

**SOME ASPECTS OF *VYĀPTI* AND *UPĀDHI* IN THE  
*NYĀYALĪLĀVATĪ***

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## **PREFACE**



## PREFACE

### I

This book contains a study which was initiated by reading a dissertation dealing with a segment of an Indian philosophical text published in the year 2006 by the university of Uppsala (Sweden). In the very beginning I played with the idea of writing a review of the work, but when I got deeper into details of the subject matter it appeared to me more worthwhile to create an independent study investigating problems which inhere in the textual source itself and specifically the segment dealing with questions of the definition or explanation of two central theoretical terms, viz. *vyāpti* ('pervasion') and *upādhi*. This appears reasonable in view of the fact that on the one hand the translation and interpretation of the chapter dealing with inference of a treatise bearing the title *Nyāyalīlāvati* is undoubtedly the most substantial part of the above mentioned dissertation written by A.-P. Sjödin and on the other hand the segment dealing with pervasion and *upādhi* occupies a most central position in that chapter.

It is true that almost in all major issues that are pertinent in the investigated section of the text I reach conclusions which either differ from those propounded in Sjödin's study or are more specific. Nevertheless, I do not attribute primary importance to this fact partly because in general at least the alternative interpretations cannot be dismissed as unreasonable and partly because, in itself, the existence of a plurality of *prima facie* viable ways of understanding a sentence or a textual passage is by no means an extraordinary phenomenon, especially if a textual source has been written in a concise style. Far more important is the circumstance that a considerable number of issues which in the present work are acknowledged as problems, in particular problems of exegesis, are not at all recognized as such in Sjödin's treatise. Although it would be unfair to assert that Sjödin uncritically accepts explanations provided by two major commentaries on the original text considered by her in the dissertation, it can be nevertheless maintained that in general at least possible problems of exegesis which are not realized by the commentators or previous traditions of research fall beyond the scope of her study. It appears pretty plain that this divergence between the two investigations pertaining to an identical textual source results from a major difference of approach. The critical difference is that the investigation of the present book, although it equally attempts to pay due attention to what some pertinent commentaries say, tries to consistently combine this task with an aspiration to obtain an own understanding of the nature of the subject matter as well as of objective problems inhering in it. The identification of problems is meant to be an outcome of a confrontation between what some indigenous tradition of exegesis or a part of it makes thematic and the own theoretical grasp of the relevant topics, which, surely, can itself rely on exploitation of information provided by previous traditions of exegesis. One would not assert an untruth by saying that the present approach embodies a stern rejection of a slogan which is nowadays fashionable in certain circles, and which reads 'Let the Indian philosophers speak for themselves!'. This does surely not

mean that one should disregard what representatives of some foreign tradition of thought say. The contention is rather that trying to find out what Indian or other thinkers wanted to say about some subject matter is not everything which needs to be done and that it is incumbent on researchers exploring theoretical teachings in India or elsewhere to aspire at obtaining the deepest possible insight into the nature of topics which are dealt with in sources of the past and to employ for this aim *all* means and tools that are available at present.<sup>1</sup>

That this task cannot be simple follows from the circumstance that even the first preliminary step, namely the correct identification of a pertinent subject matter, is anything but child's play. It is blatantly obvious that one cannot take for granted that, even if there should be affinities between topics, the pertinent subject matter of some text or textual passage in a work like, say the *Nyāyalīlāvati*, can be completely equated with any philosophical issue dealt with somewhere in the Western tradition. It should be equally plain, although this could be more easily ignored or disclaimed, that one must not hypothesize without additional argument, that topics of a textual source are in fact identical with topics of other textual sources usually attributed to an identical tradition or school *even if* some tradition of exegesis supposes this to be the case. These observations should suffice to demonstrate that the trendy tenet that texts need to be interpreted in the light of their own tradition, at least in their restrictive reading, are suited to blur and obscure matters. Anyway, all such mottos which are by their nature excellently suited to be used as an alibi excusing avoidance of difficulties and could also serve as ideological expedients concealing even incompetence, deserve to be viewed with suspicion.

The main emphasis in the present book lies in the disclosure of problems of exegesis elicited by the endeavour to delve into a subject matter of a textual passage and to explore which theoretical questions it may raise. Notwithstanding the fact that in a number of instances definite opinions are expressed concerning the reasonability or adequacy of particular views, pieces of reasoning or arguments and despite the circumstance that suggestions are made concerning the question what the writer of the investigated text probably intended or did not intend to say, a definite settlement of the problems which have been brought up is not the overriding objective in the present study. Since no additional manuscripts have been investigated and since with respect to the textual segment which is the object of exploration it has been assumed here that the reading given in Sjödin's dissertation can be accepted as (sufficiently) correct the theoretical possibility exists that results would have to be revised in the light of further text-critical studies showing that supposed readings are, as a matter of fact, incorrect. In this connection it appears noteworthy, however, that the present study yields the result that

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<sup>1</sup> In principle the question of where such conceptual or theoretical means and tools come from is immaterial. Theoretically at least, they could even have their origin in some region of the South Pacific.



on the basis of the hypothesized textual reading an interpretation can be achieved that on the one hand presents a completely intelligible and plausible train of thought and on the other hand is in full accordance with the grammatical rules of the source language and eliminates certain difficulties that beset Sjödin's account. This makes it reasonable to expect that the relevance of the present investigation is not crucially affected by abstaining from a critical re-examination of the textual reading hypothesized in Sjödin's dissertation. Due to the fact that disclosure of problems is a primary concern it has been equally accepted not to engage in a systematic investigation about the issue of whether some of the problems identified here could be resolved in the light of other chapters of the work. On the other hand it has been intended to pose only questions which appear to be relevant in the perspective of the entire chapter of the *Nyāyalīlavatī* dealing with inference. In general one needs to be very sceptical about the possibility to settle all problems arising in one context in the light of other contexts because some of them are fairly intricate and subtle and the existence of a definite stance with respect to them on the part of the writer of the text cannot be taken for granted. The most decisive reason not to eliminate problems simply by reading the segment of the text 'against the backdrop' of texts written by other authors relegated to the same tradition or school has been indicated before: Subject matter and views on subject matter must never be uncritically transposed from one writer to another. Equations or identifications are legitimate at best on the basis of independent evidence.

## II

It is quite possible that the position described by the last sentences of the preceding paragraph is in accord with a stance propagated by Sjödin in her thesis. At any rate, in a recently published review of her book written by Takanori Suzuki<sup>2</sup> (which I read a few days ago) the author approvingly cites a passage of the dissertation which reads as follows:

The interest of this study is ..... to read the text from the point of view that tradition is an open-ended dynamic non-essentializable process that could be understood as negotiated and constituted in one single, particular text, and in relation to other particular texts.<sup>3</sup>

For me it appears less difficult to assent to the position expressed in the quoted passage, provided I understand the pompous formulation correctly, than to agree to Suzuki's suggestion that it represents an important novel

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<sup>2</sup> In: *Samḥāṣā. Nagoya Studies in Indian Culture and Buddhism*. 27. 2008:192-194.

<sup>3</sup> The omitted segment indicated by Suzuki's dots in the quotation reads:

.... not to find a general idea of "tradition" encompassing texts written over the course of a thousand years, nor is it an attempt to identify originality or repetitiveness with reference to a certain preconceived, common, mainstream bulk of "tradition". Instead it is ...

insight. To be sure, one can discern a subtle divergence between my contention formulated above and that represented in the cited passage: According to the latter — again supposing that the author really means what she appears to say — a particular text, such as the *Nyāyalīlāvati* is read (and understood) on the basis of some particular hypothesis of what tradition, or at least the Indian tradition, *is*, namely 'an open-ended dynamic non-essentializable process' etc. According to the above cited maxim, no particular assumption is involved about the issue of what the nature of the tradition of Indian thought or of the schools of Nyāya and Vaiśeṣika etc. is like. The principle is perfectly compatible with the assumption, that, as a matter of fact, an entity which we call the 'Indian tradition of philosophy' is constituted by a group of persons and textual sources all of which propagated 'essentially the same'. The fact that I, presumably in accordance with both Sjödin and Suzuki, believe that this is false, is a completely different matter. The decisive point is merely that in the context of interpreting certain textual passages of the *Nyāyalīlāvati* or any other text the conclusions do not vitally depend on the assumption that Indian tradition is such that the representatives of a certain school thought essentially the same — or that anything inheres in Indian traditions which could entitle one to speak of their essence (whatever that may mean). By the same token, however, it is equally required that the conclusions should not crucially depend on the assumption that all or at least some Indian traditions are 'dynamic and non-essentializable' processes. Since in certain circles the slogan that all understanding and interpretation has to rely on 'prejudice' is extremely popular one can easily imagine that against the presented 'methodological' principle the objection is raised that it unduly ignores the dependence of interpretation on 'prejudice', that it pays no heed to the fact that all understanding must rely on unquestioned assumptions. I am, however, totally unimpressed by such a manoeuvre. Even granted that it is true that every interpretation had to start from *some* prejudice or needs to take something or the other for granted, where is the argument showing that the crucial prejudice or presupposition must relate to some view concerning the nature of tradition? It might appear plausible that for interpreting some or the other passage of a text like the *Nyāyalīlāvati* certain assumptions about meanings of words and possible grammatical constructions of the source language etc. have to be taken as given. But should we acquiesce with the idea that if we lose for a moment our firm faith that tradition is an open-ended and non-essentializable process we are damned never ever to properly understand Indian philosophical treatises? It is extremely difficult to see how an academically respectable status can be attributed to the pertinent activity if the supposed dependence really existed. Anyway, the natural order should be that detailed investigations of individual specimens of any tradition, in particular interpretations of individual texts or textual passages, helps us to recognize the character of a certain tradition (if there is any such), and not that some hypothesis about what a tradition is like determines the way of understanding pertinent sources.<sup>4</sup>

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<sup>4</sup> This does *not* rule out the possibility that at later stages after some knowledge has been obtained about the character in which certain individual items use to be related

Inasmuch as the Sjödin-Suzuki position embodies merely the empirical claim that in the Indian context views of authors and texts commonly grouped together as representing some individual tradition or school can be pretty divergent one can assent to it. In this sense it rather represents an opinion which, to my knowledge, has been widely approved in the philological tradition of Indian studies and, given that this is correct, cannot be a novelty. Remarkably this fact has been acknowledged in a peculiar manner even in India's past. A most prominent example is provided in Buddhism by the ideology of diverse teachings supposed to have been propagated in accordance with the specific dispositions of the envisaged addressees but acknowledged as representative of the Buddhist tradition. A difference between the Western and the Buddhist view on the matter pertains to the fact that Western scholarship prefers to connect a number of divergences with historical developments or 'progress' whereas according to the Buddhist outlook they should be related to differences of function. This does, however, not repudiate the recognition of fundamental differences.<sup>5</sup>

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this knowledge is employed for forming some empirically substantiated hypothesis about the character of a certain tradition and that such a hypothesis in its turn is used for evaluating issues of interpretation which had to be suspended before.

