

The Vedic -áya-formations *

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0. INTRODUCTION

§0.1. This article is an investigation of the Vedic -áya-formations in the form of a discussion of S. Jamison's recent book, a revised version of her 1977 Yale University dissertation written under supervision of S. Insler. It offers a thorough study of all -áya-formations attested in the Ṛgveda and Atharvaveda from a synchronic point of view. These formations, which show strong variation in root vocalism and function, raise several questions concerning their origin, meaning, and vocalism.

J.'s book is a conscientious, thorough and inspiring study, where also minor problems are subject to a meticulous analysis. It leaves no doubt that this book will prove an indispensable tool for any further investigation concerning not only Skt. -áya-formations and their Indo-European antecedents, but also the whole complex of problems in respect with PIE -i-presents. Moreover, I believe that every scholar, when discussing a passage from the Ṛgveda or Atharvaveda, would find it useful to consult J.'s index of passages because of the wealth of interesting observations to be found throughout the book.

In the following, I first give a rather detailed account of the contents of the book. Then I discuss several points which were either left out of consideration by J. or on which I disagree with her conclusions.

§0.2. Chapter I, "History of the Problem", deals with earlier analyses of Skt. -áya-formations. "By historical accident the investigation of the Skt. -áya-formations and their PIE antecedents has labored under great difficulty, because the study of the formation itself has always been ancillary to the discussion of Brugmann's Law. Since every -áya-formation, at least in Vedic, was assumed to bear on the question of PIE vocalism, there has been no serious effort to sort out the Vedic evidence to discover what is relevant to the law and what is a later accretion... What is needed for the study of the -áya-formations and their history and of Brugmann's Law is a synchronic investigation of the Skt. forms, unbiased by the expectations about the law" (23; cf. further on Brugmann's Law below, §4.2). In her book, J. follows the approach of Thieme, who devoted a chapter to -áya-formations in his 1929 monograph. "In the formal sphere, Thieme recognized other sources for the Skt. -áya-formations beside the inherited *-éye-formation", and "the major advance in his study is his discussion of the function of the formations in the RV, particularly the function of the forms traditionally labelled causative" (J., p.23). "Furthermore,

* Jamison, Stephanie W., *Function and Form in the -áya-Formations of the Rig Veda and Atharva Veda*. Ergänzungshefte zur Zeitschrift für Vergleichende Sprachforschung Nr.31. Vandenhoeck und Ruprecht, Göttingen, 232p.

Thieme's insistence on viewing each *-áya*-formation in the context of its IVS [Individual Verbal System] and his stress on its syntactical function suggest a fruitful method of approach and remove the emphasis from phonological to functional questions. Unfortunately, since Thieme's monograph focused on various redupl. formations in the RV, with the study of the *-áya*-formations only as an adjunct to that of the redupl. aorist, his views on the *-áya*-formation are only presented briefly, and the details are incompletely worked out. It is even more unfortunate that for the most part his suggestions have not been adopted by other scholars" (24).

Chapter II, "Transitivity and Causativity", discusses these two concepts. First, J. gives her definition of the term 'verb', which in her book refers to a number of actual occurrences grouped together by formal (the same tense/aspect stem) and functional (mutual substitution in the same syntactic environment) criteria. Further, she states that transitivity is an 'absolute' category, as a verb can be classified as transitive without reference to any information outside the sentence. "In contrast, a verb is causative only by virtue of its relation to some other verb, and causativity is therefore a 'relational' category" (26).

After rejecting previous definitions of transitivity, J. proposes "to consider every verb frequently attested with the accusative a possible trans. verb. Only verbs that never appear with the accusative will be considered strictly intransitive. The large group of potentially trans. verbs, i.e. those that can take the accusative, can now be divided into transitive and I/T (= intransitive / transitive, AL) verbs by one of several criteria" (31). The first criterion is the variant case usage "without an important semantic difference" (31), which earmarks the verb as an I/T. By the second criterion, "some verbs which do not exhibit this variation in case can still be considered I/T by attraction, as it were", as "I/Ts fall into a small group of semantic categories, comprising verbs of consumption and giving, enjoyment, perception, and ruling" (32). For the further discussion of the I/T category I refer to §1.1.

J. introduces two further terms, 'double I/T' and 'double transitives'. The former is a causative to an I/T verb and "can be defined syntactically as a formation that appears with two complements, an obligatory first element in the accusative and an optional second one, which alternates between the accusative and another case" (34) and "can also be defined in another way, by the gloss 'make someone/something do x', where x is an action expressed by an I/T verb" (35). Similarly, the double transitive is a causative to a transitive verb and "can be syntactically defined as a verb that takes two complements in the accusative, one obligatory and one optional". There are no double transitives in the RV and AV, as transitive verbs could form no causatives in the Vedic period.

For causativity J. proposes the following test: "If the noun in the nom. case appearing with the first verb appears as an accusative with the second, the second functions as causative to the first" (36).

At the end of the chapter J. discusses a periphrastic construction with a form of *kr̥* 'make, do' and a dative infinitive, which expresses causative relations in Vedic.

Chapter III, "Absolute Functions of the Vedic -áya-Formations", is a kind of preface to the material where all -áya-formations are presented in accordance with their syntax (intransitive-I/T-transitive-double I/T) and semantics (verbs of motion, shining, emotion, etc.).

Chapter IV, "Intransitive -áya-Formations", presents all intransitive -áya-formations in accordance with their position in the individual verbal system (IVS) defined by J. (10, fn.7) as "all and only those verbal formations built to a particular root in a particular period": first isolated intransitive -áya-formations are given, followed by -áya-intransitives serving as the only intransitive presents in their IVSs, and, finally, -áya-intransitives competing with another intransitive present in the RV. The same order of presentation is found in Chapters V and VI. At the end of the Chapter, J. shortly discusses the history and the origin of intransitive -áya-formations. For 16 of the 31 -áya-intransitives she assumes secondary origin, which may appear unusual for a moribund formation. According to her, "the motivation for the creation of the new formation was semantic" (66). The remaining 15 -áya-intransitives seem to be old and testify for a Common Indo-Iranian intransitive formation with *-áya-suffix (we shall discuss this formation in detail in section III). J. leaves open the problem of the origin of this formation: "it may be an innovation in IIr., or it may continue a PIE formation of some type: either one identical to the transitive type with *-éye-suffix, except for its zero-grade vocalism, or a more radically remodelled form, such as the *ē-stative (as suggested to me by S. Insler, and argued for in my 1977 dissertation)" (67). A survey of the history of intransitives in the later language shows that this formation dies out rather soon.

Chapter V, "I/T -áya-Formations", presents all I/Ts with -áya-suffix. It follows that except for *citáyati* and *kṛpáyati*, the reanalyzed intransitives, all -áya-I/Ts are of denominal origin. In later Skt., the -áya-I/Ts generally remain. 92

Chapter VI, "Non-Causative -áya-Transitives", discusses those -áya-transitives which do not serve as causatives to corresponding intransitive presents in their IVSs.

Chapter VII, "Causative -áya-Transitives", is the longest chapter of the book (73 pp.). J. proposes a classification of causatives based on the verbal stem to which -áya-transitives serve as causatives. In Types 1 and 2 the -áya-transitive corresponds to a root present (Class 2) or a simple thematic present (Classes 1 and 6), active in Type 1, medial in Type 2. In Types 3 and 4 the intransitive present is a -ya-present, active in Type 3, medial in Type 4. Type 5 is a three-termed relation, where the -áya-transitive appears parallel to another transitive active present, and both function as causative to a medial intransitive present. Beside these five major types, there are some minor ones (to which J. gives no number), comprising causative relations of -áya-transitives to perfects with present value and to various presents (reduplicated, nasal, and *-sṓo-presents). After presenting the material of every type, J. discusses its history in older and later Skt. An important conclusion is that Types 3 and 4 become a regular pattern only in the post-RV period.

