On the Question of Circularity in A 1.3.3 *hal antyam*

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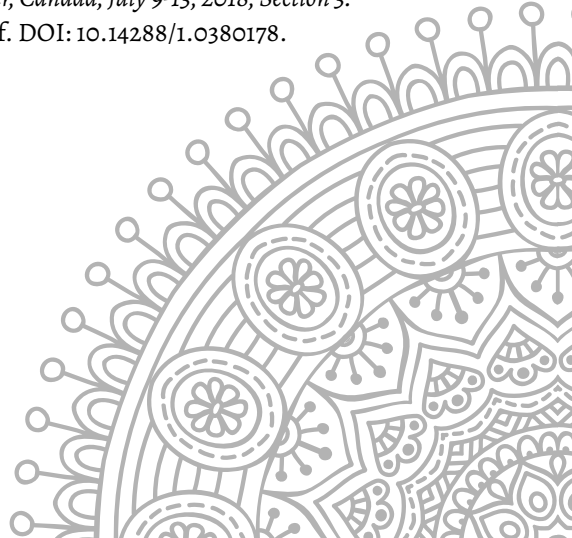
On the Question of Circularity in A 1.3.3 *hal antyam*

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Abstract

The fault of mutual dependence, according to the grammatical tradition, starting with the *Kāśikāvṛtti*, affects Pāṇini's rule A 1.3.3 *hal antyam*. Candotti (2006, 2016) exhaustively treated the cases of mutual dependence that involve denomination in the Pāṇinian grammar, namely the rules that prescribe an element by means of its name (*saṃjñāsūtra*), since they present this element as something not existing, and yet they treat it as already existing by the very fact that they use the same name to name it. However, the particular case of the *itaretarāśraya* concerning A 1.3.3 *hal antyam* and A 1.1.71 *ādir antyena sahetā* doesn't figure among those. On the other hand, it is briefly mentioned in other important grammatical works (Renou 1942, Cardona 1976). However, even if Kātyāyana and Patañjali seem to recognize the logical fallacy of *itaretarāśraya* in the present rule, they never explicitly employ this term to describe it, as they normally do in a context when such an error is in fact identified. In the present text, I will retrace the general features of this flaw, translate the main passages treating the mutual dependence and analyse the possible reasons behind the absence of the expected terminology for the defect affecting A 1.3.3.

Keywords: itaretarāśrayadoṣa, mutual dependence, circularity, Pāṇini, *hal antyam*, Patañjali

In this paper I shall try to retrace the process of attribution of a fault to Pāṇini by his commentators, a practice which has either been considered as legitimate by scholars who have accepted these traditional reparsings or, on the other hand, as post-Pāṇinian – if not un-Pāṇinian. In particular, I will focus on the logical fallacy of mutual dependence, the *itaretarāśrayadoṣa*, affecting the rule A 1.3.3 *hal antyam* "the final consonant [is an *it*]".

Maria Piera Candotti, in *Interprétations du discours métalinguistique* (137-145), distinguishes trivial cases of this error from others which are more complex and require an *ad hoc* solution. Concerning the former, this flaw often arises, as pointed out by Candotti (2006: 139), on a metalinguistic level, when a rule that enjoins an element by means of its name (*saṃjñā*), on the one hand, presents this element as something which did not exist before, while still treating it as already existing by the very fact that it uses the same name to name it; in other words, as Candotti (2016: 109) states, "when the name plays the role of *vidheya* and enjoins that same denotatum that it names." The classic example of this first variant of *itaretarāśrayadoṣa* is A 1.1.1 *vṛddhir ādaic*, where the attribution of the technical term *vṛddhi* applies to non-existing elements, namely the phonemes *ā*, *ai* and *au*, while they depend on the technical term itself.[1] The triviality of this first variant consists in the fact that a single answer can be used for all the cases affected by this circular reasoning: the *nityaśabdatva*,[2] the permanency of linguistic elements "intimately linked with the themes of the precedence of linguistic usage over grammar and of the restrictive function of the latter," is given as the solution to this problem. This is not the case when one of these serious variants of *itaretarāśrayadoṣa* is examined. The circularity involved in these cases, "unlike what happened in the trivial cases, develops within the grammatical system itself,"[3] and concerns the application of two rules. Moreover, in the case of a non-trivial variant of this fault, grammarians never have recourse to the permanence of linguistic forms to solve the difficulty, nor to the notion of *bhāvinī saṃjñā*, names that do not denote objects in the context described by the rule, but objects that will become indicated by the name only at the end of the process described by the rule in question. Candotti lists eight occurrences found in the *Vārttika*s of this type of mutual dependence.[4]

Now, if one looks through the *Vārttika*s of Kātyāyana and the commentary of Patañjali, it can be observed that each time the two grammarians detect circular reasoning, whether trivial or non-trivial, they methodically employ the term

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[1] Vt. 8 *ad* A 1.1.1: *sato vṛddhyādiṣu saṃjñābhāvāt tadāśraya itaretarāśrayatvād aprasiddhiḥ*.

[2] Vt. 9 *ad* A 1.1.1: *siddhaṃ tu nityaśabdatvāt*.

[3] See Candotti 2016: 110.