<sup>5</sup> It is important to observe the qualified nature of the advocated 'methodological disregard' of (conventional) assignments to schools, doctrines or traditions (of religion or thought). The principle implies merely that in the context of exegesis of textual sources any particular assumptions pertaining to the *character* of pertinent groups to which they are allotted as well as the relation between its members are discarded. Accordingly it would be a mistake to equate it with a maxim to ignore conventional affiliations. A denial of the existence of a soul, a self or a subject of states of consciousness — theorems which are, incidentally, not necessarily equivalent — should constitute an essential ingredient of any Buddhist doctrine in the view of a number of Buddhist schools. According to this orthodox outlook being a Buddhist doctrine and being a part of the Buddhist tradition would rule out that doctrines or texts are properly classified as specimens of Buddhist teaching if they do not conform to the above mentioned tenets. However, this fact does not necessitate that terms such as 'Buddhism', 'Buddhist teaching', 'Buddhist text', 'Buddhist tradition' etc. need to be strictly brought into line with this particular orthodoxy. Hence there is no obligation to the effect that in the context of (Western) scholarship any concept of 'Buddhist' must conform to the rule that being Buddhist entails advocating a view implying a denial of a soul, a self or a subject of states of consciousness. It is at any rate absolutely illegitimate to derive from the circumstance that some text is conventionally allocated to the Buddhist tradition the consequence that the pertinent textual source or particular segments of a concerned work have to be *interpreted* on the basis of the presupposition that its content accords with the negative tenets pertaining to soul, self or subject of states of consciousness. It is incumbent upon any interpreter to abstract from such premises because he otherwise increases the risk of distorting empirical facts. It should be plain, however, that this contention neither amounts to the postulate of completely disregarding (conventional) affiliations nor implies that different specimens (conventionally) assigned to an identical tradition are irrelevant for interpretation. On the contrary. If some exegesis entails the existence of deviations from some

On the other hand, it must be made plain that my directive pertaining to the avoidance of imposing topics or views about topics on the basis of assignments of writers or texts to some particular school does *not* imply an approval of a certain attempt to criticize the actual employment of terms meant to designate scholastic traditions on a more general level. It is instructive to see why I consider the pertinent considerations on which the criticism is based fundamentally mistaken. Suzuki appreciatively ascribes to Sjödin the merit of '[d]econstructing the dogmatic idea that a noun (i.e., the word "school" or "tradition") should have a specific and static entity to which it corresponds' and claims that '[r]esearchers who unreflectively use these terms run the risk of conveying the assumption that there were indeed some static and essential groups or streams which correspond to the modern usage of the terms' (p. 194). Although I could not find any passage in Sjödin's book in which this tenet about the inappropriateness of employing terms is expressed with the same degree of definiteness and precision we might presume that it correctly represents Sjödin's position — or at least does not misrepresent it. Anyway, I think that inasmuch as there is any problem connected with the employment of scholastic terms, the source of the problem has been fatally misidentified here. There is no inseparable connection between the existence of expressions such as 'the school of Nyāya' etc. and any sort of 'essentializing' conception of traditions. A correlation of this sort results only as a consequence of a sloppy practice of fixing meanings of terms in the humanities.

The most important means of remedy consists in a fully explicit specification of an equivalence-relation — a relation that is reflexive, symmetric and transitive — that fixes pertinent conditions of identity (for schools or other sorts of traditions of thought) and indirectly defines conditions under which any item belongs to the same group as any other item (of some pertinent category). For example, on the basis of the notion of mutual intelligibility between linguistic varieties different equivalence relations can be easily specified correlating with different types of groups of related linguistic varieties, one of which specifies units such that all of their members are related by mutual intelligibility, whereas another type correlates with the intuitive idea of a chain of items being either directly or indirectly linked by a pertinent relation.<sup>6</sup> This method is equally applicable for various other terms.<sup>7</sup>

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purported orthodoxy the questions of whether the deviations can be plausibly explained as outcomes of states of affairs existing at earlier times or whether they could explain later developments often constitutes an important criterion of controlling the correctness of an interpretation. The principle of 'methodological disregard of conventional assignments' could be regarded as an implementation of the general precept to adjust concepts to empirical data instead of adjusting accounts of empirical data to preformed concepts. A most essential component of the advocated stance is, however, that even in the field of historical studies not only accumulation of knowledge but also conceptual innovation constitutes a goal.

<sup>6</sup> In the present connection certain aspects of vagueness exhibited by the idea of mutual intelligibility between linguistic varieties can be left out of account.

Presumably equivalence relations exemplifying the type associated with the idea of a chain-structure are most relevant for explicating 'successor'-concepts correlating with the common notions of schools and traditions.<sup>8</sup> On the other hand, since the notion of mutual intelligibility represents only one among several alternatives on the basis of which equivalence-relations are specifiable that define different sorts of groups of language-varieties, we can assume that in the same manner various terms of schools or traditions can be explicated on the basis of diverse notions. In the context of phenomena linked to the sphere of ideologies like religion, doctrine, school etc. higher order concepts designating (propositional) attitudes pertaining to (other propositional) attitudes deserve particular attention. Groups of persons can be linked not only by the fact that they share certain beliefs but also by the fact that they believe that they share common beliefs in certain matters. It is immediately obvious that for example a religion-term relating to a corresponding meta-ideology about shared beliefs in matters classifiable as religious according to some intuitive understanding would never *entail* the existence of commonly shared beliefs. For every fool knows — or perhaps we ought rather say, every fool should know — that belief does not imply truth. In connection with philosophical schools in India ideas pertaining to particular attitudes concerning texts considered as authoritative in combination with attitudes pertaining to the adoption of specific attitudes towards them are certainly relevant. In itself the method of specifying groups of various sorts by explicating equivalence relations on the basis of notions, using only some elementary conceptual resources of set-theory, permits extreme flexibility.<sup>9</sup> Instead of resorting to *a priori* decrees about what 'tradition', 'school' etc. is permitted to mean in the Indian tradition or in general we must attribute to empirical investigation, and in particular to the tradition of philological scholarship, the important role to explore the material to such a degree that it can be decided whether a certain term explicated by specifying an equivalence-relation on the basis of certain notions is fruitful or not in some area. Precisely because the method of defining terms by specifying equivalence relations allows for the exact elucidation of a plurality of thematically related terms room is provided for testing multitudes of concepts representing diverse ideas of 'school', 'tradition' etc. with respect to relevance

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<sup>7</sup> The views presented here reflect an exploration of possibilities of explicating in this manner terms related to the words 'language' as well as 'religion' which I carried out within the frame of a yet unpublished study.

<sup>8</sup> It should be plain that this method presupposes a neat distinction between relations defining the identity of a group (such as that of a school or tradition of thought) on the one hand and relations pertaining to the manner in which elements of the pertinent groups are connected on the other.

<sup>9</sup> There are even possibilities to specify defining equivalence-relations in a roundabout manner. In view of the fact that there are persons, such as Vācaspatimīśra, who commented on texts usually assigned to different schools in a manner as if they considered them as authoritative, such strategy could be called for if the task is to explicate a term that roughly corresponds to the intuitive idea of somebody who in his writings acts as a representative of one (and only one) particular school.

and fruitfulness in some domain. Indirectly the various outcomes of such tests can reveal to us what scholastic or other kinds of tradition in some more or less restricted area are.

The invoked danger of hypothesizing some fictitious 'specific and static entity' cannot — or can hardly — arise because the method of explication by specifications of equivalence-relations explicitly based on (fairly) intelligible notions safeguards a degree of logical transparency that blocks such illegitimate imputations. If, for example, a concept of school or tradition is based on some notion of higher order belief — or some other higher order notion which is like belief non-factive — the illegitimacy of deriving from a true application of the term the existence of some 'static' group or stream that could be called 'essential' due to the circumstance that its members are united by some core of shared lower-order beliefs is patent. If, on the other hand, it turned out that a term of school or tradition is applicable defined on the basis of a notion implying common first-order belief, then the existence of some sort of 'static entity' might indeed follow, but there is not the slightest reason to find this objectionable. Supposed that, as a matter of fact, all individuals and all texts usually ascribed to the school of Nyāya believed and propagated exactly the same tenets and if accordingly there existed a tradition called 'Nyāya' which is rigid and static, why should it be illegitimate to state this truth? A crucial flaw is only attributable to an, apparently still widespread and influential, current in the humanities which refuses to adopt habits safeguarding that the usage of central terms allows one to clearer discern as to what would follow from its true application and what not. The correlating task lies in an increase of logical transparency. This obligation of conceptual work constitutes a most vital non-empirical component even in the historically orientated empirical sciences. However, no attempt to make steps in this direction can be discerned in Sjödin's or Suzuki's expositions.

A clear view about the exact way items relegated to identical schools and traditions actually exhibit is important even for interpretation. It seems quite probable that individual thinkers who regarded themselves as advocates of some common doctrine possessed higher-order intentions to the effect that their views concerning the allegedly shared dogmas should mutually accord with each other. This fact suffices to call for a qualification of the previously expounded maxim that neither topics nor particular views on topics must be transferred from one textual source to another. The principle remains correct inasmuch as it rightly forbids to exploit the mere circumstance that a particular topic is dealt with in some source or the fact that some specific thought or argument has been expressed somewhere else as a sufficient reason for hypothesizing the occurrence of exactly identical items in other texts relegated to an identical school given that grammatical rules and other linguistic conventions alone do not militate against such identifications. Even the occurrence of significant correspondences of formulations needs to be handled extremely cautiously not least because it is a realistic possibility that an author of some source intentionally borrows certain means of expression desiring to use them as a vehicle conveying thoughts which he himself

considers as true and worth propagating. On the other hand, however, the probability of higher-order intentions of the above specified sort demands the imposition of restrictions on the freedom to connect texts and textual segments with topics and thoughts licensed by purely linguistic considerations implying also a restriction with respect to disregard of tradition. Although the restrictions imposed on this account are modest they exist. We should assume for example, that whenever

- (i) a text has been created by a writer who considered himself as being committed to a doctrinal tradition that is based on the authority of the *Nyāyasūtra*-s and if
- (ii) the text has been written after the composition of a work whose writer equally intended to comply with a doctrinal tradition initiated by the *Nyāyasūtra*-s and if
- (iii) the former writer presumably knew the latter fact and if
- (iv) with respect to some passage contained in the work written at the later time different interpretations are licensed by linguistic considerations some of which conflict and some others do not conflict with views propagated in the text written at an earlier time,

then *ceteris paribus* higher probability should be assigned to the latter interpretation(s) in comparison to the former one(s). To be sure, the validity of this maxim is confined to cases in which a resulting incompatibility is sufficiently obvious and could hardly have been overlooked or sincerely called into question by the later author. If not doctrinal tenets but rational arguments or subject-matters and topics are at stake the probability of unnoticed deviations is presumably even higher. Nevertheless, even the modest restrictions resulting from the hypothesis of higher order intentions oblige us to attach qualifications to the principle of disregarding school-affiliations for the exact determination of topics and thoughts. Accordingly we need decline any offer to vindicate our position with the aid of the Sjödin-Suzuki disapproval regarding the ideas of 'school' or 'tradition'. In any case we are forced to consider that treatment of the topic as unacceptable because it follows from our views that tasks of exploring and solving problems must begin where others suppose they could end.

The fact that the same verdict appears to be mandatory also in other respects corroborates the stance that emphasis on the exposition of problems possesses much wider significance not confined to matters of exegesis of the textual passage dealing with pervasion and *upādhi*. Even the risk of adhering to a minority-view cannot prevent me to regard slogans, such as 'all translation is interpretation', as pretty non-illuminating.<sup>10</sup> A major reason is that taken by itself the motto could alternatively amount to a platitude or to

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<sup>10</sup> This is a segment of the first sentence in the paragraph bearing the title 'translation as interpretation' occurring on p. 21 in Sjödin's book. The sentence reads: 'The underlying assumption for the translation in this work is that all translation is interpretation'.

an absurdity. The decisive task must be to specify a reading or a number of readings which render the dictum both non-trivial and true, if one employs it at all. As far as one can see neither Sjödin nor Suzuki, who quotes it, offer much help in this regard. At any rate, the explication that an interpreter or translator ought to be 'very aware of her own standpoint as an agent of research' (Suzuki, p.193) is indeed intelligible, but not necessarily very informative. On the other hand, saying that the maxim 'implies that there is no intermediate stage between a neutral translation and a subjective interpretation' and that '[a]ll there is is interpretation' (Sjödin, p. 21) makes the ground slippery. Supposed it were true that there is no intermediate stage between a neutral translation and a subjective interpretation. Then there should (possibly) exist two stages, namely a) neutral translation and b) subjective interpretation and nothing in between. But what is 'neutral translation'? Since nothing more specific is said about this, we should presumably suppose that this expression is merely another term for 'non-subjective' or, perhaps, 'objective translation'. But then the question arises, what in the world could conceivably occur as a stage between subjective interpretation and non-subjective translation so that the proposition that such an item does not exist could be a substantial consequence resulting from some substantial tenet. Should one suppose that the possibility is ruled out that there is any such thing as non-subjective interpretation which is not simultaneously translation? Admittedly such an item would be suited to occupy an immediate position between merely subjective interpretation and something which is simultaneously both translation and interpretation given that, since 'all there is is interpretation', translation which is not interpretation should be impossible. But if that should result as a consequence from the tenet that all translation is interpretation, the tenet could not merely mean that everything which is a specimen of translation is also a specimen of interpretation or, in simpler terms, that every translation involves interpretation but it must mean that also the other way around every interpretation involves translation.<sup>11</sup> This is indeed a substantial thesis, which exhibits only the drawback that it might be false. One could entertain the thought that even acts of interpretation which do not involve translation in the ordinary sense of the term and possibly all acts of linguistic understanding require nevertheless some act of translation in some 'mental language'. This is, however, an extremely disputable tenet and every interpreter of a text such as the *Nyāyalīlāvati* would be ill-advised if he should commit himself to this proposition as an 'underlying assumption' of his work. At any rate, a claim

