'Subject' in English is *abhihita*[*]

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1. Introduction

Pāṇini's method of grammatical description of the Sanskrit language is an important landmark in the history of language science. His grammar has continued to have influence not only upon the grammars of Prākṛta languages like Mahārāṣṭrī (Scharfe 1977: 192), but also on the grammars of modern Indian languages such as the *Līlātilakam* of Malayālam (Pillai 1955), the *Āndhraśabdacintāmaṇi* of Telugu (Nannayya 1932), and the *Mahārāṣṭraprayogacandrikā* of Marāṭhī (Arjunwadkar 1970), to name a few. During the eighteenth and nineteenth centuries, when modern linguistics was taking shape, focus among Pāṇinian scholars shifted to comparison of various modern linguistic theories with the Pāṇinian system and thus the development of grammars utilizing Pāṇini's method for modern languages took a back seat.

The discovery of computers and advancements in computational linguistics have opened up new avenues to show the relevance of Pāṇini's grammar for developing computational grammars of modern languages. The current trend in computational linguistics is either to develop parsers based on dependency grammar formalisms or to map native output of parsers (which is typically in terms of phrase structure rules) to a dependency format. Dependency format is preferred over the constituency not only from an evaluation point of view (Lin 1998: 323) but also because of its suitability (Marneffe 2006: 449) for a wide range of Natural Language Processing tasks such as machine translation, information extraction, question answering, etc. However, no two dependency output formats match each other. There is no consensus among dependency parser developers on the number

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of dependency relations and the names of these relations. One way to bring uniformity to output formats is to map dependency relations to Pāṇinian relations. Thus Pāṇinian grammar, the foremost dependency grammar, has a major role to play.

Akshar Bharati group has been developing a Language Accessor named Anusaaraka[1] that facilitates a Hindi reader to access English content through Hindi. The Anusaaraka uses freely available English parsers such as link parser[2] and Stanford parser.[3] These parsers show the parse of an English sentence as dependency relations. However they differ in the number of relations used and their labels. Anusaaraka provides a Pāṇinian interface to the output of these parsers that maps these outputs to Pāṇinian relations. The advantage of having an interface is that further processing is independent of the parser being used and one can plug and play with various parsers without the necessity of rewriting later modules. In an effort to develop such an interface to the output of two English parsers viz. link parser and Stanford parser, it was necessary to understand concepts used by various Western grammar formalisms such as Chomsky's minimalism (Radford 1997), Link grammar (Sleator 1993) and Phrase Structure Grammars in terms of Pāṇinian concepts.

The notion of subject is an important notion in these grammar formalisms. There have been efforts to provide a universal definition of *subject* (Keenan 1975) and also to locate the subject in various languages including modern Indian languages as well as Sanskrit. The notion of subject is alien to most Indian languages. Cardona (1976a: 11) writes:

> In sum, it is not obvious that one can best describe Sanskrit in terms of subjects of sentences, defined by the relation of elements in a derivational scheme (a "tree") and correlated with subjects of predication. Nor, of course, is it necessarily true a priori that all sentences of any language should be analyzed to conform with the semantics of subject and predication.

This conclusion holds good for modern Indian languages as well. This poses a problem when an English parser output is to be mapped to any modern Indian languages. In this paper we look at the concept of subject in English afresh from the point of view of information coding. We start with typologists' classification of English as SVO and thus assume that pre-verbal and post-verbal positions in English code information about grammatical relations. On the basis of counter examples, we revise our hypothesis and show that the subject in English is *abhihita* 'already expressed' and that

[1] `http://anusaaraka.iiit.ac.in`

[2] `http://www.link.cs.cmu.edu/link/`

[3] `http://nlp.stanford.edu/software/lex-parser.shtml`

it occupies a fixed position known as the subject position. Since English codes the information about declarativeness and interrogativeness in the subject-auxiliary order, it imposes a constraint that subject position cannot be empty. This leads to a deviation from the observation that subject (occupant of subject position) is abhihita. Further this also breaks the usual *sannidhi* 'proximity' between an auxiliary and a verb. We show how the *gamakatva* 'ability to convey the desired meaning' in all these cases helps in comprehension. Instead of formulating the information content in the notion of subject in the form of a definition,we state it in the form of rules. These rules are ordered as a general (*utsarga*) rule followed by its exception (*apavāda*). The information in the form of rules is more appropriate for computer implementation than definition.