[4] See Candotti 2016: 110-112.

itaretarāśraya.⁵ This consideration finds its reason in the fact that one case seems to elude this recurrence: when one attempts to redraw the history of this fault pertaining to A 1.3.3 *hal antyam* in the grammatical tradition, one is confronted with the absence of this term until the *Kāśikāvṛtti* and Kaiyaṭa's *Pradīpa*, who directly mention the mutual dependence while commenting on *vt.* 3 (*itaretarāśrayaṃ manyate*). After this point, all the commentators will endeavour to find a solution to the established circularity of this Pāṇinian rule. The *saṃjñāsūtra* A 1.3.3, being one exception to the uniformity observed in the *Vārttika*s and in the *Mahābhāṣya*, was the subject of the traditional debate at least until Nāgeśa. So, why wouldn't Kātyāyana and Patañjali employ the term *itaretarāśraya*, for the sake of consistency, in the discussion relating to A 1.3.3? While no one else after them hesitated in identifying a circularity between A 1.3.3's attribution of the technical term *it* to the last consonant of a grammatical element and the formation of the pratyāhāra by A 1.1.71 *ādir antyena sahetā*, although they seem to recognize such a flaw in this case, they never use the term *itaretarāśrayadoṣa*, even though all the three conditions for considering it as a non-trivial variant of *itaretarāśrayadoṣa* are there: the circularity is internal to the grammatical system, involves two rules, and it can't be solved by resorting to the permanence of linguistic forms. As a matter of fact, it has already been pointed out that the authors of the *Kāśikāvṛtti* are the first to state the logical vice of circularity affecting the relation between these two rules, somehow taking for granted that Kātyāyana had in mind an *itaretarāśraya*, namely that "the attribution of the technical term *it* to *l* depends on the pratyāhāra *hal* and the pratyāhāra *hal* depends on the attribution of the technical term *it* to *l*."⁶

Instead, we observe that neither Kātyāyana nor Patañjali directly mention this fault as one of mutual dependency. They rather discuss the morphological, syntactic and semantic interpretation of A 1.3.3 *hal antyam*, refraining from changing the text as it is without any integration or emendation. At first, the *Vārttikakāra* draws attention to the fact that "the rule does not contain any specification"⁷ concerning the word *antyam*:

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⁵ In fact, Patañjali regularly marks this fault by the almost fixed formula *itaretarāśrayāṇi ca kāryāṇi na prakalpante* "operations affected by mutual dependence are not correct."

⁶ *Pradīpa*, vol. II, p. 204 *ad vt.* 3 *pratyāhārāśrayetsaṃjñā, tadāśrayaś ca pratyāhāraḥ*.

⁷ See Joshi-Roodbergen 1994: 8.

(*vt.* 1) *halantye sarvaprasaṅgaḥ sarvāntyatvāt*.
"In the sūtra *hal antyam* we would have the undesired consequence that it applies to every [consonant] because all the elements are final."

The term *antyam* is not defined narrowly enough, according to Kātyāyana, to avoid the chance for it to apply to every consonant since, as stated by Patañjali, *sarvo hi hal taṃ tam avadhiṃ praty antyo bhavati* "for every consonant is final with respect to each limit."[8] Kaiyaṭa further specifies that each consonant is potentially connected with a pause (*sarvasya halo 'vasānena sambandhāt*) and that the purpose of mentioning the term *antyam* in the sūtra is "to exclude what is initial" (*antyagrahaṇaṃ tv ādinivṛttyarthaṃ syāt*). Hence, it can be observed that, at this stage, the commentators are preoccupied above all with what *antyam*[9] refers to, because otherwise the consequence would be that any consonant, because final in the sequence of sounds that ends in it, may be considered final and therefore be termed *it* and deleted by A 1.3.9 *tasya lopaḥ*.

In the second *vārttika*, Kātyāyana proposes to modify the rule in order to disambiguate the term *antyam*:

(*vt.* 2) *siddhaṃ tu vyavasitāntyatvāt*.
"But this is established because of the fact that it is at the end of determined phonemes".

What does the *Vārttikakāra* mean by the term *vyavasita*? The answer follows in the *Mahābhāṣya*:

(MBh. I, p. 261, 9-10 *ad vt.* 2) *vyavasitāntyo hal itsaṃjño bhavatīti vaktavyam. ke punar vyavasitāḥ? dhātuprātipadikapratyayanipātāgamādeśāḥ. sidhyati.* "'The final consonant of determined elements receives the technical term *it*' has to be added. But what are these 'determined elements?' The verbal roots, the nominal stems, the affixes, the particles, the augments and the substitutes. This is established [when *vyavasitāntya* has been added]."

Patañjali considers that Kātyāyana, by the term *vyavasita*, means a set of elements taught in the Pāṇinian grammar that is elaborated in the enumeration received by the author of the *Mahābhāṣya*. Kaiyaṭa further clarifies the term by

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[8] MBh. I, p. 261, 7 *ad vt.* 1.

[9] *Pradīpa*, vol. I, p. 202 *ad vt.* 1: *ante 'vasāne bhavam antyam* "that which exists at the end, at the pause".

the following definition: *vyavasitāḥ paricchinnā*[10] *ye samudāyā dhātutvapratyaya-tvādinā dharmeṇa, teṣāṃ yo 'ntya ity arthaḥ.* "The final [element] is what belongs to *vyavasitas*, i.e. groups [of phonemes] that are determined by the property of being verbal roots, affixes, etc."

