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Edited by

Tibor Kiss

Artemis Alexiadou

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Abstract

The history of grammar in India begins with the Aṣṭādhyāyī of Pāṇini (5th/4th century B.C.). The Aṣṭādhyāyī is a system of rules explaining the derivation of words and word forms of Sanskrit. Syntax is a part of this system in as much as syntactic categories are involved in the derivation of most word forms from the very beginning of the derivation process. Of fundamental importance are the categories of action and the means of realizing the action, which are the kārakas. Pāṇini introduces six kārakas – point of departure, recipient, instrument, locus, object, and agent. The kārakas are defined in semantic terms; the agent, for example, is defined as “that which is independent”, the object as “that which the agent most desires to reach”.

In Pāṇini’s derivational system, case endings are introduced after noun stems to denote the kārakas. The accusative, for example, is introduced to denote the object, the instrumental to denote the agent. The agent and the object, moreover, are denoted also by the endings of the verb: When the verbal ending represents the agent, the verb is in the kartari prayoga (active voice); when it represents the object, the verb is in the karmaṇi prayoga (passive voice).

The rules which introduce case endings after noun stems can only be applied if the kāraka to be denoted is not already expressed elsewhere. On account of this restriction, the accusative cannot be introduced to denote the object in the karmaṇi prayoga (passive voice), where the object is represented already in the verbal ending. Neither can the instrumental be introduced to denote the agent in the kartari prayoga (active voice), where the agent is represented already in the verbal ending.

As in other Indo-European languages, the agent in the active voice and the object in the passive voice are represented by nouns ending in the nominative. Yet, Pāṇini has no rules which assign the nominative to the agent in the active voice or to the object in the passive voice. The nominative can only be introduced in these cases in order to denote the meaning of the nominal stem as such.

This feature of Pāṇinian syntax forms a marked contrast with traditional European syntax. What appears as the subject from a European perspective, is not introduced as the representation of a kāraka at all – neither as a representation of the agent in the active voice nor as a representation of the object in the passive voice. Consequently, the categorial meaning of the verb does not change in the active or passive voice.

In traditional European syntax, on the contrary, we find the doctrine that the verb denotes action or suffering according to whether it is used in active or passive voice. The ultimate source of this doctrine is the conception of the object as a patient who passively experiences the action of the agent. This conception is foreign to Pāṇinian syntax. Pāṇini defined the object of the action not as a patient, but as an entity which the agent most desires to reach. This entity is an agent in its own right, who along with the principal agent and other kārakas contributes to the success of the action.

1. Pāṇinian grammar

The *Aṣṭādhyāyī* of Pāṇini (5th/4th century B.C., cf. Scharfe 2009: 28) is the foundation of a grammatical tradition, which has been preserved in India for more than 2000 years. The *Aṣṭādhyāyī* is usually referred to as a grammar of Sanskrit. Yet the word *saṃskṛtam* which occurs three times in this text (A 4.2.16, 4.4.3, 4.4.134) is used there only in the sense of 'prepared' (with reference to items of food) and 'purified with water' (with reference to an object which is used for ritual purposes). Pāṇini nowhere uses the word *saṃskṛtam* to refer to the language which is the object of his grammar. When Pāṇini refers to his object language, he uses either the expression *chandasi* 'in meter' or *bhāṣāyām* 'in language'. With the first expression, he denotes the Vedic hymns, with the second the language of ordinary communication.

Both varieties of Pāṇini's object language are phenomena of oral speech; the Vedic hymns, in particular, were not committed to writing originally, but only orally transmitted. The same is true for Pāṇini's grammar itself: "Pāṇinis Grammatik wurde für die mündliche Rede geschaffen. Sie geht an keiner Stelle von den Konventionen der Schrift aus" [Pāṇini's grammar was created for oral speech. It does nowhere rely on the conventions of writing] (Falk 1993: 257).

Pāṇini's grammar contains about 4000 rules (*sūtras*), which are arranged in eight chapters (*adhyāyas*); hence the Sanskrit name of the grammar – *Aṣṭādhyāyī* 'the eight chapters'. In addition to the text of the *sūtras*, the grammar contains a list of sounds (*pratyāhārasūtras*) at the beginning and two appendices at the end – a list of verbal roots (*dhātupāṭha*) and a list of nominal stems (*gaṇapāṭha*).

The *sūtras* of the grammar were formulated with utmost brevity by systematically leaving out informations which can be inferred from the context, by the use of artificially created technical terms, and by the use of special phonetic symbols as carriers of grammatical informations. All this made the grammar inaccessible to the uninitiated. Thus, there arose at an early time the need for commentaries.

The earliest commentators whose works are extant are Kātyāyana (3rd century B.C.) and Patañjali (2nd century B.C.). Being of equal rank as Pāṇini, the two commentators together with Pāṇini form a triad which is denoted as *munitraya* 'the three sages'. According to their functions, the three *munis* are characterized as follows: Pāṇini is the *sūtrakāra* 'composer of *sūtras*', Kātyāyana the *vārttikakāra* 'composer of *vārttikas*', and Patañjali the *bhāṣyakāra* 'composer of *bhāṣyas*'.

The *vārttikas* of Kātyāyana are composed in nominal style; they comment on selected *sūtras* of Pāṇini's grammar. The *bhāṣyas* of Patañjali comment either on Kātyāyana's *vārttikas* or directly on selected *sūtras* of Pāṇini; they are composed in colloquial lan-

guage reflecting the situation of scholarly debates. The *bhāṣyas* and the *vārttikas* are both contained in Patañjali's *Mahābhāṣya* 'the great commentary'.

According to what we read in the *Vākyapadīya* (Rau 2002: 2.481–488) of Bhartṛhari (5th century A.D.), the grammatical tradition declined after Patañjali since the high level of linguistic sophistication which was reached in the *Mahābhāṣya* could not be maintained by later grammarians. Then, a revival was brought about, the culmination of which is marked by Bhartṛhari's *Vākyapadīya* itself. This great work provides a philosophical approach to the study of Pāṇini's grammar (cf. Aklujkar 2008: 216–218); it is also known as *Trikāṇḍī* since it consists of three parts – the *Brahmakāṇḍa*, which contains the principles of Bhartṛhari's linguistic monism; the *Vākyakāṇḍa*, which explores different views on the nature of the sentence; and the *Padakāṇḍa*, which deals with the semantic and grammatical categories of words.

The grammatical tradition which was built on the work of the three *munis* was not the only grammatical tradition which developed in South Asia. Schools of non-Pāṇinian grammar came into existence after Pāṇini; they were devoted to Sanskrit as well as to other Indian languages (Middle Indo-Aryan and Dravidian). Yet, in the field of Sanskrit studies, the grammar of the three *munis* was the most successful. It grew in strength throughout the centuries until "the *munitraya*'s absolute authority on the Sanskrit language" was established by Bhaṭṭoji Dīkṣita in the 16th/17th century (Houben 2008: 573).

The focus of the present survey is on syntax as it appears in the grammar of the three *munis*. In spite of its general importance for syntax, Bhartṛhari's philosophy of language has not been dealt with here systematically; only a few verses of the *Vākyakāpadīya* were adduced at particular points. Later developments of the Pāṇinian tradition of grammar after Bhartṛhari as well as non-Pāṇinian traditions of grammar in India have not been considered here (for the development of grammar after Pāṇini, see Scharfe 2000; for grammars of Indian languages other than Sanskrit, see the short overview in Aklujkar 2008: 197–198; for the tradition of Tamil grammar, which is the most important among the non-Sanskrit traditions, see Chevillard 2000a, 2000b, 2000c).

In presenting the grammar of the three *munis*, the original texts have been followed as closely as possible, particularly in case of the *Mahābhāṣya*, where the argument structure of the selected passages has been preserved as much as possible in order to give a lively picture of Patañjali's dialectic method, which consists in identifying a grammatical problem, offering a solution to it, out of which again a new problem arises, for which again a solution is sought, and so on.

Because of frequent references to the original texts, the following abbreviations are used: A [references to chapter, section, and *sūtra*] for Pāṇini's *Aṣṭādhyāyī*, Bh [references to volume, page, and line] for Patañjali's *Mahābhāṣya*, and VP [references to part, (section), and verse] for Bhartṛhari's *Vākyapadīya* (see 5). All other texts are quoted according to the bibliography. Translations from Sanskrit sources are mine.

The kind of presentation adopted here necessitated a quite extensive treatment of the selected topics so that only the most fundamental aspects of Pāṇinian syntax could be covered. The present survey, therefore, is essentially concerned with the semantic and morphological structure of elementary sentences such as *devadatta odanaṃ pacati* 'Devadatta cooks rice', which served as a favorite example among Indian grammarians.

2. Grammar and syntax

At first sight, Pāṇini's grammar appears to be a grammar of words, not of sentences. In fact, Pāṇini does not even define the term *vākya* 'sentence', which he uses several times in his grammar, whereas the linguistic unit of the word, which is called *pada*, and its constituents are well defined.

