

**Transmission-specific (In)utility,
or Dealing with Contamination: Samples from
the Textual Tradition of the Carakasamhitā***

The categories of “derivative” and “inutile” witnesses will be presented here, taking into consideration a contaminated manuscript tradition in which copies were produced by using more than one exemplar. The treatment of these types of witnesses will be elucidated by discussing the “transmission-specific utility” of their textual evidence. An analysis of some manuscripts that represent the categories discussed will then be presented. The manuscripts analyzed are witnesses for the eighth chapter of the Vimānasthāna, the third section of the Carakasamhitā, for which a critical edition is under preparation.¹

1. TRANSMISSION-SPECIFIC UTILITY AND ELIMINATION OF WITNESSES

It may be assumed that the history of the tradition of most works began with a single exemplar, which was transmitted through being copied. Each copy is theoretically directly dependent on the first exemplar, and thus also theoretically useless, as far as its actual contribution to the critical constitution of the text is concerned. However because copying performed

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by human beings also implies accidentally deviating from the source, each copy contains innovations and is thus an independent copy. Therefore, a preliminary and fundamental issue to be considered in critically constituting a text from its manuscript sources is the establishment of the nature of the witnesses of the direct manuscript tradition:² each extant copy, through its very nature of being a copy, has to be tested with regard to its testimonial utility. Together with unintentional changes owing to polygenesis,³ two other factors often operate in the history of the transmission of a text: deliberate change by the copyists⁴ and conflation of different sources, or contamination. These three factors have been called “disturbances”.⁵ In fact, they can alter the perception of the dependence of a manuscript⁶ on another by distorting the evidence through which the dependence can be inferred. Therefore, when analyzing the witnesses in view of the text’s constitution, the possible effects of disturbances should be taken into account; for even if a witness does *not* depend “exclusively on a surviving exemplar or on an exemplar which can be reconstructed without its help”,⁷ it may not have an effective testimonial capacity with regard to the text’s constitution. Conversely, witnesses that can be

² The word “tradition”, with reference to the tradition of a work, refers to a specific textual content that is passed from person to person or generation to generation. Because this handing down affects the content itself through change, tradition also entails the process of transmission, change and preservation of a specific textual content. Manuscripts and printed books are the most common material forms in which textual traditions have been reproduced in the last centuries. The books that contain a particular work represent the direct tradition of that work. Its indirect tradition is instead represented by the texts, reproduced on any kind of material support, that contain passages belonging to that particular work in the form of citations or paraphrases.

³ Polygenesis indicates the development of an innovation through possibly distinct processes, which also implies possible distinct sources.

⁴ I consistently use the word “copyist”, and not “scribe”, to indicate a person who makes written copies of texts by hand, because the word “scribe” preferably designates a person who writes books or documents by hand as a profession. It is in fact well known that handwritten copies of texts were also made by persons who were not engaged in this as a profession. For a typology of the copyists with special reference to those of the CaS, see Pecchia 2009: 149-153.

⁵ *GenL* (tr.) 176 ~ *GenL* 149: “perturbazioni”.

⁶ Throughout the present paper, the noun “manuscript” will be used in the sense of codex, or handwritten book (= *codex manuscriptus* in Latin), with reference to a set of sheets of paper, or other material, that constitutes a text-bearer which is a material unit. Because a manuscript may contain more than one work, it may be the witness of more than one work.

⁷ *TC* ~ *TK* §4.

established to be derivative, i.e. as directly deriving from another extant copy, may have testimonial capacity.

Accordingly, we may speak of the transmission-specific utility of a witness on the basis of its contribution to the text's constitution. The adoption of the factor of "transmission-specific utility" in the *recensio*⁸ chiefly affects decisions regarding the elimination of witnesses from those that might be used for the text's constitution. The issue is to ascertain which witnesses will definitely not serve the purpose of constituting the text. Elimination is typically applied in the case of a manuscript that directly derives from another extant copy, namely a "derivative manuscript" (Latin: *codex [manuscriptus] descriptus*).⁹ This type of manuscript is normally devoid of any transmission-specific utility because its testimonial function is equal to that of the extant copy it directly depends on. It can be assumed that it exhibits a text "worse" than that of its exemplar, due to additional errors, or, in some cases, an "improved" text, owing to the copyist's emendation. It should be noted, however, that observations that are valid for a certain part of a manuscript might not be valid for the manuscript as a whole; the possible composite nature of a manuscript (due, for instance, to the fact that it contains different works, or different copies of the same work) and the conflation of different exemplars in one manuscript, because portions in the exemplar(s) were lacking, are factors that must also be taken into consideration. If one analyzes the portion of a manuscript that corresponds to a particular textual unit, the conclusions only apply to the manuscript as a witness of that specific portion, and not necessarily to the entire manuscript.¹⁰

The idea of the elimination of derivative manuscripts from the number of witnesses used for the constitution of the text was already applied by the humanist Politian (Angelo Poliziano 1454-1494)¹¹ and later independently discovered by others.¹² As the history of textual criticism has shown, a widespread tendency to eliminate witnesses on account of their being

⁸ According to the definition given by Paul Maas, *TK* §2, *recensio* is "to establish what *must* or *may* be regarded as transmitted" (*TC* 1). It is thus a process that, beginning from the extant copies and going back to the prototype, exposes what cannot be considered as transmitted, namely what certainly varied in the transmission process, so that what remains is presumably what is transmitted (see Montanari 2003: 17f.).

⁹ Another possible English equivalent for *codex descriptus* is "apograph" (see, for instance, West 1973: 33, n. 4), but this word is often used in the more general meaning of copy, i.e., any manuscript that was copied from another manuscript.

¹⁰ See Pasquali 1952: 36-38.

¹¹ See *GenL* 17 ~ *GenL* (tr.) 47.

¹² See *GenL* 68, n. 27, and 69 ~ *GenL* (tr.) 98, n. 27, and 99.

derivative has been seen since the second half of the nineteenth century, stimulated by the wish to reduce the number of witnesses for the easier reconstruction of an archetype.¹³ Furthermore, in reference to the principle Paul Maas presents in *Textkritik / Textual Criticism* (henceforth *TK/TC*) §8a, namely,

[i]f a witness, J, exhibits all the errors of another surviving witness, F, and in addition at least one error of its own (“peculiar error”), then J must be assumed to derive from F[,]

Sebastiano Timpanaro asserts that

Maas’s rule has in practice undergone an imprudent attenuation that leaves it not immune to risks. In this attenuated form, it might be formulated as follows: If a witness J presents many errors of another extant witness F, some correct readings absent from F – which however may be the result of conjecture by the copyist of J – and furthermore errors of its own, then J is a copy of F.¹⁴

¹³ The archetype is the oldest lost ancestor of a work that precedes the split of the tradition and that can be reconstructed through the extant textual tradition. The term was made popular by Lachmann in the middle of the nineteenth century (see *GenL* 19-21, 66f. and n. 21, 74 and n. 8 ~ *GenL* [tr.] 49f., 97 and n. 21, 103 and n. 8). The “Lachmannian” meaning of archetype is characterized by “the limitation of the term to lost ancestors alone and, what is more, to ones distinct from the original or official text” (*GenL* [tr.] 50 ~ *GenL* 20). This technical usage implies that the archetype is the result of a reconstruction process, which is based on the witnesses that remain after the elimination of the derivative manuscripts. Only if the remaining witnesses are more than one can a split of the tradition be assumed and a reconstruction of their common ancestor be possible (see *TK* §5). If the whole manuscript tradition of a work can be proved to descend from an extant manuscript, this is the oldest ancestor and its descendants are derivative manuscripts, whereas the descendants of the lost oldest ancestor, i.e., the archetype, are the “material” that is needed for the reconstruction of the ancestor’s text (see Montanari 2003: 330f.). The word archetype is also used in its non-technical, etymological, meaning of original exemplar of which all witnesses of the same work are copies. Because direct evidence of authorial intention is normally lacking in the case of ancient texts, in the absence of contrary evidence, we conventionally assume that the reconstructed form of the text is close to that composed and circulated by the author himself.

¹⁴ Timpanaro 1985: 178: “La norma del Maas ha subito in pratica una attenuazione lassista che la rende non immune da rischi. In tale forma attenuata, si potrebbe formulare così: «Se un testimonio *J* mostra molti errori di un altro *F* conservato, un certo numero di lezioni giuste non presenti in *F* ma che possono essere frutto di congettura del copista di *J*, e in più altri errori, *J* è copia di *F*».” Michael D. Reeve’s criticism (Reeve 1989) of Timpanaro’s 1985 article on the present point, as well as on others, seems to be due to a misunderstanding of Timpanaro’s presentation of the argument. For instance, Reeve (1989: 4) states that Timpanaro rewrites Maas’s rule in

The elimination of presumed derivative manuscripts has also been practised by scholars working with contaminated textual traditions, in which the criterion exposed in *TC* §8a is in most cases inapplicable, as implied by the author himself, who depicts the abstract situation in which the textual tradition is not contaminated (see reference to *TC* §6 below, p. 126). As David C. Greetham has asserted, “the axiom propounded by Maas ... has in general been widely accepted as a necessary means of sorting good (or independent) witnesses from bad”.¹⁵ In fact, such elimination of presumed derivative manuscripts has often become an expedient to save time and work.¹⁶

In the following, I will discuss the category of derivative manuscripts together with their treatment from the specific perspective of their “transmission-specific utility”. In this context, another category, namely inutile manuscripts, can be identified. Decisions regarding the inutility of witnesses are concerned with the way and degree to which these witnesses contribute to the text’s constitution. In a comprehensive approach to the text and the history of its tradition, inutility should actually be written “(in)utility”, because each manuscript copy is also a unique witness to the work; each transcription is the result of a centrifugal movement from the focal point, the original text. At the same time, each transcription reflects the centripetal forces at work in the act of copying, which bring about a system of compromise between the language (and style) of a text and the copyist’s language (and style).¹⁷ Indeed, all types of manuscripts bear details that are useful for the history of the text’s tradition, inasmuch as they inform us about: (a) aspects of the paratext, such as the division of the

accordance with the practice of unnamed scholars and adds: “Strictly, this version is a rider to the original axiom rather than a replacement for it, because on its own it positively requires J to have true readings absent from F if it is to be a copy of F; but perhaps Timpanaro really does intend it as a replacement.” As I hope it is clear from the above translation of Timpanaro’s words, Timpanaro presented neither a replacement, nor a rider, for Maas’s rule, but a formulation of the way in which that rule, beyond Maas’s intention, has often been applied.

¹⁵ Greetham 1994: 309.

¹⁶ See *GenL* 17 and 68-70 ~ *GenL* (tr.) 47 and 98-100.

¹⁷ See Segre 1979: 66. These considerations are related to the concept of “diasystem”, for which see *ibid.*, p. 53-70. In short, each manuscript is a unitary system that is established by the copyist by re-organizing syntactic and stylistic forces of cohesion in the system of compromise between his language (and style) and that of the text as reflected in his exemplar; for the copyist is never passive, but has a tendency to impress on the text the features of his own system, whether consciously or not.

text into sections, titles, forewords, epigraphs and so on;¹⁸ (b) the condition of the text in the exemplar before any changes or damage occurred; (c) how and why manuscripts relate to another exemplar.¹⁹

2. DERIVATIVENESS AND INUTILITY

2.1. Establishing Derivativeness

In the second edition of *TK*, paragraph §8a, with its criterion for establishing that a manuscript is derivative (see p. 4 above), is followed by a paragraph in which “the external state of the text in the surviving exemplar” – further specified as “where physical damage to the text in the exemplar has caused the loss of letters or groups of letters”, etc. – is indicated as a factor that may alone show the direct dependence of a witness on another surviving witness. This factor may also have a “vital” role when the ancestry of a manuscript cannot be established with reasonable certainty.²⁰ Some scholars have noticed that this manner of establishing the derivation of one witness from another is problematic, especially because of its specific assumptions. In fact, Maas’s treatment of elimination is preceded by the following statement (*TC* §6):

[I]t is assumed (1) that the copies made since the primary split in the tradition each reproduce one exemplar only, i.e. that no copyist has combined several exemplars (*contaminatio*), (2) that each copyist consciously or unconsciously deviates from his exemplar, i.e. makes “peculiar errors”.