To the addition suggested by Kātyāyana is closely connected another question, that is the concern regarding the authenticity of the mention of *upadeśe* in A 1.3.2 *upadeśe 'j anunāsika it* and then repeated by means of *anuvṛtti* in A 1.3.3. It is not quite clear whether the meanings of *vyavasita* and *upadeśa* precisely overlap. There are several different opinions about the definition of *upadeśa*:[11] Patañjali, which knows the sūtra as containing the word *upadeśe*, begins with *pratyakṣam ākhyānam upadeśaḥ* and ends up with it meaning *śāstram* in his commentary ad A 1.3.2. But, as for the sūtra A 1.3.2, the author of the *Vārttika*s seems to feel the need to add this element. In his *vārttika*s ad A 1.3.2 he never refers to the word *upadeśe* and then, in *vt.* 2, he mentions we can manage reading the term *upadeśane* in the rule. In my opinion, Kātyāyana does the same thing in his commentary to A 1.3.3 where he maybe would not have recourse to the modification of the rule into *vyavasitāntyam hal*, if *upadeśe* was there from the beginning. This seems to me a hint corroborating the opinion that originally the term *upadeśe*

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[10] In the *Uddyota*, Nāgeśa comments on this term as follows: *śāstrakṛtā paricchinnatvena bodhitā ity arthaḥ* "the meaning is that they are taught as something/as elements determined by the author of the śāstra."

[11] The interpretation of the technical term *upadeśa* is a rather involved topic and would deserve to be treated in a separate article. As we know, this term broadly conveys whatever is pronounced by the first teacher Pāṇini, the original enunciation of what was previously unknown, i.e. the *Sūtrapāṭha*, *Dhātupāṭha*, *Gaṇapāṭha*, *Liṅgānuśāsana*, *Uṇādisūtra*s. It also refers to grammatical elements such as roots, nominal stems, affixes, augments, substitutes etc.

It seems that the first person to define *upadeśa* as *ādyoccāraṇa* is Haradatta ad A 6.1.45: *anirjñātasvarūpasya svarūpajñāpanārtham ādyam uccāraṇam upadeśaḥ*. Similarly, Nāgeśa in the *Uddyota* gives the definition *ajñātajñāpanam*. As it has been stated, we find different interpretations of this term. For example, the following verse: *dhātusūtragaṇoṇā-divākyaliṅgānuśāsanam, āgamapratyayādeśā upadeśāḥ prakīrtitāḥ*. To the best of my knowledge, this first appears in the *Rūpāvatāra* ad P. 1.3.2. It is not found in the *Kāśikāvṛtti* or its two published commentators, but is quoted by Rāmacandra in the *Prakriyākaumudī* ad loc. cit. Also in the *Mādhavīyadhātuvṛtti* ad A 1.3.2 we find a similar definition of *upadeśa*: *upadeśo dhātusūtraprātipadikapratyayāgamādeśalakṣaṇaḥ*. We can therefore conclude that, to some extent, the two meanings attributed to *upadeśa* and *vyavasita* correspond.

was lacking in A 1.3.2 and was then inserted in the rule in the time between Kātyāyana and Patañjali. This question deserves certainly more attention.

As for the word *upadeśane* in A 1.3.2, Patañjali rejects Kātyāyana's proposition, showing his well-known reluctance to change the original wording[12] of Pāṇini's rules: *yathānyāsam evāstu* "Let [the rule] be just as it has been originally phrased". At this point, the *Bhāṣyakāra* states the necessity to resort to a *prakarṣagati*, a special understanding, which allows to grasp the full meaning of the sūtra without any further addition.

> (MBh I, p. 261, 11-14 *ad vt. 2*) *nanu coktaṃ halantye sarvaprasaṅgaḥ sarvāntyatvād iti, naiṣa doṣaḥ. āhāyaṃ halantyam itsaṃjñam bhavatīti sarvaś ca hal taṃ tam avadhiṃ praty antyo bhavati. tatra prakarṣagatir vijñāsyate. sādhīyo yo 'ntya iti. kaś ca sādhīyaḥ? yo vyavasitāntyaḥ.*
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> "[Objection:] But it has been stated that 'In the sūtra *hal antyam* we would have the undesired consequence that it applies to every [consonant].' This is not a fault. Pāṇini says that the last consonant receives the technical term *it*, and every consonant is final with respect to each limit. An exceptional understanding will be ascertained there. 'That which is final in a higher degree' is understood. And what is [final] in a higher degree? That which is at the end of determined elements."

In this passage, Patañjali explains that in order to properly interpret what Pāṇini meant by *antyam*, a *prakarṣagati*, a superior degree of understanding, is required. The idea of pre-eminence is specified by the term *sādhīyas*, the comparative degree of the adjective *sādhu-*: what is ultimately final is what is at the end of a determined sequence of phonemes, namely after *dhātu*s ("verbal roots"), *prātipadika*s ("nominal stems"), *pratyaya*s ("affixes"), *nipāta*s ("particles"), *āgama*s ("augments") and *ādeśa*s ("substitutes"). By stating this, the *Bhāṣyakāra* prevents the undesired consequence that the technical term *it* would apply to every consonant. At this point, Kaiyaṭa points out that here the term *antyam* must have a broader scope than simply excluding an initial element: as a matter of fact, every phoneme is necessarily final since even the initial phoneme of a word is final immediately after being uttered. Therefore, *prakarṣa āśrīyate* "an exceptionality is

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[12] MBh. I, p. 261, 11 *ad vt. 2 sūtraṃ tarhi bhidyate* "In that case the rule is altered."

required."[13] The author of the *Pradīpa* also adds that the finality of beginnings and middles is only imagined (*ādimadhyānāṃ ca kālpanikam antyatvaṃ*), but the one of the final element, meaning at the end of a *vyavasita*, is absolutely *nityam* "invariable" (*sarvāntyasya*[14] *tu nityam eva*). In conclusion, according to both Patañjali and Kaiyaṭa, the addition of *vyavasita*, that is, the sūtra then resulting as *vyavasitāntyam hal*, would be redundant since already by the word *antyam* alone one should understand that only a consonant situated at the end "of [a group of] determined elements" is susceptible to be termed *it*.