Chapter VIII, "The History of the -áya-Transitives", deals with the prehistory and later development of all transitive and double I/T -áya-formations. J. points out that besides the PIE *o-grade *-éye-formation and forms directly based on it, "there are three other distinct sources for -áya-transitives and double I/Ts in Vedic: deverbatives, denominatives, and forms built to roots with a long resonant as root vowel" (178). For deverbatives see below, §3.7, for denominatives fn. 3. A third source of -áya-transitives is not-ablauting roots with long resonants, like *īkṣáyati* 'makes see, seen', *īráyati* 'raises', *jīváyati* 'makes live', *dūṣáyati* 'spoils', *sūdáyati* 'sweetens', etc. These three types were productive in the Vedic period and must be left out of consideration when discussing the diachronic questions of the PIE *-éye-formations. The rest of the chapter is dedicated to the questions of the original function of the inherited formation. First J. gives a list of Skt. -áya-transitives which have cognates outside of Indic and then discusses the original meaning of the PIE *o-grade *-éye-formation in Vedic. She demonstrates that there is no evidence for iterative or intensive value of this formation and that its causative function is secondary. J. opts for Thieme's suggestion that the feature that characterizes all early reflexes of the PIE formation is transitivity (cf. further section V below), and explains how transitives have been reanalyzed as causatives, which later led to the creation of double transitive -áya-formations.

Chapter IX, "Voice", seeks to demonstrate that -áya-transitives and double I/Ts are 93
prevailing active. The medial forms can be divided into three categories. In Type A, they are synonymous with their active counterparts and are almost entirely 3rd pl. forms ending in *-anta* (for this type cf. further §§3.5ff). In contrast, medial forms of type B are scattered through the paradigm and are intransitive, cf. 5,3,9 *yātayāse* 'thou shalt take thy place' to *yātáyati* 'puts in place'. In Type C, the -áya-transitive is always inflected in the middle, which results from semantic (reflexive or self-beneficial meaning) or systemic (parallelism with the other medial forms of the IVS) reasons. The same situation is found with the I/Ts and -áya-intransitives.

Chapter X, "Vocalism", which treats vocalism of all -áya-formations, is discussed below, section IV.

After a short summary, J. deals in an appendix with two formations associated with the -áya-transitives, viz. the *-itá-* past participle and the reduplicated aorist. J. shows that "both of these relations exist in the RV, the association with the reduplicated aorist being stronger by far than that with the *-itá-* past participle, but neither is original. The secondary nature of the relation is especially important to note with regard to the past participle, since this relation is often posited for PIE..., and on this basis arguments for the origin of the *-éye-suffix (as an ablaut grade of *-i-) are sometimes made..." (214).

The book is concluded by a bibliography and two indexes, one of -áya-formations and one of passages.

I. THE INTRANSITIVE / TRANSITIVES (I/Ts).

§1.1. The category of intransitive-transitive verbs (I/Ts), which is posited by J. in addition to intransitive and transitive verbs, is linguistically relevant (esp. with respect to causativity, as causatives could be formed in Vedic only to intransitives and I/Ts) and I believe that this three-termed distinction allows better understanding of several processes which took place in Vedic (cf. J., p. 187f.). There are, however, two points concerning the I/Ts with which I disagree.

First, I would like to object to the procedure of assigning I/T value "by attraction". J. has observed that "I/Ts fall into a small group of semantic categories, comprising verbs of consumption and giving, enjoyment, perception, and ruling" (32). However, from this observation she draws the conclusion that we can assign a verb I/T value *because* it belongs to a particular semantic category. For instance, she writes about *arthayate* (70): "I assign it I/T value because other verbs meaning 'desire, enjoy' are I/Ts". I believe that such line of reasoning is incorrect and can lead to wrong conclusions. One can easily find examples in any language where verbs of the same semantic sphere show different reactions, cf. Eng. *desire*, *enjoy*, but *long for*; *hear* and *see*, but *listen to* and *look at*, etc. Moreover, it appears that none of the twelve -aya-formations which have been assigned I/T value by J. does show both reactions. It is certainly correct that verbs of the same semantic category can influence the reaction of the verb, but this does not necessarily happen, so that assignment of the I/T value by attraction is unwarranted.

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Second, J. writes that "the complement of the I/T can appear in the accusative or in another case without an important semantic difference" (31). I believe that this difference is essential. If variant case usage was purely syntactic, this cannot account for the fact that causatives are formed only to the "intransitive" constructions of I/Ts. We shall return to this matter in §5.2.

II. THE MATERIAL

§2.1. J. put an important restriction on the material, including only verbal forms with -áya- preceded by at least one syllable (9, fn. 3). Excluded by this criterion are presents like *dáyate* 'distributes', *dháyati* 'sucks', *váyati* 'weaves', etc., which, in my opinion, belong to -áya-formations. These verbs are also not mentioned in the index so that it is hard to find out how J. analyzes them. On p. 48f. (fn. 2), J. writes: "Narten cites, as parallel [to *iláyati*, AL], forms of the type *dháyati* 'sucks', supposedly from **dhə-éjēti*, to root *dhā* (1968a: 248), but this presents functional difficulties. Though Narten herself suggests¹ (p. 244) that the zero-grade -áya-

¹ I found but few disturbing misprints:

p.27, last line: above → below;

p.31, l.24: stem → step;

p.49, l.15: (1959b) → (1955b);

p.84, fn.14: Jamison 1977, probably referring to J.'s thesis, is absent in the bibliography;

present formation is intransitive, *dhāyati* is not, but rather I/T, and other verbs often grouped with it, such as *vāyati* 'weaves', *hvāyati* 'calls', are transitive. Since all certain zero-grade -āya- formations are intransitive, it seems unlikely that this would be violated only in this class. Furthermore, there are problems even in formal terms. In -āya-intransitives to other root types, there is an effort to produce a full root syllable before the suffix, even when this was not phonologically necessary, as in CaR roots with possible CR-āyati (e.g. *sarāyati*, not **srāyati*, cf. p. 201). The surface form of the *dhāyati* type violates this as well".

The fact that this group of verbs contradicts J.'s conclusions is not enough reason to leave it out of consideration (for J.'s first argument see §4.1 below, for *sarāyati* section III). Moreover, J. nowhere provides an alternative analysis of type *dhāyati*. I presume that J. follows Insler's idea (1968: 337, fn.31) that type *dhāyati* reflects **d^haH-ati*. This suggestion is untenable, however, because there is no evidence for -aHa- yielding -aya-. Insler's parallel, the forms of the personal pronoun *tvāyā* and *tvāyi* (according to him, from **tvaH-ā*, *tvaH-i*), does not hold because these forms are analogical after *māyā*, *māyi*, cf. the archaic RVic forms *tvā*, *tvé* (Burrow 1973: 265). Moreover, 1pl. *hvāyāmasi* in 6,26,1 and 6,33,4 counts five syllables, which can only be explained if we assume a trisyllabic stem /*hu'aya-*/. This stem is found in Avestan, too: 1sg.subj. *zbayā* /*zu'ayā*/, dat.sg.ppl. *zbayente* /*zu'ayantai*/, which points to the PIr. reconstruction **z^huH-aya-ti* (cf. Kuiper 1973: 194ff). Finally, *vāyati* 'weaves' cannot be explained as **vaH-a-ti*, as there is no laryngeal after *u* (cf. the ppl. *utā-*, AiGr. I, 94).

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§2.2. It follows that verbs of type *dhāyati* must be included in the material, even though they provide problems with the eventual conclusion, viz. that all zero-grade -āya- formations are intransitive (we shall see below that this conclusion must probably be adjusted). Therefore, I give the relevant information about these verbs below, trying to follow J.'s presentation:

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- p.104, fn.64, l.2: *érathayanta* → *śrathayanta*;
 p.91, l.22: *snéhiti-* → *snéhiti*;
 p.109, l.14: *agní* → *agnih*; l.28: context → contest;
 p.129, last line: *āya*-intransitives → *āya*-transitives;
 p.130, l.25: 1000 → 100;
 p.135, l.21: because → became; l.28: its → is;
 p.142, fn.78, l.3: *sādā ... abhīṣṭaye* → *sādā pāhy abhīṣṭaye*;
 p.151, l.18: intrans. → trans.;
 p.178, l.25: add *grbhñāti*;
 p.181, fn.7: omit *īñkhita-* and;
 p.199, l.15: 3pl. *ṛtāyan* → nom.sg.ppl. *ṛtāyan*;
 p.222, l.22: add 1982.