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<sup>11</sup> If the remark to the effect that all there is is interpretation did not occur one had the freedom to understand the expression 'translation is interpretation' as an infelicitous formulation of the tenet that every interpretation implies translation but not vice versa. On this basis it could be said that there can be neutral translation as well as subjective interpretation, but no neutral (= non-subjective) interpretation. The contention that there is only subjective interpretation sounds indeed like a substantial thesis. The trouble is only that by the same token it embodies a thesis which has pretty good chances of being false, at least on several readings. Deriving such thesis from 'translation is interpretation' is surely no vindication of its truth and can never be admitted as a compensation for lack of argument.



to the effect that all understanding or at least every interpretation requires translation into some, possibly non-natural, language is nowhere substantiated by arguments in Sjödin's book and we must probably assume that anything like that was not in the author's mind at all. Moreover, why and how do the theses that translation is interpretation or that apart from subjective interpretation and non-subjective interpretation (cum translation) no third alternative exists reveal to us our 'own standpoint' as 'agents of research'? One might think that posing all those questions indicates merely a fault on our part because of the wrong assumption that the statement equating translation and interpretation as well as the surrounding remarks should communicate facts. Should we therefore suppose that their function lies rather in concealing facts?

Anyway, the verdict that pertinent questions are disregarded holds true for various reasons. A most important aspect of omission consists in neglect of different types and varieties of interpretation as well as understanding. For a satisfactory discussion of the relation between translation, interpretation and understanding it appears inevitable to take into account the fact that both with respect to 'interpretation' and 'understanding' distinctions can be made which entitle one to draw differentiations between different types and levels of interpretation and understanding which are at least partly correlated with differences of types of possible objects of interpretation and understanding. Even with respect to 'translation' the possibility of equivocations cannot be ruled out from the outset. Perhaps there are good reasons to entertain doubts about the feasibility of mechanical translation or the appropriateness of ways of translating which are not based on any sort of actual understanding. However, the most unsatisfactory manner of dealing with those issues would be to rule out by mere stipulation that such varieties cannot be classified as translation.<sup>12</sup> One might think that such considerations are irrelevant because the tenet that translation is interpretation and the accompanying remarks relate to the specific undertaking of offering a translation in the context of a scholarly study. However, taken as stipulating a maxim for somebody's own translational work in an academic treatise the propositions that translation is (based on) interpretation and that such 'interpretation presupposes a desire to understand' etc. are pretty unexciting.<sup>13</sup> Under the current premise the

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<sup>12</sup> Even with respect to apparently reasonable claims such as the tenet that all translation involves interpretation but not necessarily vice versa one needs to be aware of possible equivocations. On one reading the tenet could embody the claim that everything classifiable as translation relies on actual occurrences of acts of interpretation (and understanding). According to another reading it could also represent a more sophisticated theorem, namely the proposition that all correctness-evaluations of translations presuppose the idea of correctness of understanding. This means in particular that even with respect to possible mechanic translations it holds good that a translation can be assessed as correct only if it could be offered or approved by somebody who correctly understands the translated item.

<sup>13</sup> Nevertheless, the tenet that offering a translation in the context of an academic study should be based on some understanding of the translated items on the part of the translator needs to be neatly distinguished from the contention that a translation

pertinent remarks can be rephrased as follows: 'In the translation of this work, I intend to do what every scholar is expected to do, namely base it on interpretation (avoiding anything which is neither a subjective interpretation nor a neutral translation) accompanied by a desire to understand'. Surely, this formulation would still exhibit points of vagueness or equivocation by not exactly specifying the intended imports of 'interpretation' and 'understanding' and it would definitely not address theoretical problems which can be seen connected with those terms and their relation to 'translation'. However, everybody should possess the right not to deal with particular theoretical issues, and the maxim itself, namely to do what every scholar is expected to do, should not be reproachable. The question arises, why anything like this should have been expressed in an extremely veiled manner. In a country which wishes to appear as a model for freedom and democracy in the world one should not fear to be jailed merely because one frankly admits that in a certain part of an academic study one does not intend to make a substantial claim.

Notwithstanding the lack of major points of agreement on a theoretical level I presumably fully accord with Sjödin's outlook with respect to the attribution of importance to explorations of individual texts or textual passages as well as to paying attention to features of the content of individual works. If there is any deviance in this dimension then it is only constituted by the supposition that the pursuit of discovering individual peculiarities requires even greater efforts. This is part of the reason for the above mentioned emphasis on the disclosure of exegetical questions and problems. There is, however, also a further-reaching concern about problems for which the issues discussed in the immediately preceding paragraphs are presumably even more pertinent. This concern is sustained by the conjecture that the group of academic disciplines designated by the term 'Oriental Studies' is in an exceptional measure affected by the risk of losing distinguishing features of Western scholarship and science or, more exactly said, features which are often (according to

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must reflect the translator's own interpretation of the pertinent linguistic unit(s). Although the latter claim might at first glance appear uncontroversial it is in fact controvertible. To be sure, the view that translations should reflect the translator's belief as to how relevant linguistic tokens should be properly understood is a reasonable position. On the other hand, however, it is by no means unwarranted to postulate that a translation should reflect as faithfully as possible the potential of readings which the linguistic type instantiated by pertinent token(s) permits on the basis of linguistic, grammatical and lexical, considerations. This stance is not incompatible with the demand that someone who interprets a certain text or textual passage should manifest his own understanding, because an exegetist can reveal her personal preferences between *linguistically* permissible interpretations elsewhere rather than in a translation. There is no need to go into further details because only one point is relevant here: Any position one adopts in this matter has to rely on considerations taking into account, among other things, issues pertaining to the purpose of translating something, its function in the larger context of some investigation etc. It is not legitimate to simply prejudice such matters without argument.

some cliché at least) supposed to be distinguished traits of Western science, in combination with the assumption that some of those traits deserve protection and preservation. A specific danger consists in the emergence of a state of 'unhealthy epistemic equilibrium'. This situation can be in fact discerned in certain areas of Asian traditions and is characterized by the quality that systems of thought appear to be immune against the need of major revision because of omissions of confronting them with potentially disconcerting problems. It does not require much perspicacity to discern that also in this regard slogans such as 'Let the Indian thinkers speak for themselves' initiate assimilations of Western studies to features exhibited in the areas assigned to them as soon as they evoke obligations to the effect that in the context of explorations about what others have thought one must also think in similar ways. As a matter of fact, the menace is even more virulent because there are also a host of other factors suited to promote developments in this direction. As the topic cannot be explored in more detail here it must suffice to remark that the present study should not be the only publication urged by the above described concern.

### III

Notwithstanding their existence, the above illustrated aspects of the matter had been left inexplicit in a previous version of the present study as the original intention was to detach the textual studies as much as possible from controversial or even polemical issues of a more general scope. It appears, though, that the endeavour to practice austerity in those regards was inappropriate. Until the completion of the first version I was unaware of the circumstance that a grant of more than three million Swedish crowns, which despite the dramatic — and hopefully temporary — devaluation of the Swedish currency is equivalent to approximately 300 000 Euros, had been given to the author of the assessed dissertation for a project that is indirectly connected with its topic. Since, on the other hand, an application for supporting publishing costs of the present book with a comparatively insignificant sum was met with initial reluctance the whole matter was inevitably placed in another perspective. This was all the more so because the hesitation was not related to the question of the actual existence or non-existence of required methodological rigour, which, after all, *would* be a pertinent criterion, but with matters pertaining to questions of relevance.<sup>14</sup>

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<sup>14</sup> Since an omission to make a number of methodological principles explicit played a role in this connection it might be appropriate to point out that this feature was by no means an outcome of the above mentioned 'austerity' alone. Equally important is the fact that to a large extent results of the present enquiry crucially rely on principles which are treated almost as axiomatic in traditional philological studies and appear to be indisputable. One such principle is the maxim that *ceteris paribus* preference must be allocated to interpretations that do not rely on the attribution of *ad hoc* meanings, which are neither mentioned in standard dictionaries nor naturally derivable from mentioned lexical entries. Another rule is that in Sanskrit as well as other classical languages, such as Latin and Greek, one needs to avoid translations or interpretations presupposing a syntactical connection as (attributive) modifier and

The fact that the need to 'improve on the work of others' has been made a topic in this connection deserves special attention given that it intimates a position entailing the attribution of subordinate or even low priority to the task of (re-)examining the validity of research. The significance of this point emerges against the background of what has been alleged in the preceding chapter, namely the existence of factors favouring the emergence of 'unhealthy states of cognitive equilibrium' and dissociating 'Oriental Studies' in particular from the tradition of Western scholarship and science.

One could perhaps acquiesce oneself with the thought that the preceding statement might represent an undue dramatization of the actual state of affairs if one ignores a peculiar circumstance presently prevailing at least at (some) Swedish universities. The vital factor which seriously aggravates the problems is a practice of 'under-financing' departments in combination with an expectation to the effect that a balanced budget is to be achieved by applying for financial support for 'research-projects' from institutions which are responsible for allocating corresponding financial resources at the level of universities or comparable units comprising various departments. To signal the inherent potential of problems it might suffice to mention merely some key points: 1) Decrease of focus on critical examination of results, 2) Increase of pressure to conform to mainstream-priorities and even compliance with fashionable trends in the humanities, 3) Increase of dependency on subjective likes and dislikes. It would be naive to ignore that in actual practice relevance-assignments may be based not on objective matters but on subjective desires, such as someone's wish that certain approaches may not attain importance because they remind him or her of subjects hated in school etc. These factors taken together amount to a subtle curtailment of academic freedom and a reduction of the individual responsibility to strive for scientific relevance. The decisive crux lies, however, in the circumstance that decision-making powers and obligations are transferred to administrative units which by their very nature *cannot* obtain insights into the mechanisms of individual disciplines at all or only to a limited extent and which could never definitely ascertain what is potentially hidden behind façades. To be sure, a *complete* abolition of this sort of dependence is impracticable and absolutely unrealistic — and perhaps not even desirable. But this does not eliminate the necessity to minimize the dependency to such a degree that it does not affect the basic conditions of academic and scientific practice. Otherwise a removal of entire ranges of existing academic disciplines — or, more drastically, an outspoken declaration of traditional Western conceptions of universities as 'outdated' — , could remain the only *legitimate* alternative. For every admissible concept of academic and scientific practice presupposes that there is some basis for distinguishing between objectively existing scientific values and relevance on

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modified (noun) whenever no gender-number-case concord exists between attribute and head-noun. There is not only no general need to explicitly refer to all relevant methodological principles but under specific circumstances such reference could seem odd or even offensive.

the one hand and merely nominal values or virtual relevance attributed by members of an academic community on the other.<sup>15</sup>

#### IV

It would be a mistake to take the preceding remarks as implying any verdict about previously supported research projects. This holds equally true regarding the grant that had been mentioned before and the pledge intimated by the project to liberate the Indian conceptual framework and 'discourse' from European/American 'dominance' by developing an alternative to a 'mimetic' manner of translation allegedly in current use in the West.<sup>16</sup> Yet some remarks must be made in connection with this topic because they embody clarifications concerning the nature of the present study and can affect its perception.