Once the element *antyam* has been discussed in the third *vārttika*, Kātyāyana, concerned with the analysis of *hal*, detects a more important defect in the formulation of the rule *hal antyam*:

> (*vt. 3*) *lakārasyānubandhājñāpitatvād dhalgrahaṇāprasiddhiḥ.*
> "The mention of *hal* is not well known because the phoneme *l* hasn't been taught as a marker."

Patañjali further elucidates what is meant in the second *vārttika*, stating that the mention of *hal* in the sūtra is not communicative because "when it has been stated that the last consonant receives the technical term *it*, at the outset the technical term *it* has not applied to the phoneme *l*."[15]

It is at this stage that Kātyāyana seems to lay the foundations for the attribution of the *itaretarāśrayadoṣa*.[16] Or at least this is the interpretation of Kaiyaṭa on this passage: after him, all commentators will explicitly deal with the flaw of mutual dependence between the sūtras A 1.3.3 *hal antyam* and A 1.1.71 *ādir antyena sahetā*. However, if we stick to the *Mahābhāṣya*'s text, there is no trace of the term

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[13] *Pradīpa*, vol. II, p. 203 *ad vt. 2 tatra prakarṣagatir iti. ādinivṛttyarthatvād antyaśabdasya kathaṃ prakarṣagatiḥ? ucyate – āder apy uccāraṇānantaram avasānasambandhād antyatvam anivāryam iti nāsti tannivṛttir iti sāmarthyāt prakarṣa āśrīyate* "[MBh.] *tatra prakarṣagatiḥ*: how could there be an exceptional understanding of the word *antya-* given that it has the purpose to exclude what is initial? We answer that there is no exclusion even of what is initial because, since there is a connection with a pause immediately after the pronunciation of an initial phoneme, its finality is unavoidable. On the strength of this, exceptionality is required."

[14] Here the word "*sarva*" refers to the "entire (form of a *vyavasita*)" and not to any "all."

[15] MBh I, p. 261, 17-18 *ad vt. 3 hal antyam itsaṃjñaṃ bhavatīty ucyate lakārasyaiva tāvad itsaṃjñā na prāpnoti.*

[16] A general definition of *itaretarāśrayatva* is *anyajñaptyadhīnajñaptiviṣayatvam* "the fact that the object of knowledge depends on an other knowledge" (M. Kulkarni).

itaretarāśrayadoṣa. Before skipping to the two solutions provided by Kātyāyana in the following *vārttika*s, Kaiyaṭa's formulation of this error is worth some attention, also because it had success among the later commentators, to the point that it is quoted nearly word for word by Haradatta, for example, in the *Padamañjarī*[17] and by Sāyaṇa in the *Mādhavīyadhātuvṛtti*.[18]

> (Pradīpa, vol. II, p. 204 *ad vt.* 3) *lakārasyeti. itaretarāśrayaṃ manyate, śaṣasar hal ity atra lakārasya satyām itsaṃjñāyāṃ hal iti pratyāhāraḥ, sati ca pratyāhāre laṇ ity atra lakārasya haltvāt tasyaiva śaṣasar hal ity atrānte nirdiṣṭatvād itsaṃjñeti pratyāhārāśrayetsaṃjñā, tadāśrayaś ca pratyāhāraḥ* "[Vt.] *lakārasya*: [The author of the *vārttika*] has in mind [the logical fallacy of] mutual dependence. When the technical term *it* is assigned to the *l* here in *śaṣasar hal* there is the pratyāhāra *hal*, and since *l* has been taught here at the end of *śaṣasar hal* it itself receives the technical term *it* because the *l* in *laṇ* is *hal* when there is the pratyāhāra. Therefore, the attri-

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[17] In the *Padamañjarī*, the fault of mutual dependence is formulated as follows, when Haradatta comments on *Kāśikāvṛtti ad* A 1.3.3: *iha śaṣasar hal iti yo lakāras tasyetsaṃjñāyāṃ satyām hal ity ayaṃ pratyāhāra upapadyate, sati ca pratyāhāre laṇ ity atra lakārasya haltvāt tasyaiva śaṣasarhal ity atrānte nirdiṣṭatvād itsaṃjñā, tadāśrayaś ca pratyāhāra iti itaretarāśrayatvāt pratyāhāro nopapannaḥ.* "Here when the technical term *it* is attributed to the *l* in *śaṣasar hal*, then the pratyāhāra is logically justifiable, and since *l* has been taught here at the end of *śaṣasar hal* it itself receives the technical term *it* because the *l* in *laṇ* is *hal* when there is the pratyāhāra. And the pratyāhāra depends on this (the attribution of the technical term *it*); therefore, the pratyāhāra is not possible since there is mutual dependence."