Inasmuch as the first of Maas’s assumptions presupposes cases in which contamination did not occur, his general criterion does not easily apply – contamination being a normal phenomenon.²¹ Moreover, the factor of the external state of the text would never become relevant, because it should be applied to a manuscript – which may or may not belong to a contaminated

¹⁸ The term paratext was introduced by Gérard Genette in order to define the liminal devices and conventions that form part of the complex mediation between book, author, editor and reader. See, in particular, Genette 1987.

¹⁹ See Bologna 1993: 538.

²⁰ See *TC* 9: “This [i.e., any case in which it is difficult to establish the ancestry of a manuscript] shows us how vital it may be to find positive proofs of the dependence of a witness on another surviving witness.”

²¹ See Timpanaro 1985: 175-178, and also Pasquali 1952: 30, n. 3.

tradition – in which the copyist reproduced its model with perfect accuracy, a situation that does not exist, except in cases of very short texts.²²

In well-known books on textual criticism, however, the proof of a witness' derivativeness is still currently based on the fulfilment of the general criterion and the external conditions of a witness. Martin West, for instance, simply repeats Maas's general criterion in a section beginning: "In the absence of contamination".²³ He then adds in a footnote: "In practice it is easy to mistake an apograph for a closer congener and vice versa. The assumption of direct dependence is more certain if it is possible to point to some physical features of the exemplar."²⁴ A statement like this does not make clear whether and when the physical features of the exemplar should appear in the proof of derivativeness, inasmuch as the assumption regarding derivativeness is said to be "more certain" through some physical features. This implies that without it the assumption of derivativeness is already certain, and that it is actually useless.

As Giorgio Pasquali first emphasized, the aspects of a manuscript that can be considered to be the direct result of particular conditions in another manuscript are the only definite evidence for establishing the derivativeness of the former witness from the latter.²⁵ These aspects constitute "external" evidence in the sense that they are physical conditions as well as the graphic or peculiar visual features of a manuscript that are not intrinsic to the text of the work but are due to accidents in copying, the effects of time on the exemplar, and the gap between the copyist's writing-, language- and knowledge-system and that of the exemplar's copyist. Instances of external evidence are:²⁶

- (1) "windows", i.e., short blank spaces or signs for illegible characters, corresponding to material damage in another manuscript, like holes, ink stains or erased passages;²⁷

²² See Timpanaro 1985: 178 and n. 17. These considerations are what Reeve calls Timpanaro's "amusing objection that the original axiom [of Paul Maas about derivative manuscripts] is useless" (1989: 5).

²³ West 1973: 33f.

²⁴ West 1973: 33, n. 4.

²⁵ As for the elimination of derivative manuscripts, see Pasquali 1952, Chapter 3 and, for a comment on Maas's principle, p. 30, n. 3.

²⁶ What follows is a summary of Montanari 2003: 94-100, in which the limits of the presented cases are also explained. Montanari is commenting on *TK* §8a, in which most of the cases that follow are explicitly mentioned. See also Pasquali 1952: 32-35, and Timpanaro 1985: 165f.

²⁷ See also Reeve 1989: 22.

- (2) “palaeographic” accidents, like corrections or graphic peculiarities, or “codicological” accidents, like the inversion, exchange or loss of leaves;²⁸
- (3) omission of a line, which then results in a lack of logical unity, or a corruption or a lacuna, which “evidently impair the meaning, without constituting a «copyist’s trap» – jumps *du même au même*, similar beginnings or endings of words, letters ... that can be easily confused in a given script, words that can be confused with one another because of phonetic vulgarism, etc.”;²⁹
- (4) readings of the main text and marginal or supralinear additions in a witness that are mingled in another transcription;³⁰
- (5) additions which have been clearly produced in an exemplar;³¹ “documentary” evidence, i.e., more or less explicit statements regarding the source of the copy.³²

The need for external evidence for the proof of the relationship of derivativeness between two or more witnesses is due to the fact that, in practice, the examination of the textual evidence alone turns out to be inconclusive.

When we observe that two or more witnesses coincide in a substantial number of readings (around 90% of the readings), we may suppose a relationship of derivativeness between the two witnesses. The textual evidence can then be tested by examining their agreements in innovation; such agreements characterize a specific constellation of manuscripts by being present in them and at the same time lacking in all the other manuscripts.³³ Agreements in innovation are significant when they help to

²⁸ See also Reeve 1989: 10-13. An important observation is made by Timpanaro: “Lacunas that can derive from material damage ... suffered later by the ancestor have no value as conjunctive errors” (*GenL* [tr.] 105, n. 13 ~ *GenL* 75, n. 13).

²⁹ *GenL* (tr.) 179 ~ *GenL* 152. See also Timpanaro 1985: 166 and n. 3, and Reeve 1989: 16-19.

³⁰ See also Timpanaro 1985: 168f.

³¹ See also Reeve 1989: 20f.

³² Timpanaro 1985: 167, n. 4. Reeve (1989: 30f.) warns that “[s]ubscriptions can also set traps, because scribes occasionally copy them in full, even down to a date or a first person”.

³³ “Agreements in innovation” simply help to identify what did not vary through identifying what varied: they can be observed from the perspective of any point of the textual tradition where different readings occur. Therefore, any reading that is an agreement in innovation is neither erroneous nor correct; it can be a transmission error, a textual error (see n. 39), a presumptive correct reading, or an equivalent reading (see

indicate the nature of the relationship between the manuscripts under examination. Significant agreements in innovation do not include (1) agreement in unintentional error, which can develop through different processes, (2) agreement in trivialization, which may arise independently, (3) agreement in apparent correct readings, which can be easily transmitted through collation with another copy, and (4) agreement in correct reading, which may be due to preservation.³⁴ Significant agreements in innovation can be identified in different stages of the analysis of the textual evidence.

After verifying the readings that occur exclusively in two or more manuscripts, their differences have to be examined; the analysis of the disagreements of a witness with its presumed direct exemplar should provide plausible explanations for each disagreement. At this point, it would be unproblematic to accept that a witness J which has all the errors of another extant witness F and at least one additional error of its own is directly dependent on F, if accounting for all the “errors” were unproblematic. However, it does not always turn out to be so, especially in the case of contaminated traditions. In the phase of the *recensio* it is not always certain that a reading is an error. Accordingly, it might be impossible to establish whether J has an additional error or whether F does. The uncertainty about the quality of a reading remains in the case of an “equivalent reading”.³⁵ Furthermore, it is quite possible that some readings with regard to which the presumed derivative manuscript J does not agree with its presumed exemplar F should be explained as the result of J’s copyist’s conjecture or his collation of more than one source after he noticed a corruption in F. However, the ascertainment of the intentional nature of a specific reading in J that is different from F may then be problematic, for one should be able to establish that the copyist was inspired to change the text of his exemplar on account of easily noticeable corruptions.³⁶ One should also be able to demonstrate that the copyist, who lived in a particular time and place, was able to emend the text in the way we have it. It is thus quite possible that one might not be able to establish

n. 35). The evaluation of an agreement in innovation will establish whether it is an error and what kind of error it is. An agreement in innovation is similar to a “conjunctive error”, in Paul Maas’s terminology (“an error common to B and C of such a nature that it is highly improbable that B and C committed it independently of each other” [TC 43 ~ TK 26], with the important distinction that the notion of innovation does not imply that of error.

³⁴ See *GenL* (tr.) 180 ~ *GenL* 153.

³⁵ By “equivalent reading” (*lezione adiafora* in Italian) a reading that can neither be assessed as correct or erroneous is meant.

³⁶ See Pasquali 1952: 27.

beyond any doubt that J differs from F on a number of “transmission” errors which are innovations by J’s copyist. Moreover, one might not be able to exclude that J’s and F’s copyists produced two different readings using the same text E, here also including the case that one copyist’s reading mirrors that of the exemplar and the other’s does not. Thus, because the analysis of two witnesses’ set of readings can easily reveal how uncertain the conclusions are, external evidence is needed to prove the relationship of derivativeness between two or more witnesses.

2.2. On the Edge of Derivativeness: Inutile Manuscripts

It is not uncommon that the analysis of the variant readings leaves a margin of uncertainty that cannot be further interpreted. Thus, in the absence of any external evidence, J cannot be assigned the status of a derivative copy. In this case too, however, the elimination of such non-derivative manuscripts may be legitimate, as stated by Timpanaro in 1978 and again in 1985, in referring to “elimination of inutile manuscripts” (*eliminatio codicum inutilium*).³⁷ This type of witness, which is on the edge of derivativeness, can safely be evaluated as “inutile” from the point of view of its contribution to the reconstruction of the archetype and hyparchetypes.³⁸ By calling a witness inutile we admit, in fact, that we cannot prove its being the second of two consecutive links in the chain of textual transmission. We therefore take recourse to the assumption that the two links have a common exemplar. Yet for the reconstruction of the hyparchetype to which both witnesses belong we can legitimately use only one of them because their individual contribution does not significantly differ. The case of an inutile manuscript also occurs when J may be assumed to be separated from F by merely one or two copies, and when J

³⁷ Timpanaro 1978: 196, n. 1, and Timpanaro 1985: 187. Unfortunately Greetham (1994: 309), who mentions the elimination of inutile manuscripts propounded by Timpanaro, only partially understood his proposal. In fact, Greetham states that “some recent classicists ... have questioned the value of the *eliminatio*, Timpanaro suggesting the adoption of *eliminatio codicum inutilium* (‘useless’) in place of *descriptorum*”. Of course Timpanaro suggested the elimination of inutile manuscripts (*eliminatio codicum inutilium*) along with, and not instead of, the elimination of derivative manuscripts (*eliminatio codicum descriptorum*), and further pointed out the exceptional case of contaminated derivative manuscripts (see below § 2.3).

³⁸ A hyparchetype is the reconstructed variant-bearer whose stemmatic position is immediately inferior to that of the archetype. The term was introduced by Paul Maas in *TK* §8e (“Hyparchetypus”; see Montanari 2003: 120). For the archetype see n. 13 above.

indeed exhibits a cumulative amount of transmission errors that may have been introduced by those copies. Another typical case in point is that of a text which appears twice in the same manuscript. Because both copies belong to the same manuscript, it is most likely that both descend from a common exemplar, instead of one directly deriving from the other.

