Given that for hundreds of years it has been held that language is a vehicle for the expression of thought, it might appear to be rather curious that modern generative linguistics has nothing substantial really to say by way of explicating the relation between language and thought. By “modern generative linguistics” I mean here the so-called “Chomskyan” linguistics because this has always been the mainstream generative linguistics ever since the beginning of modern generative linguistics. It is also a fact that the other schools of generative linguistics (say, Lexical Functional Grammar, Generalized Phrase Structure Grammar, or Case Grammar) have nothing or very little indeed to say when it comes to the meta-theoretical issues pertaining to generative linguistics. This fact that generative linguistics offers no insights into the relation between language and thought needs an explanation, which this paper attempts to provide --- needless to say, this is just one explanation. The paper would outline the broad framework of generative linguistics first and then go on to formulate an explanation.
But before that some observations regarding the view held by traditional scholars with respect to language and its relation with thought may not be out of place. The Indian scholar Bhartrhari had roughly the following to say regarding the process of production of language on the part of a speaker: some unstructured and undifferentiated “feeling” or “experience” takes the form of structured and differentiated thought, which then gets transformed into language. Matilal (1990, p.88) puts the matter thus: “…Bhartrhari has posited three stages of language or speech. The first stage, where there is complete identity of language and thought is called the *pasyanti* stage; we can call it ‘non-verbal’. The ‘intermediate stage’, where despite the identity of thought and language their difference is discernible, can be called the ‘pre-verbal’ stage. And the third, the *vaikari* stage, can be called the ‘verbal’ stage.” The following is more informative about the so-called ‘intermediate stage’: “Before the proper articulation of the sound-sequence or utterance,, there is another ‘intermediate’ stage (called *madhyamaa vaak*) where the language and the thought it conveys are still one and undifferentiated, but at this ‘pre-verbal’ stage the speaker sees them as differentiable. In other words, he recognizes the verbal part, which he is able to verbalize either to himself or to another, as distinct and separable from the *artha*, ‘meaning’ or ‘thought’ (ibid, p.86)”. Our purpose in bringing in Bhartrhari here is to show that the relation between language and thought is an ancient question. Down the centuries, no one has held the view that there is no relation between the two, and no one would assert that it is a question to which a satisfactory answer has been found. To us it appears that post-Bhartrhari scholarship has not really increased our understanding of this relation in any significant way. What are the categories of thought
as distinct from the same of language? What is the internal structure of a category of thought? Is the notion of “complete thought” meaningfully different from the notion of “sentence”? These would be among the many questions that one would ask in order to achieve some clarity regarding the relation between language and thought, even accepting that thought precedes language; in other words, there is a pre-verbalization stage, which can be names as the stage of “thought”.

Turning to a broad outline of modern generative linguistics, relevant for the purposes of the present paper, we propose to discuss the broad framework of the so-called “Minimalist Programme” (MP), as it was articulated in Chomsky (1995 (b)) in particular. The basic question that generative linguistics (sometimes called ‘bio-linguistics”) addresses itself to is the following: what is the biological endowment that humans have that makes them acquire the knowledge of a language and put it to use? (There is a subsequent question to this, namely, what is the physical basis of this knowledge? But this is indeed an “integration” question – integration between the present-day linguistics and the present-day biology – one that is conceivable today as a legitimate question. But it is unclear as to what form the answer would take.) It is worth mentioning that whereas contemporary generative linguistics offers valuable insights as to how humans acquire the knowledge of their languages, it offers almost nothing insightful regarding how they put this knowledge to use in negotiating with the world. The biological endowment which linguists believe to be a species specific attribute is called “the initial state of knowledge of language” (“universal grammar” in another terminology), and the knowledge of their own language that they acquire as they are exposed to a linguistic environment is called
“the steady state” knowledge ("core grammar" of their language or "I-language" in other terminologies). There are various intermediate stages, as the initial state of the knowledge of language in a human grows into the steady state of a particular language. The generative linguistic enterprise prioritizes research on the initial state, but since theoretical proposals concerning the initial state or universal grammar can be evaluated on the basis of I-language facts (and related) facts alone, theories of I-languages inevitably receive significance. Now one basic aspect of the question regarding the nature of the initial state or the universal grammar is the following: what is the architecture of this state (equivalently, what is the internal structure of universal grammar)? (The other is: how is this design, this architecture, activated? The answer to this is straightforward, namely, as a result of exposure to language.)

