# A Study on the Productivity of Derivational Affixes of Assamese

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# CHAPTER 7

## Conclusion

The concluding chapter summarises the key findings of this research work, along with the contributions, limitations and future scope. The previous chapters present and analyse the productivity rate of the selected affixes using different measuring methods based on two samples and arrange them in a hierarchy according to their rates. The chapter also analyses semantic as well as structural relevance in figuring out the productivity of the suffixes.

**7.1 Salient Findings**

- The chapter 3 and chapter 4 deal with the prefixes. We find that semantics exclusively play an important and more direct role in the productivity of prefixes. When examined from the perspective of various negative senses, the chosen prefixes exhibit one or two primary senses of negativity, which make all of them productive in different ways. However, a few prefixes adhere to more than one sense and significantly, those prefixes turn out to be more productive overall. *ɔ-* has claimed to be the most productive prefix amongst others.
- The core senses of the prefixes:

*ɔ-* Absence, oppositeness, free from a state or situation concerned, ethically improper, Incapability, unfavorability, unsuitability, unacceptability of performing an activity.
*ɔpɔ-* Adversity, quality of degrading, inferior or bad, 'should not', deviation from the expected path or expected ethical behaviour
*ku-* quality of being 'evilish', polar opposite of the positive prefix *xu-*
*dur-* sense of 'audacity'
*bi-* Formal usage. Different or deviated from the sense expressed by the root
*ni-* Formal usage. Non-presence of the quality referred to by the root.

- Semantics and its relation to their productivity:

*ɔ-* has multiple senses, which make it an easy choice for word-production, hence, its productivity is also the highest amongst all. *ɔpɔ-* and *-ku* are in more competitive state. *ɔpɔ-* is less critical than *ku-* which is why it is picked up in less adverse situation. On the other hand, since *ku-* is a polar negative, its sense is more vivid and fixed. Because of this, there is chance that it is used in a direct situation. *dur-* is used only in specific

conditions, and its productivity is found to be medial. The prefixes *bi-* and *ni-* have creative and formal use. *ni-* has higher productivity, while *bi-* is lowly productive.

- Chapter 5 and chapter 6 discuss the productivity of the suffixes. Towards the end of chapter 6, a comparison of the productivity of prefixes and suffixes is also made. In case of suffixes, structural factors have more roles to play than semantics. A suffix can be more productive depending on several characteristics, such as whether it is a noun suffix or an adjective suffix or both, whether it is an agentive suffix, a feminine suffix or an expressive suffix. Depending on the composition of the suffixes also, some suffixes may turn out to be more productive than others.

The suffixes which are not limited to one category in terms of the bases they are attached to and the resultant derivatives are found to be more productive. While as an adjective suffix, *-ɔn, -ɔk, -ɔni* are more productive; as nominal suffixes, *-ija, -ɔnija, -aru, -ahi, -ija, -ua* and *-uwal* are more productive. Among the agentive suffixes *-ɔk, -ɔti, -ɔni, -aru, -ahi, -ija, -uwa* and *-uwal;* the agentive suffixes *-ɔk* and *-ua* are more productive than the others. The productivity of the feminine suffixes *-ɔti* and *-ɔni* is almost similar, yet the frequency of both is low. Existence of other feminine suffixes in the language may affect their productivity. The expressive suffixes *-ɔni* and *-ija* are competitively productive and both of them display high frequency. As *-ija* produces adjectival expressives and *-ɔni* produces nominal expressives, both of them are actively being used. Again, the higher productive suffixes tend to attach to both monomorphemic and multimorphemic bases. Lastly, we see that the suffixes that bear more than one features or structural aspects such as *-ija, -ɔni, -ɔn, -uwa* and *-ɔna* tend to be more productive.

- Semantically or structurally the more open and less constrained affixes prove to be more productive, and vice versa.

- Although affixes with fewer restrictions have higher productivity overall, they are more productive when creating colloquial words. On the other hand, restricted category affixes are preferred choice to construct formal or creative words since their use is intended to draw the listeners' attention.

- When we view them as separate processes, ‘Suffixation’ is more productive than ‘Prefixation’. Conversely, in terms of individual comparison, prefixes are more productive than suffixes.