2.3. Contaminated Derivative Manuscripts

In analysing the variant readings of a manuscript that might be derivative, one sometimes observes that the copy exhibits a text which is different from that of its presumed exemplar owing to the copyist's emendation. The copyist may have emended the text either by conjecture (*emendatio ope ingenii*) or through the collation with other witnesses (*emendatio ope codicum*). In fact, it is possible that manuscript J, in addition to the errors it shares with its presumed direct exemplar F, has errors of its own that agree with errors in other witnesses, these being "textual" errors, not "transmission" errors.³⁹ In such cases, it is likely that "one can solve the old dilemma of derivative or independent only by considering the more recent manuscripts as derivative manuscripts bearing independent readings".⁴⁰

Witnesses that show contamination and yet can be established as derivative have been called "contaminated derivative manuscripts" by Timpanaro.⁴¹ Establishing that a contaminated witness J derives from F requires a particularly accurate examination on account of the fact that numerous pieces of evidence showing J's dependence on F are not sufficient *per se* to determine its dependence on F and F only; for J should also not be suspected to belong to another specific tradition "that, although extremely disfigured, is still different".⁴² The external evidence clearly has a particularly relevant role in this case. Contaminated derivative manuscripts, however, can actually bear a transmission-specific utility because they may

³⁹ The distinction is explained by Montanari as follows: a copy bears a "transmission" error when it is not true to its exemplar, whereas it bears a "textual" error when it does not reproduce the original (paraphrase of Montanari 2003: 82).

⁴⁰ Nardo 1979: 136 (at the end of a discussion on derivative manuscripts): "Altamente probabile rimane soltanto che dal vecchio dilemma, *descripti* o indipendenti, si possa oggi uscire considerando i *recentiores* come *descripti* portatori di lezioni indipendenti."

⁴¹ See Timpanaro (1985: 186), who quotes Nardo 1979 and also refers to Alberto Blecua, *Manual de crítica textual* (Madrid 1983), p. 45, n. 5.

⁴² Pasquali 1952: 35: "corrottele che ... faccian sospettare di una tradizione sfigurata quanto si vuole, ma diversa". See *ibid.*, p. 35f., and *GenL* 128 ~ *GenL* (tr.) 156.

transmit “readings taken from one or more lost codices”. Accordingly, contaminated derivative manuscripts should not automatically be eliminated because of their derivativeness. On the contrary, they “cease to be subject to elimination” if they preserve “textual” readings that derive from a witness which cannot be unambiguously identified as extant.⁴³

2.4. Inutile Manuscripts by Contamination

When contamination has occurred in a text’s transmission, it is problematic to classify the manuscripts genealogically and also difficult to assess the manuscripts’ usefulness with regard to the reconstruction of the archetype; for in a tradition “disturbed” by contamination, it is unlikely that the process of collation has not affected the testimonial quality of a number of witnesses. In fact, the set of the characteristic features of group *a*, to which the main exemplar A belongs, is blurred by contamination and the characteristic features of group *b*, to which the collated exemplar B belongs, can never be determined with certainty, because the collation of another exemplar occurs unsystematically. It may turn out that the manuscript C can contribute *neither* to the reconstruction of the readings of group *a*, to which it essentially belongs, *nor* to those of group *b* of the collated exemplar. When this is the case, manuscript C can be classified as inutile, insofar as (1) its attestations of group *a* are not absolutely reliable and (2) its peripheral attestations of group *b* are not useful for the ascertainment of the text belonging to the group of the collated exemplar.

Thus, a manuscript can be tentatively eliminated from the number of witnesses that will be examined for the text’s critical constitution precisely because of contamination, given that a reliable genealogical picture of the tradition can be delineated. This implies that the collation of the extant witnesses has to first provide information about different parts of the work and produce a substantial amount of data that has the aim of establishing the genealogical relationships among the witnesses and their transmission-specific utility.⁴⁴

⁴³ Timpanaro 1985: 185f.: “E se un *descriptus* reca lezioni attinte a uno o più codici perduti, ... cessa di essere *eliminandus*.” See also Montanari 2003: 133.

⁴⁴ As observed among others by Pasquali (1952: 36), collating either a single sample or samples that are too short to reliably reconstruct the genealogical relationships of all extant witnesses is a poor method for the genealogical classification of manuscripts, and an especially dangerous one in the case of contaminated traditions, because the process of collation from which contamination derives is not constantly at work throughout the text.

Transmission-specific utility is thus the determining factor for recording the complete text of a witness in the critical apparatus. With regard to manuscripts rendered inutile by contamination, the fact that evidence in C that does not agree with group *a* may have a non-ascertainable nature inasmuch it may be ascribed to either contamination or innovation recommends a prudent procedure. Moreover, the character of the evidence might be confirmed by the later appearance of new witnesses. For these reasons a partial elimination from the critical apparatus of manuscripts determined to be inutile by contamination seems to be more appropriate than a complete elimination: their testimony is taken into account for some samples which are significant with regard to their length and position in the text; they thus remain available for further reflections, possible different judgments, and comparison with other witnesses that might subsequently be retrieved.

A relevant issue underlying these considerations is the potential contribution of contaminated manuscripts, and is the subject of the following.

3. CONTAMINATED MANUSCRIPTS⁴⁵

Contaminated manuscripts, be they derivative or not, shed light on some specific aspects of transmission, change and preservation of the work by indicating possible epicentres of the manuscript tradition and giving clues on the work's circulation. In fact, historically, the more a work circulated the more often contamination occurred, and most likely within a *scriptorium*, or an epicentre of the manuscript tradition. When a *scriptorium* had two or more exemplars of the same work, it was unlikely that it would produce an edition without readings deriving from various exemplars (i.e., a “*ne varietur*” edition); indeed, one should assume that different types of collations took place.⁴⁶ If the witness B collated by C's copyist belongs to a group *b* that can be poorly reconstructed through the extant manuscripts, for example, because of lacunae, damaged folios, and so on, the contaminated manuscript C may be of great help for the reconstruction of group *b*'s text by throwing light on obscure passages. Moreover, contaminated manuscripts may also point to extra-stemmatic

⁴⁵ The expression “contaminated manuscript” is actually a short form to indicate the nature of the handwritten text that a material unit bears. The term contamination is not used with reference to the materiality of a manuscript, but to its textual content.

⁴⁶ See Segre 1961: 64f.

ancestors, inasmuch as their readings preserve traces of a “completely different branch or tradition” for which no other witnesses are left in the extant material.⁴⁷

3.1. Classifying Contaminated Manuscripts

The usually complex picture of a contaminated tradition can be clarified somewhat through discerning the contamination process on the basis of hypotheses about how the copyists actually worked. According to Cesare Segre,⁴⁸ a distinction (discussed below) can be made according to (1) the frequency of the copyist’s collation and (2) the object of contamination. It should be noted that even though the hypothesis of contamination should be based on the errors of a group, rather than on those of a group representative, a contaminated manuscript C shows more of the errors and characteristic readings of manuscript B than of its reconstructed ancestor *b*, because the farther we are from the archetype, the more numerous are the innovations in the witnesses.⁴⁹

3.1.1. Frequency of the Copyist’s Collation

The contamination process can be classified from the viewpoint of the degree of the copyist’s collation. A copy could have: (a) sporadic contamination, (b) frequent contamination, or (c) full contamination, where all the differences between the collated exemplars are recorded. The manner in which a text has been collated and the degree of its contamination can seriously influence the axis of errors and characteristic readings regarding a manuscript, and to an extent that the results of examination of the genealogical relationships between manuscripts are highly distorted. Moreover, the occurrence of both frequent and full contamination suggests that the copyist, or the copyist of the exemplar on which our manuscript depends, was one who sought out variant readings. However, it should be noted that the line between contamination and recasting can be a fine one: a copyist who intervenes when he encounters difficulties in his main exemplar might also emend the text by conjecture and should therefore also be considered a potential creator of new

⁴⁷ *GenL* (tr.) 179f. and 184, n. 52 ~ *GenL* 153f. and 158, n. 52.

⁴⁸ See Segre 1961: 63f.

⁴⁹ *Ibid.*, p. 1961: 66.

readings.⁵⁰ The typology of copyists is decisive in this case: a learned copyist is a typical source of a copy that presents contamination and readings that may be conjectures.⁵¹

3.1.2. Object of Contamination

Objects of contamination can be (1) exemplars or (2) readings. In the case of contamination of exemplars (1), the exemplar is alternately only one, even though the copyist actually used two manuscripts, because he needed a second, for example, to complete an incomplete text, or because one or the other was more legible or authoritative for some sections of the text but not for the text as a whole. In the case of contamination in reading (2), the exemplar is potentially not one but many at any point of the text: the copy was actually produced by drawing on more than one exemplar in a process of silent collation. The copyist has copied from exemplar A, but (2.1) also collated it with another exemplar B (simple contamination), or (2.2) has collated it only at certain points with another exemplar B (fragmentary contamination), or (2.3) with B, D, etc. (multiple contamination).

It is very unlikely that external evidence (see p. 7f. above) of derivativeness in a given witness is transmitted through contamination. For example, it is unlikely that an evident corruption like a lacuna in C that is present in the collated copy B, is not found in the main exemplar A, but the converse is likely to be true: a lacuna in C, which is present in the main exemplar A, is not found in the collated copy B, due to the fact that this part of the text was not collated or, for some reason, escaped the attention of the copyist. If external evidence cannot help to establish which group the main exemplar belongs to because “genuine corruptions or mechanical lacunas are lacking or are too infrequent”,⁵² the following should be taken into consideration: the copyist who is collating a copy B with the main exemplar A is more likely to be attracted by conspicuous variations in B, rather than by variant readings that require attentive concentration, like graphic, phonetic and

⁵⁰ *Ibid.*, Segre 1961: 65: “Mentre la contaminazione sporadica corrisponde a un intento di fedeltà, la contaminazione fitta o multipla suggerisce un senso di relatività, invita a raggiungere, con mezzi autonomi, una almeno speciosa scorrevolezza: il copista si fa, di cercatore, creatore di varianti. Ne deriva che, qualora alla contaminazione abbiano contribuito esemplari perduti di alta antichità, la fiducia nei loro rappresentanti contaminati deve essere contrappesata da un severo giudizio su eventuali congetture e rimaneggiamenti seriori.”

⁵¹ See Pecchia 2009: §5.

⁵² *GenL* (tr.) 177 ~ *GenL* 151.

morphological variant readings, particles and monosyllabic words. It is thus more likely that a manuscript belongs to the tradition of the exemplar with which it agrees on numerous variant readings that suggest little need for perspicacity in the copyist. If this phenomenon is also not clearly visible, another criterion might be chosen, namely that of the most economical premise, which assumes a minimum number of sources of contamination.⁵³

4. SAMPLES FROM THE EIGHTH CHAPTER OF THE VIMĀNASTHĀNA, THIRD SECTION OF THE CARAKASAṂHITĀ

Examples of the identification of different types of witnesses according to the principle of the transmission-specific utility are given in the following sections. The textual tradition under examination is that of the Carakasamhitā (CaS), more specifically the eighth chapter of its third section, the Vimānasthāna (Vim.).

Observations concerning the text of the Vim. as transmitted in a specific manuscript allow us to draw conclusions regarding the manuscript as a witness of the Vim. text, but not regarding the entire manuscript. The manuscript as such may in fact contain a much wider text (i.e., more than just the eighth chapter of the Vim.), for which different considerations may be necessary. This holds true even if the manuscript contains other parts of the CaS because at least at a certain point of its history, the CaS also circulated as a composite work, as a set of texts, each *sthāna* being a distinct unit.⁵⁴ The extant copies of the CaS are the result of a long process of transmission: the text of the CaS has been copied and re-copied by copyists of varying proficiency and ideologies through many centuries. The manuscripts of the Vim. that are currently available to the above-mentioned project⁵⁵ are fifty-three. The work called CaS is almost two millennia old,⁵⁶ but as for the material textual tradition of the Vim. we are chiefly concerned with a period of approximately four centuries, because the oldest dated available CaS manuscript is from 1592 (*saṃvat* 1649, according to

⁵³ See Avalle 1972: 82-86. The criterion of the most economical premise presents a basic methodological problem, which Timpanaro expresses as follows: “If in every case of innovation one prefers the more economical hypothesis, the majority becomes a totality, while the minority is cancelled out” (*GenL* [tr.] 182 ~ *GenL* 155).