On the other hand, there are numerous printer's mistakes like omitted or added letters, several times *amd* instead of *and*, points instead of comma's, etc. Also the layout is tiresome: a line is skipped between every two paragraphs, but no line is skipped between passages dealing with different verbs, e.g. on p. 60. I am afraid this is the price we must pay for the first steps of the computerized printing.

kṣāyati 'rules over' RV 24x, AV 3x

kṣā 'rule'

This verb occurs 18x with a genitive, and 6x without complement. The verb seems therefore to be intransitive. The antiquity of an -aya-formation to this root follows from Av. and OP *xšaya-* 'id.', and, probably, Gr. *κτάνομαι* 'get, attain'. The present is isolated in Sanskrit.

dāyate 'distributes' RV 28x, AV 4x

dā 'distribute'

This present is used either with acc., or without complement. I would consider it transitive, but J. assigns I/T value to it in parallel to other verbs of giving (48, fn.2; for the criticism of this position cf. above, §1.1). Other forms of the root are root aor. *dāti*, *dātu* and *s*-aor. *āvadiṣīya* (2,33,5), cf. Kuiper 1974: 123ff. In the same article (p.126f), Kuiper argues that *dāyate* is a present of two other verbs: 'to destroy' < **deiH₁-e-* (in 6,6,5; 10,80,2; with *vī* 3,34,1; 4,7,10; 6,22,9) and 'to pity' (in 7,23,5; etymology uncertain).

dhāyati 'sucks' RV 8x, AV 2x

dhā 'suck'

The only other forms of this root are pf. *dadhūs* (9,99,3 or to *dhā-* 'to put' ?) and the caus. *dhāpayati*. The present occurs either with acc. or without complement, but the fact that the causative has been formed to this present implies that *dhāyati* could also have intransitive value. Therefore, we may assign I/T value to it. Oss. *dæjyn* 'id.' and OCS *dojq* 'to milk' show that the formation must be old.

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vāyati 'weaves' RV 12x, AV 4x

u 'weave'

The verb is always transitive. The only other attested form is 3pl.pf. *ūvus* (1,61,8). In view of Myc. *ewepesesomena* /*ewepsēsomena*/ 'that must be woven' < **H₁ueb^h-s-* (Beekes 1969: 67), we may reconstruct **H₁u-eie-*.

vyāyati 'envelops' RV 8x, AV 8x

vī, *vyā* 'envelop'

The present is always transitive and mostly active. Middle forms have the reflexive meaning 'to envelop oneself'. Other forms are pf. *vivyé*, *vivyathus*, and aor. *vyata*, which shows some intransitive forms at the end of book IX (+ loc.: 9,101,15; *ā* *vyata* + loc.: 9,101,14; 107,13; *parī* *vyata* + instr.: 9,69,5; 70,2; 86,32; 107,18).

śvāyati 'swells' RV 1x

śū 'swell'

The RVic hapax *viśvāyant-* (7,50,1) is intransitive. In later Skt. (B.+), the present *śvāyati* is rather frequent. Further, attested is only pf. (3pl. *śūśuvuḥ*, etc.). Oss.Ir. *ræ-syjyn*, Dig. *ræ-sujun* 'id.' and Gr. *κυέω* 'be, become pregnant' indicate that this present is likely be of IE date (< **kuH₍₁₎-eie-*).

hváyati ‘calls, invokes’ RV 44x, AV 41x

hū ‘call, invoke’

This transitive present is synonymous to two other presents of this root: [1] *hávati*, [3] *juhūmasi* (for [6] *huvema* cf. Joachim 1978: 178). Beside these presents, we find pf. (*juhāva*, *juhvé*), root aor. (*áhūmahi*; for *hóma* and *hūmáhe* cf. Joachim, 177f) and s-aor. (3pl.med. *juhūṣata*). Cognates in Avestan (*zbayeiti* ‘id.’) and Old Persian (*patiy-azbayam* ‘ich ordnete an’) guarantee at least a common PIIr. present.

III. INTRANSITIVE -*áya*-FORMATIONS AND THE ACTIVE PARTICIPLE

§3.1. The intransitive -*áya*-formations have a peculiar distribution, which has escaped J.’s notice. Reconsidering the evidence, we see that the great majority of the forms attested are active present participles or a 3pl.med. in -*anta* or -*ante*. In the following I present all forms in the same order as in J.’s book.

§3.2. ISOLATED FORMATIONS:

iláyati ‘is still’:

2pl. *iláyatā* (1,191,6).

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iṣáyati ‘prosperes, is strong’:

ppl. *iṣáyant-* (11x), 3pl.inj. *iṣáyanta* (2,2,11), 1pl.opt. *iṣayema* (1,185,9), inf. *iṣayādhyai* (3x); GAv. cognate is equally a ppl. *iṣaiiṣ*. This verb must be separated from a transitive verb *iṣáyati* ‘sends’ (J., p.100).

ūrjáyati ‘is strong’ (denom. *úrj-* ‘nourishment’):

ppl. *ūrjáyant-* (2,35,7), ppl.med. *ūrjáyamāna-* (10,37,11). It is not clear why *ūrjáyant-* in 2,35,7 should have the meaning ‘strong’ and not ‘strengthening, nourishing’ as elsewhere (5x). It seems that *ūrjáyati* is always transitive ‘nourishes’ (also 1x 3pl. *ūrjáyanti*), to which medial intransitive *ūrjáyate* is generated in accordance with J.’s Type B, cf. p. 194ff.

ṛtáyati ‘acts according to the truth’ (denom. *ṛtá-*):

ppl. *ṛtáyant-* (5,43,7; 5,12,3), 3pl.med. *ṛtayanta* (8,3,14); cf. also ppl. *ṛtāyánt-* (12x).

kulāyáyati ‘nests’ (denom. *kulāya-* ‘nest’):

ppl. *kulāyáyant-* (7,50,1).

tuṣáyati ‘is still, content’:

ppl. *tuṣáyant-* (10,27,16); the intransitive character of this ppl. is uncertain.

vājáyati ‘races, seeks booty’ (denom. *vāja-* ‘booty’):

ppl. *vājáyant-* (8x); cf. also *vājayánt-* (24x), with the same range of meanings, and trans. *vājáyati* ‘incites’ (16x);

vipáyati ‘becomes inspired’:

3pl. *vipáyanti* (7,21,2): *prá yanti yajñám*, *vipáyanti barhíḥ*, *somamādo vidáthe dudhrá-*

vācaḥ 'Sie kommen zum Opfer, sie machen das Barhis beredt, somatrunken, bei dem Opfer trotzig redend' (Geldner). The passage concerns the pressing-stones (cf. Oldenberg, Noten and Geldner ad loc.), and it seems that *vipāyanti barhīḥ* refers to the trembling of the *barhīḥ* at the pressing of Soma. I do not understand J.'s objection that "in the numerous, rigidly typed passages concerning the ritual in the RV there is no precedent for such an action" (p. 51). In order to explain *vipāyanti* here as intransitive, J. supplies a form of the root *sad-* and translates: "They come forth to the worship. (Sitting) on the barhis, they become inspired, exhilarated on soma in the ceremony". This solution seems rather forced, and we must consider *vipāyati* as transitive.

vīrāyate 'acts like a hero' (denom. *vīrā-* 'hero'):

2pl.med.impv. *-dhvam* (10,103,6), 2du.med.impf. *-yethām* (I¹).

suṣvāyati 'is fertile' (denom. *suṣū-* 'well-bearing'?):

ppl.fem. *-antī* (10,110,6), 3pl.med. *-anta* (7,36,6).

sprhāyati 'is eager':

3pl. *-anti* (8,2,8); 3sg.opt. *-ayet* (1,41,9), 1sg.impf. *-ayam* (10,135,2); comp. *sprhayād-varṇa-*, ger. *sprhayāyya*.

svarāyati 'shines' (denom. *svar-* 'sun'):

ppl. *svarāyant-* (AV 1x).