2. Subject in English: an investigation

The most frequently noted properties of subject that apply to English (Keenan 1975, Harley 1995) are the following:

1. Every sentence must have a subject, either overt or covert. (Keenan 1975: A.2[4])
2. The unmarked position for overt subjects is pre-verbal. (Keenan 1975: A.3.12)
3. In interrogative sentences, the subject and the finite verb are inverted, except for wh-questions with the subject as wh-element.
4. In an imperative, there is no overt subject, but the subject is understood to be the addressee. (Keenan 1975: C.3)
5. The subject triggers agreement with the verb. (Keenan 1975: A.3.3)
6. The subject is associated with certain semantic roles: for example, in the active voice it is an agent. (Keenan 1975: C.2)
7. Subjects undergo raising. (Keenan 1975: A.3.16)
   (a) It seems the boys have eaten fruits.
   (b) The boys seem to have eaten fruits.
8. The controlled argument of a subordinate clause is its subject. (Keenan 1975: A.3.4.2)

   John wanted to read the letter.
9. The subject is stranded in VP preposing constructions. (Harley 1995: 18)

[4]The reference is to the serial number in the Subject Property List under II 3.1.

Jane said John would write that letter, and write that letter John did.

10. The subject is shared by coordinated clauses. (Keenan 1975: A.3.4.3)

    I came in and was asked where I had put the keys.

We observe:

- 2 and 3 indicate that information about subjecthood is coded in position, and in the case of declarative sentences its position is pre-verbal. But 9 exhibits a different behavior: the subject is not before the main verb but before an auxiliary verb.
- 4 and 5 are in favor of the position that a subject is expressed (abhihita) by the verbal suffix.
- 6 states that the subject is associated with certain semantic roles, but 7(b) again is an exception, because *the boys* which is in the subject position of *seem* does not have any semantic relation to the verb *seem*.

3. Information in position

Language typologists classify English as an SVO (Comrie 1983: 6) and Indian languages as SOV languages (Comrie 1983: 208). However, comparing English and Indian languages on the basis of word order is like comparing apples and oranges! The reason is: English uses position to code crucial information of the grammatical relation. So when one says English is an SVO language, one is asserting a fact about the encoding of grammatical relations, viz. subject and object, with respect to a verb. On the other hand, in the case of Sanskrit, a relatively free word order language, when one says Sanskrit is an SOV language, one is just stating a statistical fact about the order of words in a typical Sanskrit sentence.

To make the point clear: the following two English sentences have exactly opposite meanings:

- Rats kill cats.
- Cats kill rats.

The following two Sanskrit sentences, on the other hand, have the same meaning (ignoring the topicalization, of course):

- Skt: *rāmaḥ phalaṁ khādati.*
- gloss: Rama {nom. sg.} fruit {acc. sg.} eat {3rd sg. pres.}.
- Eng: Rama eats a fruit.

- Skt: *phalaṁ rāmaḥ khādati.*
- gloss: Fruit {acc. sg.} Rama {nom. sg.} eat {3rd sg. pres.}.
- Eng: Rama eats a fruit.

In order to understand the concept of subject in English, we start with the typologists' classification of English as SVO and the assumption that both the subject and the object position mark grammatical relations. Thus our initial hypothesis is:

H_1: In English, both pre-verbal as well as post-verbal positions mark grammatical relations.

However, we come across such sentences as

1. Mrs. Venables turned a little pale.
   Lord Peter presented no difficulties,
   but *Bunter* she found rather *alarming.*
   (Sayers 1972: 221)

where an argument (*Bunter*) which is expected to be in post-verbal position is not in that position. Therefore, we conclude that the information that *Bunter* is an argument of the verb *alarm* is not coded in the position. Thus it follows that the post-verbal position does not invariably mark a grammatical relation. This leads us to reframe our hypothesis as:

H_2: In English, pre-verbal position marks the grammatical relation.

But there are examples going against this hypothesis as well.

2. Uneasy lies *the head* that wears a crown.
3. Never was *the sea* so calm!
4. Here comes *the bus*!
5. On the bed, hung *a mosquito net.*

In the above examples, *head*, *sea*, *bus* and *net*, which are the arguments for the verbs *lies*, *was*, *comes*, and *hung* respectively, are not in pre-verbal position. Further, all these verbs are monovalent. That is, each of these verbs has an expectancy of only one argument. The argument (viz. *head*, *sea*, *bus* or *net*) agrees with the verb in number and person and thus may be considered to be abhihita (expressed) by the verbal suffix.