⁵⁴ See Pecchia 2009: §2.

⁵⁵ See n. 1 above.

⁵⁶ See Meulenbeld (1999: 114): “The philosophical material in the *Carakasamhitā* ... suggests that the author called Caraka cannot have lived later than about A.D. 150-200 and not much earlier than about 100 B.C.”

the colophons in Sūtrasthāna and Cikitsāsthāna).⁵⁷ Contamination can be widely observed in the manuscript tradition. In each family, the witnesses agree on a relatively small set of readings because some manuscripts also present agreements with other families, thus revealing contamination.⁵⁸

4.1. The *R* Family

A case in point is presented by the following group of eight witnesses, written on paper, in different types of *devanāgarī* script:

B1, date 1797, f. 46r-65r (ca. 20 folios, out of 65)

B5, no date, f. 136r-153r (ca. 18 folios, out of 39 ~ Vim. only)

Bo, date 1864, f. 14v-26r (ca. 12 folios, out of 254)

Ib3, no date, f. 197v-226r (ca. 18 folios, out of 426)

Jn1, no date, p. 29-60 (ca. 31 pages, out of 60 ~ Vim. only)

Jn2, no date, p. 42-85 (ca. 43 pages, out of 85 ~ Vim. only)

L1, no date, f. 174v-199r (ca. 25 folios, out of 480)

T1, no date, f. 253r-286v (ca. 34 folios, out of 789)

These constitute a family which will be here conventionally called *R*. It is identified on the basis of the agreements in innovation⁵⁹ that the manuscripts show in contrast to all the other manuscripts.

Before entering into details, a few words are needed in order to explain how the collation data are presented in the following lists.⁶⁰ The text of the CaS is quoted according to the version edited by Trikamji, our reference text, which is given in square brackets. The text is preceded by the paragraph and line numbers in which it appears in the reference text.

⁵⁷ I.e., the Alipur manuscript, Bhogilal Leherchand Institute of Indology, no. 5283 in Vol. 4 of the handlist of the library.

⁵⁸ For the genealogical relationships between the manuscripts and for the manuscripts' group designations concerning CaS Vim. 8, see the article by Philipp A. Maas in the present volume.

⁵⁹ See p. 8f. above and n. 33.

⁶⁰ The textual material contained in the manuscripts has been processed by means of the *Classical Text Editor (CTE)* software, which was designed by Stefan Hagel. It was developed in connection with an Austrian Academy of Sciences project begun in March 1997 by the Commission for Editing the Corpus of the Latin Church Fathers (CSEL). Hagel has also provided the software with a number of functions that meet the needs of scholars working on Sanskrit texts.

Witnesses that agree with Trikamji's text are indicated immediately after the closing square bracket. They are followed by readings that contain a plus, or a minus, or a change in comparison with Trikamji's text,⁶¹ separated by a semicolon. Variant readings of the witnesses of the *R* family are given in every detail, while readings that are found in other witnesses are only summarized.

Unless other indications are given, the lists contain a selection of readings that includes only those readings in which the text's variance does not consist of common scribal, clearly unintentional, errors.⁶² For, only in this case of non-unintentional errors does the origin of the variance require an explanation *ad hoc*, which is not necessarily acceptable if applied to other variant readings. However, common scribal errors are mentioned if they are of any interest in the comparison of the readings of two witnesses.

Readings are taken from two parts of Vimānasthāna 8, which are here conventionally called A and C: Part A refers to Trikamji's paragraphs 1-14, with 756 entries in the collation, and Part C refers to paragraphs 67-92, with 739 entries in the collation.⁶³

We now go back to the agreements in innovation that the above-mentioned eight manuscripts share against all the other manuscripts.

List 1: *R* agreements in innovation (Part A)

- (1) 4,1 [*tato*] other mss.; *ato R* (*ate* Bo)

⁶¹ As Tov (1992: 236) observes, "any plus element in one text could be considered either an addition in that text or an omission in another one, depending on the direction of the textual phenomenon".

⁶² Variant readings are considered due to common unintentional (also called accidental, or mechanical, or involuntary) scribal errors when their variance consists in either haplographies, dittographies and graphic metathesis that produce obviously meaningless semantic units, or changes in *akṣaras* and groups of *akṣaras* that may easily occur due to peculiarities of the script of the manuscripts under examination. In our case, because the script is *devanāgarī*, unintentional changes mainly consist in missing or additional *anusvāra*, *visarga* and "r" written above the upper line of the letter, missing or additional elements that cause "a" and "ā", "o" and "au", "e" and "ai" to interchange, and graphic similarity that generates confusion of "ta" and "na", "ca" and "va", "ma" and "bha", "ma" and "sa". For a typology of common unintentional scribal errors, see for instance Katre 1954: 56-58, Greetham 1994: 280ff., Willis 1972: 49 and Part II (typology based on Latin texts), and Tov 1992: 236-258 (typology based on the witnesses of the Hebrew Bible).

⁶³ These figures refer to the arrangement of the November 2008 collation, after which no substantial changes were made.

- (2) 7,6 [*parihārārthaṃ paradoṣapramāṇārthaṃ*] *parihārārthaṃ pramāṇārthaṃ* *R* (T1[ac]⁶⁴; *parihāṃrārthaṃ* etc. Jn1; *parihārārtha* etc. B1); the variant readings of the rest of the transmission are characterized either by the presence or absence of °*arthaṃ paradoṣa*°, or also by the absence of *paradoṣapramāṇārthaṃ*
- (3) 11,6 [*puṣpa*] other mss.; *puṣpaphala* *R*; *puppaphala* V5b; *phalapuṣpa* T3
- (4) 13,26 [*pratīkārāṇāṃ*] *pratīkārādīnāṃ* *R* (*pratīkārādīnā* B1); *pratīkārādīnāṃ* some of the other mss.; *pratīkarādīnāṃ* some of the other mss.

Within the *R* family, the manuscripts B5, Jn1 and Jn2, and Ib3 and T1 show particular affinities. In the following B5, Jn1 and Jn2 will be examined.

4.2. B5Jn1Jn2

B5, Jn1 and Jn2 have 41 agreements in innovation in Part A and 47 in Part C. Their only agreements in long lacunae are in 8.13.29-32, in which B5 and Jn1 read *praveśiṣṭavyam*, and Jn2 *praveśitavyaṃm*, instead of *praveśinā sārdhaṃ puruṣeṇa ... ācaratānupraveṣṭavyam*, and in 8.87.15-16, in which B5, Jn1 and Jn2 read *asmin vyādhāv* instead of *asmin deśe ... yuktam asmin vyādhāv*.

List 2: Selection of B5, Jn1 and Jn2 agreements in innovation

(Part A)

- (1) 4,5 [*jñāpana*] *jñānanā*
- (2) 8,8 [*dākṣya*] *dīkṣya*
- (3) 8,11 [*-pratīkaram anuraktaṃ ca*] *pratipattikaraktaṃ*
- (4) 9,7 [*-rajata-*] *rajataye*
- (5) 12,3 [*bhiṣajaś*] *bhiṣaś*
- (6) 13,2 [*cānuśiṣyāt*] *tān* śiṣyān**
- (7) 13,2 [*brahmacāriṇā*] *brahmacāriṇī*
- (8) 13,6 [*madarpaṇena*] *tadarpaṇena*
- (9) 13,26 [*tathaivāsannihiteśvarāṇāṃ*] *tathaivāsannihiteśvarīṇāṃ*
- (10) 13,35 [*pramāṇam āturyasya*] *pramāturasya*
- (11) 14,8 [*idaṃ*] *ide*
- (12) 14,8 [*siddhācāryeṣu*] *tiddhācāryeṣu*

(Part C)

⁶⁴ See Appendix for the readings before correction (ac) and after correction by second hand (²pc) in T1.

- (13) 81,2 [-vidhi-] *vibhi*⁶⁵
 (14) 81,3 [*bhedāgram*] *nedāgram*
 (15) 81,4 [*ākhyāyamānam*] *ākhyāyanāmam*
 (16) 82,3 [*asmai*] *aster*
 (17) 84,1 [*daśavidhaṃ tu*] *tu daśavidha tu*
 (18) 84,2 [*saṃdarśayiṣyāmaḥ*] *radarśayiṣyāmaḥ*
 (19) 84,4 [*kārya-*] *kāryaṃ dhātusāmyaṃ kāryaṃ*
 (20) 86,4-5 [*kāryasyābhinirvartane samartho na veti*]
kāryasyābhivartaneti
 (21) 86,5 [*yair upapanno*] *rupapanno*
 (22) 87,6 [-*praṇipātagamanādiyukti-*] *praṇipātayukti*
 (23) 87,6 [*saṃśodhanopaśamane*] *saṃśodhane*

These readings are typical transmission errors, owing to misreading, miswriting, omissions, additions, etc., that may have been unintentionally produced by the copyists. However, their occurrence in these three copies only is suspicious, inasmuch as it is not very likely that three different copyists by accident independently produced the same innovation at the same point of the text.

The examination of the agreements in innovation reveals that Jn1 and Jn2 never agree against the rest of the witnesses in Part A and that they agree 7 times in Part C; B5 and Jn2 share 24 readings in Part A and 11 in Part C, while B5 and Jn1 share 16 in Part A and 18 in Part C. In order to ascertain the nature of these witnesses, an analysis of their agreements in innovation is required; subsequently, the witnesses have to be tested against the variant readings upon which they do not coincide, in order to establish whether their divergences were generated by the copyist's innovations (either intentional or unintentional) or by contamination. However, some preliminary remarks have to be made: first, even though the three manuscripts are not dated, their scripts testify two very different stages of the *devanāgarī* script. B5 bears an old type, rich in *pr̥ṣṭhamātrā* vowels,⁶⁶ while Jn1 and Jn2 exhibit a very recent type. Second, the material on which Jn1 and Jn2 are written is very recent. Further, Jn1's and Jn2's single readings⁶⁷ are more numerous than the ones in B5. This preliminarily

⁶⁵ “bhi” may be due to anticipation of the following *bhedah*.

⁶⁶ In Part A, “e” is written 18% of the time as a *pr̥ṣṭhamātrā*; “ai”, “o” and “au” occur 11% of the time with *pr̥ṣṭhamātrā*.

⁶⁷ “Single reading” is used throughout the present paper for the Latin expression *lectio singularis*, which is translated in different ways by different authors. For instance, it is rendered as “peculiar reading” by Flower, in *TC*, and as “unique reading” by Most in *GenL* (tr.). I have a slight preference for “single reading” because it is etymologically

suggests the transmission-specific inutility of Jn1 and Jn2 since their contribution to the reconstruction of an ancestor would be negligible in comparison with that of B5.