It is almost certainly not correct to say with respect to the Western philological tradition of research that it has 'simply translated Indian philosophy in terms of European-American philosophy'. As a matter of fact, it would even require considerable effort to find in translations of texts or in glossaries any terms that are current in European or in modern American philosophy, provided, of course, that 'European-American philosophy' is not employed in a sense that encompasses studies on Indian philosophies in Europe or America. As far as not terms but philosophical teachings are concerned, there were admittedly certain exponents of trends suggesting that several eminent figures of the Indian tradition essentially taught the same as one or the other renowned representative of the Western philosophical tradition. This led to the result that sometimes one and the same Indian philosopher was correlated by different authors with different figures of the

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<sup>15</sup> The mentioned three 'key-points' are not meant to represent an exhaustive assessment of the practice of research-projects. To be sure, one cannot but favour the idea in so far as providing opportunities for younger researchers without permanent employment is concerned. On the other hand it should be pretty obvious that a state of affairs in which it happens that heads of academic departments are urged to initiate research projects merely for reasons of budgetary planning is bound to stimulate false pretences. The intuitively natural sequence is that scholars apply for funds because they intend to realize some project and not the other way around that one wishes to realize a research project because one wants to apply for funds. This odd reversal of order together with the surreptitious restrictions imposed on scientific freedom and responsibility make me doubt whether any serious scholar can accept leading academic positions in universities where such conditions prevail. It must be made plain though that the same verdict does *not* apply to a situation like that which prevailed in some departments of Oriental Studies in Swedish universities during the earlier nineties where resources were very modest but balanced in relation to most basic requirements.

<sup>16</sup> Seen against the background of those aspirations it seems remarkable that with respect to the translation-equivalents for Indian terms offered in the 'Glossary' of the dissertation (p. 172 ff) it is difficult to discern any major deviance from customs prevalent in the Western philological tradition.

Western tradition, e.g. the Buddhist Madhyamaka-teacher Nāgārjuna with Kant, Wittgenstein, Derrida etc., not seldom intimating that the Indian thinker was a precursor and superior to his Western counterparts. It is nevertheless a gross mistake to derive from this that such trends are representative for the Western scholarly tradition. Here a strong tendency to emphasize differences exists. This may even go so far that the justification of making any correlations between Indian and non-Indian teachings is disputed without valid arguments.

The ascription of an intention to translate Indian terms in terms of European-American philosophy is definitely false as far as the position in the present book and my position in general is concerned. Regarding the rendering of terms in translations I consider the employment of source-language expressions as admissible in principle, because it is not necessarily a translation alone which can convey to readers not familiar with the source text or the source language required information about their import. It is almost a truism to say that the extent to which such procedure is suitable depends on matters of context.<sup>17</sup> As far as the question is concerned, how source-language terms should be rendered, *if* they are translated into some target-language, my personal preferences tend towards a habit often practiced in the Western philological tradition trying to make the internal compositional structure or etymological meanings manifest. I think, however, that in this matter rigid dogmatism is not advisable. Regarding the use of knowledge about Western philosophies and employment of Western conceptual resources for investigating Indian textual sources it is almost needless to say that my position entails a rejection of sweeping prohibitions. The combination of a) confrontation of concepts and theorems of Indian and non-Indian provenance, b) disclosure of differences and c) attempt to understand the nature of an argument put forward in a text is a characteristic trait of the discussion in the first major part of the present study.

## V

Mottos like 'The Indian (Chinese/Korean/....) tradition has to be understood in its own terms' and similar ones are suited to evoke the impression that they represent a stance that is particularly fitting for the objective of doing justice to foreign cultural traditions. This is an illusion. As far as exegesis of textual sources is concerned far more decisive is a serious pursuit of the aim to minimise imputations of defects in matters of form and content, i.e. to search for viable possibilities to reduce ascriptions of imperfections with regard to linguistic behaviour as well as the content of linguistic items and associated communicative goals. The present study furnishes a pertinent example.

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<sup>17</sup> There cannot be a fundamental disagreement in this regard between Sjödin and myself because the translation of her dissertation is replete with (untranslated) source-language terms, such as *sādhya*, *sādhana*, *anaikāntika*, *upādhi* etc.

If one followed the account presented in Sjödin's dissertation based on statements to be found in some Indian commentaries, then the *Nyāyalīlavatī* would contain a segment exhibiting the following character<sup>18</sup>: First a definition of the technical term *upādhi* is presented by specifying two qualities Q1 and Q2, such that their conjunction, i.e. the property of possessing both Q1 and Q2, constitutes a both necessary and sufficient condition for something's falling under the pertinent concept, i.e. for something's being an *upādhi*. Subsequently it is remarked by the writer of the text, that cases exist in which it is definitely known that an *upādhi* possesses both Q1 and Q2, cases in which it is definitely known that an *upādhi* possesses Q1 but not known that it possesses Q2, and cases, in which it is definitely known that an *upādhi* possesses Q2 but not known that it possesses Q1. All these cases are illustrated by examples in the *Nyāyalīlavatī*. Thereafter cases, in which neither possession of Q1 nor possession of Q2 is definitely known, are ruled out as possible instances of *upādhi*.

This account raises two fairly obvious questions: 1. Why does the writer of the work mention distinctions pertaining to what is known or not known about properties of objects at all? If one cannot learn more from Indian sources than that it sometimes occurs that objects possess properties and people do not definitely know that they possess them, then spending thousands or even millions for explorations of such sources is surely an exaggeration. 2. Why, supposed that distinctions between different possibilities of knowing or not knowing something about entities *are* made in the text, the alternative of something's being an instance of *upādhi* if, in particular circumstances, knowledge pertaining to the possession of the two qualities Q1 and Q2 does not exist, is discarded? After all, nobody has ever dreamt to view the writer of the text as representing a doctrine according to which existence equals actual definite knowledge.<sup>19</sup>

In the present connection we need not discuss the linguistic and philological impasses into which attempts are led to mitigate the second problem by supposing that the text expresses a rejection of a specific variety within the category of cases in which both properties are not ascertained. It should suffice to say that the stratagem to circumvent the first problem by assuming that the author of the text merely intended to refer to situations exhibiting analogies to situations in which an *upādhi* is instantiated inasmuch as such circumstances render inferences faulty is extremely unappealing. The incongruity between actual wording and content would be so momentous that the hypothesis could call into question the assumption that the writer of the text had a full command of the language in which he wrote.

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<sup>18</sup> The most relevant segments are to be found on pp. 87-88, 91-94, 132-136 in the dissertation.

<sup>19</sup> Note that this supposition would make even more acute the problem of assuming that *some* of the properties which entities objectively exhibit are not known.

Difficulties can be avoided on the basis of an assumption intimated by avoidance of *ad hoc* meanings regarding an apparently minor detail of formulation. Presumably the reference to varieties in which it is merely ascertained that one or the other of the two qualities Q1 and Q2 occur is meant to allow for classifications under the pertinent term under specific conditions. On the other hand, the original text contains a term which, like the English word, 'decide' can possess both an epistemic and non-epistemic import. By combining all relevant facts one is able to reach an alternative account which looks like follows:

The initial statement of the form 'Being an *upādhi* is being F of something which is G' is not a definite stipulation to the effect that something is *upādhi* if and only if it possesses two qualities Q1 and Q2. Rather it lays down that as a rule *upādhi*-s exhibit both qualities, but under specific conditions *upādhi*-s exist which possess only one or the other of those qualities. Since one can ascertain that the allowance of non-standard *upādhi*-s under the specific conditions provides room for attributing the same status to items which should *not* possess it if one wants to maintain that existence of *upādhi* deprives inferences of acceptability, the threat of 'over-extension' is subsequently averted by a further restrictive stipulation. If one employs 'definition' as a word meant to relate to everything which specifies the import and the conditions of applicability of terms then the initial statement does not represent the definition of *upādhi*. The term is rather defined by a longer textual segment consisting of several sentences. This is reminiscent of a method used in (Indian) grammar using a general rule or precept (*utsarga*) qualified by restrictions or exceptions (*apavāda*). The characteristic feature of the present example is that the general specification is first partly suspended to allow for a greater range of application and that the suspension is subsequently partly revoked. One can show that theoretically at least this is a reasonable option.

Definite proof of the adequateness of the sketched account or discussions about its relation to other, possibly equally viable, alternatives cannot be a topic in the present introduction.<sup>20</sup> What matters is only the disproof of the claim that 'understanding in own terms' signals the most effective instrument for safeguarding adequacy of understanding.

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<sup>20</sup> That minimizing defects can never settle all issues of exegesis follows from the following two facts: 1. It is possible that a plurality of mutually incompatible accounts can minimize ascriptions of imperfections to an equal degree, 2. It is not absolutely certain that something that appears as defective to an exegetist was considered as such by the writer of a text. The second circumstance is relevant especially in the context of varieties of interpretation dealing with questions pertaining to intended communicative goals.



# **INTRODUCTION**



## INTRODUCTION

### I

The *Nyāyalīlavatī* (NL) is a treatise that can be allocated to the tradition of the philosophical schools of Vaiśeṣika and Nyāya and was written by a person named '(Śrī) Vallabha (Ācārya)', who is supposed to have lived in the period of the 12<sup>th</sup> or the beginning of the 13<sup>th</sup> century. The first chapter of that work contains a paragraph dealing with inference (*anumāna*). Within this segment a subsection exists that occupies (little less than) a third of the total size of the entire chapter. Notwithstanding its brevity the pertinent textual passage possesses utmost significance from the point of view of its content. The main topic of this segment is a discussion of a technical term named 'pervasion' or *vyāpti*. The concept signified by this expression plays a vital role in the tradition of Indian theories of inference, or what is often called 'Indian logic', and the term *vyāpti* itself constitutes a most central topic of debates in the later stages of this tradition. In connection with the discussion concerning the issue of 'pervasion' in the pertinent section of the NL an exposition of another theoretical concept signified by the term *upādhi* emerges as a major secondary topic. It is not merely the vital role which *vyāpti* as well as *upādhi* play in the theoretical framework of inference that bestows potential importance to a critical examination of this segment of the work. Equally important is the fact that the pertinent textual passage poses a number of questions which can be divided into the following categories: a) questions concerning the (intended) content of the term *vyāpti*, b) questions concerning the (intended) content of the term *upādhi*, c) questions concerning the relation between the concepts of *vyāpti* and *upādhi*, d) questions concerning the theoretical role of *vyāpti* and *upādhi* in the framework of inference and in particular with respect to validity of inferences and arguments, e) questions regarding the status of definitions of those terms and presupposed criteria of acceptability of definitions. Particular problems arise because of the following circumstances: i) Specific features of the exposition of *vyāpti* and *upādhi* in the pertinent section of the NL evoke *prima facie* impressions of inconsistency. ii) One cannot discern some unique way of eliminating the apparent inconsistencies. iii) It is not obvious whether and to what extent the inconsistencies are in fact only apparent and deserve to be resolved or whether they must be acknowledged as objective properties of the exposition and might be outcomes of some inherent vagueness.

Recently a dissertation has been published by A.-P. Sjödin dedicated to a study of the chapter of inference (*anumāna*) in the NL.<sup>1</sup> The transliterated Sanskrit text comprises three and a half pages in the book and the section dealing with 'pervasion' almost one page. The value of Sjödin's treatise relies on the fact that it conveys a fair picture of traditional Indian views on the pertinent subject matter.<sup>2</sup> On the other hand it cannot be asserted that by

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<sup>1</sup> Anna-Pya Sjödin, *The Happening of Tradition. Vallabha on Anumāna in Nyāyalīlavatī*. (Dissertation presented at Uppsala University). Uppsala. 2006.

<sup>2</sup> The textual investigations concerning the NL are by far the most important component of the dissertation because other ingredients, such as the general

Sjödin's investigations the issues mentioned in the preceding paragraph have been definitely and adequately settled. This circumstance alone would justify a critical scrutiny of the matter. Since, however, there are even various problems which have not been addressed at all a critical examination in a most genuine sense of this term is called for. Accordingly the issue which is at stake must not be restricted to the question of whether and to what extent interpretations, explanations or other statements appearing in Sjödin's book in connection with the segment dealing with pervasion in the NL are acceptable. Most important is a critical assessment of the merits or shortcomings of the type of investigation which Sjödin's treatise represents. More specifically, possible limitations inhering in the undertaking to convey information about views that are held by individuals or expressed in textual sources representing a foreign tradition of thought need to be identified and it must be critically examined whether such identified limitations entail relevant shortcomings. This issue is connected with a question affecting research in Asian studies in general and with a more fundamental problem pertaining to the role which academic disciplines dealing with non-European areas and cultures play, namely the query of whether or not their function should be exhausted by imparting information which is not novel in an absolute sense but merely novel relative to some specific class of individuals, such as Western citizens interested in Asian affairs or in non European traditions of thought.