On the other hand, words are not derived as isolated units in Pāṇini's grammar, but as units which are semantically connected with other words in the sentence. This is explicitly recognized by Pāṇini's rule (A 2.1.1):

- (1) *samarthaḥ padavidhiḥ*
[An operation on words [takes effect only] when the words are semantically connected.]

Pāṇini's notion of semantic connectivity was elaborated by Kātyāyana, who gave the first definitions of the sentence in two consecutive *vārttikas* (Bh 1.367.10 and Bh 1.367.16):

- (2) *ākhyātaṃ sāvyaayakāarakaviśeṣaṇaṃ vākyaṃ*
[A sentence consists of a finite verb together with indeclinables, *kārakas* and qualifiers.]
- (3) *ekatiṅ*
[A sentence has one finite verb.]

Both, Pāṇini's concept of semantic connectivity and Kātyāyana's definitions of the sentence do not exhaust the potential of syntax in Pāṇini's grammar. Syntax plays a fundamental role in Pāṇini's grammar in as much as syntactic categories are involved in the derivation of most words from the very beginning of the derivation process. Pāṇini's idea of syntax, therefore, "cannot be understood from isolated rules, but only from rules as they are interrelated for the derivation of words" (Roodbergen 1974: vi). Because of this interrelationship, there is no proper syntactic component as clearly distinct from those parts of the grammar which deal with morphology and word formation. Both, syntax on the one hand and morphology and word formation on the other, were integrated within one system of knowledge, the objective of which was defined in the very beginning of the *Mahābhāṣya* as *śabdānuśāsana* 'instruction in words', whereas the system itself was named *vyākaraṇa*, which is usually translated as grammar.

Vyākaraṇa arose as one of the six limbs of the Veda (*vedāṅgas*), which include among others the disciplines of phonetics (*śikṣā*), etymology (*nirukta*), and prosody (*chandas*). As a limb of the Veda *vyākaraṇa* was established already before Pāṇini's grammar came into existence. Pāṇini himself bears witness to the existence of a grammatical tradition before him since he mentions in his work ten other grammarians, which might have been his predecessors, as proponents of alternative views.

A major achievement of the grammatical tradition before Pāṇini was the segmentation of the text of the R̥gveda into a sequence of isolated words, called *padapāṭha*, which is attributed to the grammarian Śākalya. In the original form of the text, called *samhitā* or *samhitāpāṭha*, the words of a metrical unit are joined together according to the rules of sandhi whereas in the segmented form of the text the words of a metrical unit appear in

their pausa forms. Splitting the connected form of the text into a sequence of isolated words is not just a matter of phonological analysis, but presupposes a knowledge of syntactic structures since due to the influence of sandhi, the word boundaries are often not visible in the connected form of the text.

2.1. *Vyākaraṇa* as grammatical differentiation

Generalizing the idea of splitting the connected form of a Vedic text into a sequence of isolated words, Sāyaṇa, the medieval commentator of the Vedas, defined grammar as follows (Sontakke and Dharmadhikari 1970: 538):

- (4) *tasyām vācy etāvad ekaṃ vākyam, tasmīn vākye 'py etāvad ekaṃ padam, tasmīn pade 'pīyam prakṛtir ayaṃ pratyaya ity evaṃ vibhajya sarvataḥ karaṇam vyākaraṇam*

[Grammar is that process by which division is carried out everywhere [by recognizing]: In this speech, so much is one sentence; in this sentence then, so much is one word; in this word then, this is the base and this is the suffix.]

In defining grammar that way, Sāyaṇa availed himself of the etymology of *vyākaraṇa* – *vyākaraṇa* means ‘division’ since it is derived from the verb *vy-ā-kr*, which means ‘divide, differentiate’. Yet he viewed the grammatical process of differentiation as taking place on the level of audible speech only since both, the connected form of the text, the *saṃhitā*, and the linguistic units which resulted from the successive division of the *saṃhitā*, are phenomena of audible speech. This restriction to the level of audible speech, however, is not necessary in order to understand *vyākaraṇa* in the sense of division or differentiation. *Vyākaraṇa* can also be understood as differentiation if the starting point of the differentiation process is not located on the level of audible speech, but identified with the initial state of speech in the mind of the speaker.

Evidence for this understanding of the grammatical process is a verse from Bharṭṛhari’s *Vākyapadīya* (VP 1.52), in which the process of speech production is compared with the process in which a living organism develops out of a germinal state:

- (5) *āṇḍabhāvam ivāpanno yaḥ kratuḥ śabdasaṃjñakaḥ | vṛttis tasya kriyārūpo bhāgaśo bhajate kramam ||*

[The energy called ‘word’ has assumed the nature of an egg. It develops in the form of an action and realizes itself as a sequence of parts.]

From the context of this verse, it is clear that the linguistic energy “which has assumed the nature of an egg” is the inner word in the mind of the speaker. In the process of speech production, this inner word, which is not yet differentiated into parts, unfolds into a sequentially ordered linguistic structure, which can be communicated to others.

This unfolding of the inner word is essentially a process of *vyākaraṇa* in the sense of differentiation. Yet, Bharṭṛhari does not use in the description of this process a word derived from the root *vy-ā-kr*. That Bharṭṛhari, nevertheless, views *vyākaraṇa* as a process in which a unitary and unmanifest state of language is differentiated into manifold

structures, can be seen from another verse of the *Vākyapadīya* (VP 1.22), which is characteristic for Bhartṛhari's linguistic monism (*śabdādvaita*):

- (6) *yad ekaṃ prakriyābhedair bahudhā pravibhajyate | tad vyākaraṇam āgamya pa-
raṃbrahmādhigamyate ||*
[Because the one is divided in manifold ways through the different grammatical
derivations, the supreme Brahma is attained, when grammar is attained.]

The supreme *Brahma* is attained when grammar is attained since the grammatical process in which a unitary and unmanifest state of language is differentiated into manifold linguistic structures is of the same nature as the ontological process in which the one universal reality, called *brahma*, is differentiated into a variety of phenomena.

2.2. *Vyakaraṇa* as syntactic differentiation

In the two verses of the *Vākyapadīya* quoted above, the grammatical process of differentiation is described in an abstract way, without reference to any particular grammatical category. This is different in another description of the grammatical process, which is given in Vyāsa's *Yogasūtrabhāṣya* (on *Yogasūtra* 3.17; Aranya 1981: 283; cf. also Cardona 1997: 568–569). In this description, Vyāsa uses the verb *vy-ā-kr-*, from which *vyākaraṇa* is derived, with explicit reference to a grammatical process, and, furthermore, presents this process as a process of syntactic differentiation, in which two fundamental categories are involved – action (*kriyā*) and the means of realizing the action, which are the *kāraṅkas*.

The categories of action and *kāraṅkas* are presented by Vyāsa as being mutually dependent on each other so that in a word representing a *kāraṅka*, the complementary category of action is implied and vice versa. This mutual dependence of action and *kāraṅkas* is the binding force which holds the words of a sentence together.

The force of the sentence exists in a single noun like 'tree' since in this case the verb 'exist' is supplied, as Vyāsa (Aranya, loc. cit.) maintains:

- (7) *vṛkṣa ity ukte 'stīti gamyate na sattām padārtho vyabhicaratīti*
[When 'tree' is uttered, it is understood that it exists since the meaning of a word
cannot deviate from existence.]

This is a replica of Kātyāyana's (Bh 1.443.5–6) doctrine that the verb 'exist' (*asti*) in the third person of the present tense is understood when a noun in the nominative occurs without a verbal predicate. According to this doctrine, "there are no purely nominal sentences" (Deshpande 1991a: 37); every sentence is reduced to a verbal sentence.

As there is no agent without an action, so there is no action without the *kāraṅkas*, as Vyāsa (Aranya, loc. cit.) further specifies:

- (8) *tathā na hy asādhanā kriyāstīti tathā ca pacatīty ukte sarvakāraṅkāṇām ākṣepo
niyamārtho 'nūvādaḥ kartṛkarmakaraṅkāṇām caitrāgnitaṇḍulānām iti*
[And there is no action without the means of realizing it so that, when 'he cooks'
is uttered, all the *kāraṅkas* are implied; the explicit expression of the agent, instru-
ment and object like Chaitra, fire and rice is for the sake of determination.]

3. Syntax and semantics

The *kāraḥas* are introduced in a block of 33 *sūtras* of the *Aṣṭādhyāyī* (A 1.4.23–1.4.55). Pāṇini recognizes six categories as *kāraḥas*; they are introduced in the following order: point of departure (*apādānam*), recipient (*saṃpradānam*), instrument (*karaṇam*), locus (*adhikaraṇam*), object (*karma*), and agent (*kartā*). For each of these six categories, Pāṇini has a general definition in terms of semantic features:

- (9) *dhruvam apāye 'pādānam*
[That which remains stable when moving away is the point of departure.] (A 1.4.24)
- (10) *karmaṇā yam abhipraiti sa sampradānam*
[That whom he [the agent] approaches with the object is the recipient.] (A 1.4.32)
- (11) *sādhakatamaṃ karaṇam*
[That which is most efficient is the instrument.] (A 1.4.42)
- (12) *ādihāro 'dhikaraṇam*
[The substratum is the locus.] (A 1.4.45)
- (13) *kartur īpsitatamaṃ karma*
[That which the agent desires most to reach is the object.] (A 1.4.49)
- (14) *svatantraḥ kartā*
[That which is independent is the agent.] (A 1.4.54)

A special variety of the agent is the causative agent, who acts as the instigator of another agent; in addition to being an agent, the causative agent is categorized as *hetu* 'cause' (A 1.4.55).