[18] In the *Mādhavīyadhātuvṛtti*, the formulation of the *itaretarāśrayadoṣa* is found in the first part of the text that deals with the *prakriyā* of the verbal root *bhū sattāyām*, "to be, in the sense of being, existence," precisely under the sūtra 3.2.123 *vartamāne laṭ*, when the author is preoccupied with defining why the phonemes *a* and *ṭ* in *laṭ* will undergo ellipsis. Sāyaṇa mostly limits himself to summarizing, partially reformulating and rearranging the interpretations already formulated by the previous commentators. For example, from the *Pradīpa*: *nanu śaṣasar hal ity atra lakārasya ittve tena ādir antyena sahetā iti pratyāhāraḥ, sati ca tasmin laṇ ity atra lakārasya haltvāt tasyaiva śaṣasar hal ity atra ante nirdeśāt itsaṃjñā, tadāśrayaś ca hal iti pratyāhāra iti itaretarāśrayatvād ayam eva tāvat pratyāhāro 'nupapannaḥ.* "[Objection:] When the technical term *it* is assigned to the *l* here in *śaṣasar hal*, the pratyāhāra is formed by virtue of *ādir antyena sahetā*, and since *l* has been taught here at the end of *śaṣasar hal* it itself receives the technical term *it* because the *l* in *laṅ* is *hal* when there is the pratyāhāra. And the pratyāhāra *hal* depends on this, therefore precisely this pratyāhāra is not possible at the outset because of the mutual dependence."

bution of the technical term *it* to *l* depends on the pratyāhāra *hal* and the pratyāhāra *hal* depends on the attribution of the technical term *it* to *l*."

As it has previously been highlighted, according to Kaiyaṭa, when Kātyāyana formulates the third *vārttika*, he's tackling the flaw of mutual dependence in the discussion. This is because *hal antyam* prescribes that the last consonant of a phonetic group has to be considered as an *it*, a marker that will disappear according to A 1.3.9; on the other hand, *ādir antyena sahetā* explains the formation of a pratyāhāra, the combining in a single syllable of two phonemes, the first being a real phoneme, the second a marker, an *it*, and the set designating, besides the phoneme in question, everything that is intervening. However, in *hal antyam*, the element 'consonant' is represented by a pratyāhāra, *hal*, which refers to all consonants (from the fifth pratyāhārasūtra to the fourteenth). Now, if it is true that the formation of *hal* requires this last sūtra, it is also true that *ādir antyena sahetā* presupposes the rule *hal antyam*, since it is precisely in this sūtra that we come to know what an *it* is. Therefore, in order to assign the technical term *it* to *hal*, the pratyāhāra must be already formed, but to form a pratyāhāra we need to know what an *it* is. As a matter of fact, this corresponds precisely to what is considered to be the non-trivial variant of an *itaretarāśrayadoṣa*, as it is described by Candotti.

Both Kātyāyana and Patañjali never affirm clearly that the sūtra A 1.3.3 is affected by this defect, although the two solutions offered in the fourth and in the fifth *vārttika* seem nonetheless to deal precisely with it, positing in the former the existence of a 'ghost marker',[19] in the latter of an invisible word. Regarding the first proposal, they say:

> (*vt.* 4) *siddhaṃ tu lakāranirdeśāt.*
> "But it is established by the mention of the phoneme *l*."

> (MBh. I, p. 261, 9-10, *ad vt.* 4) *siddham etat. katham? lakāranirdeśaḥ kartavyaḥ, hal antyam itsaṃjñaṃ bhavati lakāraś ceti vaktavyam.*
> "This is established. How? The mention of *l* should be made. And it should be stated that 'the final consonant receives the technical term *it* as well as the phoneme *l*.'"

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[19] See Kiparsky 2007: 8. In this article, he argues that the fact of positing "ghost" markers is an un-Pāṇinian workaround and a later reparsing, since "consonantal markers are attached to the vocalic edge of a morpheme if possible, and unpronounceable clusters are wholly eschewed."

Once again, Kaiyaṭa helps to clarify what the two commentators mean by the elliptical *lakāranirdeśa*.[20] In fact, what they both suggest is to interpret the sūtra *hal antyam* as *hal antyam lakāraś ca*[21] and to consider the term *hal* as a *samāhāradvandva*, a neuter, singular *dvandva* compound (*hal ca l ca*). The second member of the compound being part of conjunct consonants would be elided by A 8.2.23 *saṃyogāntasya lopaḥ*, and therefore be invisible, in *hal*. This solution would allow the assignment of the technical term *it* to the final *l* of *hal*, which corresponds here to the fourteenth pratyāhārasūtra. Once this is established, this *l* can be connected with any beginning sound by means of A 1.1.71 to form a pratyāhāra: hence, the pratyāhāra *hal* mentioned in A 1.3.3 can be obtained without creating any circularity.

The second solution is explained in the fifth *vārttika* and commented on by Patañjali as follows:

> (Vt. 5) *ekaśeṣanirdeśād vā*.
> "Or rather [it is established] by the mention of the *ekaśeṣa*."

> (MBh. I, p. 261, 23 *ad vt. 5*) *athavaikaśeṣanirdeśo 'yam. hal ca hal ca hal. hal antyam itsaṃjñaṃ bhavatīti*.
> "Or rather this [*hal*] is the mention of the single remainder: *hal* is the single remainder in [the dvandva compound] hal and hal."