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§3.3. THE ONLY INTRANSITIVE PRESENTS IN THEIR INDIVIDUAL VERBAL SYSTEM:

chadāyati 'seems, pleases':

7x finite forms, no ppl.; cognate to Av. *saḍaiietī*, OP *padaya-*.

dhvasāyati 'smokes':

ppl. *dhvasāyant-* (1,140,3.5), 2sg.inj. *nī dhvasayas* (10,73,6) 'envelops with smoke', where it seems to be transitive (J. tries to explain this form as intransitive (p.54f.), but her solution seems rather forced), cf. J.'s fine analysis of *snehāyati* 'envelops with snow, destroys' on p.91).

stanāyati 'thunders':

ppl. *stanāyant-* (16x), 3pl. *-anti* (I¹, IV¹, X¹), impv. *-a* (5,83,7).

svanāyati 'resounds':

3pl. *-an* (10,3,6) is secondarily built to *stanāyati* (J., p. 55f.).

§3.4. COMPETING WITH ANOTHER INTRANSITIVE VERB:

kṛpāyati 'mourns (for)':

ppl. *kṛpāyant-* (10,98,7), gen.sg. *kṛpayatás* (? , 8,46,16), 3sg.impf. *akṛpayat* (10,68,10) are *transitive*. There is no evidence that the verb was originally intransitive, as J. suggests (the ppl. simply means 'mourning, longing for').

citáyati ‘appears’:

occurs 21x in the RV and, according to J., is divided among four different meanings: 1. intr. ‘appears’ (13x); 2. I/T ‘perceives’ (4x); 3. trans. ‘reveals’ (2x); 4. double I/T ‘makes perceive’ (2x). This verb poses many difficult problems (cf. Geldner’s note ad 5,19,2a: “*cit*, *citay* ist ein sehr kompliziertes Verb”), but I think J. is right when she considers the intransitive meaning to be original (the I/T meaning ‘to perceive’ probably does not exist, but the discussion goes beyond the scope of this paper). The following forms of the intr. verb + the I/T are attested: 10x ppl.; 1x *-anta*; 2x *-ante*; 2x *-ema*; 2x *-at*. The forms in *-ema* (2,2,10; 4,36,9) occur with *áti* + acc. and can be analyzed as trans. *áti-citayati*. One of the *-at* forms (2,2,5) is used with *ánu* + acc. and can likewise be seen as trans. *ánu-citayati*. The other *-at* form is 1,180,8 and seems to be late.

tujáyati ‘presses forward’:

ppl. *tujáyant-* (7,104,7).

turáyati ‘hastens’:

ppl. *turáyant-* (2x), 3pl.med. *-ante* (2,34,3).

dasayate ‘becomes exhausted’:

3pl.med. *-anta* (5,45,3).

ví dyutayate ‘shines forth’:

3pl.med. *-anta* (2,34,2).

dravayate ‘runs’:

3pl.med. *-anta* (10,148,5).

nadáyati ‘resounds’:

ppl. *nadáyant-* (2x), 3pl.med. *-anta* (1,166,5); the intransitive value is uncertain.

patáyati ‘flies’:

ppl. (9x), finite forms (14x).

riṣayádhyai ‘to be harmed’ (1,129,8, in a difficult stanza).

rucayate ‘shines’:

3pl.med. *-anta* (3,6,7).

śucáyati ‘gleams’:

ppl. *śucáyant-* (5x).

śubháyati ‘is beautiful, splendid’:

ppl. *śubháyant-* (5,60,8); 3pl.med. *-anta* (7,56,16), *-ante* (1,85,3).

saráyate ‘runs’:

3pl.med. *-anta* (4,17,2).

heḍayati ‘is angry’:

ppl. *áheḍayant-* (10,37,5).

§3.5. The material can be summarized as follows:

17 verbs occur only as a ppl. or a 3pl.med.;

10 verbs are attested in forms other than a ppl. or a 3pl.med.: *ilāyati*, *iṣāyati*, *citāyati*, *chadāyati*, *patāyati*, *riṣayādhyai*, *vīrāyate*, *stanāyati*, *sprhāyati*, *svanāyati*. Of these ten, however, the finite forms of *iṣāyati* (the only finite form is 1x -ema in book I), *citāyati* (see above), and *vīrāyate* (attested only in the book I) are in general late; *svanāyati* is secondary, and *riṣayādhyai* is difficult;

4 verbs are transitive: *ūrjāyati*, *vipāyati*, *dhvasāyati*, *kṛpāyati*.

The first question, which arises when we look at this summary, is what do the 3pl.med. forms have in common with the participle? It is significant that there is a clear metrical distribution between the ppl. and the 3pl.med. forms. The latter occur always at the same metrical position in the pāda, viz. in *triṣṭubh* or *jagatī* after the late caesura (after the fifth syllable), so that the two last syllables of the verb start the cadence. The forms in -anta are followed by a single consonant, the forms in -ante are followed by a vowel. As the 3pl.med. forms are limited to one single metrical position and are the only medial forms of the paradigm attested (the -aya-formations are in general active, see J., p.190ff.), we may conclude that they are nonce-forms, artificial formations secondarily built in order to suit the metrical demands.

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J. considered the problem of the ending -anta in her book (p.190ff.) and in a separate article (Jamison 1979) where she has demonstrated that this ending often appears in verbs with entirely or predominantly active paradigms. These anta-forms are generally present injunctives to trisyllabic stems of metrical shape $\sim\sim$ and occupy the aforementioned metrical position. Moreover, J. has pointed out that the source of the expansion of the ending -anta must be in the -aya-formations (1979: 160). This is a first rate discovery and has important consequences for our understanding of the semantic value of the middle voice in Sanskrit.

However, I do not agree with J.'s conclusion that the ending -anta in these cases is a substitution of the active ending -an, which, according to her, is but weakly characterized. The weak position of -an may have played a role, but in my opinion, this view does not explain why the substitution is limited to augmentless forms in a particular metrical position in the pāda, and why there are so many verbs which contain only the active participles and the -anta-forms. We must rather look for a form which could not be used in this metrical position and was therefore substituted by the ending -anta. Such a form is the nom.pl. of the participle, -antah, which cannot be used in the cadence before a single consonant, as this would yield two subsequent long syllables. Therefore, I believe that the anta-forms were created as a metrical substitute for the nom.pl. ending -antah of the participle (cf. a comparable solution for the form *svadayanta* at 9,105,1 given by J., p.159¹¹²). Note that the meaning of the injunctive resembles that of the participle. As to the forms in -ante, they appear in the Saṃhitā text as -anta in the position before the vowel (-ante is written only in 1,85,3 *śubhāyante añjībhīs*) and can be a later misinterpretation of the participle.

The fact that the 3pl.med. forms are a substitute of the nom.pl. of the participle *metri causa* leads us to an unexpected conclusion that 17 (and probably even more) of the 27 -aya-intransitives originally had only participles. Taking into consideration that the existence of a participle does not guarantee the existence of a full-fledged present and that five of the ten -aya-intransitives are unclear or secondary, we may conclude that there are only five "real" intransitive presents in -aya- in J.'s list: *iláyati*, *chadáyati*, *patáyati*, *stanáyati*, *sprháyati*. To these I would add *kṣáyati*, *śváyati* (see above, §2.2), and *mṛḍáyati* 'be merciful', which is considered by J. (p.102f.) transitive on, in my opinion, insufficient grounds.² 101

§3.6. What is the origin of these intransitive participles in -áya-nt-? In order to answer this question, we must look at some other categories of verbs in -aya-. Let us first consider denominative verbs in -aya-, derived from stems in -a.³ Surprisingly, all these verbs also occur in the RV only as a ppl. or a 3pl.med., cf. the attested forms of verbs listed by Macdonell (1910: 399f.):

amitraya- 'act as an enemy': 3x ppl.;

indraya- 'behave as Indra': 1x -ante (before a vowel in the cadence);

kṣemaya- 'take a rest': 3x ppl.;

jāraya- 'treat like a lover': 1x 3sg.pass.aor. *jārayāyi* (6,12,4), doubtless a nonce form created for a word play (cf. Geldner, ad loc.); incidentally, the accentuation of the present cannot be inferred from the aorist form.

devaya- 'serve the gods': 50x ppl.;

yuṣmayā- 'seek you': 1x ppl.;

vasnaya- 'bargain': 1x ppl.;

vājaya- 'race, seek booty': 24x ppl.;

sumnaya- 'show benevolence': 2x ppl.