The six *sūtras* which define the *kāraḥas* in general terms do not follow each other immediately, but are interspersed with other *sūtras*, in which the general definitions of *kāraḥas* are either extended or restricted to particular cases.

The first of the block of the 33 *sūtras* is the *sūtra* (A 1.4.23):

- (15) *kāraḥe*
[If it is a *kāraḥa*.]

This *sūtra* is a governing rule; it has to be read into each of the following 32 *sūtras*. In this way, for example, *sūtra* (9), which defines the point of departure as “that which remains stable, when moving away”, has to be rephrased as “that which remains stable when moving away is the point of departure if it is a *kāraḥa*”.

By adding *sūtra* (15) to each of the following *sūtras* of its domain, it is ensured that the semantic features which are specified in the subsequent rules are only valid as definitions of particular *kāraḥas* if that which is defined by them is, in fact, a *kāraḥa*. This means that the definitions of the particular *kāraḥas* are not by themselves sufficient to define a *kāraḥa*; they are only valid as subcategorizations of the general notion of *kāraḥa*.

In order to correctly assign particular *kāra*kas to entities of the semantic structure of a sentence, one has to know, therefore, the meaning of the word *kāra*ka, of which they are subcategorizations.

3.1. The agent and the *kāra*kas

The meaning of the word *kāra*ka is discussed at length in the *Mahābhāṣya*'s commentary on *sūtra* (15), which we shall briefly summarize (an in-depth study of grammatical problems involved in this analysis is Scharf 2002).

At the beginning of his commentary, Patañjali states that *kāra*ka is introduced as a technical term in *sūtra* (15). If *kāra*ka is introduced as a technical term, however, its meaning should be defined as it is the case with other expressions which serve as technical terms in the grammar. Yet, the meaning of the term *kāra*ka is defined nowhere in the grammar. In order to justify Pāṇini's procedure of introducing a technical term without defining it, Patañjali assumes that the term *kāra*ka has to be taken as a lengthy term, which needs not to be defined as such since its meaning can be understood from its grammatical derivation.

*Kāra*ka is an agent noun, which is derived from the root *kr* 'do, make' according to rules A 3.1.133 and A 3.4.67. Hence, the meaning of *kāra*ka as it appears from its grammatical derivation is 'that which acts' (Bh 1.324.9). As that which acts, the term *kāra*ka has the same meaning as the term *kartā*, which denotes the agent, since *kartā*, too, is derived as an agent noun from the root *kr*. On account of this synonymy, *kartā*, the agent, is rightly classified as a *kāra*ka. Yet, a problem arises with regard to the *kāra*kas which are different from the agent since it cannot be explained why a *kāra*ka which is not the agent is classified by using a word, viz. *kāra*ka, which is synonymous with the agent. This difficulty is pointed out in Kātyāyana's *vārttika* (Bh 1.324.10):

(16) *anvartham iti ced akartari karṭṛśabdānupapattiḥ*

[If the term *kāra*ka is taken in its literal meaning, it cannot be explained why a word signifying the agent is applied to what is not an agent.]

3.1.1. Agents of constituent actions

In order to solve the problem which has been raised in *vārttika* (16), Kātyāyana (Bh 1.324.13) assumes that *kāra*kas like the locus and the instrument are agents of constituent actions, into which the main action can be subdivided. Taking the action of cooking as an example, Kātyāyana explains the subdivision of the main action into constituent actions as follows.

The main action is the cooking of the agent, who is qualified as the principal agent (*pradhānakartā*) in order to distinguish him from the agents of the constituent actions. The cooking of the principal agent consists in putting the pot on fire, pouring water into the pot, putting rice into the pot, and providing sticks of fire wood. By acting in this way, the principal agent creates the conditions that the pot, which serves as the locus of

the action, and the sticks of firewood, which serve as the instrument, can start their activity.

The activity of the pot consists in taking in and holding a certain quantity (*drona* or *āḍhaka*) of rice; it is because of this activity that one can say of the pot (Bh 1.324.21):

- (17) *dronam pacaty āḍhakaṃ pacati* [Sanskrit]
 droṇa:ACC cooks āḍhaka:ACC cooks
 'It cooks a *drona* or an *āḍhaka*'

The activity of the sticks of fire wood consists in burning; it is because of this activity that one can say (Bh 1.325.1):

- (18) *edhāḥ pakṣyanti* [Sanskrit]
 sticks:NOM will:cook
 'The sticks of fire wood will cook'

In this way, Kātyāyana demonstrated that the locus and the instrument are agents of constituent actions. The term *kāraka*, therefore, can be applied to both *kārakas* in its literal meaning so that the problem which was raised in *vārttika* (16) is solved. Yet, the problem is solved only for the locus and the instrument, not for the point of departure and the recipient as Kātyāyana admits (Bh 1.325.13). In the next sentence (19), for example, it is not possible to transform the point of departure into the agent of a constituent action on the model of (17) or (18) since the formal result of this transformation, which is shown in (20), denotes a completely different scenario:

- (19) *grāmād āgacchati* [Sanskrit]
 village:ABL he:comes
 'He comes from the village'

- (20) *grāma āgacchati* [Sanskrit]
 village:NOM comes
 'The village comes'

In order to demonstrate for all non-agent *kārakas* that they are agents themselves and, hence, *kārakas*, Kātyāyana (Bh 1.325.16) has recourse to a more powerful strategy, which pretends to resolve the difficulty stated in *vārttika* (16):

- (21) *na vā svatantraparatantratvāt tayoh paryāyeṇa vacanaṃ vacanāśrayā ca saṃjñā*
 [Or, rather, [this difficulty does] not [arise] because of independence and dependence. Both [independence and dependence] are alternately expressed, and [the assignment of] a technical term depends on the [alternate] expression.]

3.1.2. Independence and dependence of *karakas*

According to this *vārttika*, *kārakas* which are different from the agent may be presented alternately as dependent and independent. If they are presented as independent, they will

receive the designation *kartā* ‘agent’ on account of *sūtra* (14), which defines the agent as that *kāraka* which is independent. If they are presented as dependent, on the contrary, they cannot be transformed into the agents of constituent actions.

In this way, it becomes clear that the impossibility of transforming the point of departure into an agent is not due to the particular nature of the *kāraka*, but only due to the particular mode of presenting it as dependent. If it can be presented as dependent, it can also be presented as independent since the mode of presenting it depends on the intention of the speaker. Patañjali (Bh 1.325.19–20), in fact, manages to find an example where a point of departure appears to be presented as independent since it can be transformed into the agent in the same way as a locus can be transformed into the agent:

(22) *balāhakād vidyotate* [Sanskrit]
 cloud:ABL is:lightening
 ‘It is lightening from the cloud’

(23) *balāhako vidyotate* [Sanskrit]
 cloud:NOM is:lightening
 ‘The cloud is lightening’

The alternate assignment of independence and dependence, which is conceded by *vārttika* (21), however, creates a new problem since in the section of the *Aṣṭādhyāyī* where the *kāraḥ* are introduced alternate assignment of terms is not allowed. When there is a conflict between two rules of this section to the effect that different terms would be assigned to a given item at the same time, the rule which is posterior in the order of the rules of the *Aṣṭādhyāyī* will prevail (A 1.4.1–2).

According to this principle, a *kāraka* which can be presented either as independent or as dependent should always be classified as *kartā* (agent) since *sūtra* (14), which defines the agent as the independent *kāraka*, is the last rule in the *kāraka* section of the *Aṣṭādhyāyī* and, therefore, overrides the rules in which the other *kāraḥ* are defined. There would be, thus, no chance that a non-agent *kāraka* like the point of departure could be classified as such.

Patañjali (Bh 1.325.24–25) somehow manages to solve this problem. Yet, the discussion of the problem, has opened a new perspective. So far, the intention of Kātyāyana’s argumentation was to present the *kāraḥ* which are different from the agent as independent; from now on, the goal of investigation will be to demonstrate in which way they are dependent. Patañjali (Bh 1.326.1–2) introduces the new topic by directly addressing himself to Kātyāyana:

(24) *yathā punar idaṃ bhavatā sthālyāḥ svātantryaṃ nidarśitaṃ sambhavanakriyāṃ dhāraṇakriyāṃ ca kurvatī sthālī svatantrēti kvedānīm paratantrā syāt*
 [[But you did not demonstrate the dependence of the pot] in the same way, sir, as you have demonstrated the independence of the pot by stating that the pot, which performs the activity of taking in and holding, is independent. In which way, now, may it be dependent?]