In Sanskrit, where an abhihita argument, which is already expressed by the verb, does not need any special vibhakti and hence takes *prathamā* vibhakti (nominative case ending), in the case of a transitive verb which needs

two arguments, if one argument shows agreement with the verb and thus is abhihita, we expect the other argument to be marked explicitly. In English, on the contrary, we observe that the second argument of a transitive verb, unless it is a pronoun, does not have any specific marker—neither a morphological formative nor any fixed position and that an abhihita argument is always in the pre-verbal position. Hence we revise our hypothesis as follows:

H_3: In the case of a transitive verb, S-V order invariably marks a grammatical relation.

There is also evidence against this observation. Consider the following sentences:

6. She could only hope that Harriet was mistaken in his feelings ....
   Wish it **she** *must*, for his sake .... (Austen 1867: 385)
7. **Ride** in the same taxi with Pamela Dean and Bredon **he** *could not*. (Sayers 1933: 60)

In both these examples, the abhihita argument is post-verbal. But at the same time, we also note that it is always followed by an auxiliary. So finally we conclude that it is the abhihita-auxiliary proximity (*sannidhi*) that is invariant in English. As a result, in English, the normal proximity between auxiliary verbs and the main verb is weakened,[5] and a new proximity comes into existence between an abhihita and an auxiliary verb.

This leads to a new concept, a concept of 'subject position'. The subject position is the position which is to the immediate left (*avyavahita-pūrva*) of a verb group.[6] And thus, we revise our hypothesis as follows:

H_4: In the case of a transitive verb, an abhihita always occupies a special position called the subject position; or the subject (occupant of the subject position) is abhihita.

The *avyavahitatva* (uninterrupted-ness) between the subject noun phrase and the verb phrase leads to a new meaning over and above the meanings of its constituents. For example, the group of words *Rama laughs* also indicates

[5] For example, in sentence 6 *must* and *wish* are separated and in sentence 7 *could not ride* is split as *ride* and *could not*.

[6] A verb group consists of a verb or a main verb followed by either a modal or one or more auxiliaries. *Goes*, *am going*, *would have gone*, *can go*, etc. are examples of verb groups.

the grammatical relation between *Rama* and *laughs* in addition to the meanings of individual words (*pada*s) *Rama* and *laughs*. A complex unit, which is derived from components and which has a single complex meaning, different from the meanings of the components, is termed *vṛtti* in the Pāṇinian grammar.[7] Five types of vṛttis are recognized and discussed by Bhaṭṭojidīkṣita in his *Siddhāntakaumudī*.[8] They are *kṛdanta*, *taddhitānta*, *samāsa*, *ekaśeṣa*, and *sanādyantadhātu*. For example, the kṛdanta *pācaka* is derived from the verb *pac* 'to cook' with the kṛt affix ***ṇvul*** signifying a kartṛ-kāraka. The meaning of *pācaka* is 'one who cooks'. Similarly, the samāsa 'compound' *rājapuruṣa* 'king's man' is derived from the padas *rājñaḥ* (*rājan-**ṅas***) 'king's' and *puruṣaḥ* (*puruṣa-s**u***) 'man' whose endings, ***ṅas*** and ***su***, are deleted. The compound thus denotes a single complex meaning which also includes the grammatical relation between its constituents, *rājan* 'king' and *puruṣa* 'man'. The avyavahitatva between the subject noun phrase and the verb phrase comes close to the concept of a compound. However, this calls for a detailed comparative study of the two concepts, viz. that of an avyavahitatva and that of a samāsa. Nonetheless, to present English grammar in the framework of Pāṇini, we need a vṛtti, viz. avyavahitatva between an NP and a VP. Whether the vṛtti of this type is different from the five vṛttis described in the Pāṇinian grammar or not needs further investigation.

4. *Ānupūrvī* or information in order

Consider the following two sentences in English:

8. *Rama is* going to school.
9. *Is Rama* going to school?

As is obvious from these sentences, the information of interrogativeness and declarativeness of a sentence is marked in the abhihita-auxiliary order. The concept of avyavahitatva and the fact that the abhihita-auxiliary order codes a certain kind of information put several constraints on the sentence construction. We discuss below the consequences thereof.