Katyāyana proposes here to consider the pratyāhāra *hal* in A 1.3.3 as an *ekaśeṣa*, the single form remaining of the original two words *hal* and *hal*, which is prescribed in A 1.2.64 *sarūpāṇām ekaśeṣa ekavibhaktau*. As stated by Patañjali, from *hal* and *hal* we derive *hal*. According to the *Pradīpa*, the former *hal* would be a *ṣaṣṭhītatpuruṣa*, a determinative compound with the first member in the genitive case, the traditional analysis of which is *hasya l hal* "the *l* next to *ha*,"[22] the

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[20] *Pradīpa* ad Vt. 4: *lakāraś ceti. pūrvaṃ lakārasyetsaṃjñā vidheyā, tena hal iti pratyāhāra upapadyate. tatra hal ca l ceti samāhāradvandvaṃ kṛtvā 'saṃyogāntasya lopa' iti lakāro lupyate* "[MBh.] *lakāraś ca*: first the technical term *it* has to be prescribed for the phoneme *l*, then the pratyāhāra *hal* is logically justifiable. In this pratyāhāra, after forming the *dvandva* compound neuter and singular (*samāhāradvandva*) *hal ca l ca*, the *l* is elided by A 8.2.23 *saṃyogāntasya lopaḥ*."

[21] *Uddyota* ad Vt. 4: *hal antyam laś ca*.

[22] The *Padamañjarī* ad *Kāśikāvṛtti* ad A 1.3.3 explains that the relation expressed by the genitive is one of *sāmīpya*, proximity: *samīpasamīpisambandhe ṣaṣṭhīsamāsa ity arthaḥ* "a genitive tatpuruṣa compound is meant because there is a connection between what is close and what has the closeness."

latter the pratyāhāra *hal*. Again, if we first apply the technical term *it* to final *l* of the fourteenth pratyāhārasūtra *hal*, here indicated by the *tatpuruṣa*, the *l* following the consonant *ha*, then we can form the pratyāhāra *hal* without the reasoning being affected by the flaw of circularity.[23]

The *Vārttikakāra* seems to be satisfied with this last proposal. And it is interesting to notice that even Nāgeśa, commenting on this *vārttika* in the *Uddyota*, affirms that the solution of considering *hal* as an *ekaśeṣa* is the only possible conclusion in order to prevent the *itaretarāśrayadoṣa* (*tasmād ekaśeṣanirdeśād vety eva samādhānam*) in the case of A 1.3.3. However, Patañjali examines two other alternatives:

> (MBh. I, p. 262, 1-3 *ad vt.* 5) *athavā ḷkārasyaivedaṃ guṇabhūtasya grahaṇaṃ, tatropadeśe 'j anunāsika it itītsaṃjñā bhaviṣyati. athavācāryapravṛttir jñāpayati bhavati lakārasyetsaṃjñeti yad ayaṃ ṇalaṃ litaṃ karoti.*
>
> "Or rather this is the mention of nothing other of the vowel *ḷ* that is gunated; the technical term *it* will be attributed to it by the rule A 1.3.2 *upadeśe 'j anunāsika it*. Or rather the method of the teacher [Pāṇini] makes us understand that the technical term *it* is attributed to *l*, because he makes the suffix *ṇal* furnished with the marker *l*."

The first option takes into account the rule A 1.1.51 *ur aṇ raparaḥ*.[24] In both the pratyāhārasūtra as well as the rule *hal antyam*, *hal* results from *ha* + *ḷ*. Both *a* + *ḷ* will then be replaced by the guṇa of *ḷ* (a) by A 6.1.87 and *l* will be added by A 1.1.51: in this case *ḷ* is the *it*. Kaiyaṭa rejects this workaround, objecting that again there would be *itaretarāśraya* between the rules A 1.3.2 and A 1.1.71 since also in the sūtra *upadeśe 'j anunāsika it*, the element "vowel" is represented by a pratyāhāra, *ac*, the formation of which depends on *ādir antyena sahetā*, and vice versa. However, if we instead understand that Patañjali has in his mind the rule A 3.1.55 *puṣādidyutādyḷditaḥ parasmaipadeṣu*, where Pāṇini has left a jñāpaka that *ḷ*

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[23] It is worth noticing that the solution invoked in vt. 5, the *ekaśeṣa,* is deeply connected to the idea of polysemy and it shows that the commentators were at this stage already aware of this concept, as Pāṇini probably was. The device of the single remainder among forms identical to each other is nothing but the technical mechanism underlying the idea that words can express more than one meaning at a time and it is only formally different from the solution provided later by the *Kāśikāvṛtti*, namely tantra (see p. 10 of this article).

[24] This rule applies to vocalic *l* as well as vocalic *r*, either by the vt. *lakāreti vaktavyam,* or by reference to the vt. on A1.1.9 *ṛḷvarṇayor sāvarṇyaṁ vācyam.*

is an *it* by using "*ḷdit*." In other words, Pāṇini could only say "*ḷdit*" if *ḷ* is an *it*. Therefore, there is no longer mutual dependence.[25]

Otherwise, in the second option, the solution provided by reference to the jñāpaka *ḷditaḥ* is precisely echoed. It is based on the fact that in A 3.1.55 there is mention of *hal*: *hal* is only relevant for excluding *ṇal*. If the *l* in *ṇal* were to be pronounced, i.e. were not an *it*, there would be no point in mentioning *hal* in A 3.1.55.