4.3. Jn2

B5 and Jn2 have a very high amount of readings in common: approximately 94% in Part A and 93% in Part C.⁶⁸

List 3: Selection of B5 and Jn2 agreements in innovation

(Part A)

- (1) 1,1 [-*bhiṣagjitīyaṃ*] *bhiṣagjatīyaṃ*
- (2) 3,3 [*parīkṣeta*] *parīkṣeta saṃ*
- (3) 4,2 [*paridrṣṭa-*] *pahiridrṣṭa*
- (4) 4,4 [-*jñam*] *sṭham*
- (5) 4,4 [*anahanīkṛtam*] *anāṃhakṛt*m*
- (6) 4,4 [*akopanaṃ*] *akaupanaṃ*
- (7) 4,6 [*sukṣetram*] *suṣevam*
- (8) 4,7 [*suśiṣyam*] *suṇiṣyam*
- (9) 5,2 [*tatprasādāt*] *ūtprasādāt*
- (10) 6,2 [*cety*] *t**
- (11) 7,5 [*anukrāman*] *anukramate*⁶⁹

closer to the Latin expression and because “single” cannot be easily confused with an attribute that might be used to qualify a reading, as seems to be the case especially in Flower’s translation.

⁶⁸ The total amount of readings that the two witnesses might share is calculated by first deducting the number of the single readings, because in this case we are sure that the two manuscripts do not agree. The total number of entries (for example 756 in Part A), minus the number of single readings of the manuscript that bears the highest number of single readings (in this case Jn2, with 52), gives the number of lemmata (704) that correspond to 100% of the readings upon which the two witnesses might agree. Because B5 and Jn2 agree on 665 readings, they have a 94% agreement rate. The calculation is based on two assumptions: first, some single readings in one manuscript may coincide with cases of single readings in the other manuscript under consideration; the opposite case, that no single readings in one manuscript coincide with cases of single readings in the other manuscript, does not occur in the manuscripts under consideration here and it is highly unlikely for manuscripts that are genealogically related. The second assumption is that the situation described in the first assumption occurs in the totality of the cases for the manuscript that has the lower number of single readings. Because this only approximately corresponds to the actual situation, the result that is obtained is approximate.

⁶⁹ The reading can be explained as deriving from *anukramāt* (variant reading in B1L1), in which the vertical line in *mā* was interpreted as a *prṣṭhamātrā* “e”.

- (12) 7,6 [-*pramāṇārthaṃ*] *pragāṇārthaṃ*
- (13) 13,7 [*bhavitavyam*] *ravitavyam* |
- (14) 13,10 [*cābhyanujñātena*] *ma vānabhyanujñātena*
- (15) 13,12 [-*arthopāharaṇe*] *arccāvāharaṇe*
- (16) 13,38 [*nātyartham*] *nā artham*
- (17) 14,13 [*nyathā tv*] *nyathāṃ*
- (Part C)
- (18) 67,7 [*buddhiḥ*] *sa buddhitir iti* (with B5[ac])⁷⁰
- (19) 80,3 [*kaś cātra*] *katvāt**
- (20) 81,6-7 [*parīkṣasya bhinnasyābhilaṣitam arthaṃ śrotum aham anyena parīkṣā vidhi bhedenānyena*] *parīkṣasyānyeva* B5; *parīkṣayānyeva* Jn2
- (21) 86,1 [*bhiṣaṇ nāma*] *bhiṣaṃgāma*

Here too we have transmission errors. For some of them, it is not likely that two copyists independently made the same error at the same point of the text when reading the same *akṣaras* in their common exemplar. It is less problematic to accept that *akṣaras* were not correctly transcribed by a copyist and were then “faithfully” reproduced by another copyist according to the new form they had assumed. For instance, looking at entry no. 16 in the list above, it is not very likely that the copyists of B5 and Jn2 independently wrote *nā artham* from an exemplar which had *nātyartham*, since the similarity of “tya” and initial “a” is not very common, even though it can be observed in some styles of *devanāgarī* script. It is thus highly probable that the misinterpretation occurred in one manuscript and its result was subsequently copied by another copyist, who merely reproduced what he could read in his exemplar, without further intervention either by conjecture or contamination. The same holds true for the entries no. 5, 7-11 and 13-15. Similar considerations can be made especially for the additions in entries no. 2 and 3.

At this point the question arises whether both B5 and Jn2 derive from an exemplar that already contained these readings, and both manuscripts transmit them, or whether one manuscript was directly copied from the other. An examination of the readings where they do not coincide reveals that Jn2’s readings can be explained as unintentional errors, whose antecedent can be easily seen in B5 readings; conversely, B5’s single readings cannot be explained as originating from readings in Jn2.

⁷⁰ Other manuscripts in the *R* group read *sa buddhir iti* or *sa buddhim iti*.

The following two lists present a selection of readings where Jn2 and B5 do not coincide. List 4a shows cases where Jn2 agrees with some other manuscript; List 4b shows some of Jn2's single readings, which total 51 in Part A and 47 in Part C. Jn2's readings are recorded first, followed by B5's readings. Jn1's readings are here listed because the three manuscripts are closely related. Other witnesses of the *R* family are recorded only if they share readings with one of the three manuscripts above; witnesses that do not belong to the *R* family are indicated by "etc.". The reading that is followed by a siglum only is a single reading.

List 4a: Selection of Jn2 readings that diverge from B5 readings

(Part A)

- (1) 3,5 [-*pūjitaṃ*] Jn2 etc.; *ptajitaṃ* B5Jn1 etc.
- (2) 3,6 [-*doṣaṃ*] Jn2 etc.; *dāṣaṃ* B5
- (3) 7,1 [*adhyayana-*] B5 etc.; *ayana* Jn2 etc.; *adhāyana* Jn1
- (4) 8,4 [*anahakṛtaṃ*] Jn2 etc.; *anahakṛtāṃ* B5Jn1
- (5) 13,13 [-*lābhaṃ pretya ca*] B5Jn1 etc.; *lābhaṃ ca pretya* Jn2 (some manuscripts read *lābhaṃ ca pretya ca*)
- (6) 13,23 [*mahājanadveṣiṇāṃ*] B5Jn1 etc.; om. Jn2 etc.
- (7) 14,9 [*teṣu te*] Jn2 etc.; *teṣu te samyag vattitavyaṃ* | *teṣu te* B5; *teṣu te samyag vartitavyaṃ te teṣu te* Jn1

(Part C)

- (8) 80,3 [*bhiṣajā*] *bhiṣajānāṃ ca* Jn1Jn2; *bhiṣajā [nāṃ ca pra]* B5
- (9) 89,5 [*vaikāriṇāṃ*] B5L1 etc.; *vaikārikāṇāṃ* Jn1Ib3T1 etc.; *vikārikāṇāṃ* B1BoJn2
- (10) 89,7 [*cāvyāpattir*] *cāpattir* B5; *vyāpattir* Jn1Jn2
- (11) 91,1 [*anubandhas tu*] *anubandhasa* Jn1Jn2L1; *anubandhas ta* B5

List 4b: Selection of Jn2's single readings together with B5 and Jn1 readings:

(Part A)

- (1) 3,3 [*vividhāni hi*] *vidhani hi* Jn2; *vi[dho]<dhā>ne hi* B5; *vidhāne hi* Jn1
- (2) 3,5 [*sumahadyaśasvi*] *mahaḥtayaśāsvi* Jn2; *maha[p]tayaśasvi* B5; *mahatayaśasvi* Jn1
- (3) 3,10 [*lakṣaṇavac codāharaṇavac*] *lakṣaṇāc codāharaṇavac* Jn2; *lakṣaṇāc codāharaṇavaṃc* B5; *lakṣaṇacodāharaṇavac* Jn1
- (4) 4,6 [*ācāryaḥ*] Jn1 etc.; *ācā[ryaṃ] <rya>ḥ* Jn2; *ārcāryaḥ* B5
- (5) 5,1 [*tam*] *sa tam* Jn2; [*sa*] <*ta*>*m* B5; *sam* Jn1L1
- (6) 5,3 [*dṛḍhatāyām*] *dṛḍhūḍhanāyām* Jn2; *dṛ[dūṃ]<dum>²ḍhanāyām* B5; *dṛḍhanāyām* Jn1 etc.
- (7) 6,2 [*tadvidya-*] *tadidya* Jn2; *tadhidyā* B5Jn1
- (8) 7,4 [*sukhopaviṣṭo*] *stucopaviṣṭo* Jn2; *suṣopaviṣṭo* B5 etc.; *muṣopaviṣṭo* Jn1
- (9) 7,4 [-*purah-*] *punarasuḥ* Jn2; *punaraṣuḥ* B5; ----- Jn1

- (10) 7,7 [*'parāhṇe*] *uparāhṇe* Jn2; *'parāhṇe* B5Jn1 etc.
- (11) 8,4 [*aminminam*] *amiṇmiṇe* Jn2; *amiṇmiṇeṃ* B5Jn1
- (12) 8,5 [*medhāvinam*] *medhāvinanam* Jn2; *nedhā[ā]vimanam* B5; *nidhāvinam* Jn1
- (13) 11,3 [*kuśāstīrṇam*] *kuśā[stri]<stri>(ṇ)ṇa* Jn2; *kuśāstīrṇa* B5L1 etc.; *kuśāstrām* Jn1
- (14) 11,6 [*-sarṣapākṣatopaśobhitam*] *sarṣavā[kṛ]<kṣa>topaśobhitam* Jn2; *sarṣavākṣatopaśobhitam* B5Jn1
- (15) 11,7 [*aiṅgudībhir*] *iṅgudībhir* Jn2; *eṅgudībhir* B1B5Jn1
- (16) 11,7 [*samidbhir*] *samindir* Jn2; *samidrir* B5Jn1
- (17) 13,2 [*satyavādināmāṃsādena*] B5Jn1 etc.; *satyavādināmā[sadi]<sāde>na* Jn2
- (18) 13,3 [*medhyasevinā nirmatsareṇāśāstra-*] *nirmatsareṇa* *me[ya]<'ya>mevinī* Jn2; *nirmatsareṇa me'yamevinī* B5; *nirmatsareṇāma'yamevinī* Jn1
- (19) 13,4 [*ca te*] *cānte* Jn2; *ca tai* B5Jn1
- (20) 13,5 [*anyatra*] Jn1 etc.; *aty atra* B5; *ity atra* Jn2
- (21) 13,7 [*-hitānuvartinā*] *hetunānuvartinā* Jn2; *henānuvartinā* B5; *hetātu[rva]vartinā* Jn1
- (22) 13,8 [*anutsekenāvahitenānanya-*] *anutsukenāvahite[vā]<nā>'nasya* Jn2; *anutsukenāvahitenā'nasya* B5; *anutsukenāhavahitevā'nasya* Jn1
- (23) 13,9 [*vinītenāveksyāveksya-*] *vinītevanāveksyaveksya* Jn2; *vinīte[va]nāveksyaveksya* B5; *vinītenāveksyaveksya* Jn1
- (24) 13,13 [*ca*] B5Jn1; om. Jn2
- (25) 13,19 [*aśauṇḍenāpāpenāpāpa-*] *aśau[ṇ(ḍa)]<ṇye>na nāpāpenā* Jn2; *aśauḍenāpāpenā* B5Jn1
- (26) 13,25 [*-duḥkha-*] *ḍkha* Jn2; *.u(h)kha* B5; --- Jn1
- (27) 13,28 [*bhartrāthavādhyakṣeṇa*] *athavādhyakṣeṇā* Jn2; *vartrāthavā[dhye]<dhyā>kṣeṇā* B5; *caturarthe vādhyakṣeṇā* Jn1
- (28) 13,34 [*-gateṣv anyeṣu*] *gatedhanye* Jn2; *gateṣv anye* B5Jn1
- (29) 14,5 [*cābuddhimatām*] *cābuddhima[to]<tā>m* Jn2; *cābuddhimātām* B5Jn1
- (30) 14,9 [*vartamānasyāyam*] *varttamānasyā[ya]* Jn2; *vartamānasyāya* B5Jn1
- (31) 14,14 [*hy ācāryo*] *vācāryā* Jn2; *yocāryā* B5; *pvocāryā* Jn1
- (32) 14,15 [*cādhyāpana-*] B5Jn1 etc.; *cādhyana* Jn2
- (33) 14,15 [*anyaiś*] *anye* Jn2; *a[rnye]<nye>ś* B5; *arnyeś* Jn1
- (34) 14,16 [*-vidhir*] Jn1 etc.; *vitrir* Jn2; *vivvir* B5