[7] MBh on vt. 2 to A 2.1.1 (II.238): *parārthābhidhānaṁ vṛttiḥ*. In his *Pradīpa* (II.28) Kaiyaṭa explains: *parasya śabdasya yo 'rthas tasyābhidhānaṃ śabdāntareṇa yatra sā vṛttir ity arthaḥ*.

[8] SK (Sarvasamāsaśeṣaprakaraṇa) [341]: *kṛttaddhitasamāsaikaśeṣasanādyantadhāturūpāḥ pañcavṛttayaḥ* |

4.1. Consequences of information coding in position and order

• **Subject position cannot be empty.**

For, if it were empty, it would not be clear whether the given sentence is an interrogative or a declarative.

• **Insertion of auxiliary *do* in interrogatives.**

If a verb group does not have an auxiliary verb, then dummy *do* is inserted, as shown below.

10. He goes to school.
11. *Does* he go to school?

Here *goes* has two morphemes: *go-* and *-es*. The morpheme *-es* marks the tense and hence should get inverted with *he*. But *-es*, being a bound morpheme, requires a verb to which it should get attached. The auxiliary *do*[9] satisfies the requirement, and thus the auxiliary *does* then is inverted with the subject to give an interrogative sentence. The verb *be*[10] is an exception as shown below.

12. It is there.
13. Is it there?

• **Extra overheads: dummy *it* and expletive *there***

(1) In the case of verbs with implicit (*antarbhūta*) arguments, the subject position, which cannot be empty, is occupied by dummy *it*[11] as in:

14. It is raining.

[9] In his *Śṛṅgāraprakāśa* Bhoja classifies verbal bases into three types: *astyartha*, *bhavatyartha*, and *karotyartha*. *Śṛṅgāraprakāśa* (I.194): *dhātavaś ca tredhā—astyarthāḥ, bhavatyarthāḥ, karotyarthāś ca | tatra yeṣāṁ kartāra udāsate te astyarthāḥ—yathā asti vidyate dhriyate tiṣṭhati āste vartate ityādi | yeṣāṁ vikurvate te bhavatyarthāḥ yathā bhavati saṁjāyate vardhate vipariṇamate apakṣīyate vinaśyati ityādi | yeṣāṁ prayuñjate te karotyarthāḥ yathā—karoti vidhatte janayati nirvartayati sādhayati utpādayati |* Further, he says that all the *karotyartha* verbs can be paraphrased with *karoti*: e.g., *pacati = pākaṃ karoti. Śṛṅgāraprakāśa* (I.323): *tasmāt pākaṃ karotīti padadvayasya yo'arthas sa eva pacatīty ekapadasyeti |*

[10] This is again in accordance with Bhoja's distinction between *karotyartha* verbs and *astyartha* verbs. The distinction between *bhavatyartha* and *karotyartha* verbs however does not hold good in English. English allows *Does it grow?*, whereas Sanskrit does not allow *kiṁ vardhanaṁ karoti?* The latter uses *bhavati* as in *kiṁ vardhanaṁ bhavati?*

[11] This *it* is termed 'dummy *it*' since it, being just a place holder, does not convey any information.

(2) The word or phrase that is to be focused is normally placed into a focus position at the front of a clause in order to highlight it. When a verb is to be focused, it is not possible to bring it to the front, since then either the subject position will be empty or the sentence with the verb in the front will become an interrogative sentence. Hence in such cases the subject position is filled with expletive *there*, as in:

15. *There* are flowers in the garden.
16. *There* could have occurred a diplomatic incident. (Radford 1997: 211)

The expletive *there* thus serves as a focus element to express the 'factuality' or 'happeningness' of the event.

It is interesting to note that certain transitive verbs also have the expletive *there* to express the happeningness. For example,

17. Suddenly *there* entered the hall an ugly old man. (Levin 1993: 90)

In the case of a verb group involving one or more auxiliaries, the main verb assumes the focus position, leaving the subject-auxiliary vṛtti intact as in sentences 6 and 7. If the manner of the activity is to be focussed, then the subject position is occupied by the adverb expressing the manner as in sentences 2 and 3.

4.2. *asamarthaḥ padavidhiḥ*?

The dummy *it* does not carry any lexical information, and hence it is an extra overhead. So there is a tendency to drop it. This is natural and consistent with the principle of economy (*lāghava*). In such cases then the subject (and in some cases the object) of the subordinate clause is moved to the subject position of the main verb. The raised subject, though it shows agreement with the verb, is not semantically related to the verb.