- Despite the fact that the nature of the samples is entirely different, the same prefixes and suffixes seem to be productive in both the samples. Certain affixes, including *ɔ-, ɔpɔ-, ni-, -ija, -ɔk, -ɔn,* etc., yield higher productivity results in both sample A and sample B. It suggests that these affixes are productive in the language for an extended period of time.

- The statistical methods that are replicated here exhibit comparable patterns regardless of affixes and sample sizes. That is, the results of the V and N methods are similar, as are the results of the latter probabilistic methods, and both tend to project a contrastive image.

- As we know that semantics play an important role in the case of prefixes, and perhaps this is one of the reasons, the number of prefixes is also limited. This has ensured the possibility of a Rule-based model, specifically with feature based rules, for prefixes as the formulation of rules is expected to be easier. On the other hand, for the suffixes this side is less clear hence along with the Rule-based model, the Data-driven model would better suit for the prediction of the formation rules.

- This study has attempted to start the kind of quantitative productivity studies that are severely limited by the lack of appropriate resources in Assamese.

- At the end, a general statement is made based on the productivity status of the prefixes and suffixes. The categories are loosely divided as the highest productive, higher productive, medially or moderately productive, lowly productive and the lowest productive.

**Prefixes:**

| | |
|---|---|
| *ɔ-* | Amongst all the prefixes, *ɔ-* stands out as the highest productive prefix |
| *ɔpɔ-* | It has the higher productivity rate |
| *ku-* | Lowly productive |
| *dur-* | It is a medially productive prefix |
| *bi-* | The prefix is lowly productive |
| *ni-* | It has a higher productive rate |

**Suffixes:**

| | |
|---|---|
| *-ia, -ɔni, -ua, -ɔti, -ɔk, -ɔn* | These are highly productive suffixes of the language |
| *-al, -ɔnija* | Medially productive |
| *-aru, -ual, -ɔruwa, -alu, -ahi* | Lowly productive |

### 7.3 Limitations

The major hindrance in studying morphological productivity from a quantitative point of view, as already mentioned, is the lack of well-formulated digital resources in Assamese. It has required a significant amount of time and work to process the data manually for sample A, which is composed of various texts gathered from a digital platform for one lac words; to create a list by eliminating unsuitable words for the chosen affixes from the sample; and to process and reprocess the data. However, this only partially achieves the goal, since the productivity study requires a large-scale corpus. The accuracy of the productivity rate increases with the size of the corpus. Similarly, for sample B, which is the collection of data from an Assamese dictionary, also required processing of data manually. In a language such as Assamese, where plenty of affixes are available for word formation in addition to other word-formation processes, investigating this field will undoubtedly produce some fascinating information regarding this dynamic and adaptable feature of language.

Again, as the nature of samples was different, one from contemporary texts and another from a dictionary, the only mutual method was the Type frequency method. This was one of the limitations in comparing productivity in different samples. Again, when it

comes to probabilistic methods, which predict the future productivity rate of the suffixes, presence of an extreme value hindrance in getting a true picture of productivity, which is another limitation of the measuring methods. That is why, regarding the measuring methods that are suitable for Assamese data, we feel that results obtained by all the measuring methods should be compared to get a comprehensive picture of productivity of the affixes, as none are all-inclusive. Also, as different methods display different aspects of productivity, abandoning one method may deprive us of some other important insights. In addition, the kind of sample texts taken for the study also needs consideration as different types of samples may result in different rates of productivity.

Another limitation is the inadequacy of computational tools for data extraction. Data are manually collected and processed in addition to preparing the samples to accomplish the study.

### 7.4 Future scope

We have only worked with a small number of affixes in this study. Because there is large number of affixes in the language, there is much room to explore the topic of productivity and the various facets of each suffix. For instance, the productivity of positive prefixes, the diachronic productivity of the affixes, the productivity of Sanskrit and Assamese affixes, etc., may all be studied.

This study has incorporated two approaches to productivity study: corpus and dictionary-based approaches. The psycholinguistic approach, on the other hand, is still up for experimentation. To gain deeper insights into this phenomenon, researchers in the future may employ this method alone or in conjunction with other approaches.

It is expected that this study would call attention to future linguists and developers to work toward the development and digitalization of materials and resources in Assamese as well as other Indian languages, given that it has highlighted the limitations of the resources and computation tools. Linguists and computer scientists can come together to collaborate in the development of refined tools for the language.