used to see the use of Javanese second personal pronouns which have not been discussed in previous research observations. Meanwhile, various studies that discuss the personal pronoun *sira* in Javanese serve only as the initial point for conducting diachronic research, as has been done in other languages. In our case, the corpus-based method is employed to indicate the exact frequency of *sira* in certain texts and at certain periods, aiming to show changes of personal pronoun *sira* usage by using the grammaticalization and corpus linguistic approaches.

According to Bybee (2003), some existing literature on grammaticalization agrees that it is not sufficient to define grammaticalization as a process of lexical items into a grammatical morpheme, but it is more substantial to reveal that this process occurs in a typical construction context. Grammaticalization aims to describe how grammatical forms and constructions develop over time and explain how they are structured in a particular way. According to Mair (2004), a grammaticalization study is a study that focuses on investigating typologies and universal languages using large data. By using corpora, the grammaticalization process can be more systematic and the grammaticalization analysis can be carried out using different text genres. Mair (2004) explained that there are two forms of grammaticalization: the "dynamic" and the "static" forms. Mair emphasized that dynamic forms of grammaticalization are related to diachronic changes resulting in frequency and construction changes, while static forms are more related to grammatical descriptions. According to Hopper and Traugott (2003), changes in frequency need to be observed through diachronic studies, because the increasing frequency of construction over a long period shows the evidence of

grammaticalization. The higher the frequency of the lexical items, the easier the lexical items are grammaticalized. Mair (2004) also explained that grammaticalization is often associated with frequency. According to him, frequency is an important factor among many aspects of grammaticalization. Corpus linguistics in this study is used considering several reasons. According to Mair (2012), there are three reasons for the use of corpora in grammaticalization research, namely (1) corpora can assist data search, making it more precise, systematic, and efficient; (2) the use of corpora can display syntactically and contextually authentic language data in the discourse; (3) corpora can address the problem of accurate frequency usage. The corpus linguistics in this study is not only used to facilitate researchers in data processing but also to observe the frequency of persona pronouns usage.

## 2. METHODS

The data source used in this research is Javanese literary text consisting of prose and poetry. The use of poetry text is based on a large number of poems when compared to prose. These texts, dated from the 10th to the 16th century, are analysed using corpus linguistics and grammatical approaches. The texts are *Adiparwa* (10th century) edited by Juynboll (1906), *Arjunawiwaha* (11th century) edited by Robson (2008), *Bharatayuddha* (12th century) edited by Wirjosuparto (1966), Arjunawijaya (14th century) edited by Supomo (1977), Pararaton (15th/16th century) edited Phalgunadi (1996). Based on the type, *Adiparwa* and *Pararaton* are prose text, and *Arjunawiwaha*, *Bharatayuddha*, and *Arjunawijaya* are poetry texts. The reason for the use of these five texts is based on the edited availability in Latin script. Additionally, various studies also used the text as data, so the result of this study can be used to either support or refute existing research. The five texts above represent different historical periods. At the data collection stage, the texts are scanned and converted into *.txt* format and then processed using *Antconc* software. This research employs qualitative and quantitative methods. The quantitative method in this study refers to the use of frequency in the analysis. In addition, the n-grams and concordance features of the *Antconc* software are also used in data processing and analysis. Sinclair in Cheng (2012) described a concordance as a collection of words in a certain textual *environment*. Through a concordance display on a computer screen, users can identify patterns and find out the meaning of certain words. Furthermore, according to Cheng (2012) n-grams is a series of two or more words that occur repeatedly in a corpus. In corpora there are a number of structured patterns that are often present, such as the presence of pronouns with certain verbs. Cheng also added that one of the functions of n-grams is to find out the vocabulary that is adjacent to a particular pronoun.

**Table 1.** Frequency and normalization

|  | *Adiparwa* (10th century) | *Arjunawiwaha* (11th century) | *Bharatayuddha* (12th century) | *Arjunawijaya* (14th century) | *Pararaton* (15th/16th century) |
|---|---|---|---|---|---|
| Frequency | 992 | 56 | 154 | 143 | 591 |
| Token | 50877 | 12027 | 21912 | 19608 | 12728 |
| Nominalization | 1.949/ 100 thousands of occurrences | 465/ 100 thousands of occurrences | 702/ 100 thousands of occurrences | 729/ 100 thousands of occurrences | 4.643/ 100 thousands of occurrences |

This is related to how information is delivered by participants in the form of opinions, choices, and statements. N-grams can also be categorized as a discourse function, which has referential, text organization, attitude, and interactional functions. References in n-grams include time markers, place markers, and in-text markers. The attitude on n-gram refers to the attitude of the speaker and writer, while the interactional function is related to the use of politeness in speech acts.

