Semantics Sanskrit (language) Question That Contains Assumptions

Programming Languages

If Sanskrit is considered to be the most scientific language for programming, then why are we still using C, C++, and Java?

Some of the features of Sanskrit that allegedly made the language so attractive for AI language developers may be:
(1) its highly algorithmic grammar, both in terms of morphology and syntax, so much that, by mechanically applying the sutras of Panini or Jiva Goswami to nounal and verbal roots one can form perfectly correct words and sentences without even knowing what they mean;
(2) its orderly and systematic yet extremely versatile word formation, which expands a fairly limited number of nounal and verbal roots, with the help of a few prefixes, suffixes, and pronouns, into a practically unlimited range of words and their meanings; and
(3) its inflection-based syntax, which makes the overall meaning of a sentence almost independent on the position of its constituent words (unlike English, Hindi, Russian, and many other languages). For instance, the sentence "people see you" changes it meaning entirely if the words are moved around like "you see people ", "see you people", "you people see", while its Sanskit equivalent "janAh pashyanti tvAm" will retain its meaning with any respective placement of the words in it: "janAs tvAm pashyanti", "pashyanti tvAm janAh", "pashyanti janAs tvAm" etc. This may account for the purported unambiguity of the Sanskrit language.

6 Answers

Thomas Wier, Assistant Professor of Linguistics at the Free University of Tbilisi.
2.8k Views

This question is based on a rather bizarre assumption that Sanskrit, or indeed any language, is naturally well-suited for programming or logic. **Everything we know about natural human languages suggests that all currently existing languages have approximately equal abilities to express the same ideas in one way or another, and thus none of them is particularly better suited than another for any purpose whatsoever.**

All natural human languages are the product of hundreds of thousands of years of coevolution: as humans bodies and cognitive abilities evolved in natural environments, their abilities with language also evolved. (For some details on how this happened, see my answer: When did language originate?) As far as we can tell, all human languages have properties that include the following:

- Words are grouped into syllables consisting of consonants and vowels which are in turn grouped into metrical feet;
- Clauses have redundant mechanisms like verb agreement, nominal case or gender and noun class to insure that particular messages be clearly and consistently expressed;
- Clauses have various levels of recursion in the form of distinct types of phrases which could be embedded within each other;
- All languages produce at least some strings that are either lexically or syntactically ambiguous between two or more readings (or both);

All languages, from Sumerian, to ancient Sanskrit, to modern English and the indigenous languages of Papua New Guinea and the Amazon, have such features in their languages. From a Martian's perspective they would in fact probably be almost indistinguishable in terms of their logical properties, despite many superficial differences.

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Justin Rising, experienced programmer and software engineer
1.5k Views • Upvoted by Phil Darnowsky, I have learned a great many programming languages over the past 30-odd years
Justin has 110+ answers in Programming Languages.

Programming languages have type systems. Where's the type system in Sanskrit? Why would it be easier to add one here than to any other natural language?

The idea that Sanskrit (or any other natural language) is ideal for programming seems to be based on a fundamental misunderstanding of what the important features of a programming language are, and how they differ from the grammatical features of a natural language. Even if there is some language with a completely unambiguous grammar--and as a non-Sanskrit speaker, I'm not in a position to say whether that's the case, but I'm mildly skeptical--there's really no reason to think that it's going to be good for programming, simply by virtue of the fact that it doesn't have programming language features built in.

That said, it's certainly possible that there is some advantage that I'm not seeing. However, if you want to argue that, you need to build a compiler for a Sanskrit-based language and show specifically why it's better than C++/Java/etc. So far, all the discussion I've seen is rather hand-wavy, and I'm not impressed. Show me the compiler and we'll talk.

Edit: Since I wrote this answer, I've found a nice brief discussion on Sanskrit as a scientific language at What is so 'scientific' about Sanskrit? #SeriousQuestion .

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Richard I. Polis, Entrepreneur/Consultant
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Natural languages have, of necessity, unbounded context and a certain degree of ambiguity. Neither of these features are very suitable, to say the least, in a programming language.

By the way, the fact that meaning depends very little on word order is not unique to Sanskrit. Such invariance exists in any fully inflected language, and examples of these include Russian and Latin.

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Harsha Matadhikari, I like sanskrit
703 Views

Sanskrit is not the best suited language for programming, but it is best suited for Natural Language Processing.

Why? Because
1. The grammar is well defined and complete.
2. The language does not have localised versions, colloquial expressions, slangs. All new words all new sentences and phrases must adhere to the grammar.
3. To elaborate on point 1 above, it defines both rules and exceptions.

The main reason it is not still used even in NLP domain is that it is not used as spoken language and hence does not make economic sense.