The pot is independent with regard to the constituent action of taking in and holding a certain quantity of rice; but it must also be assumed that it is dependent with regard to

the main action of cooking. As independence is needed to categorize the pot as the agent of a constituent action, so dependence is needed to categorize it as a *kāraka* which is different from the agent. In his attempt to demonstrate in which way the pot may be dependent, Patañjali presents three hypotheses.

In his first hypothesis, Patañjali (Bh 1.326.2–5) tries to demonstrate the dependence of the pot by identifying it as the object of preparatory actions such as washing and turning round, with regard to which it appears as dependent. This hypothesis is immediately rejected by pointing out that it is not for the purpose of being washed and turned round that the pot is used by the agent of cooking, but for the purpose of taking in and holding a certain quantity of rice. With regard to these actions, however, it has already been shown that the pot is independent. So still it has to be demonstrated in which way it is dependent.

In his second hypothesis, Patañjali (Bh 1.326.5–6) explains the alternation between dependence and independence as being due to the intention of the speaker: If the activity of the pot is being expressed, the pot appears as independent; if the activity of the agent is being expressed, the pot appears as dependent. The validity of this criterion, however, is questioned with the following argument: Even when the activity of the agent is being expressed, the pot still performs the actions of taking in and holding, with regard to which it is independent. Again, the question remains in which way it is dependent.

In his final attempt to answer the question, Patañjali (Bh 1.326.7–10) uses the presence of the agent, who is now explicitly referred to as the ‘principal’ (*pradhāna*) *kāraka*, as the criterion of differentiation between dependence and independence: In the presence of the agent, who acts as the principal *kāraka*, the pot is dependent; in his absence, it is independent. This is illustrated with an example from political life: If the ministers act in the presence of the king, they act in dependence; if they act in the absence of the king, they act in independence. Yet, also this hypothesis gives rise to the question (Bh 1.326.10–11):

(25) *nanu ca bhoḥ pradhānenāpi vai samavāye sthālyā anenārtho ’dhikaraṇaṃ kārakaṃ iti*

[Is it not, sir, that even in the presence of the principal [*kāraka*], the fact is that the locus is a *kāraka*?]

The argument is the same as before: Even in the presence of the principal *kāraka*, the locus still functions as a *kāraka*, that is, as an agent, since it performs the action of taking in and holding, with regard to which it is independent. Yet, even if the argument is the same as before, it does not serve the same purpose as before since Patañjali, after having presented it, does not ask anymore “in which way the pot is dependent”.

By identifying the pot as a locus, it has already been recognized that the pot is dependent; by demonstrating that the pot is a *kāraka* even in the presence of the principal *kāraka*, it has also been recognized that the pot is independent. Since it has been recognized, thus, that the pot is dependent and independent at the same time, there is no longer an alternation between dependence and independence, as it was stipulated in *vārttika* (21), but a simultaneity: Whenever the pot is dependent, it is also independent, which is a contradiction.

At this point of the commentary, it becomes clear that *vārttika* (21) can no longer be used in support of the view that non-agent *kāraḥ* are agents in their own right. It has

to be accepted that the notion of *kāraka* is independent of the notion of a non-agent *kāraka* like the locus and vice versa. This mutual independence of both notions is identified by Patañjali (Bh 1.326.11–12) as the ultimate reason for the failure of the previous argumentation:

- (26) *na hi kārakam ity anenādhikaraṇatvam uktam adhikaraṇam iti vā kārakatvam*
[Neither is the notion of the locus expressed by the term *kāraka* nor is the notion of *kāraka* expressed by the term *locus*.]

Both categories qualify each other because they reside in one and the same substratum. This is illustrated by Patañjali (Bh 1.326.13–15) with the case of a man who bears the composite name *gārgyo devadattaḥ*, where *devadatta* is his first name and *gārgya* his family name. Neither is his first name conveyed by calling him *gārgya* nor his family name by calling him *devadatta*. Both names qualify each other because they reside in one and the same substratum.

After having demonstrated that the general category *kāraka* and the special category of a non-agent *kāraka* like the locus are mutually independent of each other, Patañjali (Bh 1.326.15–16) is prompted to give a new and final definition of the term *kāraka*:

- (27) *evam tarhi sāmānyabhūtā kriyā vartate tasyā nirvartakaṃ kārakam*
[If it is so, then there is a unified action; a *kāraka* is its producer.]

The notion of *kāraka* which is defined here does not presuppose the splitting of the action into constituent actions, but the existence of one unified action which is brought about by the joint effort of all the *kāra*kas involved. In this way, action and *kāra*kas are recognized as mutually dependent terms. Since one term implies the other, *sūtra* (15) may alternately be taken to mean either ‘if it is a *kāraka*’ or ‘if there is an action’ as Patañjali suggests.

3.2. The object

The *kāra*kas are ‘means of realizing’ (*sādhanas*) the action; hence, *sādhana* is used as an alternative term to denote the *kāra*kas. Bhartṛhari (VP 3.7.1) defines this term as follows:

- (28) *svāśraye samavetānām tadvad evāśrayāntare | kriyānām abhiniṣpattau sāmāthyam sādhanam viduḥ ||*
[*Sādhana* is the capability to accomplish actions which are inherent in their own substratum or in another substratum.]

In this definition, a distinction is made between two classes of *kāra*kas according to whether their capability of performing actions is inherent in the respective *kāraka* or not.

According to Helārāja’s commentary (Subramania Iyer 1963: 231), *kāra*kas of the first sort are the agent and the object; *kāra*kas of the second sort are the remaining *kāra*kas (instrument, locus, point of departure, and recipient). The actions which *kāra*kas

of the first sort accomplish are inherent in the respective *kāraka*; the actions which *kāra*kas of the second sort accomplish are not inherent in the respective *kāraka*, but in the agent or the object; it is through the agent or the object that these *kāra*kas accomplish their actions.

By setting the agent and the object apart from the other *kāra*kas, the object is accorded the same rank as the agent: it has the same capability of performing actions on its own as the agent has. Assigning to the object the capability of acting on its own is, of course, reminiscent of Kātyāyana's strategy of dividing the main action into constituent actions with regard to which non-agent *kāra*kas can be established as agents (see above, 3.1.1). In the whole discussion of *sūtra* (15), however, the object was not mentioned at all. According to Nāgeśa Bhaṭṭa (Sharma no year: 243), the author of a subcommentary on the *Mahābhāṣya*, this omission is due to the fact that the capability of the object to act on its own is rather obvious since it is implied in a syntactic concept of Pāṇini's grammar, which is known as the object-agent (*karmakartā*).

3.2.1. The object-agent

The object-agent is defined in the following *sūtra* (A 3.1.87):

(29) *karmavat karmaṇā tulyakriyaḥ*

[An agent who performs the action in the same way as an object is treated as if it were an object.]

The existence of an agent whose action is of the same sort as the action of an object presupposes the existence of an object which has the capability to act on its own. Such an object performs his action irrespective of whether the agent is expressed or not. If the agent is expressed, the action of the object is hidden under the action of the agent; if the agent is not expressed, the action of the object is no longer hidden, and the object itself appears in the role of an agent. The transition from the one to the other scenario is illustrated by the following sentences:

(30) *devadattaḥ kāṣṭham bhinatti*

[Sanskrit]

Devadatta:NOM firewood:ACC splits

'Devadatta splits the firewood'

(31) *kāṣṭham bhidyate svayam eva*

[Sanskrit]

firewood:NOM splits self alone

'The firewood splits all by itself'

In (30), the firewood (*kāṣṭha*) is the object of the action performed by Devadatta; in (31), where Devadatta is not expressed, it is the agent itself. Nevertheless, the firewood performs in (31) the same action as in (30): Devadatta can only split the firewood if the firewood is splitting itself or lending itself to being split. The firewood of (31), thus, fulfills the condition of *sūtra* (29) – it is an agent who performs the action in the same way as an object does. By virtue of *sūtra* (29), therefore, the firewood is categorized as an agent who is treated grammatically as if it were an object.

Since the agent of (31) is treated as if it were an object, the verb which is related to it is treated as being related to an object. The grammatical consequence of this treatment of the object is that in (31) the verb is derived as *bhidyate* ‘splits’ according to the rules of Pāṇini’s grammar whereas in (30) it is derived as *bhinatti* ‘splits’.

In (30), the verb (*bhinatti*) is in a syntactic construction which is termed *kartari prayoga* ‘the use of the verb to denote the agent’. This construction, which corresponds to the active voice of European grammar, is opposed to the *karmaṇi prayoga* ‘the use of the verb to denote the object’, which corresponds to the European passive voice. Yet, the European notion of passive is foreign to Pāṇinian grammar; as we shall see in 4.3.

In (31), the verb (*bhidyate*) has the form of a verb in the *karmaṇi prayoga*; yet, it is not in the *karmaṇi prayoga* itself since the object which it refers to is in reality an agent who is only treated as if it were an object. Neither is the verb of (31) in the *kartari prayoga* or active voice since it appears in the form of a verb in the *karmaṇi prayoga*. The verb of (31), thus, is neither in the *kartari prayoga* nor in the *karmaṇi prayoga*; it is in a hybrid construction, which is termed *karmakartari prayoga* ‘the use of the verb to denote the object-agent’.