## 3. FINDINGS AND DISCUSSION

After analysing all 25 Based on the normalization analysis carried out on the five texts, the frequency of *sira* is higher and more varied in prose texts (*Adiparwa* and Pararaton texts) than in poems. Some of the functions of *sira* found in prose texts, for example, are third personal pronouns, second personal pronouns, modifiers, and honorific markers. According to Siewierska (2004), the frequency of personal pronouns usage and their grammatical functions differs depending on the type of text, as in the English corpus of Biber et al., which shows that the use of the third personal pronoun is higher in fictional or prose texts as shown in Figure 1 and Table 1.
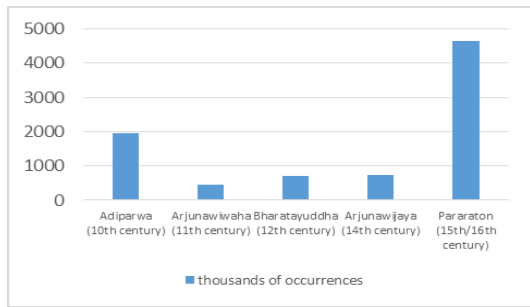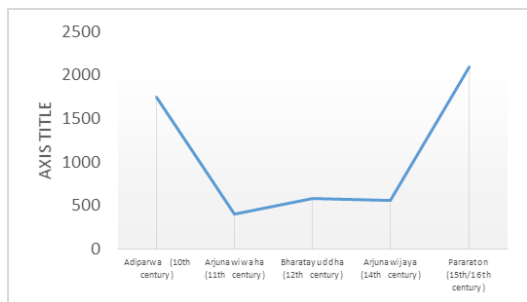


**Figure 1** The use of *sira.*



**Figure 2** Third personal pronoun *sira.*

### 3.1. The Third Personal Pronoun

Figure 2 is the graphic of the use of *sira* as third personal pronoun in 10th-16th century.

By using the n-grams and concordance feature, the use of *sira* as the third personal pronoun in the *Adiparwa* text is found to be accompanied more by the modifier *ta* both on the left or right of it with 497 total occurrences. The presence of this modifier indicates that *sira* serves in a syntactic function as a subject in a clause or sentence. Another construction that signifies *sira* as a third personal pronoun is the plural marker *kabeh* 'all'; occurring on the right side of *sira* on 27 occasions, and the preposition *de* 'by' occurring on the right side of *sira* on 43 occasions. Preposition *de*, occurred on the right side of *sira*, indicating that *sira* holds the syntactic function as the subject semantically, not as the doer.

The following is the use of personal pronoun *sira* in *Adiparwa* text.

(1) *"Mulih    ta    sira    ring    kaḍatwan"* (Ad)

　　Return  MOD  PRON3  PREP      palace

　'he/she returns to the Palace'

In sentence (1), the third personal pronoun *sira* is to the right of *ta* particle. In this construction, *sira* occupies the subject function preceded by the verb *mulih*. The third personal pronoun *sira* in the sentence refers to the Maharaja Pariksit previously mentioned in the *Adiparwa* text. Such constructions occurred frequently in the *Adiparwa* texts, but unlike the *Adiparwa* text, the frequency of *sira* as a third personal pronoun in the *Arjunawiwaha*, *Bharatayuddha*, and *Arjunawiwaha* texts is uncommon. Based on n-grams and concordance lines, the construction of the third personal pronoun *sira* with the prepositions *de* and *ri* to the right of *sira*, and particle *ta* to the right and left of *sira* only appear in occasionally. The common construction generally appearing in the three texts is the third persona pronoun *sira* located to the right or left of the verb although in the *Pararaton* text, the third personal pronoun, *sira,* is mostly located to the right or left of the verb. The use of *ta* to the left of the personal pronoun *sira* is less than the one to the right.