In order to interpret this phenomenon from the Pāṇinian perspective, we look at the constraints imposed by Pāṇini on the grammatical operations (*vidhi*) concerning finished words (*pada*). Patañjali interprets Pāṇini's sūtra A 2.1.1 *samarthaḥ padavidhiḥ* as 'wherever a grammatical operation (*vidhi*) concerning finished words (*pada*) is prescribed, it must be applied to words which are semantically connected (*samartha*)' (Joshi 1968: v). Patañjali further discusses the example *asūryampaśyāni mukhāni* 'faces that do not see the sun'. This is an example of an *asamartha* compound,[12] where the

[12] A compound whose components are semantically not connected.

negative particle *a-*, in spite of being semantically related to the verb *dṛś* of *paśya*, gets compounded with the noun *sūrya*. Such usages are still accepted because they convey the desired meaning. This leads to the acceptance of gamakatva as a criterion for accepting such syntactic constructions. Gamakatva 'the ability to convey the desired meaning' is not accepted in standard speech, as is evident from the mention of *akiṁcit kurvāṇam* in the *Mahābhāṣya* as being regarded as ungrammatical. Only the constructions which are in usage in spite of being asamartha are accepted on the basis of gamakatva.

In the light of this discussion, let us now discuss two English constructions, which fall under the category of asamartha syntactic constructions but are in usage because of their gamakatva.

4.2.1. *Seem* type of verbs

Consider the following two English sentences with the same meaning:

18. It seems that the boys have eaten fruits.
19. The boys seem to have eaten fruits.[13]

In sentence 19, *the boys* is in the subject position of *seem* and also abhihita, as it shows person-number agreement with the verb *seem*. However, semantically, *the boys* does not have any relation with the verb *seem*. This is clear from sentence 18 in which *the boys* is semantically related to the verb *eat* and the *that* clause is an argument of *seem*. The sentence structure in sentence 19 thus seems to be asamartha to convey the desired meaning.[14]

But then the following questions arise. How is it that an English reader does not find such constructions odd? How is it that the sentence is acceptable to a native speaker? How does a language allow proper communication in spite of apparent incomprehensibility of the sentence at the structural level? It is gamakatva (*arthabodhakatva*, the ability to convey the desired meaning) that takes care of proper communication. The gamakatva of the construction is justified by the expectancy of the verb *eat* in the subordinate clause and the fact that the verb *seem* does not have an expectancy of a subject.

[13]This is an example of subject-subject raising, where the subject in the subordinate clause has been moved to the subject position of the main verb.

[14]Naiyāyikas, who hold the *prathamāntamukhyaviśeṣyakaśābdabodha*-view, may not consider the two sentences to differ significantly; *the boys* is *prathamānta* 'ending in the nominative case' in both the cases. But they will have difficulty in explaining the kārakatva of a prathamānta in the following sentence:

The prisoners are alleged to have been ordered to pick up the money.

Here *the prisoners* is semantically related to the verb *order* and not to the verb *allege*.

4.2.2. *Tough* type of adjectives

Consider the following pair of sentences that convey the same meaning.

20. It is hard to see John.
21. John is hard to see.

In sentence 21, the object *John* of the subordinate verb is moved to the subject position of the main verb *is* which was occupied by dummy *it*. This is again a case of *asāmarthya* (the state of being asamartha). Because, though *John* is not an argument of the verb *is*, there is an agreement between *John*, which is an occupant of the subject position, with the verb *is*.

Not only objects but also complements of prepositions can move to the subject position. However, when the complement of a preposition moves to the subject position, the preposition is left behind. This then leads to the violation of normal proximity (*sannidhi*). For example, the dummy *it* in 22 is replaced by the noun phrase *this violin* in 23 leaving the preposition *on* in situ.

22. It is tough to play these sonatas on this violin.
23. This violin is tough to play these sonatas on.

Thus the normal sannidhi between the preposition *on* and the noun *violin* is violated.

4.2.3. Exceptional case marking (subject-object raising)

Another phenomenon in English is the raising of a subject to the object position, which is termed 'exceptional case marking' (ECM). Consider the following sentence:

24. I want him to go there.

Here the pronoun *he*, which is an argument of the verb *go* of the subordinate clause, gets case-marked by the main verb *want*. From the point of view of the Pāṇinian grammar, there are two problems in this sentence.