With regard to the grammatical interpretation of sentences like (31), however, there is no unanimity among the *munitraya*. Kātyāyana and Patañjali (Bh 2.68.11–22) propose an alternative interpretation, in which Pāṇini’s object-agent is taken to be a genuine object. According to this interpretation, the verb in (31) is used to denote the object and nothing else; it is, therefore, in *karmaṇi prayoga*. Since the former agent has been eliminated, a new agent in form of the reflexive noun *ātmā* ‘self’ can be introduced in (31) on the model of a sentence like:

(32) *devadattaḥ ātmanā hanyate* [Sanskrit]
 Devadatta:NOM self:INS is:killed
 ‘Devadatta is killed by himself’

A sentence like (31), then, can be re-analyzed as a sentence in the *karmaṇi prayoga*, where the noun *ātmanā*, which denotes the agent, has been deleted (cf. Deshpande 1985: 9–16).

In any way, the transformation of (30) into (31) differs from the transformations of non-agent *kāraḥ* into agents of constituent actions as they were defined by Kātyāyana (see above, 3.1.1). Whereas the latter transformations do not affect the syntactic construction of the verb, which remains in the *kartari prayoga* or active voice, the transformation of (30) into (31) involves a change of the syntactic construction – either from *kartari prayoga* to *karmaṇi prayoga* (according to Kātyāyana) or from *kartari prayoga* to *karmakartari prayoga* (according to Pāṇini). In Kātyāyana’s interpretation, the semantic status of the object is not changed under this transformation; in Pāṇini’s view, on the contrary, the former object is transformed into the object-agent.

3.2.2. Actions inherent in the object and actions inherent in the agent

The transformation of the object into Pāṇini’s object-agent is not universally applicable. According to a *vārttika* of Kātyāyana (Bh 2.66.15), it is restricted to

- (33) *karmasthabhāvakānām karmasthakriyānām ca*
 [verbal roots denoting dynamic being [*bhāva*] inherent in the object and verbal roots denoting action [*kriyā*] inherent in the object]

The root *bhid* ‘split’, for example, denotes an action which is inherent in the object since the result of the action is seen in the object, not in the agent. The transformation of the object of this action into the object-agent, therefore, is possible; the resulting sentence was shown already in (31): ‘the firewood splits by itself’.

An example where the restriction of *vārttika* (33) inhibits the transformation of the object into the object-agent is the sentence:

- (34) *devadattaḥ grāmaṃ gacchati* [Sanskrit]
 Devadatta:NOM village:ACC goes
 ‘Devadatta goes to the village’

In this sentence, the village (*grāma*) is the object of Devadatta’s action since it satisfies Pāṇini’s definition (13) of the object as that which the agent most desires to reach. Yet, the village is not affected by Devadatta’s action at all; it is the agent who is affected by the action. The root *gam* ‘go’, thus, denotes an action which resides not in the object, but in the agent. According to *vārttika* (33), therefore, the transformation of the object into the object-agent is not possible; if attempted, it would result in the ungrammatical sentence:

- (35) **gamyate grāmah svayam eva* [Sanskrit]
 is:being:gone village:NOM self alone
 *‘The village is being gone all by itself’

In *vārttika* (33), the verbal roots for which an object-agent is defined are specified twice – as verbal roots denoting dynamic being (*bhāva*) and as verbal roots denoting action (*kriyā*). The later grammatical tradition attempted to view this contrast as a semantic contrast between different classes of verbs amounting to something like a contrast between different aspects or aktionsarten (cf. Sharma 1995: 308–310).

In the light of another passage from the *Mahābhāṣya* (Bh 1.253–259), where the meaning of the verbal root is discussed at length (see below, 3.3), the double specification of verbal roots in *vārttika* (33), however, appears not as a semantic contrast between different classes of verbs; *bhāva* and *kriyā* are not mutually exclusive, but compatible terms with *kriyā* as the more general term. The difference between verbs denoting actions and verbs denoting dynamic being, therefore, will be disregarded in the present context, and the more general term *kriyā* ‘action’ alone will be retained in referring to *vārttika* (33).

In his commentary on *vārttika* (33), Patañjali (Bh 2.66.16) explicitly opposes roots which denote actions inherent in the object to roots which denote actions inherent in the agent. The former are called *karmastha* ‘residing in the object’, the latter *kartṛstha* ‘residing in the agent’. This contrast is relevant only for actions which are directed to an object different from the agent, that is, for actions which are denoted by transitive verbs. For intransitive verbs, which denote actions without an external object, the contrast of *karmastha* and *kartṛstha* actions is neutralized; intransitive verbs can, by definition, only denote actions inherent in the agent.

3.2.3. Objects of *karmastha* actions

Objects of *karmastha* actions are further subcategorized into objects which are to be produced and objects which are to be modified by the action. The distinction between these two classes of objects was arrived at by Patañjali in his attempt to analyze the simple sentence:

- (36) *odanam pacati* [Sanskrit]
 rice:ACC he:cooks
 'He cooks rice'

The problem which Patañjali (Bh 1.332.14) saw in this simple sentence was that the word *odana* actually does not mean 'rice', but 'cooked rice'. If this meaning is assigned to *odana* in (36), the sentence would mean that somebody cooks cooked rice; in this case, something different from cooked rice would be produced, as Patañjali ironically remarks. In order to justify the ordinary understanding of (36), Patañjali (Bh 1.332.15) assumes that *odana* does not denote cooked rice here, but the uncooked rice grains, which are normally denoted by the word *taṇḍula*. This assumption implies a metonymic shift in the meaning of *odana*: The rice grains (*taṇḍula*) are denoted by a word which denotes that which the rice grains are meant for, namely, cooked rice (*odana*). Yet, this strategy of justifying the expected reading of (36) fails in case of the sentence:

- (37) *taṇḍulān odanam pacati* [Sanskrit]
 rice:grains:ACC rice:ACC he:cooks
 'He cooks rice grains into cooked rice'

In this sentence, both words, *odana* and *taṇḍula*, co-occur so that one word (*odana*) cannot be taken as a denotation of the meaning of the other (*taṇḍula*). In order to explain the syntactic function of *odana* in (37), Patañjali decomposes the meaning of the verb *pacati* 'he cooks' into two components – cooking and producing, which are related to *taṇḍulān* 'rice grains' and *odanam* 'cooked rice', respectively. This analysis is substantiated by the paraphrase:

- (38) *taṇḍulān pacann odanam nirvartayati* [Sanskrit]
 rice:grains:ACC cooking rice:ACC he:produces
 'By cooking rice grains he produces cooked rice'

The distinction between the two meanings of the verb *pacati* gives rise to an analogous distinction between two kinds of objects – *nirvartyakarma* 'the object which is to be produced' and *vikāryakarma* 'the object which is to be modified'. In (38), cooked rice is the object which is to be produced, and rice grains are the object which is to be modified by the action of cooking.

3.2.4. Objects of *kartṛstha* actions

As objects of *karmastha* actions, the *nirvartyakarma* and the *vikāryakarma* undergo a perceptible change in the course of the action. Objects of *kartṛstha* actions, on the con-

trary, are not subject to such a change; they typically serve as the goal of movements as in (34) or as the object of perceptions as in:

- (39) *ādityam paśyati* [Sanskrit]
 sun:ACC he:sees
 'He sees the sun'
- (40) *himavantam śṛṇoti* [Sanskrit]
 himalaya:ACC he:hears
 'He hears the [rumble of the] Himalaya'

Patañjali (Bh 1.445.19–20) quotes these examples in order to demonstrate the futility of the view that a true object is an object in which a difference is produced by the action. As Patañjali (Bh 1.445.20) argues, the objects in (34), (39) and (40) are as natural as the objects in sentences like *kaṭam karoti* 'he makes a mat' or *śakaṭam karoti* 'he makes a cart'. In Patañjali's (Bh 1.445.14–17) view, even nouns in the accusative denoting a period of time or a distance in space are natural objects and, hence, subject to passive transformation (see below, 4.3.1.) as in:

- (41) *āsyate māsaḥ* [Sanskrit]
 is:being:sat month:NOM
 'A month is spent sitting'
- (42) *śayyate krośaḥ* [Sanskrit]
 is:being:slept krośa:NOM
 'A krośa [measure of distance] is covered [while] sleeping'

An interesting border-line case is introduced in the following *vārttika* (Bh 1.333.1):

- (43) *īpsitasya karmasaṃjñāyām nirvṛttasya kārakatve karmasaṃjñāprasaṅgaḥ kriyep-sitatvāt*
 [If the term *karma* [object] denotes that which is most desired, it would not be applicable to a thing which has been produced, even if it is a *kāraka*, since [in this case] the action is that which is desired.]

The meaning of this *vārttika* is illustrated by Patañjali (Bh 1.333.4) with the example:

- (44) *guḍam bhakṣayati* [Sanskrit]
 sugar:ACC he:eats
 'He eats (brown) sugar'

Brown sugar (*guḍa*) is neither a *nirvartyakarma* nor a *vikāryakarma*. It is not an object which has to be produced by the action of eating since it already exists; neither is it an object which has to be modified by the action. Even though the sugar will be chemically modified through the action of eating, this modification is not what the agent actually wants to achieve. What the agent really wants is to eat the sugar, not to modify the sugar. Since eating the sugar is what is most desired by the agent, the sugar itself cannot

be categorized as an object according to Pāṇini's definition (13) of the object as that which the agent most desires to reach.