The following is the use of personal pronoun *sira* *Pararaton* text.

(2) *"Maṅkat    sira    amaluku    pagagan"*

　　Go　　PRON3　to plow　　rice fields

　　'He goes to plow the rice fields'

*Sira* in the sentence (2) functions as the third personal pronoun and replaces Ken Angrok in the previous sentence. The verb construction – S is a common construction in Old Javanese texts. Syntactically, there is no change in the third personal pronoun *sira*, but rather it has the bound form *–nira* and *–ira* which can be attached to nouns, passive verbs, and preposition *de*. In *Pararaton* text, the ability of the bound forms *–nira* and *–ira* to attach to passive verbs decreases and they are more attached to nouns and preposition *de*.

## 3.2. Modifiers

Figure 3 presents the decrease of the use of *sira* as a modifier. Helmbrecht (2004) explains that personal pronouns can occur as a modifier and a determiner, as in German and English where the personal pronoun as determiner is optional. In *Adiparwa* text of the 10th century, the use of *sira* as a modifier is frequent. However, its use as a modifier decreases in the texts in later periods. In *Pararaton* text of the 15th/16th century, *sira* as a modifier is rediscovered with fewer occurrences than those in *Adiparwa* text. One of the grammaticalization forms that occur in persona pronouns is decategorialization, which occurs through the disappearance of the personal pronoun's function as a determiner (Heine & Song, 2011). Based on graph 3, the function of *sira* as a modifier is not completely lost but is later rediscovered in *Pararaton* text. The increase of the use of *sira* as a modifier is affected by the prose type of the *Pararaton* text.

The characteristic of *sira* as a modifier in the *Adiparwa* text is its position on the right of the word *hana* 'there is' (*ta*) and on the left of a proper noun which refers to people owning a high position such as a King, God, or Teacher. Some of these proper nouns include *brāhmaṇa*, *bhagawān*, *mahārāja*, *strī*, *mpu*, *bapa*, *ratu*, *rṣi*. In the *Arjunawiwaha*, *Bharatayuddha*, and *Arjunawijaya* texts, as a modifier on the construction of *hana* (*ta*) *sira* is absent.
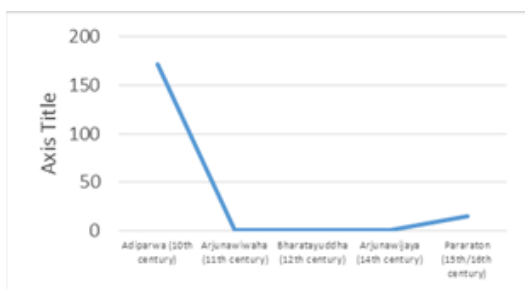


**Figure 3** Modifier *sira*.

In the *Pararaton* text the construction of *hana* (*ta*) *sira* occurs only twice, followed by a noun on the right.

(3) *"Hana    ta    **sira**    maṇḍala iṅ Turyāntapada, mulih sira    mareṅ    Kabalon"* (Par)
　　There　is　MOD　area　　PREP　　　　return PRON3　to

　　'There is an area in Turyantapada, he returns to Kabalon.'

In sentence (3), *sira* functions as a modifier located on the right of the word *hana* and the particle *ta*. According to Uhlenbeck (1970) *ta* has a syntactic function as a modifier between two different syntactic functions in a sentence. The use of *sira* in the sentence is also as a modifier, confirmed by Zoetmulder and Poedjawijatna (1993). In this context, the function is the same as the particle *ta*, with the construction of *hana* to the left of *sira*.

## 3.3. Honorific Markers

Based on Figure 4, the use of *sira* as an honorific marker increased from the 10th century to 16th century. In the *Adiparwa* text, *sira* as an honorific marker is located to the right of the particle *i* or *ri*, and rarely to the left of the proper noun *bapa*. The following is an example of *sira* in the *Adiparwa* text.