## II

If, as in the case of Sjödin's study, an investigation does not only aim to inform readers about what the writer of a text intended to express or assert in a specific textual segment but also aspires to explain and clarify the import of the concerned passage of a text, failure can theoretically occur on two levels: 1) Some content ascribed to a particular chain of expressions occurring in the textual source does not possess the assumed content or does not only possess the content assumed but some other content in addition. 2) The explanation pertaining to the assumed content is inaccurate or erroneous. It appears that some failures of both types occur. More specifically, there are cases where some ascribed content is possibly or presumably incorrect and the short section of pervasion contains even a passage where it is difficult to bring a proposed interpretation into accord with grammatical rules pertaining to the language of the textual source. On the other hand it appears that certain explanations based on presumably correct suppositions regarding the (literal) content are not adequate or at least involve problems which forbid to take their correctness for granted. Although such phenomena justify a critical examination they possess relatively minor significance in the *present* context. One could deduce from such facts that reliance on an indigenous tradition of textual exegesis, such as explanations furnished by traditional Indian commentaries, cannot provide a safe protection against errors of the above

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account of Indian theories of inference, might — despite a pervasive tendency to neglect the important Buddhist tradition — provide a useful survey, but do not present anything new or original.

mentioned type and that even a most careful consideration of what representatives of an indigenous tradition say does not guarantee that interpretations are based on a sound philological basis. Nevertheless, it remains valid that consultation of an indigenous tradition of textual exegesis provides a pretty secure safeguard against adopting ascriptions of content based on gross mistakes of grammatical analysis and they considerably diminish the risk of deriving interpretations from a completely unsound philological basis.<sup>3</sup> Apart from this it must be admitted that taking notice of an indigenous tradition of exegesis is important for the simple reason that everybody who intends to say something on a subject matter should — to some extent at least — consider what other people have said on the same or a related subject matter. Therefore solitary examples of flawed interpretations depending on information imparted by an indigenous tradition of exegesis cannot suffice to prove that reliance on such information entails an inadequacy of *significant* relevance.<sup>4</sup>

For an identification of limitations inhering in the very nature of exploiting an indigenous tradition of exegesis one must consider what questions can be theoretically posed with respect to a text or a textual passage and its content such that those questions cannot be solved by this method not because of accidental circumstances but because of principle reasons. First there is one point which comes immediately to mind which, however, possesses comparatively little importance in the present context: Comments expressed in representatives of an indigenous tradition of exegesis are usually meant to explicate the contents of some work for addressees belonging to a cultural

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<sup>3</sup> The question of the assessment of the dissertation as an academic work raises some interesting issues. On the one hand the offered translations and explanations render a most valuable help for getting an access to a text which is often difficult due to the conciseness of its formulations. On the other hand, discrepancies regarding the quality of translations exist and it appears that the interpretations and analyses are significantly less reliable whenever textual passages are concerned which are not or not satisfactorily explained by some Indian commentary. However, the textual segment treated in the dissertation is too short to allow for any safe generalisations in this regard. Considering this and the possibility that the central parts of the investigated material have been studied with the assistance of Indian (or Western) scholars acquainted with the tradition of Nyāya it is almost impossible to decide on the basis of the work the extent to which its author possesses a capability to interpret and analyse textual sources on her own and independent of external information and explanation. One can neither safely deduce nor can one safely exclude the existence of that ability. This circumstance is extremely significant with respect to Indian and Tibetan studies in general because training in institutions of traditional scholarship is getting popular among scholars working in those fields. Nobody can deny the legitimacy and possibly even the necessity of those approaches. But the fact that they impede insights about the capacity of doing independent and original research is so momentous that it would be irresponsible to ignore it.

<sup>4</sup> It is notable nevertheless that there is at least one example in the passage on *vyāpti* and *upādhi* where in the light of a theoretical analysis of the pertinent subject matter the basis for admitting in accordance with Indian commentators eccentric ascriptions of meaning to individual expressions collapses.

tradition to which the exegetical treatises themselves belong. Traditional Indian commentators do not anticipate a reception by a modern Western reader. Accordingly any explication possessing potential value for those readers who are the envisaged addressees of presently written explanations of texts of the past must be adapted to their needs and their background of pre-existing information. This often precludes a mere repetition of what has been stated in some exegetical treatise of a foreign tradition. Sjödin's thesis complies with that demand and it is mainly in this connection that a motivation to go beyond information provided in commentaries becomes virulent. However, this is a relatively modest way of exceeding the boundaries of a tradition. It could be regarded as being more akin to an adaptation than a transgression. The need to surpass an indigenous tradition of exegesis on this account and in this respect is still relatively uninteresting because it does not demonstrate that explicating a text of the past 'in the light of' an indigenous tradition of exegesis entails limitations of a substantial nature.

Modern Western scholarship has implicitly presupposed that assessments of textual sources from an external perspective are called for. In the tradition of studies on Indian philosophy a most prominent example are attempts to date textual sources or their authors as well as to establish a relative chronology of texts or their writers. Many sources do not contain any explicit indication concerning the date they have been created — otherwise problems of dating would never have occupied the central role they play in academic investigations on Indian philosophy till the present day. As far as one can see, no writer of a text has ever explicitly stated that his work has been produced earlier or later than some particular work of some other writer. The non-occurrence of such phenomena is, in our eyes at least, not at all surprising, and we can safely presume that the authors who do not make any statements to that effect were pretty much disinterested in issues of 'relative chronology'. This however, does not prevent Western scholars to make statements such as 'The work A of B has been written earlier than the work C of D, because ....'. Such assessments implicitly rely on the premise that the interests of Western academic scholarship do not necessarily coincide with the interests of subjects who are objects of its investigations. This fact at least provides both a formal justification and a formal guideline for identifying ways of assessing textual material of the past under a, so to speak, external perspective. The principle of formal justification is plain: *If* Western scholarship is justified in its approach to deal with sources of the past, *then* assessments under an external perspective are justified in principle. The formal guideline of identification is that assessments under an external perspective are possible resulting from interests which do not coincide with the interests of subjects who constitute objects of investigation. From these facts the following proposition follows with necessity: If the established premises of Western scholarship are justified, then anyone who supports a wholesale rejection of assessments under an external perspective does not deserve to find a place in Western academic scholarship.

The foregoing statements do not refute the possible stance that chronological issues constitute the only aspect under which assessments under an external perspective are justified although they decrease its plausibility to a considerable degree. The vital query is whether assessments pertaining to issues of content are possible which are 'external' in the sense that they do not merely reflect a content envisaged by some subject of investigation, in particular some author of a text, and whose validity need not even depend on the circumstance that some foreign subject was in a position to make exactly the same assessment.

Indian commentators do not often, but sometimes at least, elucidate argumentations represented by some textual passage by mentioning propositions that have not been explicitly expressed in the commentated text but which are such that their consideration supposedly furthers the inclination to attribute plausibility to the pertinent argument. Usually no explicit remarks are made concerning the relationship between the added propositions and their acknowledgment on the part of the writer of the commented text. One must presume, nevertheless, that the commentators did not intend to convey that their additions reflect some thoughts which an author explicitly entertained at the time of writing the relevant textual passage. On the other hand it is probable that the commentators supposed that the writer of the commented text was disposed to acknowledge both the truth of the pertinent propositions and their relevance for the validity of the reasoning. The possibility exists to detach the addition of, so to speak, hidden premises from any specific assumption regarding the dispositions of an author to attribute truth and relevance to them. This detachment is recommendable if one is interested in assessing the question of whether some argument is capable to represent in a fragmentary form a piece of reasoning that could be assessed as objectively plausible or even formally valid. It can be even appropriate to perform the detachment for methodological reasons because dispositions of a writer of the past are to a large extent inscrutable and speculations about what he 'really thought' or was inclined to think can be pretty futile and useless. It is true that the possibility to transcend the network of pieces of reasoning explicitly represented in some textual source by ascertaining hidden premises or propositions whose addition bestows a novel quality to theoretical arguments or systems is in itself no proof of its significance. There are various perspectives under which such practice could attain relevance. One possibility is that on the presumption that not only in everyday life but also in the context of theoretical enquiries pieces of reasoning occur in a form which is not fully explicit and are often 'enthymematic' identification of hidden premises helps to reconstruct a system of beliefs of some individual person in a more complete form. Another possibility is that one is interested in discovering deviances between ourselves and a foreign tradition of thought with respect to criteria of plausibility of reasoning. If one is able to bestow intuitive plausibility to some piece of reasoning only under premises which appear implausible or even indefensible to us, then one has probably detected a fundamental divergence regarding the basis on which rational justifications are considered acceptable. On the other hand, not intuitive plausibility but

formal validity is the only appropriate background whenever the identification of 'basic beliefs', ingredients of ideologies which are shared in different cultures, is at stake. The reason is that under such circumstances we are obliged to question the fundamentals on which our own intuitive ascriptions of plausibility and dispositions to find pieces of reasoning persuasive rest. At any rate, questions of significance of 'rational reconstructions' of pieces of reasoning encountered in sources of the past cannot be assessed apart from cognitive interests as well as the relevance of those interests themselves. Will people find pleasure in the mathematical calculations of astronomy merely because they are enthusiastic about horoscopes? Is it worthwhile to get into discussions about the significance of non-explicit ingredients of rational thinking as long as scholars appraise such matters only in the light of their own interests and preferences?

Against the background of the fact that on the one hand rational reconstruction of argumentative reasoning is an integral part of Western philosophy as well as the exploration of the history of Western philosophy and that on the other hand the germs of this enterprise are inherent in the indigenous tradition of Indian commentarial exegesis it can appear surprising that this aspect of dealing with a tradition of thought is almost entirely absent in studies on Indian philosophies. In view of the absence of objective reasons making a disparity of approach with respect to philosophies of European and Indian antiquity mandatory contingent factors must be considered as decisive. In this connection a peculiar circumstance is significant: The exploration of Indian traditions of thought has incurred a momentous impact of religious studies in combination with a cliché that Indian philosophies are essentially religious in character. This is a fate from which Greek philosophy has been exempted. Apart from the consequence that not only the indispensable philological proficiency but even competence in matters of philosophical analysis is uncritically attributed to representatives of religious studies the circumstance is fatal that the exploration of Indian traditions of thought is almost exclusively executed under the aspect of the historical development of ideas and beliefs. In this way the important fact is neglected that the Indian philosophical tradition represents the most eminent counterpart of Greek philosophy outside the Western tradition as far as the practice of supporting beliefs by rational arguments is concerned. Not only is giving reasons the most vital ingredient of at least an important component in the Indian tradition of thought but Indian philosophy possesses even the distinctive feature that giving reasons has been made a topic of philosophical analysis in this tradition. The circumstance that the provided accounts of giving reasons are inadequate, specifically as far as the practice of giving reasons in philosophy is concerned, is a completely different story. The fact persists that philosophical practice in India cannot be reduced to a mere historical sequence of adopting and forsaking individual ideas and beliefs. The very concept of a 'history of ideas' involves a fatal reduction of depth inasmuch as it emphasizes the dimension of historical — or biographical — motivation at the expense of the dimension of rational reason. Even in areas outside philosophy this reduction amounts to a distortion of actual facts. Systems of



beliefs, no matter whether they are theoretical beliefs or not, are not simple agglomerations of individual opinions. Even in most ordinary contexts belief-systems possess ingredients supporting and sustaining other ingredients as well as components which are supported and sustained by other components and as far as the readiness to modify or retract individual beliefs is concerned not all the elements of a belief-system can be put on a par. It is at present far from certain that the exploration of the Indian tradition of thought can ever attain the same importance which Greek philosophy possesses for philosophy in general. Nevertheless, the following negative contention is highly plausible: *If* the Indian philosophical tradition is assessed under the narrowed perspective of a sequence of historically motivated ideas and beliefs, *then* it will never attain any major significance in the same respects in which the philosophies of European antiquity are significant. It is not eccentric to surmise even that explorations of Indian traditions of thought will finally turn out to be a mere waste of time, energy and money if they are subjected to the distorting perspective delineated above.