Kātyāyana solves the problem he raised in *vārttika* (43) by conceding that not only the action of eating the sugar, but also the sugar itself is to be regarded as that which the agent most desires to reach since someone who wants to eat sugar will not be satisfied if he eats a piece of mud instead. The sugar and the action of eating it are of equal importance to the agent. Therefore, Pāṇini's definition of the object can be applied to the sugar.

Objects which fall neither in the category of *nirvartyakarma* nor in the category of *vikāryakarma* are only negatively characterized; they are objects which the agent most desires to reach, and nothing else. Hence, Patañjali does not use a special designation to refer to them in the discussion of the above examples. In the later grammatical tradition from Bhartṛhari (VP 3.7.51) onward, they are denoted as *prāpyakarma* 'the object which is to be reached'. This term again does not imply more than what is already contained in Pāṇini's definition of the object (13).

The *nirvartyakarma*, the *vikāryakarma*, and the *prāpyakarma* are three kinds of objects, which equally satisfy Pāṇini's definition (13). Nevertheless, there remains a difference between the *nirvartyakarma* and the *vikāryakarma*, on the one side, and the *prāpyakarma*, on the other, since the former are objects of *karmastha* actions whereas the latter is the object of *kartṛstha* actions. On account of *vārttika* (33), therefore, only the *nirvartyakarma* and *vikāryakarma* are eligible for the transformation into the object-agent. For the *prāpyakarma*, this transformation is not possible since the associated action is not inherent in the object, but in the agent (cf. Das 1990: 107, 187; Kudo 1994: 113).

3.3. Action and dynamic being

The difference between the *nirvartyakarma* and the *vikāryakarma* will remain when the respective objects are transformed into the object-agent since the action which is performed by the object-agent is the same as the action which is performed by the object prior to its transformation into the object-agent (see above, 3.2.1). Actions which are performed by the object-agent, thus, can be subdivided into actions through which the object-agent is produced and actions through which the object-agent is modified.

A more refined subdivision of actions, which is valid not only for the actions of an object-agent, but for all actions denoted by intransitive verbs, is provided by the six modifications of dynamic being (*bhāva*), which are enumerated in the *Nirukta* of Yāska (Sarup 1967: 1.2) as follows:

- (45) *jāyate 'sti vipariṇamate vardhate 'paksīyate vinaśyati*
[being born, existing, changing, increasing, decreasing, perishing]

The six modifications of dynamic being (*bhāva*) are introduced in the *Nirukta*, however, not as subdivisions of intransitive verbs, but as subdivisions of verbs in general since dynamic being is recognized in the *Nirukta* (Sarup 1967: 1.1) as the defining property of all verbs.

Besides this doctrine, which defines the meaning of the root as dynamic being, there is another equally ancient doctrine which maintains that action (*kriyā*) is the meaning of the verbal root: In the *Kāśikā* (Tripathi and Malviya 1986: on A 1.3.1), this doctrine is ascribed to the ancient grammarians, who created the term *dhātu* ‘verbal root’ to denote actions. Pāṇini’s definition of the root (A 1.3.1), however, does not contain any reference to the one or the other doctrine. It is an extensional definition, in which the roots are defined by enumeration:

- (46) *bhūvādayo dhātavaḥ*
[*bhū* and the others are roots.]

As it was noted by Kātyāyana (Bh 1.253.13), Pāṇini’s extensional definition of the root leads to the undesired consequence that expressions which are not roots themselves, but only homophonous with a root have to be considered as roots. In order to avoid this undesired consequence, Patañjali (Bh 1.254.13) suggests an intensional definition of the root such as:

- (47) *kriyāvacano dhātur iti*
[A root denotes action.]

This definition, in turn, necessitates an inquiry into the nature of action.

3.3.1. Action as the meaning of the root

Any inquiry into the nature of action is impaired by the fact that action cannot be directly observed (Bh 1.254.15–16). Only the means of realizing the action, that is, the *kāraṅkas*, can be directly observed; yet, the presence of the *kāraṅkas* alone is only a necessary, but not a sufficient condition for action to take place. This is illustrated by Patañjali (Bh 1.254.17–18) with regard to the action of cooking:

- (48) *sarveṣu sādhanēṣu saṁnihiteṣu kadācit pacatīty etad bhavati kadācin na bhavati*
[When all the means [of realizing the action] are present, sometimes it happens that one can say ‘he cooks’, sometimes it does not happen.]

If the nature of action cannot be perceived directly, how can it be known then that verbs like *pacati* ‘he cooks’ denote an action? Patañjali (Bh 1.254.20) gives a simple answer to this question: Verbs like *pacati* denote an action in as much as they are coreferential with the verb ‘he does’.

They are coreferential with this verb when they occur in an answer to the question “what does he do?” (Bh 1.254.21). This test, however, fails in case of the verbs *asti*, *bhavati*, *vidyati*, which all denote existence. It cannot be demonstrated that verbs denoting mere existence are coreferential with the verb *karoti* ‘he does’ because the expression “he exists” cannot occur in an answer to the question “what does he do?” (Bh 1.255.2–3).

In this situation, Patañjali (Bh 1.256.18) considers the alternative definition of the meaning of the root as dynamic being (*bhāva*). If dynamic being is taken to be the meaning of the root, then the verbs denoting existence (*asti*, *bhavati*, *vidyati*) would

automatically be included in the general definition of the root since one of these verbs (*bhavati*), precisely, is the verb from which the noun *bhāva* ‘dynamic being’ is derived. Yet, a new problem arises in this case with regard to roots like *pac* ‘cook’. Since it was established already that *pac* and similar verbs denote actions, it has to be demonstrated now in which way roots of this type can denote dynamic being.

3.3.2. The relation between action and dynamic being

After a lengthy discussion of the pros and cons of the *bhāva* theory, Patañjali finally reverts to the theory that action is to be considered as the meaning of the root. Yet, the problem which was raised with regard to this theory has not been solved yet. It still remains to be explained in which way verbs denoting existence can be understood as action verbs. In his attempt to solve this problem now, Patañjali (Bh 1.258.11) presents a new definition of action:

- (49) *kāraḥ kārakāṅgāṃ pravṛttiviśeṣaḥ kriyā*
[Action is a special enactment of *kāraḥ*.]

This definition allows him to subsume the meaning of verbs like being and dying under the category of action (Bh 1.258.12–13). Being and dying, which are mentioned here as special kinds of action, are identical with two of the six modifications of dynamic being, which were introduced in the *Nirukta* (45). In fact, Patañjali quotes in his next sentence (Bh 1.258.13–14) the six modifications of dynamic being from the *Nirukta*.

By illustrating different types of action with two of the six modifications of dynamic being, Patañjali recognizes that *bhāva* ‘dynamic being’ and *kriyā* ‘action’ are compatible, if not equivalent terms since the meaning of one term (*bhāva*) is covered by the meaning of the other (*kriyā*) (cf. Cardona 1970; Deshpande 1991b: 469–470).

Yet, the complete harmonization of the two concepts is still impaired by the fact that for verbs denoting existence the coreferentiality with the verb *karoti* ‘he does’, which Patañjali used as a test for action verbs, could not be established (see above, 3.3.1). If dynamic being and action are not mutually exclusive, but compatible terms, it is indeed difficult to explain why verbs denoting existence cannot be used in an answer to the question “what does he do?”.

Patañjali (Bh 1.258.20–21), finally, solves this problem by denying the validity of the question “what does he do?” as a criterion for singling out action verbs. From the impossibility of using the verb ‘exist’ in a response to the question “what does he do?” it does not follow that the verb ‘exist’ does not signify an action. It only means that the statement “he exists” is not the proper answer to the question “what does he do?” since:

- (50) *nānyatprṣthenānyad ākhyeyam*
[One cannot answer something different from what has been asked for.]

The statement “he exists” cannot be counted as an answer to the question “what does he do?” since it is already presupposed in the very question that the person whose activity is asked for exists. So, “he exists” never can occur as an answer to the question “what does he do?” since existence is not that which has been asked for.

3.3.3. Beyond the diversity of agent and action

In the third part of *Vākyapadīya*, Bhartṛhari deals with different theories of the meaning of the verbal root from a philosophical point of view. Of particular interest is a theory in which the six modifications of dynamic being as they were enumerated in the *Nirukta* (45) – being born, existing, changing, increasing, decreasing, perishing – are reduced to two basic categories – being born and perishing, which, in turn, are equated with two more general notions – appearance and disappearance, respectively (VP 3.8.26).

Existing falls in the category of being born since it can be understood ‘as birth which has assumed uniformity’ (*janmaivāsritasārūpyam*) of similar moments (VP 3.8.27).