As it has been shown, unlike the other cases of *itaretarāśrayadoṣa* found in the *Aṣṭādhyāyī*, Kātyāyana and Patañjali never directly addressed the problem perceived in the formulation of the rule A 1.3.3 *hal antyam* by this term, and yet they seem to offer solutions precisely for it, to the point that Kaiyaṭa in the *Pradīpa* doesn't hesitate to mention the mutual dependence affecting this sūtra and A 1.1.71 *ādir antyena sahetā*. However, from a chronological point of view, he's not the first one to identify such a flaw in the rule *hal antyam*.

The *Kāśikāvṛtti*, directly commenting on the Pāṇinian sūtra, provides another solution to the recognized fault of mutual dependence in A 1.3.3:

> (KV ad A 1.3.3) *hasya l hal iti dvitīyam atra halgrahaṇaṃ tantreṇopāttaṃ draṣṭavyam, tena pratyāhārapāṭhe hal ity atra lakārasya itsaṃjñā kriyate. tathā ca sati, 'hal antyam' ity atra pratyāhāre netaretarāśrayadoṣo bhavati.*
> "Here the second mention of *hal*, meaning the [ṣaṣṭhītatpuruṣa] *hasya l* has to be considered as obtained by tantra; therefore, here in *hal* as it is read in the pratyāhārasūtra, *l* is termed *it*. And if that is the case, there is no fault of mutual dependence concerning the pratyāhāra in *hal antyam*."

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[25] *Pradīpa* ad Vt. 5: *athaveti. śaṣasar hal ity atra hal antyam ity atra ca ḷkārasyaikādeśo laparatvaṃ ca kriyate. nanv evam apītaretarāśrayam eva, ḷkārasya satyām itsaṃjñāyāṃ hal iti pratyāhāraḥ, sati ca pratyāhāre aiauj iti cakārasyetsaṃjñā, tasyāṃ satyām aj iti pratyāhāre sati ḷkārasyetsaṃjñā. evan tarhi ḷd itaḥ iti jñāpakāl ḷkārasyetsaṃjñākāryaṃ bhaviṣyatīti nāstītaretarāśrayatvam iti bhagavato bhāṣyakārasyā 'bhiprāyaḥ.* "[MBh.] *athavā*: both in the pratyāhārasūtra *hal* and in the rule *hal antyam* the single substitute of the vowel *ḷ* (*a*) and the fact that this is followed by an *l* are made. [Objection:] Even in this way the reasoning is absolutely affected by mutual dependence: when the technical term *it* is attributed to the vowel *ḷ* there is the pratyāhāra *hal*, when there is the pratyāhāra the technical term *it* is attributed to the phoneme *c* of *aiauc*, when this is attributed, when there is the pratyāhāra *ac*, the technical term *it* is attributed to the vowel *ḷ*. Then in this manner, by the evidence of *puṣādidyutādyḷditaḥ parasmaipadeṣu* (A 3.1.55), there will be the result of the attribution of the technical term *it* to the vowel *ḷ*, therefore the reasoning is no longer affected by mutual dependence – This is the intention of Patañjali."

The need of a second *hal* in the sūtra, namely the ṣaṣṭhītatpuruṣa *hal* representing the fourteenth pratyāhārasūtra, is still stated, but instead of supposing an elision of one of the two *hals*, this would be obtained by tantra, namely the bringing about of several meanings through the denotative power of a single word, uttered once.[26] In the *Padamañjarī*, Haradatta defines the term *tantra* as "a common support"[27] (*sādhāraṇa*) and says that it consists in a *prayatnaviśeṣa*, a particular kind of effort, the same kind that we find in *śveto dhāvati* "a white (horse) is running [or/and] a dog runs from this point," where a double meaning is conveyed with a single effort: in the same way, by the single element *hal* in the sūtra, one understands two meanings, on one hand the pratyāhārasūtra *hal* and on the other the pratyāhāra *hal*.[28] In this way, the mutual dependence identified in the sūtra *hal antyam* is averted.

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[26] As it has been pointed out by Joshi and Roodbergen (*Paspaśāhnika*, fn. 894), the origins of the concept of *tantra* draw back to the ritualistic context. Śabara, in his commentary on *Mīmāṃsāsūtra* 11.1.1, explains it as *yat sakṛt kṛtaṃ bahūnām upakaroti tat tantram ity ucyate* "that which is performed once for many [people/purposes], is called *tantra*." In the *Nyāyakośa or Dictionary of Technical Terms of Indian Philosophy* by Jhalakīkar (p. 318), revised and re-edited by Abhyankar, among many definitions, we find the following one, which seems to be closer to the idea of polysemy: *sakṛduccāritasyaikasya śabdasya śaktyā anekārthapratipādakatvaṃ tantram iti śābdikā vadanti* "the grammarians say that tantra is the fact of conveying multiple meanings with the power of a single word pronounced once."

[27] Cf. the famous example from daily life given by Haradatta to illustrate the notion of *sādhāraṇa*: *tulyakakṣayor bhuñjānayoḥ pradīpaḥ* "a lamp for two people eating in the same room." The same linguistic metaphor is employed by Jinendrabuddhi in the *Nyāsa*: *pradīpaḥ suprajvalito bahūnāṃ chātrāṇām upakāraṃ karoti* – "a lamp that, shining bright in the room, is useful to many students."