The same holds probably true for the denominatives from stems in -i, *iṣaṇaya-* 'set in motion' (10,67,8 -anta before a single consonant in the cadence) and *dhunaya-* 'resound' (1x -anta before a single consonant in the cadence; 3,55,16 3pl.impv. -antām).

In contradistinction to denominatives in -aya-, those in -āya- (also derived from stems in -a) show both finite forms and participles:

² *mṛḍáyati* occurs 31x with a dative complement 'be merciful to smbd.' or without a complement. J. assigns the transitive value to this verb only because the more or less synonymous *mṛḍati* occasionally occurs with the acc. *āgas*. The two relevant passages (7,93,7 *yāt sīm āgas cakṛmā tat su mṛḥa* and 1,179,5 *yāt sīm āgas cakṛmā tat su mṛlatu* 'if we have committed a sin, then be (or let him be) gracious'), however, allow a different interpretation. As a matter of fact, *tad* can have adverbial function in sentences with *yād* 'when' (Delbrück 1888: 582) and does not necessarily refer to *āgas*, cf. also 2,27,14 *ādite mītra vāruṇa mṛḥa yād vo vayam cakṛmā kaccid āgaḥ* 'O Aditi, Mitra and Varuṇa! Be gracious, if we have committed any sin against you'.

³ All these verbs are intransitive, as the transitive denominatives have acquired different accentuation, cf. *artháyati*, *nīláyati*, *mantráyati*, *mṛgáyati*, etc.

aghāya- 'plan mischief': 1x fin.; 7x ppl.;
ajirāya- 'be swift': 1x fin.;
āsvāya- 'desire horses': 5x ppl.;
ṛtāya- 'act according to the truth': 12x ppl., cf. also *ṛtāyant-* (2x);
tilvilāya- 'be fertile': 1x fin.;
priyāya- 'become friends': 1x fin.;
yajñāya- 'sacrifice': 1x ppl.;
rathitāya- 'be conveyed in a car': 1x ppl.;
randhanāya- 'make subject': 1x fin.;
vr̥ṣāya- 'act like a bull': 8x fin.;
śubhāya- 'be beautiful': 1x fin.; cf. also *śubhāyant-* (1x);
sumnāya- 'show benevolence': 3x ppl., cf. also *sumnayant-* (2x).

This state of affairs makes it probable that participles in -*āya-nt-* show a secondary development of those in -*āya-nt-*, probably due to metrical factors (cf. Insler apud J., p. 50).⁴ The participles in -*āya-nt-* never appear in the above-mentioned metrical position (after the late caesura in trimeter verses) because the two syllables after the late caesura must be short (cf. Arnold 1905: 12), which favoured the replacement of the -*āya-nt-* participles by the those in -*āya-nt-*. This result is important, as it shows that *a*-stems originally formed denominative verbs in -*āya-*⁵ and that -*āya-*denominatives are secondary.⁶

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⁴ As Jamison points out to me (per litteras), the rules for the distribution of -*āya-* and -*āya-* are given in her dissertation (p.79): "Verbal forms of this type with short root syllables have suffixal form -*āya-* when the word has a certain metrical shape and -*āya-* when it has others. The conditions are the following: 1) -*āya-* appears when three syllables follow the root morpheme and the penultimate is light (hence *ṛtāyaté* 5x, *ṛtāyatás* 3x). 2) -*āya-* appears when three syllables follow the root morpheme and the penultimate is heavy (hence *ṛtayanta* 1x). 3) Either -*āya-* or -*āya-* can appear in a verb whose root morpheme is followed by two syllables, though -*āya-* is more common. The choice of shape in this case depends on the metrical position of the word in the pāda. -*āya-* appears when the root syllable of the form coincides with the first syllable of the break. -*āya-* appears elsewhere, especially in the cadence. Hence, we find *ṛtāyan* in the break in V.12.3, V.43.7, but *ṛtāyán* in I.117.22, V.41.1, VII.87.1".

⁵ The long *ā* in -*āya-* is probably a reflex of Brugmann's Law: *-o-īc- > PIIr. *-ā-ya-.

⁶ In Avestan five of the ten denominative verbs in -*aiia-* derived from *a*-stems, given by Kellens 1984: 130f., are likewise attested only as a ppl.: LAv. *arəzaiaṇt-* 'combattant' (*arəza-* 'combat'), GAv. *maēkaiaṇt-* 'goutant' (*maēka-* 'goutte'), LAv. *maṇaiaṇt-* 'ressemblant' (**maṇa-* 'apparence'), LAv. *varəzaiaṇt-* 'conferant la prospérité' (*varəza-* 'vigueur'), LAv. *vasō.yaoniaiaṇt-* 'donnant libre habitation' (*vasō.yaona-* 'libre habitation'). If we take into consideration that three of the other five denominatives in -*aiia-* are uncertain (the original noun of *kāšaiia-* 'tenir' and *vīmāḍaiia-* 'pratiquer la médecine sur' is unknown, whereas for *vaziia-* 'se trouver sur le chariot de nocces' one must assume haplology), we have as the result that five of the seven -*aiia-*denominatives are attested only as a ppl. Unfortunately, we cannot see the difference between -*āiia-* and -*aiia-* because of the Avestan (phonetic?) shortening of long *ā* before -y-, which makes a conclusion about the original distribution impossible.

Recently, Kellens (1987) has provided another example of a denominative participle in -*aiia-*, viz. *tbisaiiaṇt-* 'hating'.

§3.7. Moreover, the same distribution (ppl. in *-aya-nt-* vs. ppl. and finite forms in *-āya-*) is found with the so-called deverbative *-aya-*formations. Following Bartholomae (1891: 83ff), J. explains several verbs in *-āya-* as secondary transformations of deverbatives in *-āyā-* derived from *-nā-* presents (p. 178ff):

<i>iṣāyati</i> 'sends':	* <i>iṣāyāti</i> (not attested):	<i>iṣṇāti</i> ;
<i>gr̥bhāyati</i> 'grasps':	<i>gr̥bhāyati</i> :	<i>gr̥bhṇāti</i> ;
<i>damāyati</i> 'tames':	<i>damāyati</i> :	Gr. δάμνημι;
<i>ramāyati</i> 'stops':	* <i>ramāyāti</i> (not attested):	<i>ramṇāti</i> ;
<i>śamāyati</i> (AV) 'appeases':	* <i>śamāyāti</i> (not attested):	* <i>śamnāti</i> ;
<i>śrathāyati</i> 'loosens':	<i>śrathāyati</i> :	<i>śrathnāti</i> .

J. mentions two reasons for considering these verbs deverbatives: the unusual vocalism and the absence of consistently intransitive presents beside these forms in the Rgvedic period (apart from *rāmate*). Both reasons are on itself not compelling, however: there are more zero-grade transitive *-aya-*formations (see below, §4.1) and isolated *-aya-*formations. For *iṣāyati*, *ramāyati*, and *śamāyati* the proposed explanation is less certain than for the other verbs, as their purported source, a form in *-āyā-*, is not attested. For *ramāyati* J.'s second reason does not hold either (because of *rāmate*), so that it seems more appropriate to consider this verb as a short vowel variant of the synonymous *rāmāyati* (cf. *gāmāyati* / *gamāyati*, *dhvānāyati* / *dhvanāyati*, etc., §4.2). Moreover, the Rgvedic nasal present of *√sam-* is uncertain, as it implies an emendation (proposed by Grassmann) of *ścamnan* (1,104,2) to **śamnan*.