Chomskyan linguistics subscribes to a modular theory of the mind, and maintains that mind has a language module, a "language faculty”, in another terminology. Although distinct, the language faculty interacts with other systems of the mind, called “external systems” in the Minimalist terminology. The language faculty generates formal objects, which are pairs of expressions, and these receive interpretation in these external systems, which are the articulatory-perceptual (AP) and conceptual-intentional (CI) systems. The former assigns a phonological interpretation to the input, and the latter, a semantic interpretation to the input expression. The so-called CI component can be thought of as the component of thought in more familiar terminology. This is the way the relation of thought and language is conceptualized in the MP model. It deserves to be noted here that what is specific to the human species is the language faculty, which means that some
other species might have the capacity for thinking and feeling, but they do not have the capacity to articulate the same in terms of language, which has the basic properties of discrete infinity and displaced reference. “Displaced reference”, a typical feature of a natural language, refers to the property that an entity, which is pronounced at one place, may not be interpreted at that place. For instance, in “What did you see?” the word “what” is pronounced in the beginning of the sentence but is understood as the object of “see”. The object of the verb immediately follows the verb in English, which means that the object has been dislocated from its place to the beginning of the sentence. If humans interacted in telepathy, then the AP component would be unnecessary; there will be no need to assign phonological interpretation to the expressions generated by the language faculty.

The language faculty has a lexicon and a computational component. The lexicon is a repository of lexical items, each a bundle, an assemblage, of phonological, syntactic and semantic features, and dedicated to the language faculty. A computation, called “select”, selects lexical items from the lexicon, and deposits them in a lexical space. Then a computation called “merge” constructs larger units, phrases, in a permissible way, determined by the properties of the entities involved, such that the internal structure of a phrase, which is nothing but a projection of a head, is manifest. This operation must exhaust all the lexical entities selected from the lexicon, for the representation to converge. Then the structure, the “initial phrase marker” in some sense, is available to the computational component that displaces features (consequently, lexical items). The various computations at this stage are the consequences of the functional features of
lexical items. As far as the semantic interpretation aspect of the derivation is concerned, when the computation is complete, the resultant structure, “the finally derived structure” (“the interface level representation”) is fed into the external system of thought (the CI system) for interpretation. This outline of the architecture of the language faculty is adequate for the purposes of the present discussion; therefore we will say nothing more about the derivation. We now turn to the CI interface representation.

Of direct interest for us is the following requirement of the interface representation: it must be legible to the external system of thought so that it can receive an interpretation. Very little is known about the external system, which is to be expected, because there is as yet no theory of the CI external system, this knowledge system that uses knowledges other than the knowledge of language, for one example, the world knowledge, to assign meaning to the input representation. If little is known about the external system of thought, what sense does it make to impose the legibility condition mentioned above? There is certainly justification for such a requirement since the output of the language faculty has to be used; the knowledge of language is not a piece of decoration in the mind! Chomsky seeks to resolve this tangle in terms of a methodological imperative. One cannot delay one’s quest into the nature of the language faculty because very little is known about other relevant faculties; one could assume it to be the case that the output of the language faculty, this interface representation under discussion, is somehow legible to the external system of thought. We should like to interpret it to mean that at the moment it is believed by the generative linguistic community, albeit tentatively, that the units and the structure of thought are isomorphic with the same of language.
But this is intuitively unsatisfactory. Compare, for instance, the notions of sentence and proposition (which for centuries were probably thought of being the same, or essentially the same, notion, which accounts for the traditional notion of a sentence as a unit that expresses complete sense). Consider the sentence “Manisha Koirala is the thinking man’s Madhuri Dixit”. Is there one proposition in it or more? This sentence telescopes an assertion about Manisha Koirala, one on Madhuri Dixit, and a comparative assertion by a specific category of humans. Whatever be the propositions, the sentence does not contain just one proposition. (Incidentally, some earlier generative grammars, among them generative semantics quite explicitly, posited derivations where an at the deeper levels an underlying sentence was actually a proposition in its essentials. The direction that generative semantics took would have led us to the realization that the logical and the grammatical categories are indeed the same at the deepest level of abstraction. It is only at the surface level that they are different. But generative semantics is a failed effort. The mainstream generative linguistics, namely, those working within the MP framework, today would not derive this sentence from a multi-clausal (or sentential, without differentiating between “sentence” and “clause” for theoretical purposes) base.) Similarly, is “chase” an atomistic concept as “climb”? It is not, because, as we know, “chase” comprises the concepts of “follow” and “intention” (see Chomsky (1988)).