(4) *Makrak    ta    sang    Çṛnggi tumangis    i    **sira**    bapa* (Ad)

　　Shout　MOD　　ART　　　cry　PREP **ART** father

　　'Sang Srnggi cries loudly to his ayah'

In sentence (4), *sira* does not function as a third personal pronoun, but as an honorific marker where its usage is similar to *sang*. In the *Arjunawiwaha*, *Bharatayuddha*, and *Arjunawijaya* texts, the use of *sira* as an honorific marker is often followed by other words such as *sang* and by a proper noun on the right. The following is the use of *sira* in the *Bharatayuddha* text.

(5) *Sang Trigarta pati sapta mujar i    **sira** sang Dhananjaya.* (BY)

　　ART　　is seven speak　　PREP ART　　ART

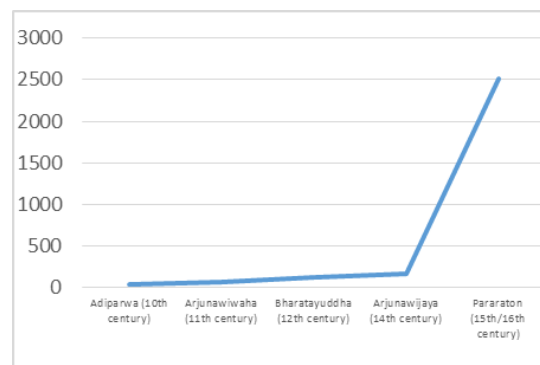　　'sang Trigarta speaks seven times to sang Dhananjaya'



**Figure 4** Honorific Marker *sira*.

In sentence (5), *sira* is followed by another honorific marker *sang* and the person's name. According to Zoetmulder and Poedjawijatna (1992), *sira* was often used to substitute *sang* and placed to the left of an aristocratic title. Meanwhile, in the *Pararaton* text, *sira*, serving as an honorific marker, is mostly followed by proper names of those with high rank of social statuses, such as Ken (Angrok and Dĕdĕs), Gajah, Virarāja, Mpu, Lĕmbu, Kĕbo, Rangga-lawe, Bango, Tunggul Ametung, Mahisa-Champaka, and Sora, with more than 300 occurrences. Heine and Song (2011) explained that the second personal pronoun may be derived from the third personal pronoun, which also serves as an honorific marker. In this context, *sira* is not only a third personal pronoun but also an honorific marker. This form of honorific addresses social relations that are commonly found in languages in Southeast Asia and East Asia (Heine & Song, 2011; Siewierska, 2004). Siewierska (2004) argued that the use of pronouns as an honorific marker is closely related to a person's social status and level.

### 3.3. The Second Personal Pronoun

Based on Figure 5, the use of *sira* as a second personal pronoun was found to be present in the text from the later period, namely the *Pararaton* text dating from the 15th/16th century. *Sira* as a second personal pronoun is used in direct sentences. In the *Pararaton* text, *sira* does not only refer to the third person, but also to the second persona. According to Ishiyama (2019), the shift from third person to the second person is a common phenomenon in languages, for the purpose of politeness. In this case, Javanese is one language that recognizes politeness in its linguistic system (*unggah-ungguh*). According to Rahyono (2002), the personal pronoun used by the speaker indicates the speaker's social status and position, interlocutor, and the person being talked about. In the *Pararaton* text, *sira* as a second personal pronoun is used to refer to someone who is older or more respected based on his/her social status. Siewierska (2004) also explained that the third personal honorific marker used to refer to the second person is used as noun pronominalization. In this case, personal pronouns undergo grammaticalization as a personal marking function, or its referent is changed.
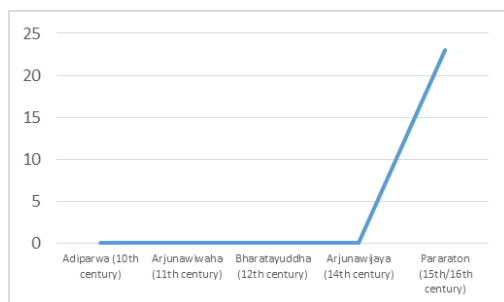


**Figure 5** The Second Personal Pronoun *sira*.

The third personal pronoun here undergoes a desemantization process into the second personal pronoun; its referent indicating changes from the third person to the second person. In addition, the shift in personal pronouns referents occurs because one of the sources of construction may be from other pronouns (Helmbrecht, 2004). Heine and Song (2011) also explained that one of the sources of the second person construction comes from the third personal pronoun.