Reconsidering the attested forms of these verbs, we see that, except for *ramāyati* and *śamāyati*, all verbs in *-āya-* are either participles or a 3pl.med., whereas verbs in *-āyā-* have also other finite forms:

<i>iṣāyati</i> : 1x ppl., 2x <i>-anta</i> (+C- in the cadence);
<i>gr̥bhāyati</i> : 1x ppl. vs. <i>gr̥bhāyati</i> : 15x finite forms;
<i>damāyati</i> : 2x ppl. vs. <i>damāyati</i> : 1x fin., 1x ppl.;
<i>ramāyati</i> : 4x finite forms;
<i>śamāyati</i> (AV): 7x finite forms;
<i>śrathāyati</i> : 1x ppl., 2x <i>-anta</i> (+C- in the cadence), 1x <i>-anta</i> (+a- in the cadence), 1x <i>-ante</i> (+V- in the cadence) vs. <i>śrathāyati</i> : 3x finite forms.

This means that the two verbs (*ramāyati* and *śamāyati*) for which the deverbative origin was less certain are attested as finite forms, whereas the other verbs are attested only as a ppl. or a 3pl.med. We may thus conclude that the original (and the only) locus for the "shortening" and accent retraction in this formation (for which see below, §3.8) was not **ramāyāti*, as proposed by J. (p.179),⁷ but the participle.

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⁷ I cannot follow the reasoning of fn. 3 (p.179): "If **ramāyāti* was the earliest of the deverbatives to remodel itself on the *-aya-*transitive, it would have disappeared first, and the absence of this form from the RV is then not surprising".

§3.8. Let us review our results so far. We have seen that verbs in -āyá- show both finite forms and participles, whereas many verbs in -aya- are attested only as active participles or a 3pl.med., which are late replacements of nom.pl. ending -*antaḥ*. The following table may illustrate this:

	finite forms	ppl. / 3pl.med.
intransitive -áya-form.	–	+
denominative -ayá-form.	–	+
denominative -āyá-form.	+	+
deverbative -áya-form.	–	+
deverbative -āyá-form.	+	+

Moreover, we have seen that denominative -ayá-verbs and deverbative -áya-verbs are recent transformations of the -āyá-verbs. It seems therefore plausible to assume that those -áya-intransitives which are attested only as participles or a 3pl.med. are of denominal origin and eventually connected with denominatives in -āyá-. This presupposes that the participles in -āyá-*nt*- of some denominative -āyá-verbs shortened their *ā* for metrical reasons (cf. §§3.6-7) and then retracted the accent.

The accent retraction of -ayá-*nt*- to -áya-*nt*- does not present any problems. As a matter of fact, participles in -áya-*nt*- and in -ayá-*nt*- have the same accentuation in the oblique cases: although participles of -áya-verbs are but rarely found in weak cases, the attested forms show final accentuation (J., p. 49, fn. 3), cf. dat.sg. *mahayaté* (7,32,19), *iṣayaté* (6,16,25), gen.sg. *kṛpayatás* (8,46,16), etc. Moreover, the both types have merged in governing compounds, which are always accented on the final syllable of the first member (AiGr. II,1, p. 318), cf. *spr̥hayád-varṇa*-, *codayán-mati*-, *śrāvayát-pati*-, etc. If we further take into consideration that infinitives and gerunds of -áya- and -ayá-verbs also have the same accentuation (cf. *iṣayádhyai*, *īrayádhyai*, *nāsayádhyai*; *spr̥hayáyya*, *panayáyya*), it becomes comprehensible that there was uncertainty in the accentuation of participles in -*ayant*-. This uncertainty can be illustrated by the participle of *mṛḍáyati* ‘is merciful’: we find dat.pl. *mṛḍayádbhyām* (1,136,1), comp. *mṛḍayáttama*- (1,94,14, 1,114,9, 5,73,9) and nom.sg.f. *mṛḍáyantī* (5,41,18), but also nom.pl. *mṛḍáyantas* (1,107,1). In such a situation it is but natural that the accentuation of participles in -áya-*nt*-, which strongly outnumbered those in -ayá-*nt*-, become generalized.

§3.9. We may now conclude that -áya-intransitives attested only as a participle or a 3pl.med. are likely to be denominative in origin. Five of the intransitive -áya-verbs are already considered denominative by J.: *ṛtáya*-, *kulāyáya*-, *vājáyaya*-, *suśváyaya*-, and *svaráyaya*-. The other verbs may also be of denominative origin: *iṣáyaya* ‘prosper’ (*īś* ‘prosperity, wealth’), *tujáyaya* ‘press forward’

(*tuj-* ‘impulse, assault’), *turāya-* ‘hasten’ (*turā-* ‘quick’), *dasaya-* ‘be extinguished’ (**das-* in AV. *ānupadas-vant-* ‘not decaying’), *vī dyutaya-* ‘flash forth’ (*vidyūt-* ‘flashing light’), *dravāya-* ‘run’ (*dravā-* ‘running’), *nadāya-* ‘resound’ (*nadā-* ‘bull’, ‘reed’ = ‘roarer’), *rucāya-* ‘shine’ (*rūc-* ‘light’), *śucāya-* ‘gleam’ (*śūc-* ‘gleam’), *śubhāya-* ‘be beautiful’ (*śūbh-* ‘beauty’, cf. also *śubhāyā-*), *sarāya-* ‘run’ (**sara-* in *punaḥ-sara-* ‘running back’), *heḍāya-* ‘be angry’ (*heḍa-* ‘anger’). Only the denominative character of *citāya-* ‘appear, look’ and *tuṣāya-* ‘be content’ is uncertain because the root-noun *cīt-* means ‘thought, intellect’ and there are no nominal forms of the root *√tuṣ-*.

One may object that it is unlikely that verbs derived from root nouns would have the suffix *-aya-*. Although we do not know for sure the shape of denominatives from root nouns (a root noun to which a verbal suffix *-ya-* or *-aya-* is added is mostly undistinguishable from a "normal" present), we may assume that they were formed with the suffix *-ya-* in parallel with denominatives from consonant stems (cf. Macdonell 1910: 401). There is, however, one unmistakable denominative from a root noun formed with the suffix *-aya-*, viz. *ūrjāyant-* ‘strengthening’ derived from *ūrj-* ‘nourishment’.

Furthermore, participles in *-āya-nt-* have lost their connection with the denominative verb due to the shortening and accent retraction, which led to a two-termed relation between the original noun and a "denominative" participle in *-āya-nt-*. Thus, the participle served as a kind of adjective to the noun. When this relation became productive, every noun, even a root noun, could form a participle (=adjective) in *-āya-nt-*. I believe this is also the reason why only intransitive verbs in *-āya-* are so often attested as participles.

When this section had already been written, I noticed that J., while discussing the history of the *-āya-*intransitives after the RV and AV, wrote (p.68) that the only *-āya-*intransitives which occur occasionally in the Brāhmaṇas are *ilāyati*, *chadāyati*, *patāyati*, *vīrāyate*, *stanāyati*, and *sprhāyati*, i.e. exactly those verbs that are attested in the RV in finite forms. I believe that there can hardly be a better confirmation of the artificial character of the participles in *-āya-nt-*, discussed above.

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IV. THE VOCALISM OF THE *-āya-*FORMATIONS

§4.1. One of J.’s general conclusions is that the transitive and intransitive *-āya-*formations have different vocalism: the former have underlying **o* grade, whereas the latter have zero-grade of the root. Notwithstanding the rare occurrence of the intransitive *-āya-*verbs in the RV and AV, their zero-grade vocalism is indeed clear, cf. *ilāyati*, *chadāyati* (*√chand-*), *patāyati*, *stanāyati*, *sprhāyati*, *kṣāyati*, *śvāyati*, *mṛḍāyati* (for the selection see above, §3.5). The apparent full grade of *patāyati* is due to the fact that there is no **pt-* in Sanskrit (cf. also the ppl. *patitā-*). The root *√stan-* may be *seṭ* (cf. impv.aor. *stanihi*, ppl. *stanitā-*, Narten 1964: 275f) so that the vocalism of *stanāyati* is regular (<**stnH-cic-*).

On the other hand, J.'s view that transitive verbs in -áya- always have underlying *o grade is untenable. It has emerged from the preceding sections that there are several transitive -áya-formations with zero-grade in the root. These are *dáyate* 'distributes', *dháyati* 'sucks' (possibly I/T), *váyati* 'weaves', *vyáyati* 'envelops', *hváyati* 'calls', which are left out of consideration by J., and *vipáyati*, *dhvasáyati*, *krpáyati*, which, in my opinion, cannot be considered intransitive (see above).