Consider the relation between concept and word from another point of view. It has been observed that very young children, one and a half year olds, have a considerable
vocabulary. This is surprising, because it is not a result of instruction. So like the acquisition of syntax, acquisition of vocabulary is possible because of the biological endowment. Now what is given cannot be words, because words belong to languages: “climb” belongs to English. One could surmise that the human is born with a repertoire of concepts. So what she has to learn from the linguistic environment is the linguistic form in which a certain concept is realized in a certain language --- say, the concept CLIMB is realized in English as the word “climb”. This means that the word-concept (or language-thought) relation is as follows: if there is a certain word in a language, it is because there is a corresponding concept for it. Needless to say, from this it does not follow that a concept, which is part of our biological endowment, has a lexical realization in every language. There is however a problem in this way of looking at the relation between lexical items and concepts. We surmise that there is a certain concept because there is a lexical item --- it is inconsequential that this lexical item may occur in the lexicon of just one language --- we have no word-independent way of knowing whether there is a certain concept in the repertoire of concepts or not. We know there is a certain word “climb” because there is a concept called CLIMB, and we know there is a concept called CLIMB because otherwise there wouldn’t have been the word “climb” in English (see Chomsky (1988), (1997) and (2000), among others). It must be noted that it does not follow from the above that there is no mental repertoire of concepts. What it shows is that we do not know what precisely these concepts are, what their internal structures are, and how these concepts are organized in the repertoire, how atomistic concepts are combined to form complex ones (presuming from the discussion of “chase” and “follow” above that indeed concepts can be atomistic and complex), how a concept relates to a word and a
great deal else. In short we do not, as yet, to the best of our knowledge, an illuminating theory (using the term in the sense in which it is used in natural sciences) of thought.

We might mention here in passing that it should not give rise to any skepticism regarding the point we were making in the discussion above regarding words and concepts that we did not deal with words referring to concrete objects. No semantic theory directly relates words and the “objects” they refer to in the real world; those like semiotics or ancient Indian theories of meaning, which aim to understand this relation do so in terms of word-concept-object relation. Thus our not bringing into the discussion words and concrete objects do not weaken our point in any way. In any case the relation between words and real world objects is much more complex than is often believed to be, as Chomsky points out (Chomsky (1993)). To give just one illustration, an artifact having a certain set of specifications can be called “table” or “bed” depending on how it is put to use: if a dwarf uses it for the purpose of sleeping, she would call it a “bed”, whereas an ordinary person, who would use it for normal work would call it a “table”.

The lack of a theory of thought must not impede progress in linguistics, so one explores the nature of the language faculty assuming that there is a fit between the representation at the CI interface, and the readability requirements of the thought component (the CI component), and assuming further that an explication of this fit is a solvable problem, which would achieve resolution with the increase of our understanding of the nature and the structure of thought. It is only then that one can hope to achieve some significant understanding of the relation between language and thought. This, to our
mind, is in essence, the contemporary generative linguistic perspective on language and thought.

At this stage we wish to return to Bhartrhari. The reason is that he posited an antecedent state to what for him would be the state of structured thought, which we have called “thought” in the discussion on generative linguistics: as we know, the antecedent state is the *pasyanti* state and the state of structured thought is the *madhyama* state. (He posited yet another state, *para*, which is the antecedent state to *pasyanti*. We will say nothing about *para* because it is inconsequential for our present purpose. If the *pasyanti* state is accessible to the great seers by *savikalpa samadhi*, the *para* state, the state of realization of *sabdabrahman* is attained by a seer in the state of *nirvikalpa samadhi*, which can be said to mean that it is beyond ordinary human grasp (see Coward H.G. and K. Kunjunni Raja, p.328).) The following provides us with one understanding of *pasyanti*: “*Pasyanti* is the direct experience … of meaning as a noumenal whole. At this level there is no distinction between the word and the meaning, and there is no temporal sequence… *pasyanti* is, by definition, beyond the level of differentiated cognition… It occurs at the level of direct intuition and therefore must finally be understood through experience (ibid, p.61).” This state captures Bhartrhari’s idea of where pre-linguistic thought --- that there is thought prior to verbalization would not be unacceptable to the present-day generative linguists, although a model of grammar, the MP model for example, does not formalize this idea in the form of a thought component generating thoughts subsequently verbalized in say, a language component. This is because this is not the insight that is at the core of contemporary thinking on grammatical theory. It is, as
we know, something else, namely that there is a language faculty, which constitutes a separate knowledge-module, and the output of this module is what is accessible to the thought component, where is receives interpretation. --- comes from. And this indeed is something that does not come within the domain of generative linguistics.