(Part C)

- (35) 67,1 [*pravartetāyurveda*] Jn1 etc.; *vartte āyurveda* Jn2; *varttelāyurveda* B5
- (36) 67,2 [*-prativākya-*] *prativāk** Jn2; *prativāka* B5Jn1
- (37) 67,5 [*sarvaṃ*] B5Jn1 etc.; *sarve* Jn2
- (38) 67,7 [*-bhūtāḥ*] B5 etc.; *sūtā* Jn2; *bhūtā* Jn1
- (39) 68,3 [*praśaṃsanti*] *śaṃsanti* Jn2; *śaśasaṃti* B5Jn1

- (40) 68,4 [-*kāryayoni*] B5 etc.; *kāryayāni* Jn2; *kāryayoni* Jn1Ib3T1 etc.
(41) 70,1 [*yad*] B5Jn1 etc.; *vad* Jn2
(42) 74,2 [-*nimittah*] *nitistah* Jn2; *nitisrah* B5Jn1
(43) 77,1 [*saiva*] *sauca* Jn2; *sauva* B5; *sau* Jn1
(44) 78,3 [*kāryāṇām*] *kaṣāyāṇām* Jn2; *kaṣāyāṇām* B5; *kaṣāpāṇām* Jn1
(45) 78,3 [*atas tūpāyah*]⁷¹ *ato nyupāyāḥ* | Jn2; *ato bhyupāyā va* B5; *ato bhyupāyā* Jn1
(46) 80,6 [*kva ca nivṛttiḥ*] *katicin nivṛttiḥ* Jn2; *kva ci nivṛttiḥ* B5; *kvacin nivṛttiḥ* Jn1L1
(47) 80,6 [-*nivṛtti-*] *nivṛttir* Jn2(ac); *nivṛtter* Jn1Jn2(pc)B5 (*nivṛtter* L1)
(48) 81,5 [*bhavān*] *dhāṃtavān* Jn2; *dhnāṃtavān* B5 (*dhātavān* B1); *tavān* Jn1 etc.
(49) 81,5 [*prcchaty*]⁷² *ivyacchaty* Jn2; *i[ba]chaty* B5; *ity* Jn1Ib3 etc.
(50) 81,7 [-*bheda-*] Jn1 etc.; *bhedevaṃna* Jn2; *bhedevaṃta* B5
(51) 82,4 [*āptam*] *āseṃ[pte]<pta>m* Jn2; *āpta[pte]m* B5; *ām* Jn1
(52) 85,2 [*vyākhyāsyate*] *nuvyākhyāsyate* B5Jn1 etc.; *tu vyākhyāsyate* Jn2
(53) 86,1 [*kāraṇam*] B5Jn1 etc.; *kāraṇam tu* Jn2
(54) 86,7 [*bhiṣagguṇā*] *bhiṣak*guṇai* Jn2; *bhiṣaggu[ṇo]<ṇā>* B5; *bhiṣagguṇa* Jn1
(55) 87,1 [*tad yad*] B5Jn1 etc.; *tadvad* Jn2
(56) 87,9 [*adravyabhūtam*] *dravyabhūtaṃ ca* Jn2; *davyabhūta* Jn1 B5
(57) 87,17 [*upaśamayati*] *upa[śama]<śma> iti* Jn2; *upasamabhati* B5; *upaśama iti* Jn1; *upaśaya iti* L1

This long list represents in detail what a very incorrect witness is like. The variance-generative process in Jn2 requires the assumption that its exemplar was inaccurately copied, most probably due to limited familiarity with the exemplar's script. In fact, Jn2's readings often seem to derive simply from interchange of letters. In a number of cases, they would agree in innovation with B5 if no further error would have occurred in Jn2. List 4b, Part A, records 23 single readings in B5 (out of 39) that correspond to single readings in Jn2. In many instances, B5's readings could be the direct antecedents of Jn2's readings, especially the ones in entries no. 1-6, 9, 12, 15, 17, 19, 23, 26, 28-29, 31, 36, 39, 42-44, 46-50, 54 and 57 in List 4b. In entry no. 2, a "pa" in B5 that was not completed in order to indicate its deletion was interpreted as "ḥ" by the copyist of Jn2. In no. 4, the *akṣara* "cā" within the word *ācārya*, corrected from "rcā", was first followed by "ryam" and then corrected to "rya", maybe because the sign above the line (the "r" in "rcā") had been interpreted as an *anusvāra*. In no. 5, 6 and 23, a

⁷¹ All manuscripts, with minor differences, agree upon the reading *ato 'bhyupāyāḥ*.

⁷² Other manuscripts, including those belonging to the *R* family, read *icchaty*.

correction in B5 was not properly understood.⁷³ In no. 15, the first “i” in *iṃgudībhir* was based on a *prṣṭhamātrā* “e” in *eṃgudībhir* (as it is written in B5), which, in its turn, may have been the result of an unintentional error that occurred through transcribing *aiṃgudībhir*. In no. 17, the fact that “e” is not infrequently written as *prṣṭhamātrā* in the exemplar may have at first induced Jn2’s copyist to read the sign above the line as forming an “i”, hence the *sadi* before correction deriving from *sāde* in the exemplar; a similar process can be seen in no. 1 and 29. In no. 19, *ca tai* could be wrongly read as *cānte* if it was written with “ai” with a *prṣṭhamātrā* in the exemplar, as it is actually in B5. The other readings can also be explained as errors that unintentionally occurred. Even though they do not necessarily presuppose B5, they are not in contradiction with the latter’s readings (see, for instance, the reading in no. 37, in which Jn2’s copyist read an *anusvāra* as “e”). Only very few readings remain to be explained without recourse to B5’s readings: in entry no. 53 (*kāraṇaṃ tu* Jn2, against *kāraṇaṃ* of all the other manuscripts), the *tu* of Jn2 may be considered as a spontaneous addition on the part of the copyist, caused by his internal dictation of the text with regard to its thematic structure; at this point, in fact, the text does have a change of subject. In entry no. 56, the *ca* in Jn2 may be a case of perseveration of the almost immediately preceding *adravyabhūtaṃ ca*.

So far Jn2 has been shown to be an inutile manuscript because it mostly agrees with B5 or, when it does not, its readings can be explained as deviations from an exemplar that is either very close to B5, or B5 itself. The Jn2 readings that are like the B5 readings before correction (e.g., List 4b, no. 23) are especially relevant. Moreover, because the entire set of Jn2’s errors can be easily interpreted in accordance to B5’s readings, no conjecture or contamination has to be assumed. The cases in which B5’s text was corrected do not presuppose any particular conjectural activity and even less contamination (see List 4a, no. 1, 2, 4, 7, 8). External evidence, however, can be offered for Jn2’s derivativeness from B5. In entry no. 26 in List 4b ([*-duḥkha-*] *ḍkha* Jn2; *.u(h)kha* B5; “ ” Jn1), a hardly legible *akṣara* in B5 corresponds to a blank space in Jn2. By examining B5, it is clear that the illegibility of part of the *akṣara* that has been recorded as “*.u(h)*” is due to a small oval-shaped hole in the paper itself (at the end of the first line, in folio 138r), a specific physical corruption that occurred at a certain point in time. The copyist of Jn2 did not try to restore the text he could not read and simply left a blank space before “*kha*”. Jn2 can thus be eliminated from the

⁷³ In B5 corrections are normally made immediately after writing wrong *akṣaras*, in the line itself. Signs of deletion are very small strokes above the *akṣara* to be deleted.

number of manuscripts used for the constitution of the text, inasmuch as it is a derivative manuscript with no trace of contamination.

4.4. Jn1

The copyist of Jn1 also did not intervene with a conjecture of his own to restore the text he could not read. In the same entry (no. 26 of List 4b), in fact, Jn1 attests three illegible *akṣaras*. This suggests that Jn1's copyist was also reading from an exemplar that had a physical corruption where *duḥkha* was written. It is unlikely, however, that a manuscript other than B5 had a physical corruption precisely in the same place. Furthermore, in B5 at the very end of folio 138v where the oval-shaped hole responsible for the aforementioned illegible *akṣaras* occurs, we read *anuvarṇayet** | [*t**]*śre[sa]<ya>sā(yo)* (17,7 *anuvarṇayet*); for this reading, Jn2 has *anuvarṇayet* svaśreyasā so*, and Jn1 has *anuvarṇayet** | -----.

One has to assume that Jn1 was copied from either B5 or a very similar copy, maybe one that was made after the physical damage had occurred in the paper. It is not very plausible that this copy is Jn2, because Jn1 and Jn2 agree only few times in innovation (they do not coincide in any innovation in Part A and only seven times in Part C) and because a reading like that mentioned above for *anuvarṇayet* would be even less easy to understand if the direct exemplar were Jn2, which has very clear *akṣaras* at that point. However, the copyist of Jn1 also wrote dashes instead of *akṣaras* when the text in B5 is perfectly legible, as in these entries:

List 5: Jn1 readings with dashes replacing *akṣaras*

- (1) 4,4 [*anahañkṛtam*] *anaṃhakt**^m B5Jn2; *anaṃha* --- Jn1
- (2) 4,4 [*anasūyakam*] B5Jn2; ----- Jn1
- (3) 7,4 [*-puraḥ-*] *punaraṣuḥ* B5; *punarasuḥ* Jn2; ----- Jn1
- (4) 13,25 [*-duḥkha-*] *.u(h)kha* B5; *ḍkha* Jn2; --- Jn1

These readings are an argument against the assumption that Jn1 is a direct copy of B5, which is in any case its closest relative. Jn1 and B5 share approximately 92% of their readings in Part A and 91% in Part C,⁷⁴ while they have 16 agreements in innovation in Part A and 17 in Part C. Furthermore, the very fact that Jn1 has 83 single readings in Part A and 57 in Part C suggests a problematic exemplar and, on the other hand, a not completely secure reading and transcription on the part of the copyist. Actually, if one takes into account the peculiarities of the script in B5,

⁷⁴ For the mode of calculation, see n. 68.

which is quite different from that of Jn1 and Jn2, a number of readings in Jn1 can be explained as the result of a re-translation of signs that the copyist was not perfectly familiar with (especially the *prṣṭhamātrā* “e”).