(1) In the case of verbs signifying desire (*icchārthakadhātu*), if a subordinate verb is an infinitive (terminates in the suffix *tum**un***), then it shares kartṛ-kāraka with the main verb which signifies desire,[15] as in:

Skt: *aham bhoktum icchāmi.*
gloss: I to_eat desire {1st sg.}
Eng: I desire to eat.

[15] A 3.3.158 *samānakartṛkeṣu tumun.*

But in 24 the subject of the verb *want*, an *icchārthakadhātu*, is different from the subject of *go*.

(2) The second problem is with the accusative form of *he*. *He* is an argument of the verb *go* which is in infinitive form. Hence according to A 2.3.65 *kartṛkarmaṇoḥ kṛti*[16] the kartṛ-kāraka of *go* should take the sixth case ending. But *him* is not in the genitive case.

In his *Vākyapadīya* Bhartṛhari states (3.7.81–82):

> *pradhānetarayor yatra dravyasya kriyayoḥ pṛthak* |
> *śaktir guṇāśrayā tatra pradhānam anurudhyate* ||
>
> *pradhānaviṣayā śaktiḥ pratyayenābhidhīyate* |
> *yadā guṇe tadā tadvad anuktāpi prakāśate* ||

According to Bhartṛhari, if x is an argument of both a main verb and a subordinate verb, it is the main verb that assigns case to x, and the relation of the subordinate verb to x gets manifested even without any marking.

But we cannot adopt this way of looking at the problem since there lie the following discrepancies:

- The argument of *want* is not *he* but the clause *him to go there*.
- The relation of *want* with *him to go there* is not the same as that of *go* with *he*.

A native speaker understands such constructions, because they contextually have the property of making the meanings understood (gamakatva). For example, in this case, the object position of *want* overlaps with the subject position of *go* and this overlapping acts as a clue for gamakatva. Because now a native speaker of English finds *he* in the subject position of *go* helping him get the desired meaning. Further, since *he* also occupies the object position of *want*, *want* assigning the accusative case to *he* looks natural.

Thus sentence 24 is a case of exceptional case marking or anomalous behavior or a grammatical operation between two words that are not related semantically. And hence this is an example of *asamarthaḥ padavidhiḥ*. In spite of the asāmarthya the native speakers understand such usages because of gamakatva.

[16] If a kartṛ or karman has not been expressed already, the sixth case ending is added to a prātipadika to denote the kartṛ or karman given a kṛt suffix construction.

5. Subject in English: a Pāṇinian viewpoint

Our observations may be summarized in the form of a set of rules as follows:

1. Modern English exhibits a special vṛtti, avyavahitatva, between an NP and a VP. The position that immediately preceeds a VP is called 'subject position'.
2. Abhihita—the kāraka which has been expressed by the verbal suffix—occupies the subject position. (Hence the abhihita is also called 'subject'.)
3. If a verb is to be focussed, then the subject position is occupied by either *there* or *here*.

   Here comes the bus!

   Suddenly there entered the hall an ugly man!
4. If the manner of an activity is to be focussed, then the subject position is occupied by the adverb expressing the manner.

   Never was the sea so calm.

   Uneasy lies the head which wears a crown.
5. If a verb has an implicit kartṛ, then the subject position is occupied by *it*.

   It is raining.
6. If the main verb is *seem*, then the subject of the subordinate verb optionally occupies the subject position of the main verb.
7. In such a case the verb of the subordinate clause takes an infinitive form.

   The boys seems to have eaten fruits.
8. If the subject of a verb signifying desire (*iccārthakadhātu*) is the same as that of the secondary verb in infinitive, the subject is shared.

   I want to go.
9. If the subject of the main verb signifying desire (*iccārthakadhātu*) differs from that of the secondary verb (which is in infinitive), then the subject of the secondary verb takes an accusative marker.

   I want him to go.

6. Conclusion

The purpose of the foregoing exercise is to look at the concept of subject in English from a Pāṇinian viewpoint. It has been shown that English exhibits

a special vṛtti, avyavahitatva, between an NP and a VP, and also that English codes information in the NP-VP order. These two factors, taken together, explain the sacrosanctness of the subject position in English. Since the subject position cannot be empty, it leads to an introduction of dummy *it* and expletive *there*. Further, the natural tendency of a language towards lāghava introduces a kind of asāmarthya in sentences involving verbs like *seem* and adjectives like *tough*. The overlapping of the object position of the main verb with the subject position of the subordinate verb provides the gamakatva for sentences with exceptional case marking.

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