The following is the use of *sira* as the second personal pronoun in *Pararaton* text.

6) *Lah kaki isun  anuṅguha kalih, lamun **sira** aja luṅha, isun uga anuṅgonana riṅ sirāmaṇḍala* (Par)
   EMP grandfather PRON1 sit    together if   **PRON2** NEG
   go PRON2 EMP wait PREP PRON2 territory
   'O my grandfather who sits together, if you don't go, will be waiting in your territory'

Sentence (6) is a direct sentence uttered by Ken Angrok to two grandfathers. By age, Ken Angrok was younger than the two grandfathers. Ken Angrok uses the pronoun *sira* to refer to the person being spoken to.

According to Hunter (2007) the shift of the third person to the second person pronoun occurs because of an internal paradigm shift in Old Javanese pronouns. This happens because, in the *Pararaton* text, there are personal pronouns used in everyday language that are included in the dialect of Old Javanese literature. He emphasizes that the use of the pronoun *sira* as the second and third personal pronouns is related to the combination of written literature with elements of oral language in the making of new literary works. *Sira* as the third person pronoun in the narrative section of the *Pararaton* text is more in written form of Old Javanese, while *sira* as the second person pronoun in the dialogue section is a dialect of spoken language. In this regard, Uhlenbeck (1968) in his research on the Old Javanese personal pronouns explained that associating the use of the Old Javanese personal pronouns with Javanese dialects faces many difficulties, especially in distinguishing archaic elements, dialect phenomena, and inadequate data distribution. Therefore, additional data is required to enable the observation of dialects in Old Javanese text.

However, if we review the text, another possibility of personal pronoun changes in the *Pararaton* text is due to the influence of the use of the first and second personal pronouns. The variation and frequency of occurrences of the second person pronoun in the *Pararaton* text are uncommon when compared to the texts of *Adiparwa*, *Arjunawiwaha*, *Bharatayuddha*, and *Arjunawijaya*. Besides *sira*, the free form of the second person pronoun used in the *Pararaton* text is only *kita,* with three occurrences. Therefore, *sira* is used as a second personal pronoun to address the variations of the second person pronoun in the text whereas the variation of the first person pronoun used in the *Pararaton* text

consists of *ingsun*, *isun*, *nisun*, *ningsun*, *sun*, *ngong*, and *mami*. In other texts, the pronoun variation pronoun *isun* is not found. The variation of pronoun *ingsun* began use in texts in the 15th century. In the Old Javanese-Indonesian dictionary, it is stated that *ingsun* is a variation of personal pronouns used in ballad texts. Ballad "*kidung*" is a Middle Javanese poem type using a Javanese original meter (Zoetmulder, 1985). However, in this case, *ingsun* is not only limited to ballad texts, but is also found in prose text. In other prose texts, namely *Bhismaprawa* text (17th century), Kriswanto (2016) described the occurrences of various variations of the personal pronouns, for example, one of the distinctive features of the personal pronouns is the presence of *ingsun* as the first personal pronoun and the use of *sira* as the second and third personal pronouns and, similar to the *Pararaton* text, the *Bhismaprawa* text displays variations in the use of the second person pronoun limited to *kita* and *ko* forms.

## 4. CONCLUSION

Folklore Based on the discussion, the use of *sira* changes in each period and the various genres of data used significantly affects the frequency and variation of the function of *sira*. It does not only serve a function as a third person pronoun but also has a homonym form which functions as a modifier, an honorific marker. Additionally, *sira* serves as a second personal pronoun in the *Pararaton* text of the 15th/16th century. Of the various functions of *sira*, the use of *sira* is closely related to an honorific aspect. In the *Pararaton* text, the use of *sira* as an honorific marker is in line with its function as the second person pronoun in the text. Consequently, the reference shifts of personal pronoun *sira* are not caused by the influence of variations of personal pronoun used as the first and second person in the text. However, the construction process of *sira* as a second personal pronoun is also inevitable from its function as an honorific marker. This is in line with the current use of the personal pronoun in Javanese which considers the honorific aspect of the interlocutors and the person being talked about or to. Although no speech level is available in Old Javanese, yet during that period, personal pronouns were still concerned with honorific aspects.

## ACKNOWLEDGEMENTS

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