Stripping away all the metaphysical associations and significance from the notion of *pasyanti*, we could view it as a state of raw feeling, a kind of purely affective experiential state perhaps, a state where the experiencer and the experience are not separate (where, to echo W.B. Yeats’ idea, the dancer is undifferentiated from dance). It could be argued that this would be an inexact characterization of this notion since what we have stripped away is an integral part of it. This objection may not be without substance; after all, particular theoretical notions belong to specific theories and may lose their descriptive or explanatory value outside those theories. But at the same time one does often try to seek similarities between theoretical constructs, make connections in the process in order to achieve an understanding of things. Taking the risk of saying the obvious, thereby inviting censor, we might observe that this comparative perspective --- this attempt to connect, to seek similarities and parallels --- has really enriched us. Theta theory belongs to grammatical theories constructed within the so-called “Principles and Parameters” (PP) approach, and the karaka theory belongs to a different grammatical system, namely, the ancient Indian, and surely *karta* cannot be understood as isomorphic with either subject or agent, (“agent” as the interpreted notion) of the PP grammars. But trying to see the karaka theory from an understanding of the theta theory might provide us with an understanding of how different grammatical theories have tried to execute the same deep
idea or issue. Although *akanshya* (“expectancy”) --- roughly speaking, the notion that words in a sentence have mutual expectancy (the verb “cook” expects a *karta* and a *karma* in a well formed sentence) --- and “s-selection” (informally speaking, the idea that lexical items (predicates) have theta grids associated with them (“kill” must have an agent and a theme if its meaning has to be saturated) --- are arguably not identical notions (for reasons we cannot and need not go into here, since these involve details), these are clearly similar. If we refuse to see these from a comparative perspective on the ground that they belong to two different theories rooted in two different intellectual milieus, we will not be able to raise the question as to why different grammatical theories need these similar theoretical notions. Such examples can be readily multiplied. In sum, the above shows that trying to see Bhartrhari’s notion of *pasyanti* without its metaphysical associations in order to draw some parallel between his way of thinking and the modern one on a certain matter does not deserve to be censored outright. Thus for our present purposes it is an experiential state where the experiencer and the experience are indistinguishable --- a state of raw feeling, a state of pre-thought / cognition consciousness.

There is move from this state to the *madhyama* (intermediate) state, and this is where the experience comes under the cognitive gaze, as it were, experience becomes dissociated from the experiencer, and thought gets fragmented into categories. One articulation of the reason why this happens is as follows: “… there is present at this level (*pasyanti*, clarification, mine) a kind of “going out” or desire for expression. This impulse is the *pratibha* “instinct”, which in one sense may be said to motivate the
phenomenalization into sentences and words of the *pasyanti* vision, so that communication may occur (ibid, p.61).” We might understand a state of consciousness undergoing cognitive scanning because of the way the human mind works. We may not subscribe to the idea of communication intention as the cause for the pre-thought state to undergo the stage of thought, because there seems to be no compelling reason to do so. Besides there is a methodological problem for the generative linguist as far as subscribing to the role of intention is concerned. A generative linguist is committed to the approach that the framework for the study of what lies “above the neck” and what lies below it must be the same. Then there is no place for intention. The perspective of the natural scientific approach is that a system functions because of own internal mechanisms, and not because of the triggering role of intention (for a succinct statement about the generative linguist’s method for the study of mind, one aspect of mind, namely, the language faculty, see Chomsky (1995 (a))).

Bhartrhari articulates no theory of thought, as far as we can see. There is no theory of thought that he presents that raises and tries to answer the questions regarding concepts enumerated earlier here. Notions such as time, action, state, and relations such as *karta*, *karma*, etc. of ancient Indian linguistics --- entities and relations such as these are what are phonologically realized --- are notions of grammar, not of thought; they would belong to the theory of the CI interface in terms of the MP framework (oversimplifying the matter a bit perhaps). Our understanding of the CI interface is too limited and ad hoc, since, it may be recalled, there is as yet no clear understanding of why the perfect fit is there between the requirements of the external system of thought and the output
expressions of the computations internal to the language faculty, which are inputted into the external system of thought.

In sum, we have considered here how far one can capture, with the theoretical resources available within the natural scientific approach followed by modern generative linguistics, the centuries-old view about the relation between language and thought, language, namely, that language is an expression of thoughts and feelings. We have noted that thought and language are related, but at the present stage our understanding of the nature and structure of thought is so very insignificant that one is hardly in a position to make any interesting claims about this relation.

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