A major part of the following investigations on the pervasion-segment of the NL pertains to a topic which is closely related to the undertaking of 'rational reconstructions' of pieces of reasoning. The connection consists in the circumstance that objective properties of content are at stake. Whereas in rational reconstructions pieces of reasoning are assessed as exhibiting the property of being enthymematic capable of being supplemented by additional assumptions<sup>5</sup> the pertinent topic consists in an assessment of relational properties exhibited by the content of certain individual terms. Particularly relevant are the concepts designated by the technical terms 'pervasion' (*vyāpti*) and *upādhi*. As far as one knows, concepts of relational properties such as 'reflexivity', 'transitivity' and others have not been developed in the Indian tradition of thought. But it appears that certain pieces of reasoning in the NL can be made intelligible only if specific relational properties are attributed to those concepts, which are by no means trivial because apparent 'Western counterparts' do not exhibit them. Evidently the assignment of relational properties exceeds the conceptual framework of the investigated textual source as well as that of the indigenous commentaries and of the entire tradition of thought of which they are part. But it surely does not follow from this fact that such assignments cannot possess some objective basis and

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<sup>5</sup> It deserves to be emphasized that not all supplementations are equally interesting. One can easily transform any formally non-conclusive argument into a formally valid argument by either adding the conclusion itself to the set of premises or by adding as an additional assumption a conditional containing as antecedent the propositions explicitly occurring as giving reasons for the conclusion and the conclusion itself as consequent. Under those circumstances the conclusion can be validly derived from the assumptions by the rule of *modus ponendo ponens* and possibly also by 'and'-introduction and 'and'-elimination. This is surely a 'cheap' and presumably entirely uninteresting way of transforming defective pieces of reasoning to formally compelling ones. However, this does not prove the irrelevance of rational reconstructions in general but merely shows that additional restrictions are required for separating interesting from uninteresting specimens of this category.

must be regarded as arbitrary. If such a conclusion *would* follow then it should be equally purely arbitrary to call Sanskrit an inflectional Indo-European language. Calling languages 'inflectional' and 'Indo-European' surely exceeds the conceptual framework of (most) Sanskrit speakers. Therefore potential critics of the approach represented by our analysis must be aware of the circumstance that they could provide excellent reasons for liquidating their own job and source of income.

### III

The above described ways of bringing external aspects into play in the context of an ascertainment of properties of content are relatively modest and even conservative inasmuch as they extrapolate ingredients of traditional textual exegesis. However, the exceptional significance of the segment on pervasion in the NL stems mainly from the circumstance that it indicates the existence of other and less familiar varieties of transcending the framework of a tradition. Here a brief outline must suffice.

According to the interpretation of some commentators, which is adopted by Sjödin with an insignificant modification, the NL presents an argument against a second alternative of defining 'pervasion' that exhibits obvious shortcomings. The main defect of the supposed argument consists in the circumstance that it relies on a biased reading of the formulation representing the rejected definition. On the other hand, the formulation representing the rejection of the rejected argument does not make mandatory a reading according to which a defective argument is presented by the author of the text. One *could* read the formulation in various ways which do not entail the same consequence. Their adoption would open possibilities of attributing less assailable arguments to the writer of the text. In principle this fact furnishes a reason to question the proposed interpretation. For, ascriptions of content to linguistic utterances must not merely take into consideration whether the ascribed content is in accordance with pertinent linguistic rules, in particular rules of syntax and semantic conventions of a language, but need equally pay attention to the question as to whether or not in the specific context in which the interpreted utterance occurs it would be reasonable for the producer of the utterance to produce an utterance with the assumed content.<sup>6</sup> A most

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<sup>6</sup> It can appear tempting to object that the advocated principle militates against the principle of linguistic compositionality. The answer is that there is no such disagreement. The principle leaves the issue of linguistic compositionality entirely open, i.e. it neither supports nor contradicts compositionality, because it merely entails that there is some variety of content which does not coincide with a content determined by the meanings of constituent expressions and the mode of their composition. There is no need to resort to the existence of indexical expressions in natural languages to defend a notion of content which does not fully harmonize with the depicted variety of compositionality principle. More decisive is the circumstance that a host of phenomena of linguistic usage, such as the use of prepositional phrases, clearly reveals that something which is taken as content on a most intuitive basis does not conform with linguistic compositionality. It is precisely the non-

decisive criterion of assessing reasonability of this sort consists in an assessment of whether or not it would be, given the pertinent context, objectively reasonable, i.e. reasonable for anybody, to produce an utterance of the assumed content.<sup>7</sup> Consequently shortcomings of objective reasonability furnish a significant reason to call ascriptions of content into question, even if they cannot provide absolutely compelling reasons for denials of content ascription. It needs to be said that biased emphasis on linguistic rules and conventions accompanied by disregard of considerations of reasonability constitute a most eminent methodological flaw crucially affecting even the tradition of serious philological research. Its relevance can be gathered from its aptness to generate appearances of incoherence which do not possess any objective basis in the material. In this manner completely distorted pictures of the quality of texts or their authors can be conveyed. A special virulence of the failure results from the high degree of conciseness correlating with a high amount of ambiguousness, vagueness and semantic indeterminacy characterizing many Sanskrit texts.<sup>8</sup>

The fundamental methodological deficiency Sjödin's treatment shares in this connection with a prevalent trend in her discipline is the unreadiness to *control* the exegetist's own ascription of content against the touchstone of whether or not it entails the existence of serious deficits on the part of an interpreted author.<sup>9</sup> The method amounts to an unfairness against Indian

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compositional varieties of content that play a most prominent role in textual exegesis (and in ordinary linguistic communication too).

<sup>7</sup> It is possible to develop more sophisticated maxims of interpretation exhibiting finer-grained differentiations, such as a distinction between reasonability for everyone on the one hand and reasonability for everyone in so far as he belongs to a particular class of individuals, e.g. individuals belonging to a particular cultural milieu etc., on the other. One must also pay due attention to the circumstance that what a speaker actually says must not be always determined by something which would be objectively reasonable for him to say in the pertinent context but sometimes it is only decisive that something *appears* to him reasonable. Nevertheless, for the contention that considerations of reasonability of saying are a most important *criterion* for content-ascriptions these distinctions possess no vital importance.

<sup>8</sup> To my knowledge an explicit denial of the postulate of accounting for reasonability of linguistic utterances has (with one exception) never been advocated. In accordance with a general disinterest for methodological reflection in Sanskrit studies the neglect manifests itself mainly in practice. On the other hand, one must never permit that fashionable bombastic phrases, such as 'contextual interpretation', 'intertextuality' etc., conceal the dubiousness of wholly ignoring even minimal ingredients of cultural externalism in the form of bringing non-provincial aspects of rationality into play.

<sup>9</sup> This implies that ascriptions of content need to embrace three types of criteria as their components: 1) criteria pertaining to grammatical rules and linguistic conventions, 2) criteria relating to features of some specific (historical) context of utterance, 3) criteria concerning considerations of reasonableness. Notwithstanding a tendency to disregard the third component traditional philologies are at present the most vital factor introducing methodological rigour with respect to the first two components. Against the background of the fact that ascriptions of content play an

writers and the Indian tradition as a whole because it accepts the risk to impute to the object of interpretation deficiencies of reasoning only because of the lack of an interpreter's own reflection on the relevant subject matter. Nevertheless, it is far from certain that in this particular case the deficiencies entailed by the interpretation necessitate its rejection.<sup>10</sup> This means that the explanation adopted by the commentaries and Sjödin could be contingently correct at least as a reflection of the import which the writer of the textual passage intended to convey. — My own intuitions waver between admitting and rejecting the proposed exegesis.<sup>11</sup> — However, the case in question is exceedingly interesting because precisely on the hypothesis that the 'traditional' interpretation *is* correct most remarkable consequences follow. One consequence is that not only the author of the original text but even representatives of the later exegetical tradition did not hesitate to sweepingly reject some alternative on no other objective basis than that its formulation exhibits some crucial vagueness intimately connected with properties of the Sanskrit language. *If* the interpretation adopted by Sjödin in accordance with the commentaries should be correct then this fact would reveal the eminent importance of modern symbolic logic. More precisely, it would indicate an important reason for exploiting the expressive powers provided by modern symbolic logic because the increase of semantic transparency in particular respects which the symbolism introduces forestalls the acceptance of irrelevant arguments and the mingling of different issues<sup>12</sup>, at least in some important regards. It can be equally made plausible that — in contrast to

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essential and fundamental role for all kinds of explorations it is no exaggeration to call disastrous a policy eliminating or suppressing those traditions.

<sup>10</sup> Possibly the circumstance that the 'traditional' exegesis provides a basis for connecting the pertinent textual passage with a topic playing a prominent role in the later Nyāya tradition furnishes the strongest argument in its favour. However, precisely this could also indicate that the interpretation of the commentaries is anachronistic. For the sake of argument it is assumed here that certain problems pertaining to the wording which the pertinent interpretation entails can be disregarded. Actually it is just to demand that questions relating to the pragmatic adequacy of formulations are addressed in academic investigations, irrespective of whether or not indigenous commentaries make them a topic of discussion. In this connection it is also relevant that more than one reading could be intended by the writer of a text. Even if a matter is not definitely decidable this cannot justify simplification by misleading pretence of certainty.

<sup>11</sup> Nevertheless, my strict opposition against attribution of value to methods because they yield truths by accident should be evident. What might be less plain, however, is the fact that the same outlook was shared in parts of the Indian tradition of thought too. The Buddhist philosopher Dharmakīrti can be considered as the most prominent exponent of this view because his theory of 'essential connection' (*svabhāvapratibandha*) is most obviously connected with the objective to obstruct attributions of validity to methods of reasoning leading to true conclusions by coincidence. Nobody is entitled to claim that the stance adopted here represents merely a provincial Western phenomenon.

<sup>12</sup> In the present case the reduction of noun structures to sentence structures and a dissolution of the connection between defining a concept of 'pervasion' and an ontology of 'absences' is most relevant.

what is not seldom affirmed even among Western scholars — Sanskrit and in particular the style of Sanskrit characterizing theoretical treatises is a fairly unsuitable medium of communication in the context of philosophy and related areas. The significance of those consequences is increased by the circumstance that they possess implications with respect to the appropriateness of the manner in which the Indian tradition dealt with its own heritage. If the interpretation in question should be in fact true one would presumably need to say that Vallabha and his tradition failed to account for a sound intuition underlying the concept of *avinābhāva*, which played a prominent role in the Buddhist tradition and embodied the idea that a valid *probans* must not occur whenever the *probandum* does not occur.

There are even consequences which do not essentially depend on the assumption that the formulation representing the argument for the rejection of the alternative definition permits various readings. Supposed the interpretations which will be discussed later as possible alternatives would be rejected as inadmissible then the fact would be significant that more insightful ways of dealing with the pertinent subject matter have not even been envisaged, neither in the original text nor in the indigenous tradition of exegesis. Surely, a major objective of the subsequent investigations must be to show, why or in which respects the alternative ways of dealing with the pertinent subject matter are more insightful. But granted that this is the case then it follows that certain factors were at work which inhibited progress in important respects. The results suggest that the manner of forming opinions and accepting beliefs in the Indian tradition of thought was beset with problems. They highlight the subjectivity and to some extent cultural relativity of ascriptions of plausibility to arguments and pieces of reasoning. They bring to the fore the problematic nature of a tendency to leave issues unquestioned. These are relatively unfamiliar aspects, completely different from those characterizing the two most common undertakings in studies of historical sources, i.e. identifying the content of a text or of linguistic items occurring in it and accounting for the previous or subsequent historical development relative to particular works and their authors, or, as certain people sometimes say, relating a text or its creator to its 'historical context'.<sup>13</sup> Nobody can reasonably deny that phenomena, such as basing plausibility assessments concerning pieces of reasoning on doubtful criteria, leaving issues uncritically unquestioned, espousing problematic mechanisms in the formation of opinions and beliefs have lost actual relevance. The matter of inhibition of

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<sup>13</sup> It is plain that in historically orientated studies the former task is much more fundamental and essential than the latter. If, for example, questions of the consistency, completeness, plausibility of the axioms or theorems of a mathematical theory of the past are studied it is essential that the investigator understands the pertinent axioms and theorems and grasps the content of the sentences or symbols expressing them. But commanding that one has to connect those items with their 'historical context' for performing this task is absolutely ridiculous. It must be made clear from the outset that the same verdict affects everybody who erects a similar demand for the subsequent investigations of this book.

cognitive progress is as relevant nowadays as it was at the time of the creation of Sanskrit treatises in India. The only major difference is that, presumably, inhibiting factors are easier to ascertain from a perspective of geographical and historical distance. The issue itself possesses both in India and nowadays a significant social dimension<sup>14</sup> affecting even matters of cultural and educational policy at present.