A further examination of Jn1 readings that do not agree with B5 confirms the transmission-specific inutility of Jn1, whose variance is clearly due to unintentional errors of the kind shown in List 4a and 4b and discussed in that context. Exceptions are few:

List 6: Selection of Jn1’s readings that diverge from those of B5

(Part A)

- (1) 1,1 [-*bhiṣagjitīyaṃ*] Jn1; *bhiṣagjatīyaṃ* B5Jn2
- (2) 8,6 [*tattvābhīniveśīnam*] *veśanam* Jn1Jn2;
tatvabhīniveśa[ne]<na>m B5
- (3) 8,10 [*cānanya-*] B5Jn2; *cānyatra* Jn1
- (4) 8,10 [-*bhūta-*] B5Jn2; *n*ta* Jn1
- (5) 11,3 [*kuśāstīrṇaṃ*] *kuśā[stri]<stri>(ṇ)ṇa* Jn2; *kuśāstīrṇa* B5;
kuśāstrāṃ Jn1
- (6) 13,10 [-*kāriṇānasūyakena*] *dhāriṇā anatubh*[ṣki]<ya>kena* Jn1;
dhāriṇā ananusūyakena B5Jn2
- (7) 14,9 [*teṣu te*] Jn2; *teṣu te samyag vartitavyam te teṣu te* Jn1; *teṣu te samyag vattitavyaṃ | teṣu te* B5

(Part C)

- (8) 67,4 [*aśāstram*] B5; *aśāstrakam* Jn1Jn2
- (9) 71,1 [*kāryayonis*] Jn1Jn2; *kāryonis* B5
- (10) 87,17 [*upaśamayati*] *upaśama iti* Jn1; *upasamabhati* B5;
upa[śama]<śma> iti Jn2
- (11) 89,5 [*vaikāriṇāṃ*] B5; *vaikārikāṇāṃ* Jn1; *vikārikāṇāṃ* Jn2
- (12) 89,7 [*cāvyāpattir*] *vyāpattir* Jn1Jn2; *cāpattir* B5

These readings do not constitute an argument against Jn1’s derivativeness from B5 if they can be explained as the results of unintentional scribal error or as the result of either conjecture or contamination. Contamination can safely be excluded because a copyist who collates using more than one manuscript does not produce a copy like Jn1, which has quite a number of single readings and a very poor quality of text in terms of plausible meaning. Conjectural activity can theoretically be assumed because the frequent obvious corruptions in an exemplar like B5 certainly offer incentives for conjecture. If anything, the Jn1 copyist should have done it more often. Therefore, with regard to the cases in which B5 has a text different from, and especially shorter than that of Jn1, one may assume the spontaneous intervention of the copyist, which yet exhibits characteristics in accordance with the context and the peculiarities of B5. The readings in List 6 can be justified by this not unreserved explanation. Readings no. 1, 8, 9, 11 and 12 can be considered as spontaneous corrections that were

undertaken due to the semantic context. The other readings can be understood as resulting from misinterpretation of *akṣaras* or unintentional developments into errors.

A reason also has to be indicated for the fact that Jn1's copyist wrote dashes where B5 has *akṣaras* (see p. 27 above). One hypothesis is that he also used the dashes when the sequence of *akṣaras* he could read was particularly nonsensical to him. This may explain *anaṃha* ----- in the place of *anaṃhakṛt*manasūyakam* (List 5, no. 1-2), additionally considering that the copyist evidently had difficulties in reading "sū" in the word *anasūyakam*, which he also miscopied later on when the *akṣara* appears again (List 6, no. 6). This hypothesis may also hold good for *punaraśuḥ* (List 5, no. 3). One may further argue that the use of dashes was just a temporary practice of the copyist, because the copyist of Jn1 very rarely used dashes subsequent to the passages recorded in List 5. This fact may suggest that at the beginning of the copying the copyist made effort to understand the text, but then abandoned this attempt in favour of straightforward copying.

In the absence of definite physical evidence, Jn1 cannot definitely be called a derivative copy of B5, but it is certainly an inutile witness.

4.5. L1

Close affinities to B5, Jn1 and Jn2 are shown in particular by two other manuscripts of the *R* family, namely B1 and L1. B1 presents an extraordinarily high number of single readings (206 in Part A and 177 in Part C), which make it also reliable in terms of faithful reproduction of its exemplar: The copyist performed an act of pure copying, even though with difficulties, which often seem to derive from a partial understanding of the peculiarities of the writing-system of his exemplar. He did not try at all to emend the text of his exemplar by conjecture and/or contamination, even though his exemplar must have been problematic, both in textual and palaeographic terms. Conversely, the text we read in L1 was emended here and there. In fact, L1 shows deviations from other witnesses of the *R* family. Some of them are common unintentional scribal errors. The interchange of "kṣa" and "kṣya", or "dha" and "dhya", also has to be considered an accidental scribal error, because it is particularly frequent in

L1.⁷⁵ However, other deviations in L1 are more likely the result of a process of emendation, either by way of conjecture or utilization of other sources.

List 7: Selection of readings in which the *R* family is split⁷⁶

(Part A)

- (1) 3,7 [-*sūtra*-] other mss.; *statra sūtra* L1; *statra* B5Jn1Jn2
- (2) 3,7 [*svādhāram*] other mss.; *svaudhāram* L1; *svaparam* B1B5Jn1Jn2T1(ac)
- (3) 4,3 [*prakṛtijñam*] other mss.; *prakṛtisthajñam* L1; *prakṛtistham* B1B5Jn1Jn2; *prakṛti* Ib3
- (4) 4,5 [-*samartham ceti*] *samartham ity K*(-J1J3) etc.; *samartham* some mss.; <*sama*>²*rtham* [*samartham*] *ity* T1; *artham samartham ity* Ib3; *arham samartham ity* J1J3; *artham samartham* Jn2; *artham samartham* B5; *artham samarthām* B1Jn1; *sartham* L1
- (5) 11,11 [*sūtrakārān*] B1B5Jn1Jn2K etc.; *stūtrakārān* L1; *stamtrakārān* Ib3 etc.; [[*staṁtram*]<*sūtra*>]<*taṁtra*>²*kārān* T1; *taṁtrakārān sūtaṁtatrakārān** Bo

(Part C)

- (6) 67,2 [*atra*] *tatra* L1BoT1(²pc)K etc.; *te 'tra* B1B5Ib3Jn1Jn2T1(ac); om. some of the other mss.
- (7) 81,5 [*bhavān*] BoIb3T1K etc.; *bhatavān* L1; *dhātavān* B1; *dhnām̐tavān* B5; *dhām̐tavān* Jn2; *tavān* Jn1
- (8) 87,13 [*yat tu*] other mss.; *yac ca* L1; *tac ca* Bo
- (9) 87,19 [*iti*] B1B5Jn1Jn2T1(ac)Ib3K etc.; *iti bhavanti cātra ... rasatas tathā iti* (a text consisting of nine stanzas is inserted here) L1BoT1(²pc) etc.
- (10) 88,2-89,2 [*parīkṣā tv asya vikāraprakṛteś caivonātiriktaliṅgaviśeṣāvekṣaṇam vikārasya ca sādhyāsādhyamṛdudāruṇaliṅgaviśeṣāvekṣaṇam iti. kāryam dhātusāmyam, tasya lakṣaṇam vikāropaśamaḥ. parīkṣā tv asya*] L1Bo etc.; *parīkṣā tv asya* B1B5Jn1Jn2Ib3T1

In the following observations, any reference to the “copyist of L1” should be understood as a reference not only to the copyist of L1, but also to the copyist of the exemplar, or of the exemplar’s exemplar or beyond, that L1 reproduces; emendations did not necessarily occur at the same time.

⁷⁵ Furthermore, the difference of “kṣa” vs. “kṣya”, also in combination with superscript vowels, is in any case scarcely significant from a genealogical point of view, because it may be due to an accidental proliferation of vertical strokes.

⁷⁶ In List 7 and 8 the manuscripts that go under the siglum *K* are sometimes explicitly recorded because of the *K* family’s relevance in terms of the preservation of readings of the archetype.

Moreover, any reference to the source of contamination, on the basis of the extant witnesses, should be understood as implying its plurality. When L1 was produced a process of emendation had already occurred in its exemplar. For, as the entry no. 1 shows, a correction *sūtra* for *statra*, which was perhaps written in the margin, was copied as if it were part of the main text; an analogous explanation can be given for entry no. 7. Moreover, a conflation of different sources, perhaps in the form of corrections or annotations in the margin, can be noted in entry no. 3. On the one hand, from the readings in List 7 one can infer that in some places L1 represents a stage of the *R* tradition in which some *R* peculiarities that are displayed by B1, B5, Jn1 and Jn2 had not yet developed. In the entry *bhavān* (no. 7), for example, a copyist wrote “ta” instead of “bha”.⁷⁷ Someone noticed the error and wrote the correct *akṣara* “bha” in the margin or above the line. The correction was not understood by the next copyist, who wrote the two *akṣaras* simply one after the other. Another copyist (or more than one) further developed this error by writing “dhā” instead of “bha”, either because he tried to make sense of the text he had in his exemplar, or because he incorrectly interpreted the “bha”. On the other hand, one can infer that the copyist of L1 had at his disposal an exemplar that was not entirely satisfactory and that he took a somewhat critical look at it, so much so that he also emended the text on the basis of his own understanding of the text itself, or also by consulting another witness. In this respect, entries no. 9 and 10 are particularly relevant. In fact, the omission of a longer passage – a *saut du même au même* – that is found in B1, B5, Jn1, Jn2, Ib3 and T1 (see entry no. 10) does not occur in L1 and Bo. The assumption that the omission independently occurred in at least four different copies (if we do not take into account Jn1 and Jn2) is however doubtful, especially when they belong to the same family, as we know from other pieces of evidence. It is instead plausible that the lacuna was already present in their common ancestor. With regard to Bo and L1, the question arises whether they have the text because of preservation or contamination. The same question is posed by entries 6, 8 and 10, as well as by a number of L1’s readings that lie outside the *R* family.

List 8: Selection of L1 readings deviating from *R*

(Part A)

- (1) 7,1 [-*kṣaṇaḥ*] *R* (-L1) etc.; *lakṣaṇaḥ* L1K etc.
- (2) 7,2 [*vā*] L1 etc.; *ca R* (-L1)

⁷⁷ The similarity between the *akṣaras* “ta” and “bha”, which is typical of the modern Bengali script, is also found in some types of *devanāgarī*.

- (3) 8,1 [adhyāpane] A(pc)J1J3P1 etc.; *adhyāpana* R(-L1)A(ac)ChJp1P2 etc.; *athādhyāpana* L1 etc.; *athādhyāpane* some of the other mss.
- (4) 9,7 [mālya-] *sagandhahastamālya* KL1 etc.; *sahagaṃdhahastamālya* B5Jn1Jn2Ib3T1; *sahagandhastamālya* B1; *sahagaṃdhadasrak** mālya Bo
- (5) 13,17 [nābhidrogdhavyam] BoIb3T1 etc.; *nābhidrodharvyāḥ* L1; *nātidrogavyam* B5Jn1Jn2; *na drogdhavyāḥ* K; †B1
- (6) 13,20 [-śarmyadhanya-] P2 etc.; *śamyadhanya* L1AC6ChJ2Jp1P1U; *śasyadhanya* J1J3; *dhanyaśarmya* or *dhanyaśarma* some of the other mss.; *dhanya* B5Jn1Jn2BoIb3T1 etc.; †B1
- (7) 13,27 [na ca] L1K etc.; *na ca na* some of the other mss.; *na* B5Jn1Jn2BoIb3T1 etc.; *ca* B1

(Part C)

- (8) 69,1 [tad] L1K etc.; *yad* R (-L1) etc.; om. some of the other mss.
- (9) 74,1 [khalu] *tu* L1K etc.; *tu khalu* R (-L1) etc.
- (10) 81,3 [bhavato] R (-L1) etc.; *te bhavato* L1
- (11) 84,9 [viśeṣeṇa] R (-L1) etc.; *viśeṣayeṇa* L1; *viṣayeṇa* K etc.
- (12) 89,2 [rugupaśamanam] some of the other mss.; *rugapagamanam* L1K; *rujopaśamanam* BoT1 etc.; *rujopasamanam* Ib3; *rujopatsamanam* B5Jn1Jn2; *tujopaśamanam* B1

Through considering entries no. 12 in List 8, and no. 10 in List 7, in which B1, B5, Jn1, Jn2, Ib3 and T1 have a long lacuna, one can formulate a hypothesis about the origin of Bo's and L1's text. Both Bo and L1 do not have the lacuna, but they continue the text in Vim. 8.89,2 in a different way: Bo reads *rujopaśamanam*, like the other representatives of the R family, while L1 reads *rugapagamanam*, in agreement with the K family. One can thus infer that the copyists of Bo and L1 obtained the lacking text from two different sources. The copyist of Bo either had at his disposal a copy of the R family in which there was no lacuna, or copied the text from an exemplar that was close to the R family but did not belong to it. On the contrary, L1's copyist emended the lacuna by collating a witness that evidently did not belong to the R family. As already pointed out above (p. 30), the agent is not specifically the copyist of L1, but a series of copyists whose different acts of copying are reflected in L1. I find it much less likely, although not impossible, that L1's copyist had in his main exemplar the text corresponding to the lacuna, but looked at the collated exemplar to check the reading *rujopaśamanam* and finally decided to reject this reading in favour of *rugapagamanam*, which he could read in the collated exemplar. I find it more plausible that the copyist of L1 either noticed that the text of his main exemplar was defective or saw that the collated

exemplar had more text than the main exemplar. He therefore copied what he could read in the collated exemplar, also including *rugapagamanam*.