Please refer to my answer in Harsha Matadhikari's answer to Why hasn't anybody created a Sanskrit-based computer language?.

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Chatrapathi Kun
151 Views

The answers here are based on the assumptionn that whenever, Sanskrit is asked in relation to a programming language, it is some how related to NLP. Wrong, the question is asked, the structure of Sanskrit is such that, it can be used as a Restricted Language just like English is used as a Restricted Language with rigid syntax and semantics to make it algorithmically friendly. Therefore, in that sense, in one way any NL can be condensed to form a restricted language. However, the thing with Sanskrit, one of the properties is that it doesn't have names for objects most of the time, though certain exceptions exist. Sanskrit has been used in a very restricted form to convey messages, treatises etc. so that their message is not changed over time or from tongue to tongue, by restricting it's semantics and syntax. Hence, it is possible to absolutely make a Computer Programming Language, let's see about an NLP when time comes....in the mean time...the only reason why Sanskrit is not yet used as a Formal Programming Language, though Backus Naur form is influenced by Sanskrit's structure, is because of the language of the industry and the market. English is widely used as the language of information, science, research etc. Therefore it makes sense that English is used in a restricted sense to make Computer Programs in and if you have observed many of the Programming Languages have been written for Computers manufactured/ used in USA initially therefore it was logical to use English as the medium for communicating with the machine. Anyone who say't that a natural language cannot be used to write a programming language is either in the dark about the language he is referring to or is blatantly biased.

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Sunil Choudhury, Anyway the wind blows doesnt really matter to me.
423 Views

At last someone really asked this question

And the answer is also simple. C, C++ uses English as the basic language, and English is much and very much widespread than English.

The invention of computer and almost all of its existing programming languages was done in USA where the language used is English, so it is the obvious reason.

C, C++ and other languages are helpless in Quantum Computing!!

Sanskrit is a language which belongs to India. But still we don't dare to use it as we need a informal western approval for everything, for every technological milestone!!

NASA is also going to use Sanskrit as a programming language!

But did I mention ISRO?? Leave them they are busy in corruption and money laundering milestones.

NASA on Sanskrit & Artificial Intelligence by Rick Briggs

So if you are a Computer Science guy, you might have been aware of BNF(Backus Naur Form) and Extended BNF. It is used to design programming languages, compilers and used to solve problems in AI.

According to BNF, Sanskrit is the most accurate and intelligent language which can used for programming.

When the mainstream technology will shift towards heavy requirement of Artificial Language and evolution of Quantum technologoes in physics, computing and mathematics, Sanskrit is ought to be the need of the hour.

You can follow this Youtube Video for more wide knowledge.

For more follow this two posts of Capt. Ajit Vadakayil

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Sanskrit (language): What do the left column symbols used in the Panini stamp mean?

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C# (programming language): How to create database apps?

JVM uses C code to convert Java code into machine language? Then why can't we use C to do an actual program rather than using Java?

C (programming language): Why do most of the people use int as return type for main function and return value as 0 even when there is no use of returning it?

C++ (programming language): In C++, why do you use references?

C++ (programming language): What are the features of C++ which most programmers don't know?

Java (programming language): What are the pros and cons of using C++ over Java for professional programming?

C++ (programming language): Why do people who come from a physics background tend to use C++?

C# (programming language): What is advantage of using build scripts over just compiling in vs?

C++ (programming language): How do I avoid using namespace std in C++?

C++ (programming language): What is use of Abstract Class in C++?

C (programming language): What are some must-read books for a C programmer?

C++ (programming language): How do you use precise integers larger than 8 bytes in C++ without using an external library?

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1) Lack of action due to over analysis

2) Being afraid of failing and not seeing failure as great opportunities to learn

3) Choosing the safe route and not thinking outside the box

4) Lack of balance in one's life (All work and no play)

What conditions will be needed for a landslide US presidential election to happen in our lifetime?

Peter Flom, Active follower of the election
1k Views • Peter is a Most Viewed Writer in Politics of the United States of America with 15 endorsements.

The conditions are simple: Either a) One side picks a person with very general appeal (e.g. Reagan over Mondale; Eisenhower over Stevenson) b) One side picks a person with almost no general appeal (e.g. McGovern vs. Nixon; Goldwater vs. Johnson) c) Both the

Should the burqa be banned in the West?

Cyril Anderson, Instructional Designer, Writer, Aspiring Renaissance Man
554 Views

No. And I will go beyond "no" to say, "Of course not! That's absolutely absurd." And I say this not because I have any love for the burqa or the niqab. I say it because it's a minimal frequency minority practice, and you don't make laws about minimal frequency minority practices unless the practice involves some sort of clear and

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