Concerning ideologies of the past one could distinguish between a descriptive, an explanatory and a critical stance. In contrast to the first one the second does not confine itself to a mere registration of past events and states-of-affairs but attempts to provide possible answers as to why they have occurred or existed. The third one differs from the former two in that it takes alternative courses of events as well as alternative possible states-of-affairs into account which, though usually significantly related to actual historical occurrences and situations, do not coincide with actual historical facts. It is possible, but not mandatory, that those alternatives represent more ideal or preferable counterparts. A general survey of possible reasons and legitimizations of critical appraisals regarding past ideologies cannot be a topic in the present context. But a point of methodology must be made plain: Critical approaches can require higher degrees of precision, methodological rigour and intricacy than approaches of the first two types. One reason is that criticism sometimes needs an exact identification of what is entailed or possibly entailed by some system of thought. This can rule out the option of leaving matters of vagueness undecided or of transferring features of vagueness inhering in some object of interpretation to the interpretation itself, an option which is often feasible for translations. Another reason is that criticism of some theoretical approach traceable in some system of thought cannot always confine itself to take into account the approach in the form and in the context in which it actually occurs. What is needed is a consideration of possible modifications of the approach yielding more adequate varieties as well as possible embeddings in more suitable contexts. This can evoke the impression that what is at stake is not what some thinker really thought but what he should have thought. Here it is not merely the aspect of fairness that requires the consideration of idealized varieties. More decisive is the circumstance that criticism tends to lose relevance and significance if it does not envisage the whole potential inhering in some component of a teaching and that criticizing points of weakness exhibited by an ideology or the component of an ideology can be pretty uninteresting and non-illuminating if it is not equally ascertained how essential those aspects are for a system as a whole. This is not the place to assess questions of the legitimacy and importance of varieties of ideological criticism obliged to meet the above indicated requirements. What matters is only the unpretentious conditional tenet: *If* criticism of ideologies of the past is undertaken, *then* it is illegitimate to disregard the intricacies necessitated by it.

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<sup>14</sup> It can be made plausible that particular social factors, such as the institution of debates whose outcome was assessed by kings, had some detrimental impact on the readiness to assess philosophical problems with more depth.

It could be pointed out that a historical dimension is immanent in the previously mentioned issues, such as adoption and forsaking of beliefs, inhibition of cognitive progress etc. This is true, but nobody disclaims justification for historical approaches in cultural studies. If, on the other hand, the mechanisms of accepting opinions at a particular time are a possible object of investigation why should the same legitimacy not be attributed to possible changes of such mechanisms in the course of time? Nowadays synchronic and diachronic approaches are both integral parts of linguistics. What must be sternly rejected, however, is the adoption of a stance that confuses different issues from the very outset. One can presume that if synchronic studies in linguistics had never been clearly separated from diachronic approaches modern linguistics would be almost as uninteresting as, in theoretical respects at least, Oriental studies are at present. No cognitive profit can be *a priori* expected from the sterility of reporting what an indigenous tradition of exegesis says concerning some subject matter.

#### IV

In order to enhance the clarity of the subsequent investigations the entire relevant textual passage is cited below. Variant readings are not mentioned because they do not possess argumentative relevance in the present context. They can be found in Sjödin 2006: 73-74. On the other hand, the sections that are most relevant for the later discussion have been put in bold. In the edition of Pt. Harihara Śāstrī, Benares 1927 the pertinent textual passage can be found on pp. 496-513. The text reads as follows:

***kā punar vyāptiḥ. sādhanasya sādhyasāhityaṃ kārtsnyena, na punar anupādhitvam, anaikāntike sopādhivodbhāvanāpatteḥ. nāpi sādhyābhāvavirodhaḥ. anvayini pratibandhāsiddhiprāpteḥ. kiṃ punar asyā lakṣaṇam. anupādhikatvam. kiṃ punar upādhitvam. sādhyakṛtsnasahacāriṇaḥ sādhanaikaśavṛttitvam. ata eva ca na kṛtakatve sādhanē sāvayavatvam. vaiparītye vā nopādhiḥ.***

***sa cāyam kvacin niścītobhayarūpaḥ, yathā prameyatve kṛtakatvam. kvacin niścītānyatararūpaḥ, yathā maitratānyatve śākādyāhārapariṇatiḥ. kvacin niścītacāmarūpaḥ, yathā pārthivatve praśīthilasamyogitvam. aniścītobhayarūpo 'nirūpitarūpaś ca deśakālasādhyetaravṛttitvam anumānamātra-vyavahāravicchedakatvān nopādhiḥ.***

*unnīyate ca bādavyabhicārānukūlatarkābhāvapraticūlatarkaiḥ, yathā dahanetaratvam kṛtakatve, prameyatve kṛtakatvam. maitratānyatve śākādyāhārapariṇatiḥ. upalabhyamānasparśatve cākṣuṣatvam iti. [iti] vyāptiḥ.<sup>15</sup>*

<sup>15</sup> In Sjödin 2006:87-88 the following translation is given:

The above quoted passage begins with an explication of the term *vyāpti* that conveys the impression of an intended definition. Subsequently two alternative explications are rejected. The segment containing the (apparent) definition and the (apparent) rejection of alternative definitions poses not only questions concerning the precise content of the explication of *vyāpti* that is presented here but also questions concerning the exact nature of the arguments by which the two rival explications are refuted.

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What then is *vyāpti*? [*vyāpti*] is the complete association of the *sādhana* with the *sādhya*. However it is not the state of being without an *upādhi*, because the state of being with an *upādhi* would [have to] arise in the case of a deviating *sādhana* (*anaikāntika*). Nor is it (i.e. *vyāpti*) the absence of the absence of the *sādhya* because in [inferences] which have [only] positive concomitance the invariable relation would not be established.

What then is its differentiating mark? It is the state of being without an *upādhi*. What then is the state of being an *upādhi*? [That which has the character of] complete association with the *sādhya* has the character of being present in one part [of the locus] of the *sādhana*.

And therefore "being composed of parts" is not [an *upādhi*] for the *sādhana* "being a product" [and the *sādhya* "non-eternal"]. Nor is it *upādhi* the other way around (i.e. when the *sādhana* is "having parts" and the *upādhi* is "being a product").

And this *upādhi* sometimes has a form with both [aspects] ascertained. For instance [when] "being a product" [is *upādhi*] for [the *sādhana*] "cognizable". And sometimes [the *upādhi*] has a form with one aspect (i.e. the first aspect) ascertained. For instance [when] "digestion of green vegetables" [is *upādhi*] for [the *sādhana*] "being a son of Maitra". And sometimes [the *upādhi*] has a form with the last [aspect] ascertained. For instance [when] "loosely connected" [is *upādhi*] for [the *sādhana*] "of earthly character".

The presence in something different from the place [of the *sādhana*], the time [of the *sādhana*] and the *sādhya* [of the *sādhana*], which has both [aspects] unascertained and whose nature is indefinite is not an *upādhi* because it [would] destroy the practice of every inferential process.

And [an *upādhi*] is set up (*unnīyate*) through obstruction [by other means of knowledge] (*bādha*), deviation (*vyabhicāra*), absence of conforming tarka (*anukūlatarka*), and a refutational tarka (*pratikūlatarka*), as "being other than fire" [is an *upādhi*] for [the *sādhana*] "being a product" [and] as "being created" [is an *upādhi*] for [the *sādhana*] "object of knowledge". [And] as "digestion of green vegetables" [is an *upādhi*] for [the *sādhana*] "being a son of Maitra" [and] as "being perceptible by the sense of sight" [is an *upādhi*] for [the *sādhana*] "having touch which is being perceived". That was [the section on] *vyāpti*.



***VYĀPTI AND ABSENCE OF UPĀDHI***



I

Regarding the rejection of the first definition of 'pervasion' occurring in the relevant textual passage of the NL problems exist which possess major significance. Mainly two reasons are responsible for this:

(1) Subsequently in the text the author of the NL explicitly declares that 'being without *upādhi*' (*anupādhi*) is a *lakṣaṇa*, a characteristic feature of *vyāpti*, but 'being without *upādhi*' is also explicitly rejected as an explication of the concerned term.<sup>1</sup> This fact does not merely pose questions regarding the exact relation between *vyāpti* and *upādhi*, but generates a problem of possible inconsistency. For according to a common usage and understanding of the expression *lakṣaṇa* it holds good that if A is *lakṣaṇa* of B then whenever A occurs B occurs and vice versa or whenever something exhibits A it also exhibits B and vice versa. According to this usage saying that

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<sup>1</sup> This peculiarity cannot be recognized from the summary of the NL provided by Jitendranath Mohanty in the Encyclopedia of Indian Philosophies because the important textual segment in which the accepted definition and the rejection of the two alternatives occur is disregarded in the paraphrase. The summary of the *vyāpti* section runs as follows:

*Pervasion (vyāpti)* is said to be the accompaniment of all instances of the *hetu* by the *sādhya*. Its defining character is said to be the property of being free from all *upādhis*. An *upādhi* is then defined as that which, though always accompanying the *sādhya*, does not always accompany the *hetu*. Cases of *upādhi* are of three sorts. First, there are cases where we are certain both that a certain property always accompanies the *sādhya* and that it does not always accompany the *hetu*. Second, there are cases where we are certain of a property's always accompanying the *sādhya* but are doubtful whether it accompanies the *hetu*. Last, we may be certain that a property does not always accompany the *hetu* but have doubts whether it always accompanies the *sādhya*. Where, however, we have doubts about both there is no *upādhi* at all.

The presence of an *upādhi* may be ascertained by several methods. (i) The discovery that the nature of the *hetu* sublates (*bādha*) that of the *pakṣa*: e.g., "Fire is not hot, for it is created"; here the *upādhi* is the property of *not being fire*. (ii) Discovery that the *hetu* and *sādhya* are not concomitant (they wander (*vyabhicāra*)) except under the condition of the *upādhi*. An example: "Sound is eternal, for it is an object of knowledge"; here the *upādhi* is the property of *being created*. (iii) Where there is no *tarka* to set aside a putative condition which vitiates the argument. E.g., in "He is dark-complexioned, for he is the son of Mitra" can be vitiated by adducing the *upādhi being caused by eating spinach*, which, if not set aside by *tarka*, refutes the inference. (iv) Where there is a *tarka* against the pervasion assumed. E.g., "Air is colored, for it is the locus of perceptible touch"; here it is possible to refute the supposed pervasion by noting that the concomitance only holds if the *upādhi perceptible by the visual senseorgan* is substituted for the *hetu* actually provided.

— See K.H. Potter (ed.) 1995:621-622.

absence of *upādhi* is a *lakṣaṇa* of *vyāpti* should entail material equivalence of the two terms concerned. The question is: What can justify the rejection of the *definition* of *vyāpti* in terms of non-existence of *upādhi* if both expressions are materially equivalent? Supposed that material equivalence is implied by the relevant notion of *lakṣaṇa* and that the position exhibited by the pertinent textual passage is not inconsistent, we must identify a relevant conception of definition according to which the fact that a term  $T_1$  and a term  $T_2$  are equivalent as far as their extensions are concerned or that  $T_2$  represents a *lakṣaṇa* with respect to  $T_1$  is by itself not sufficient for a definition of  $T_1$  in terms of  $T_2$ . Alternatively, one has to investigate whether the pertinent concept of *lakṣaṇa* really entails material equivalence or whether the position adopted by the writer of the text is, as a matter of fact, consistent.