It follows that the conclusion about the vocalism must be adjusted: the intransitive -áya-verbs have zero-grade of the root; the transitive ones can have either zero or *o grade of the root.

§4.2. Another point of the vocalism is the distribution of short and long *a*'s in the root of the transitive -áya-formations, i.e. the operation of Brugmann's Law. On p.204 J. writes: "All -áya-transitives belonging to CaC/R roots, whether inherited or built according to the patterns established by the inheritances, have descriptive extended grade unless some particular condition (to be discussed) has prevented this". Important is the conclusion that there is no evidence for the restriction of Brugmann's Law to the position before resonant (the so-called "Kleinhanssche Fassung").

As far as Kuryłowicz's condition on Brugmann's Law (roots ended in a laryngeal that closed the syllable show short vocalism like any other root ending in two consonants) is concerned, J.'s position is rather ambiguous. On p. 204 she explicitly rejects it, but on the next page she writes that as "in regular morphological categories ... the extended grade has been analogically introduced into the disyllabic roots", the reflexes of Kuryłowicz's rule have been mixed up, and "the short vowel of forms such as *janáyati* requires another explanation" (p. 205). I have the impression that this paragraph was added later, because it implies a different position, which contradicts her previous statement and plays no part in further discussion in the book. It really makes difference: if one rejects Kuryłowicz's rule, all causatives from CaC/R(H)- roots originally had long vocalism; if Kuryłowicz's rule did operate, the causatives from disyllabic roots had short vocalism in Proto-Indo-Iranian already.

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At any rate, it follows from the discussion on p. 205ff. that J. opts for the former alternative and considers the long vocalism original for causatives of CaR/C(H) roots. We shall return to J.'s own explanation below, but first let us look at her objections to Kuryłowicz's rule.

"There are two reasons to reject Kuryłowicz's hypothesis: 1) Though it can account for the short vowels in forms such as *janáyati* 'begets', *jaráyati* 'makes old', *maháyati* 'makes great' because they seem to belong to disyllabic roots (e.g. ppl. *jā́tá-*, *jī́rṇá-*, and nominal form *mahi-mán-*), it cannot account for the short vowels of forms such as *namáyati* 'makes bow' (ppl. *natá-*), *gamáyati* 'makes go' (ppl. *gatá-*), which appear to belong to monosyllabic roots. 2) A number of disyllabic roots have long-vowel -áya-formations, such as *pātáyati* 'makes fly' (ppl. *patitá-*), *tāráyati* 'makes cross' (ppl. *tī́rṇá-*), *pārā bhāvayati* 'makes perish' (ppl. *bhū́tá-*)".

However, lists of CaC/R(H)- verbs on pp. 205ff. give an overall impression that in general *seṭ*-roots have a short vowel and *aniṭ*-roots a long one. Exceptions are scarce and can be explained. It is essential that the short vocalism became productive during the Vedic period. We can sometimes see how the long vocalism has been replaced by the short one in the RV, cf. *gāmāyati* ‘makes go’ (V¹) vs. *gamāyati* (X² and AV+), *yāvāyati* (III¹, V¹, VI², VII², X¹) ‘makes keep away’ vs. *yavāyati* (I¹, VIII², X³), but several verbs have acquired the short vocalism as early as in the family books, cf. *śrāvāyati* (I¹, IV¹, V¹, VI¹, VIII¹, X¹), but *śravāyati* already in I¹, II¹, VII¹. Therefore, the short vowel in *gamāyati*, *yavāyati*, and *śravāyati* must be due to the generalization of the short vocalism. The same explanation is also probable for *dhanāyati* (I³), *jñapāyati* (AV), and *śrapāyati* (AV). I assume the same origin for *ramāyati*, which, in spite of its early attestation (II¹, IV¹, V²), seems to be a replacement of *rāmāyati* (I², VII¹, X¹), the antiquity of which is confirmed by Av. *rāmaieiti* (cf. J., p. 132 and above, §§3.7f).

The short root vowel of *svadāyati* (II¹, VIII¹=Khila, IX¹, X¹) and *namāyati* (VII¹, IX¹) can also be influenced by the synonymous transitive presents *svādati* and *nāmati*, for which see below. The hapax *kṣayāyati* is most probably a nonce form (cf. J., p.111f).

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The other short vowel causatives are *seṭ*: *jarāyati* ‘makes age’, *janāyati* ‘begets’, *panāyati* ‘admires’, *samāyati* ‘appeases’ (cf. §3.7), *harāyati* ‘makes enjoy’ (cf. Gr. $\chi\acute{o}\rho\iota\varsigma < *g^hrH-i-$), and, probably, *darāyati* (cf. *dīrṇa-*, *dura-*; J. must consider the verb denominative because of the vocalism, p. 94f.); roots in *-th-*: *prathāyati*, *vyathāyati*, *snathāyati*; and *damāyati*, *srathāyati* if not deverbative (see above, §3.7).

As to the long vowel causatives, they are generally derived from *aniṭ*-roots. There are but four exceptions: three AVic verbs *pratārayati* (cf., however, OP *vi-taraya-* with short *a*!), *parābhāvayati*, *samvānayati*, all of them described by J. as late and secondary, and *āmāyati* (X²) ‘makes beset, vexatious’, the root vocalism of which can only be seen in 10,97,9, glossed by Arnold (p.323) as a very late hymn. The *seṭ*-character of the root *pat-* is uncertain so that *pātāyati* ‘makes fly’ (I¹, VIII¹) may be regular. The root of *ādhvānayati* (6,18,10), *dhvanayīt* (1,162,15) ‘makes smoky, envelops with smoke’ (cf. J., p.115) is etymologically difficult: *ādhvanīt* (8,6,13) points to the reconstruction $\sqrt{*d^huenH-}$, but the ppl. *dhvāntā-* is then unclear.

J. rejects Kuryłowicz’s explanation and assumes that the basic reason for the short vocalism were Type 5 causatives (see above, §0.2 ad Chapter VII), which have adopted the short vocalism of the synonymous transitive present. In this way, J. explains the short vocalism of *janāyati*, *jarāyati*, *namāyati*, as depending on *jānati*, *jāratī*, *nāmati*. To be sure, the influence of presents on causatives cannot be doubted (cf. *ḍṛmḥāyati* and *ḍṛmḥati*; *śundhāyati* and *śundhati*, probably also *svadāyati* and *svādati*, *namāyati* and *nāmati*), but, first, this did not always happen (e.g., *vātāyati* vs. *vātati*), second, J. is forced to assume several rhyming formations in order to explain their unexpected vocalism (*panāyati*: *janāyati*, *vātāyati*: *yātāyati*) and to resort to the non-ablauting character of roots in *-th* without explanation, and, third, J.’s explanation implies that

most of the -áya-causatives are secondary formations, replacing the transitive thematic presents. I think that the latter statement, which is essential for her reasoning, is untenable. We will discuss the matter in the next section.

To sum up: the intransitive -áya-formations have zero grade of the root, whereas the transitive -áya-formations could have either zero grade of the root or the underlying *o-grade. The latter yielded long *ā* in open syllables (both before C and R) and short *a* in closed syllables including the position before -RH (Kuryłowicz's rule). The short vocalism became productive already in the Vedic period.

V. THE MEANING AND THE ORIGIN OF THE -áya-TRANSITIVES

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§5.1. On pp. 183ff., J. discusses the original meaning of the -áya-transitives. She convincingly argues that these verbs hardly have iterative or intensive value and that the causative value is secondary in Vedic. She concludes that we must "return to Thieme's suggestion (1929: 7-30 ...) that the feature that characterizes all early Vedic reflexes of the PIE *o-grade *eye-formation is not causativity but transitivity, and that the specifically caus. value of many later Skt. -áya-formations can easily be explained as an outgrowth of this transitivity" (p.186).