These observations raise doubts about the transmission-specific utility of L1. In fact, it seems to be a case in which the system of the characteristic features of the *R* family, to which L1's main exemplar belongs, is not clearly outlined owing to contamination, and the characteristic features deriving from the group to which the collated exemplar belongs never reach the form of a system (see paragraph 2.4 above); for L1 cannot be identified as very close to any other specific group of manuscripts, except *R*, even though its source of contamination has some specific similarities with the group *K*. Thus, L1's contribution to the reconstruction of *R* is not helpful for readings that, owing to their semantic congruence, did not catch the attention of the copyist and were simply copied in. These readings are in fact attested by other witnesses belonging to the *R* family. In a critical passage, on the contrary, L1 may agree with the other representatives of *R*, but it may also present a completely different text, as we can see in the case of the filling of a large lacuna and also of an important insertion (see List 7, no. 10 and 9). These passages are the result of the collation with at least one additional exemplar. However, the information we can obtain from L1 about this second source is only fragmentary and does not show any particularly interesting feature. For these reasons, and on the basis of the more complex estimation of the transmissional utility of the other witnesses in the *R* family, L1 can be considered to be an inutile witness by contamination.

CONCLUSION

The analysis of the manuscripts that has been presented here aims, first of all, at avoiding unwieldy and unnecessary collations. Even though collating is now a much easier task than it was in the past because of the possibilities offered by computer technology, nonetheless, repeating Paul Harrison's words,⁷⁸ one's precious resources (time, money and eyesight) should be expended only on witnesses that are worthwhile, especially when one is dealing with extensive manuscript traditions. Moreover, in the case of extensive manuscript traditions, a critical apparatus that records each non-derivative extant witness can easily produce an unclear picture of the text's tradition; for the reconstruction of the hyparchetypes and archetype would be constantly disturbed by the recording of data that derive from the

⁷⁸ Harrison 1992: xlix.

copyists' free use of different exemplars. For these reasons, an analysis of the manuscripts that aims at establishing their testimonial utility is an important procedure within the editorial work. The actual object of this analysis is the manuscript as a material object and as a container of a text that, for the purpose of analysis, is resolved into readings.

Decisions about elimination of witnesses are not based on any reassuring clear-cut rule, but on a process of analysis in which the observation of some data (in the first place the readings into which a text is resolved) allows one to make a claim that other data will have to support, and against which no sound argument should be found. If a manuscript can be established as being derivative, it can be left aside as far as the constitution of the text is concerned. If a manuscript is contaminated, be it derivative or not, its transmission-specific utility may prove to be low. This fact would justify its elimination from the number of witnesses used for the constitution of the text. The category of inutile manuscripts, to which contaminated manuscripts may belong, is a way to deal with the impasse that their analysis may produce, either because definitive proof of derivativeness cannot be found, or because the data, owing to contamination, are too "slippery" to be of any significant use for the text's constitution. In fact, both agreements in innovation and deviations of a certain witness with respect to the other extant witnesses may fail either to constitute an individual textual system or to contribute to the representation of a group textual system.

Yet any judgement about utility is a relative one that depends on the evaluation of the other witnesses, especially the closer ones, such that any new knowledge concerning the textual tradition under examination ought to generate a reassessment of previous conclusions.

APPENDIX

THE TÜBINGEN MANUSCRIPT, UNIVERSITÄTSBIBLIOTHEK, MA. I.458 (T1)

The manuscript T1 was bought in Benares by A.F. Rudolf Hoernle for Rudolf von Roth, as Roth himself writes in a note on the flyleaf of the manuscript: "Erkauft 1871 in Benares (durch R. Hörnle) um 22 Rs., für Ergänzung des fehlenden dem Copisten 5 Rs" ("Bought in 1871 in Benares (through R. Hörnle), for 22 Rupees; for completion of the lacking part, 5

Rupees to the copyist”).⁷⁹ Since then the manuscript has been kept in the Tübingen University Library, having become part of the “Nachlass Roth”.⁸⁰

In a remark about the manuscript, Richard Garbe notes that the manuscript bears different collations and some completions made by Roth himself.⁸¹ It is likely that Roth annotated the manuscript while he worked at the translation of a portion of the Vim., which was published in 1872. On the basis of philological and bibliographical observations, it is possible to identify the sources of Roth’s collations.

Corrections in T1 show significant agreements in innovation with the witness Ca:

Part A:

- (1) 3,6 [-*doṣam āṛṣaṃ*] T1(ac) etc.; *doṣamārgaṃ* CaT1(²pc)
- (2) 4,4 [-*anupaskṛtavidyam*] T1(ac) etc.; *anupaskṛtavedyaṃ* CaT1(²pc)
- (3) 8,11 [-*pratikaram*] *pratipattikaram* T1(ac) etc.; *karam* CaT1(²pc)
- (4) 9,4 [*kalyāṇe ca karaṇe*] om. T1(ac) etc.; *karaṇe* CaT1(²pc)
- (5) 9,9 [*grathitāgrathitāni*] *grathitāgrathitā* T1(ac) etc.; *grathitāgrathitāsthaś ca* CaT1(²pc)
- (6) 11,3 [*gomayodakenopaliptaṃ*] *gomayopaliptaṃ* T1(ac) etc.; *gomayodakāvaliptaṃ* CaT1(²pc)

Roth states in the introduction to his translation of Vim. 8.3-67 (not including the section corresponding to Vim. 8.27-66) that, beside the Tübingen manuscript (corresponding to our T1), he also had at his disposal a manuscript from Cambridge described in Aufrecht’s Catalogue of Sanskrit Manuscripts in the Library of Trinity College, Cambridge 1869,⁸² which is our Ca. It can thus be maintained that Ca was the copy collated by Roth in making corrections to the text in T1. Manuscript Ca, however, contains only CaS *sthānas* I-III, up to III (= Vim.) 8.74,2. Corrections by T1’s second hand still continue to appear even after this point, when Ca

⁷⁹ The remark by Hoernle (1907: 19) that our T1, together with another manuscript, Ma. I. 459, was procured by himself for Roth in 1873, in Benares, most probably actually refers to the latter manuscript only, because Roth published his translation of part of the Vim. in 1872. He therefore must have received T1 before this date. Furthermore, Roth does not refer to the other manuscript from Benares that Hoernle mentions, even though that too contains the Vim.

⁸⁰ See Zeller 1999.

⁸¹ Garbe 1899: 62: “Vollständig in 4 Bänden, mit verschiedenen Collationen und einigen Ergänzungen von Roth’s Hand.”

⁸² Roth 1872: 442.

could not help any longer. It seems plausible that corrections were then made by using manuscript L1, because T1 and L1 share a significant agreement in innovation in Part C:

[*tādrśam*] om. T1(ac); *drśyate* L1T1(2pc) in the insertion after *iti* in Vim. 8.87,19 (see List 7, no. 9)⁸³

This agreement is all the more important because it is contained in a long insertion made by the author of the corrections, for which the number of possible sources is restricted to the manuscripts that have this interpolated part of the text. However, it is unlikely that Roth had already consulted L1 at the stage of his work on the CaS that is reflected in his 1872 publication because in the introductory remarks to the translation he does not state that he used L1 or any other London manuscript, even though he mentions them in the short list of manuscripts of the CaS that were accessible in Europe.⁸⁴ Also the fact that Roth thanks Julius Grill for more precise information about these manuscripts seems to point out Roth's non-direct acquaintance with this part of the East India House collection prior to 1872.⁸⁵

EDITORIAL SIGNS AND OTHER ABBREVIATIONS USED IN THE RECORDING OF MANUSCRIPT READINGS

*	<i>virāma</i>
◇	blank space
.	illegible part of an <i>akṣara</i>
()	unclear part of an <i>akṣara</i>
[]	deleted text
◊	inserted text
◊ ²	text inserted or corrected by a second hand
[]◊	<i>akṣara</i> recorded as it occurs before and after correction
†	the text of a certain manuscript is not available for this lemma, because the text has in this point a larger lacuna
ac	<i>ante correctionem</i>

⁸³ For another significant agreement in innovation, see Preisendanz 2009: 292, n. 8.

⁸⁴ Roth 1872: 442.

⁸⁵ For a different scenario, cf. Preisendanz, loc.cit., where the author suggests that Roth may have copied L1, or made extracts from it, during the years 1843-1845, when he visited the libraries of Paris, London and Oxford.

om.	omitted
pc	<i>post correctionem</i>
² pc	<i>post correctionem</i> by a second hand
K	AC6ChJ1J2J3Jp1P1P2U
R	B1B5BoIb3Jn1Jn2L1T1

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B1	Bikaner, Rajasthan Oriental Research Institute 1566
B5	Bikaner, Anup Sanskrit Library, Āyurveda 135
Bo	Bombay, Asiatic Society of Bombay 172
Ca	Cambridge, Trinity College Library R 15.85
C6	Calcutta, Asiatic Society G 4391
Ch	Chandigarh, Lal Chand Research Library 2315
Ib3	Allahabad, Ganganatha Jha Research Institute 37089
J1	Jammu, Raghunath Temple Library 3266
J2	Jammu, Raghunath Temple Library 3209
J3	Jammu, Raghunath Temple Library 3330
Jn1	Jamnagar, Gujarat Ayurved University Library, GAS 103
Jn2	Jamnagar, Gujarat Ayurved University Library, GAS 118
Jp1	Jaipur, Maharaja Sawai Man Singh II Museum 2068
L1	London, India Office Library, Sanskrit manuscript 335
P1	Pune, Bhandarkar Oriental Research Institute 65
P2	Pune, Bhandarkar Oriental Research Institute 68
T1	Tübingen, Universitätsbibliothek Ma. I.458
T3	Tübingen, Universitätsbibliothek Ma. I.460 and 474
U	Udaipur, Rajasthan Oriental Research Institute 1474
V5b	Varanasi, Sarasvati Bhavan Library, 44870

⁸⁶ Special thanks are due to the libraries in which the following manuscripts are kept for their permission to use the material.

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