[28] *Padamañjarī* ad *Kāśikāvṛtti* ad A 1.3.3: *sa ceha prayatnaviśeṣaḥ, yathā – śveto dhāvatīty atra sādhāraṇenaikenaiva prayatnena dvayor vākyayor uccāritayoḥ phalaṃ sampadyate, tathehāpy ekena tantreṇa prabalena dvitīyaṃ halgrahaṇam upāttaṃ parigṛhītaṃ veditavyam.* "And in this context this is a particular kind of effort, for example when we say *śveto dhāvati* the (semantic) fruit of two sentences pronounced is attained with a single common effort, in the same manner with a single strong tantra a second mention of *hal* should be understood as accepted." Similarly, in the *Nyāsa* ad *Kāśikāvṛtti* ad A 1.3.3: *iha tu prayatnaviśeṣas tantraśabdena vivakṣitaḥ. tena tantreṇa dvitīyam atra halgrahaṇam upāttaṃ parigṛhītaṃ veditavyam. yathā śveto dhavatīty ekena prayatnena dve vākye uccārite bhavataḥ, tathehāpy ekenaiva prayatnena dvau halśabdāv uccāritāv ity abhiprāyaḥ.*

As previously highlighted, the case under scrutiny is particular since it represents an exception to an univocally attributed fault found in the Pāṇinian grammatical system: Kātyāyana and Patañjali demonstrate that they are aware of a deficiency in the formulation of the rule A 1.3.3, but, unlike what themselves do in other occasions (a little less than 80 times) and unlike what other commentators whose texts have been the object of our analysis do,[29] they never name this defect as *itaretarāśrayadoṣa*. It has also been argued that, in the case it was Patañjali's intention to mark a circularity in this sūtra, his practice would here completely diverge from the general way of identifying this type of error, namely by stating that there is no accomplishment because of the mutual dependence (*itaretarāśrayatvāt aprasiddhiḥ*) and that operations affected by this mutual dependence do not attain their outcome (*itaretarāśrayāṇi ca kāryāṇi na prakalpante*).

I'm not able to offer a final solution to this matter, but I think that it would be appropriate to consider it within the metalinguistic context, to which belong the notions of *it*, "marker," and pratyāhāra, the "condensed expression of sounds." As we know, the phonemes characterized as *it* are attached to morphemes to encode their grammatical properties and to allow classes to be formed by the pratyāhāra technique, but then they are deleted and they are not part of the morpheme at any stage of the derivation. It is this simultaneous presence and absence of the *it* elements in the metalanguage which earns them the reputation of "*les éléments au statut le plus difficilement définissable.*"[30] In the *Mahābhāṣya*, they are often mentioned in relation to the teaching about the sounds used in the grammar and in relation to the pratyāhāras: in fact, it is clearly stated that the list of sounds in the pratyāhārasūtras is posited for the purpose of teaching the markers, *it*, besides being necessary for the sake of the whole grammatical system; and the markers are established in order to form the pratyāhāras, this operation being taught in the *saṃjñāsūtra* A 1.1.71 *ādir antyena sahetā.*[31] In another passage, Patañjali more affirms that:

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[29] The solution provided by Bhaṭṭoji Dīkṣita, namely the *āvṛtti*, the repetition of the sūtra *hal antyam*, is very well known, and on account of this it has not been wholly explained in this paper.

[30] See Candotti 2006: 156.

[31] MBh. I, p. 13, I. 8-12 *ad vt.* 16: *anubandhakaraṇārthaś ca varṇānām upadeśaḥ kartavyaḥ. anubandhān āsaṅkṣyāmīti. na hi anupadiśya varṇān anubandhāḥ śakyāḥ āsaṅktum. saḥ eṣa varṇānām upadeśo vṛttisamavāyārthaś cānubandhakaraṇārthaś ca. vṛttisamavāyaś ca anubandhakaraṇaṃ ca pratyāhārārtham. pratyāhāro vṛttyarthaḥ.*

(MBh. I, p. 64, 1. 12-14 *ad* A 1.1.10 *vt.* 4) *varṇānām upadeśas tāvat, upadeśottarakāletsaṃjñā, itsaṃjñottarakāla "ādir antyena sahetā" iti pratyāhāraḥ.*
"At the beginning, there is the instruction of the sounds. After this, [the introduction] of the technical term *it*. After the introduction of the term *it*, [the explanation] of the pratyāhāras by *ādir antyena sahetā.*"

In this passage which establishes the correct sequence of the grammatical instruction – first the sounds taught in the pratyāhārasūtras (along with the final *it* concluding each string), then the markers *it*, and, only after this, the formation of the pratyāhāras – Patañjali presents an ideal situation where the sounds would be independent available and therefore there would be no *itaretarāśrayadoṣa*. But both Kātyāyana and Patañjali are aware that this is not quite reflected in the Pāṇinian system, where the Pratyāhārasūtras seem, in most of the cases, to have to be somehow instructed. It is then clear that the issue at stake, from the point of view of Kātyāyana and Patañjali, is the circularity between the attribution of the technical term *it* and the formation of a pratyāhāra. The two commentators recognize the flaw of mutual dependence affecting the sūtra *hal antyam* and try to offer certain solutions in order not to modify the original enunciation. What remains problematic and deserves further investigations is the reason why, while Kātyāyana clearly lays the argumentations to point this error out in the system of the *Aṣṭādhyāyī*, none of the formulaic language associated with the other instances of *itaretarāśraya* are used in this context.

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