This conclusion is certainly preferable to the other theories, as it accounts for the fact that in old language -áya-"causatives" could only be formed from the intransitive verbs and for the fact that there are many isolated -áya-transitives. However, the original pure transitive value of these verbs has one far-reaching consequence, viz. that -áya-presents appear to be synonymous to transitive thematic presents, and as both presents often coexist (J.'s Type 5), it is unclear why Vedic has tolerated two synonymous formations for many centuries. For some verbs Type 5 systems can be reconstructed even for PIIr., e.g., *várdhati*, *vardháyati* 'makes grow' : *várdhate* 'grows' and Av. *varədaiti*, *varədaiiati* : *varədaitē*. J. tries to account for this situation by explaining "*vardháyati* as originally built as replacement for *várdhati* to serve as better marked causative to *várdhate*, according to the model provided Type 2 systems (e.g. *rócate* 'shines': *rocáyati* 'makes shine', etc., already established in PIIr.)" (p. 158). For several verbs, however, J. posits the original -áya-present and secondary thematic present (e.g. *yātáyati* 'puts in place' and *yátati*, p. 131).

What is the evidence for considering -áya-presents secondary? J. does not discuss this in general terms, but her treatment of *janáyati* is representative. She writes: "*Janáyati* is best explained as secondarily built as a clearly marked trans. replacement for *jánati*, to serve as causative to *jáyate*, for several reasons: 1) The distribution of *janáyati* appears to be later than that of *jánati*. Nearly half of the occurrences of *janáyati* are in the younger Maṇḍalas I and X, in contrast to 5 of the 23 forms of *jánati*. *Jánati* is almost entirely eliminated after the RV, in favor of *janáyati*. 2) As will be seen below (p. 206), force of patterning suggests that *janáyati* is dependent upon *jánati* in vocalism. 3) Though it is relatively easy to account for the formation of

janáyati beside an already existing system of *jánati*: *jáyate*, it would be difficult to explain the creation of *jánati* beside an already well-marked system of *janáyati* : *jáyate*" (p. 154).

These three reasons are not compelling, however.

Ad 1: The difference in distribution of *janáyati* and *jánati* only means that *janáyati* has ousted *jánati* and does not prove the late character of *janáyati*, which is solidly attested in the family books. Moreover, if OE *cennan* 'to beget, give birth' reflects **ǵonH₁-cie-*, this may be an IE formation. 109

Ad 2: As we have seen above (§4.2), the vocalism of *janáyati* is in accordance with Kuryłowicz's rule and need not be derived from that of *jánati*.

Ad 3: Here we come to the core of the problem. J. must consider either *janáyati*, or *jánati* secondary because they are synonymous in her conception, but this is unnecessary if we assume that there was a semantic difference between these verbs. After this difference had disappeared, probably in the Vedic period, the presents became synonymous, and one of them was eliminated. This seems to be a more likely scenario because otherwise we cannot account for many centuries of coexistence of two synonymous presents.

§5.2. If the *-áya*-transitives originally had no causative or intensive / frequentative value, and they were not simply transitives, what was then their original meaning? I believe that they were factitiva, i.e. they had the meaning 'to accomplish that smbd./smth. achieves some state'. There are several arguments in favour of this view, which is by no means new (e.g. Thieme 1929: 22, Insler 1968, who consistently calls the *-áya*-causatives "transitive-factitives", Kortlandt 1981: 127):

1. As we have seen, *-áya*-formations were semantically different from transitives and were later interpreted as causatives. Factitives are always transitive and may easily become reanalyzed as causatives, as 'makes smbd. / smth. grown' or 'makes smbd. born' is very near to 'makes smbd./smth. grow', 'begets smbd.'.

2. The difference between transitives and factitives can be clearly seen in verbs of perception, where transitives mean 'see, hear, know, touch, etc.', whereas factitives mean 'make seen, heard, known, touched, etc.', cf. *ví caṣṭe* 'sees, appears': *ví cakṣayati* 'reveals', *véda* 'knows': *vedáyati* 'dedicates = makes known' (*vidé* 'is known'), *śṛṇóti* 'hears': *śrāváyati* 'makes heard, famed' (*śṛṇvé* 'is heard, famed'), *páśyati* 'sees': *spāśáyate* 'makes seen, spied out', *spṛśati* 'touches': *sparsáyate* 'makes touched', etc. Several of the *-áya*-formations also have the meaning 'make see, hear, etc.', but this meaning seems secondary. A similar difference between a transitive and a factitive is attested with the verb *yudh-*: trans. *yúdhya*ti means 'attacks', whereas factitive *yodháya*ti means 'sets to fighting, makes contend', later serving as a causative to intr. *yúdhya*te 'contends (mutually)'.

3. There is a close connection between -áya-formations and perfects, which express 'the achieved state'. First, an archaic layer of -áya-formations serve as causative to perfect (J., p. 160ff), cf. *ceṭáyati* 'makes perceived': *cikité* 'appears', *jāráyati* 'makes awaken': *jāgāra* 'is awake', *yāmáyati* 'holds': *yemiré* 'are held, remain', *yopáyati* 'erases': *yuyópa* 'is erased, is invisible', *vakṣayati* 'makes strong': *vavákṣa* 'is strong', *vedáyati* 'makes known': *vidé* 'is known', etc.⁸ The "causatives" here have the meaning of a factitive. Second, several isolated -áya-transitives form one functional paradigm with transitive perfects. For instance, *dhāráyati* 'upholds' (cf. also Av. *dāraia-*, OP *dāraya-* 'id.') is in complementary distribution with the pf. *dādhāra*: the act. perfect appears only in the singular, non-past indicative, whereas the other forms are supplemented by the present (Cowgill apud J., p. 95f). The same relation exists between *pañáyati* 'admires' and 1sg.pf. *pāpana* (J., p. 97). This also indicates that -áya-formations have a meaning comparable to that of the transitive perfect.

4. As is known, -áya-formations can serve as causatives not only to intransitive verbs, but also to verbs with both transitive and intransitive rection (I/Ts). This fact can be sufficiently accounted for only if we assume that -áya-formations were not simply transitives, but factitives. As a matter of fact, besides a syntactic difference in case usage of the I/Ts there must have been an essential semantic difference. In my opinion, I/Ts with transitive rection denote an action directly connected with the noun, whereas I/Ts with intransitive rection denote rather a situation. For instance, *śṇóti* 'hears' takes the accusative to express the sound heard and genitive to express the entity that produced a sound. In the first case, one hears something, while in the second a situation of hearing is described and what is heard is not expressed. Similarly, with the verbs of consumption, the accusative expresses what exactly is being consumed and the genitive (the so-called partitive genitive) expresses which kind of substance. Therefore, one can form a factitive only to I/Ts with intransitive rection with the meaning 'to bring somebody/something in the situation of hearing, drinking, etc.'

§5.3. The original factitive value of -áya-transitives sheds some light on their origin. It has been proposed that they are derived from the so-called "passive aorist" in -i (Kortlandt 1981: 127). This passive aorist, attested also in Avestan and Old Persian, is used only in the 3rd person singular and shows exactly the same vocalism as the causative (e.g. *(á)śrāvi* : *śrāváyati*, *(á)yāmi* : *yāmáyati*, *(á)pāyi* : *pāyáyati*, *(á)śamsi* : *samsáyati*, *(á)jani* : *janáyati*, cf. Insler 1968: 314). As was demonstrated by Migron (1975), this form is not passive, but rather impersonal, and is in fact a perfect, as "its aspectual rôle is to focus the hearer's attention on the moment at (or since) which the 'Einwirkung' has been accomplished, has become a fact of some consequence to him" (p. 299f.). This observation confirms an old view that the "passive aorists" are original "neuter i-

⁸ Three pairs (*jāráyati*: *jāgāra*, *vakṣayati*: *vavákṣa*, *vedáyati*: *vidé*) are probably of PIIr. age (J., p. 167f).

stems, without any termination, which have been adapted to the verbal conjugation" (Burrow 1973: 341).

If this is correct (as I think it is), the *-áya*-transitives could be derivatives of these *i*-stems with the factitive meaning 'accomplish the situation expressed by the *i*-noun'. We are thus back at Brugmann's proposal from 1916 (p. 245) that the *-áya*-formation was originally a denominative to an *i*-stem noun, but on a different level and with a different argumentation. The origin of *-áya*-intransitives and *-áya*-transitives with zero grade in the root remains unclear.

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