Changing exhibits both basic categories simultaneously since in any changing substance some properties appear and other properties disappear. By the same token, increasing and decreasing, which are merely quantifications of the two aspects of change, are reduced to being born and perishing, respectively.

In a further step of unification, being born and perishing are merged with their respective substrata (VP 3.8.28):

(51) *jāyamānān na janmānyad vināśe ’py apadārthatā*

[Birth is not different from that which is born and also in perishing there exists a non-entity.]

Neither can the action of being born be separated from that which is being born nor the action of perishing from that which is perishing. That which is being born is the agent of being born, and that which is perishing is the agent of perishing. The agent of being born exists already before he is born, and the agent of perishing still exists as a non-entity after he has perished.

In both cases, the agent as such remains unaffected by the action since his existence is neither created by his being born nor destroyed by his perishing. This is the conclusion which is reached in the second half of verse (51):

(52) *ato bhāvavikāreṣu sattaikā vyavatiṣṭhate ||*

[Among the modifications of dynamic being, therefore, it is being [*sattā*] alone that persists.]

According to Helārājā’s commentary (Subramania Iyer 1973: 23), this being (*sattā*) has ‘the nature of a great unification’ (*mahāsāmānyasvabhāvā*). It is a concept beyond the opposition of the categories of agent and action. It appears as action (*kriyā*) when it is seen as a sequence of events; it appears as a means (*sādhana*) when it is seen without such a sequence. In the first case, it constitutes the categorial meaning of a verb, in the latter case the categorial meaning of a noun.

4. Syntax and morphology

From the semantic point of view, verbs and nouns appear as representations of the categories of action and *kāraṅkas*, respectively. Yet, verbs and nouns are introduced by Pāṇini not as representations of semantic categories, but as subdivisions of the category of the word, which is defined in purely morphological terms (A 1.4.14):

(53) *sup-tiñ-antaṃ padaṃ*

[That which has either a nominal or a verbal ending is a word.]

Obviously, a linguistic expression which has a nominal ending is a noun, and an expression which has a verbal ending is a verb. Pāṇini's definition of the word as that which has either a nominal or a verbal ending, therefore, implies that a word is either a noun or a verb. As an Indo-European language, Sanskrit has, of course, not only nouns and verbs, but also other classes of words, which we would identify from a European perspective as prepositions, conjunctions, adverbs, and particles. Pāṇini recognizes, in fact, the existence of non-inflected words, which he denotes as *avyaya* 'unchangeable'. Yet, non-inflected words are not considered as a genuine word class by him; they are reduced to nouns by virtue of a *sūtra* (A 2.4.82), which prescribes that a nominal ending is deleted after an *avyaya*.

4.1. Nominal and verbal endings

Pāṇini's definition of the word as that which has either a nominal or a verbal ending presupposes a definition of nominal and verbal endings. This definition is given in two *sūtras* (A 4.1.2 and A 3.4.78), in which the standard forms of nominal endings (54) and verbal endings (55) are enumerated:

(54) *su-au-jas-am-auṭ-śas-ṭā-bhyām-bhis-ñe-bhyām-bhyas-ñasi-bhyām-bhyas-ñas-os-ām-ñi-os-sup*

(55) *tip-tas-jhi-sip-thas-tha-mip-vas-mas-ta-ātām-jha-thās-āthām-dhvam-iṭ-vahi-mahiñ*

The eighteen verbal endings, which are enumerated in (55), are divided into two groups of nine endings. The nine endings of the first half are categorized as *parasmaipada*, the nine endings of the second half as *ātmanepada* (A 1.4.99–100). *Parasmaipada* and *ātmanepada* are two categories inherent in the meaning of verbal roots of Sanskrit; yet, not all the roots are capable of expressing both categories alternately. There are roots which occur only in *parasmaipada*, roots which occur only in *ātmanepada*, and roots which can be used either in *parasmaipada* or in *ātmanepada*.

Only for the last class of roots, there is a direct semantic contrast between the two categories. According to rule A 1.3.72, roots belonging to this class take *ātmanepada* endings 'if the result of the action accrues to the agent' (*kartrabhiprāye kriyāphale*). If this condition is not fulfilled, the roots of this class take *parasmaipada* endings on the further condition that the verbal endings do not denote the object or the action, but the agent; otherwise they take *ātmanepada* endings (see below, 4.3.1).

Each group of *parasmaipada* or *ātmanepada* endings is subdivided into three groups of three endings. The three groups are classified as the first, the middle and the highest person, respectively (A 1.4.101). The highest person is selected when the ending is coreferential with the pronoun 'I, we' (A 1.4.107), the middle person when it is coreferential with the pronoun 'you' (A 1.4.105), and the first person in the remaining cases (A 1.4.108), in which the ending is equivalent to the third person of European grammatical terminology (the middle person being equivalent to the European second person, and

the highest person to the European first person). The three endings of each person are further categorized as singular, dual, and plural, respectively (A 1.4.102). In this way, a twofold classification is obtained for *parasmaipada* and *ātmanepada*. For *parasmaipada* this classification may be displayed in the following way (the lines contain the persons, the rows the numbers):

(56)	<i>tip</i>	<i>tas</i>	<i>jhi</i>
	<i>sip</i>	<i>thas</i>	<i>tha</i>
	<i>mip</i>	<i>vas</i>	<i>mas</i>

The analogous twofold classification is applied to the 21 nominal endings, which are enumerated in (54):

(57)	<i>su</i>	<i>au</i>	<i>jas</i>
	<i>am</i>	<i>auṭ</i>	<i>śas</i>
	<i>ṭā</i>	<i>bhyām</i>	<i>bhis</i>
	<i>ṅe</i>	<i>bhyām</i>	<i>bhyas</i>
	<i>ṅasi</i>	<i>bhyām</i>	<i>bhyas</i>
	<i>ṅas</i>	<i>os</i>	<i>ām</i>
	<i>ṅi</i>	<i>os</i>	<i>sup</i>

The seven triplets which are obtained in this classification are denoted as *vibhaktis* (A 1.4.104); as subdivisions of the nominal endings, the *vibhaktis* are simply labelled according to the order in which they are enumerated in *sūtra* (54) as the first, second, ... (*vibhakti*). As in the classification of the verbal endings, the three endings of each *vibhakti* are categorized as singular, dual, and plural, respectively (A 1.4.103).

The seven *vibhaktis* are the counterparts of the morphological cases of the European grammatical tradition. The first *vibhakti* corresponds to the nominative case in European terminology, the second to the accusative, the third to the instrumental, the fourth to the dative, the fifth to the ablative, the sixth to the genitive, and the seventh to the locative.

4.2. *Karakas* and nominal endings

The *vibhaktis* are introduced as representations of *kāarakas* by a group of *sūtras* from the third section of the second chapter of the *Aṣṭādhyāyī*. These *sūtras* have the general format: *Vibhakti* X is introduced after a nominal stem in order to denote *kāaraka* Y. There is, however, no one-to-one relation between *kāarakas* and *vibhaktis*. A *kāaraka* may be represented by different *vibhaktis*, and a *vibhakti* may represent different *kāarakas*; there are also *vibhaktis* which do not represent a *kāaraka* at all. Nevertheless, for each *kāaraka*, a particular *vibhakti* may be identified as its prototypical representation; these prototypical representations are specified in the following *sūtras*:

(58)	<i>karmaṇi dvitīyā</i>
	[The second <i>vibhakti</i> [accusative] is introduced after a nominal stem to denote the object.] (A 2.3.2)

- (59) *karṭṛkaranayos tṛtīyā*
[The third *vibhakti* [instrumental] is introduced after a nominal stem to denote the agent and the instrument.] (A 2.3.18)
- (60) *catuṛthī sampradāne*
[The fourth *vibhakti* [dative] is introduced after a nominal stem to denote the recipient.] (A 2.3.13)
- (61) *apādāne pañcamī*
[The fifth *vibhakti* [ablative] is introduced after a nominal stem to denote the point of departure.] (A 2.3.28)
- (62) *saptamy adhikaraṇe ca*
[The seventh *vibhakti* [locative] is introduced after a nominal stem to denote also the locus.] (A 2.3.36)

The first *vibhakti* (nominative) is not introduced as the representation of a syntactic function at all. It has a purely lexical function, which is described in the following *sūtra* (A 2.3.46):

- (63) *prātipadikārtha-liṅga-parimāṇa-vacana-mātre prathamā*
[The first *vibhakti* is introduced after a nominal stem when there is to be denoted nothing but the meaning of the nominal stem, its gender and number.]

Whereas the first *vibhakti* (nominative) is not introduced as the representation of a syntactic function at all, the sixth *vibhakti* (genitive) is introduced to denote syntactic relations which are not covered by the previous rules (A 2.3.50). These relations are, in particular, relations between nominal stems such as the relation between the possessor and the thing possessed.

The group of *sūtras* which introduce the *vibhaktis* is headed by the *sūtra* (A 2.3.1):

- (64) *anabhihite*
[If not already expressed.]

This *sūtra* is a governing rule like *sūtra* (15) *kārake*; it has to be read into the *sūtras* of its domain to the effect that a *vibhakti* can only be introduced after a noun stem if its syntactic function is not already expressed elsewhere.

4.3. The representation of the agent and the object

In which way the syntactic function of a *vibhakti* may be expressed elsewhere, is specified in a *vārttika* of Kātyāyana (Bh 1.441.20). Out of the different possibilities which are enumerated by Kātyāyana, the possibility that a *kāraka* may be expressed in the endings of the verb is of particular relevance for syntax. A restriction, however, is laid down in the following *sūtra* (A 3.4.69) that only the agent and the object may be expressed in this way:

(65) *laḥ karmaṇi ca bhāve cākarmakebhyaḥ*

[The *lakāras* denote (in addition to the agent) also the object and, in case of intransitive verbs, the action.]

The *lakāras*, which are referred to in this *sūtra*, are the temporal and modal categories of the verb in Sanskrit; they are called *lakāras* because the single terms which denote a *lakāra* commence with the consonant *la*, for example: *laḥ* (= present), *liḥ* (= perfect), *luḥ* (= non-sigmatic future). In the course of a grammatical derivation, these *lakāras* are replaced by one of the verbal endings enumerated in (55) according to the *sūtra* (A 3.4.77):

(66) *lasya*

[In the place of a *lakāra*.]

Since a substitute has the same properties as its replacement (A 1.1.56), the property of the *lakāra* to denote the agent, the object or the action is transferred to the verbal ending replacing it.

4.3.1. Agent and object in verbal endings

By virtue of *sūtra* (65), three syntactic structures are defined according to whether the verbal ending expresses the agent, the object or the action. These structures are known as the three uses (*prayogas*) of the verb. The *kartari prayoga* is the use of the verb to denote the agent, the *karmaṇi prayoga* is the use of the verb to denote the object, and the *bhāve prayoga* is the use of the verb to denote the action. The three *prayogas* are illustrated by the following sentences:

(67) *devadattaḥ odanam pacati*

[Sanskrit]

Devadatta:NOM rice:ACC cooks
'Devadatta cooks rice'

(68) *devadattena odanaḥ pacyate*

[Sanskrit]

Devadatta:INS rice:NOM is:cooked
'Rice is cooked by Devadatta'

(69) *āsyate devadattena*

[Sanskrit]

it:is:being:sat Devadatta:INS
'The action of sitting is performed by Devadatta'

The *kartari prayoga* corresponds to the active voice in European terminology, the *karmaṇi prayoga* to the passive voice, and the *bhāve prayoga* to the impersonal passive of Latin or German (*curritur* and *es wird gelaufen*, respectively). As in the cognate languages, the *prayogas* affect the morphological structure of the verb.

The two verb forms, *pacati* 'cooks' and *pacyate* 'is cooked', which occur in the *kartari prayoga* of (67) and in the *karmaṇi prayoga* of (68), respectively, consist of three parts – the root *pac*, the verbal ending, which is either *ti* or *te*, and a third element,

which is inserted between the root and the ending. This element, which is denoted as *vikaraṇa* 'modifier', appears as *a* in the *kartari prayoga* and as *ya* in the *karmaṇi prayoga*.

Both *vikaraṇas* contain an indirect reference to the agent and the object, respectively, since Pāṇini (A 3.1.68 and A 3.1.67) prescribes that the *vikaraṇa a* is introduced on condition that the verbal ending expresses the agent and the *vikaraṇa ya* on condition that the verbal ending expresses the object or the action.

The latter condition is also fulfilled in the *bhāve prayoga*, in which the verbal ending denotes the action. In the *bhāve prayoga* of (69), therefore, the *vikaraṇa ya* is inserted between the root *ās* and the ending *te*. The ending *te*, which is common to both, the *karmaṇi prayoga* and the *bhāve prayoga*, is not enumerated in *sūtra* (55); it is derived from the ending *ta*, which is enumerated in this *sūtra*, by the application of another *sūtra* (A 3.4.79); hence it is an ending of the *ātmanepada* group. On account of *sūtra* A 1.3.13, it is generally prescribed when the verbal endings are used 'to denote the object or the action' (*bhāvakarmanoh*).

The ending *ti* of *pacati*, on the contrary, is an ending of the *parasmaipada* group. This ending could be freely selected in (67) since the root *pac* belongs to that class of roots which can take either *parasmaipada* or *ātmanepada* endings (see above, 4.1.). By selecting the *parasmaipada* ending *ti*, it is implied that the fruit of the action accrues not to the agent, but to somebody else. This means that in (67), Devadatta does not cook for himself, but for somebody else.

4.3.2. Agent and object in nominal endings

On account of the governing rule *anabhihite* (64), the *sūtras* which introduce the prototypical representations of the object and the agent can only be applied if the respective *kāraka* is not already expressed in the verbal ending. This means that *sūtra* (58), which introduces the second *vibhakti* (accusative) as the expression of the object, can only be applied if the verb is used to denote the agent; similarly, *sūtra* (59), which introduces the third *vibhakti* (instrumental) as the expression of the agent, can only be applied if the verb is used to denote the object.

By using the terms *kartari prayoga* and *karmaṇi prayoga*, the restriction in the application of *sūtras* (58) and (59) can be stated more simply as follows: The agent is represented by the third *vibhakti* (instrumental) in the *karmaṇi prayoga* only; the object is represented by the second *vibhakti* (accusative) in the *kartari prayoga* only. Neither can the third *vibhakti* be introduced as a representation of the agent in the *kartari prayoga* nor can the second *vibhakti* be introduced as a representation of the object in the *karmaṇi prayoga*.

The cases in which the representation of the object and the agent is blocked by the governing rule *anabhihite* (64) are precisely those cases in which the respective *kārakas* are represented by a noun in the first *vibhakti* (nominative). Yet, Pāṇini teaches nowhere that the agent in the *kartari prayoga* or the object in the *karmaṇi prayoga* are represented by a noun in the first *vibhakti*. The first *vibhakti* can only be introduced in these cases on account of *sūtra* (63), 'when there is to be denoted nothing but the meaning of the nominal stem, its gender and number'.

This feature of Pāṇinian syntax forms a marked contrast with traditional European syntax. What appears as the subject from a European perspective, is not introduced as the representation of a *kāra* in Pāṇinian syntax – neither as a representation of the agent in an active sentence nor as a representation of the object in a passive sentence. The noun in the subject position and the *kāra* which is expressed in the verbal ending are, of course, coreferential; but there is no categorial affinity between the agent in the subject position and the active voice or between the patient in the subject position and the passive voice as we find it in traditional European syntax.

Neither is the categorial meaning of the verb affected by the selection of active or passive voice. In Pāṇinian syntax, the verb has always the same categorial meaning, which is alternately specified as action or as dynamic being (see above, 3.3). In traditional European syntax, on the contrary, we find the doctrine that the verb is ‘significative of action or suffering’ (*agendi vel patiendi significativum*) according to whether it is used in active or passive voice (Priscian 1961: 372).

The ultimate source of this European doctrine is a passage from Plato’s dialogue *Gorgias* (476b–d), in which the concepts of agent and patient are used for the first time in the history of European linguistics. Plato arrived at these concepts in his analysis of actions like beating, burning and cutting, where he found that the action of an agent is mirrored in the experience of a patient: If somebody beats, for example, then somebody else is beaten. Plato (*Gorgias* 476d) generalized the relation which he found between the agent and the patient of these actions in the statement:

- (70) οἷον ἂν ποιῆ τὸ ποιοῦν, τοιοῦτον τὸ πάσχον πάσχειν.
[As the agent acts, so the patient experiences.]

The Platonic concept of a patient who passively experiences the action of the agent is foreign to Pāṇinian syntax. Pāṇini defined the object of the action not as a patient, but as an entity which the agent most desires to reach. Since this entity is, furthermore, categorized as a *kāra*, it is an agent in its own right, who along with the principal agent and other *kāras* contributes to the success of the action (for a more detailed comparison of Pāṇinian and traditional European syntax, see Raster 2009).

5. Abbreviations

- A = *Aṣṭādhyāyī* of Pāṇini (Böhtlingk 1998, Cardona 1997: 675–731)
Bh = *Mahābhāṣya* of Patañjali (Kielhorn 1985, 1965)
VP = *Vākya*padīya of Bhartṛhari (Rau 2002)

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Peter Raster, Essen (Germany)

5. Arabic Syntactic Research

1. Major periods
2. An overview of basic syntactic concepts: dependency, substitution, grammatical function
3. Basic units of syntactic theory
4. Sub-components
5. Syntax and phonetics/phonology
6. Syntax and pragmatics
7. The *ḥuṣuwl*
8. Modularity and the development of Arabic linguistic thought
9. Wider influences
10. Syntax in western studies on the history of the Arabic tradition
11. References (selected)

Abstract

The Arabic Linguistic Tradition (ALT) arose phoenix-like at the end of the end of the 2nd/8th century, from its very beginning, syntactic theory playing a central role in it. Relying on the basic concepts of dependency, substitution, and grammatical function, a descriptively detailed and theoretically coherent and elaborated account of Arabic grammar was developed, whose basis till today continues to inform descriptions of Classical

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