(2) The argument by which the writer of the NL rejects the possibility of defining *vyāpti* as absence of *upādhi* is not entirely clear. The discussion of the issue in Sjödin 2006 even intimates that the pertinent point is apt to cause puzzlement. Commenting on the argument for the rejection in the NL Sjödin writes (pp. 88-89):

.... Following this definition two other definitions of *vyāpti* are rejected. The first defines *vyāpti* as that which is characterized by an absence of *upādhi*, and Vallabha's subsequent rejection of this remains tentatively interpreted. The rejection may imply that Vallabha means that in the case of a certain faulty inference there is first an absence of *vyāpti*, and second an inquiry into the faulty inference and subsequently a pointing out of an *upādhi* that does make sense, and not the other way around. If pointing out an *upādhi* were the first thing to do, it would not be possible because in certain faulty inferences it is not the presence of *upādhi* that renders the inference faulty. This, at least, seems to be the interpretation given by KB. In that case it seems that Vallabha finds fault with the negatively stated definition of *anupādhitvam* insofar as it concerns the nature of *vyāpti*. In a more specific reading, as is made by Chakraborty, Vallabha could be understood as implying that even though every instance of *vyāpti* could be said to have absence of an *upādhi*, it is not so that every instance of a failing *vyāpti* has an apparent *upādhi*. Or rather, it is not so that every failing *vyāpti* fails because of an *upādhi*. In the case of a deviating *sādhana* (*anaikāntika*), when the *sādhana* is there although the *sādhya* is absent, *vyāpti* remains unestablished, but it is not always the case that there is an *upādhi* to point to in order to show this. For example when the *sādhana* is "being cognizable" and the *sādhya* is "fire", it is, according to Vallabha's definition, an absence of *vyāpti* that causes the inference to fail. Since there are very many things that are cognizable where fire is not present, water for example, there is deviation in their relation. In this inference it is very difficult to point to an *upādhi*, given the requirement that it must pervade the *sādhya* but only partly co-exist with the *sādhana*, since the *sādhana* in this case is omnipresent. From the above it seems that Vallabha's reading of the *anupādhitva* (without

an *upādhi*) definition of *vyāpti* is such that if the nature of *vyāpti* is *anupādhitva* then the nature of absence of *vyāpti* must subsequently be *sopādhitva* (having an *upādhi*). But, since this is not the case in all failing instances of *vyāpti* the definition is too narrow.

## II

From this exposition one could distil the following propositions as possible arguments for the rejection of defining *vyāpti* as absence of *upādhi*:

- 1) Since "in certain faulty inferences it is not the presence of *upādhi* that renders the inference faulty" it is not (always) possible to comply with the requirement that "pointing out an *upādhi* " is "the first thing to do".
- 2) It is not always the presence of an *upādhi* that renders an inference faulty.
- 3) "Though every instance of *vyāpti* could be said to have absence of an *upādhi*, it is not so that every instance of a failing *vyāpti* has an apparent *upādhi* ", i.e. it holds true that if *vyāpti* occurs absence of *upādhi* occurs, but it does not hold good that whenever (or wherever) *vyāpti* does not occur an "apparent" *upādhi* exists.
- 4) It is not always so that a *vyāpti* fails (to exist) because of (the existence of) an *upādhi*.
- 5) In certain cases, such as if the *sādhana*, i.e. the *probans*, is 'being cognizable' and the *sādhya*, i.e. the *probandum*, is '(being) fire' "it is very difficult to point to an *upādhi* ".
- 6) It is not always the case that "the nature of absence of *vyāpti*" is "subsequently" *sopādhitva*, i.e. having an *upādhi*, and therefore the definition is too narrow.

It is not difficult to recognize that we are confronted here with an assortment of ideas and proposals which do not evidently amount to the same. Therefore the different ingredients must be considered separately.

Regarding 1) it needs first to be clarified why a requirement of pointing out an *upādhi* as a first thing to do comes into play. The correct answer seems to be that this postulate is not assumed to be objectively valid but supposed to be an (undesirable) consequence of a definition of *vyāpti* in terms of absence of *upādhi*. The underlying principle is apparently that if one defined A as B then for the assessment that A does not occur or is not satisfied in a particular case an assessment to the effect that B does not occur or does not hold good would be always the first thing to do. As the truth of this theorem is not self-evident one should identify a (possible) basis for its acknowledgment in the present context. But even if one granted that principle the question persists why pointing out an *upādhi* cannot always be the first thing that is (to be) done in inquiries of faulty inferences. As a matter of fact, the circumstance that pointing out an *upādhi* need not and *should* not always be the first thing to do might

indeed play a decisive role for the rejection of the alternative definition. It will turn out, however, that this proposition would depend on a significant ingredient of the notion of pervasion that has not been made explicit in the exposition under review. Moreover, for Sjödin at least the above formulated tenet can hardly be the basis of 1). For she assumes apparently that the reason that pointing out an *upādhi* is not always the first thing which is done in inquiries of faulty inferences is that, because of 2), this *cannot* be done in certain cases.

Proposition 2) could be understood either in a weaker or a stronger sense. According to the stronger reading 2) implies that it occurs sometimes that an inference is faulty and simultaneously no *upādhi* exists. In combination with the theorem that faultiness of inference entails absence of *vyāpti* the consequence would be that *vyāpti* and absence of *upādhi* cannot be materially equivalent. According to the weaker reading 2) would be compatible with the material equivalence of the two items but means that absence of *upādhi* cannot be always acknowledged as something *because* of which an inference is faulty. The underlying idea would be that sometimes an inference is faulty because *vyāpti* does not hold good but not because an *upādhi* exists and therefore *vyāpti* cannot be defined as absence of *upādhi*. Here 'because' would possess an intensional import, similar to the one the word often possesses in sentences with "propositional attitude" verbs.<sup>2</sup> This would open a possibility to extract a patent criterion for the adequacy of definitions: It is adequate to define A as B (if and) only if in every sentence of the form 'P because of A' 'A' can be replaced *salva veritate* (i.e. without affecting the truth-value) by 'B' (and vice versa) even if 'because' possesses an intensional import. Though the criterion is lucid it is not obvious that this or some equivalent idea was operative in the rejection of the definition of *vyāpti* in terms of absence of *upādhi*. Moreover, even if one supposed that this is the case, one would be obliged to try to discover some more general rationale for the adoption of that view. Anyhow, seen against the background of 3) it appears doubtful that this account reflects the intended import of 2).

The import of 3) is, however, not unambiguous. It could be understood as saying that existence of *vyāpti* entails absence of *upādhi*, but that a relation of entailment does not hold true the other way round. This would mean that *vyāpti* and absence of *upādhi* could fail to be materially equivalent. On the other hand, the author employs the word 'apparent' in this connection, and it is not clear what weight should be attributed to the occurrence of this expression. Anyhow, if the occurrence of 'apparent' is essential then the argument becomes odd. It would be equivalent to saying that *vyāpti* cannot be defined in terms of *upādhi* because though

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<sup>2</sup> Given that the founder of Western Logic = the tutor of Alexander the Great, the sentences 'Paul admires Aristotle because he was the founder of Western Logic' might be true, whereas 'Paul admires Aristotle because he was the tutor of Alexander the Great' is not.

occurrence of *vyāpti* implies absence of *upādhi* and absence of *upādhi* implies occurrence of *vyāpti*, the second implication is not always "apparent". But why should apparentness of this sort be imperative? Maximal degree of obviousness regarding connections of implication or entailment between a *definiens* and a *definiendum* would be achieved by definitions of the form: 'A is A' or 'For all x: x is A if and only if x is A'. Should this be proclaimed as an ideal for definitions? Is it not rather characteristic for every fruitful definition that it exhibits some degree of lack of apparentness in the pertinent regard?

Queer consequences are equally entailed by 4). According to standard dictionaries 'appendicitis' is definable as 'inflammation of the vermiform appendix'. Now, supposed appendicitis *is* inflammation of the vermiform appendix should this entail that whenever appendicitis does not occur then it does not occur because inflammation of the vermiform appendix does not occur? If 'because' possesses a causal import then this statement is obviously incongruous. A requirement to the effect that if A is B it must hold true that if A does not occur, A does not occur because B does not occur, is not less eccentric than that if A occurs, A occurs because B occurs. It would be equally odd to suppose that having (or not having) inflammation of the vermiform appendix is an indication of or a rational reason for somebody's having appendicitis or vice versa. The problem arises to detect a meaning of 'because' or 'because of' according to which an absurdity does not follow. To be sure, 4) would involve no such incongruity if its import were merely equivalent to the proposition that there are cases in which *vyāpti* does not hold good between certain items and no *upādhi* exists with respect to the items concerned. Thus the argument would rest on a(n alleged) deviance regarding the extensions of *vyāpti* and absence of *upādhi*.

The remarks which are the basis of 5) are a little perplexing. It is claimed by Sjödin that "it is very difficult to point to an *upādhi*" if a *probans* is "omnipresent", i.e. instantiated by all objects in some universe (of discourse). The reason should be that precisely because of the omnipresence of the *probans* the requirements that the *upādhi* must pervade the *probandum*, i.e. that every instance of the *probandum* is also an instance of the *upādhi*, and that the *upādhi* only partly coexists with the *probans*, i.e. that there are some objects that instantiate both the *probans* and the *upādhi* and there are some other objects (i.e. at least one object) instantiating the *probans* and not the *upādhi*, cannot be easily fulfilled. The curious point is that precisely under those circumstances it is easy to specify something that satisfies the pertinent requirements. In the cited example in which the *probans* is 'being cognizable', a quality that is (according to Nyāya-Vaiśeṣika) exhibited by all entities of the universe, and the *probandum* is 'fire' one must merely identify something that "pervades" fire but is not universally instantiated. Given the premises of Nyāya-Vaiśeṣika every fire is a substance (*dravya*) but not everything which exists in the universe is a substance. Accordingly the quality of

being substance satisfies the requirement that it pervades the *probandum* but the quality of being substance also occurs in some objects which exhibit the *probans*, but not in all objects of which this is true. Qualities (*guṇa*) such as the red colour of some individual fire are cognizable, but not substances. Accordingly being substance is exhibited by only a part of the entities exhibiting the *probans*. Both pertinent conditions are satisfied so that among many others being substance could be pointed out as an *upādhi*.

It is not necessary to dwell further on 5). More important is the fact that 6) seems to imply an acknowledgment to the effect that *vyāpti* and absence of *upādhi* are not materially equivalent after all. For it is asserted that the definition which is the object of consideration, namely that *vyāpti* is absence of (any) *upādhi*, is "too narrow". If this means that a definition of *vyāpti* in terms of absence of *upādhi* is too narrow in the sense that it excludes too few cases from the realm of *vyāpti* because certain faulty inferences do not exhibit *vyāpti* although they would comply with the postulate of non-existence of *upādhi*, then the extension of both terms cannot coincide. To be sure, to call a definition too narrow on this account is quite misleading. For if it is said regarding the definition of *vyāpti* in terms of absence of *upādhi* that it is too narrow it should be naturally understood as conveying the thought that there are in fact instances of *vyāpti* which would not be counted as such if one would define *vyāpti* as absence of *upādhi*. But nothing in the above quoted exposition, however interpreted, supports this thesis.

If a definition of *vyāpti* as absence of *upādhi* does not comply with the requirement that everything satisfying *vyāpti* satisfies absence of *upādhi* and vice versa, then a plausible argument exists for rejecting the definition. If it is merely true that *sometimes* it is for *psychological reasons* easier to verify that the *definiendum* is not satisfied than that the *definiens* is not satisfied there is no compelling argument. One would come closer to a plausible criticism at best if it had been demonstrated that no other cases exist in which the distribution regarding psychological straightforwardness of verification or falsification is just the opposite. Even this would not be compelling, however, because something can be easier to ascertain merely because it is couched in more familiar terms. Moreover, it needs to be critically examined whether such a maxim might be applicable to certain types of definitions, but not to other types. Is it plausible to raise against the definition of water as H<sub>2</sub>O the objection that many persons of a linguistic community find it easier to recognize something as water than as H<sub>2</sub>O?

The dilemma is that either the implication between facts and consequence is not evident or it remains doubtful that a circumstance entailing the consequence is a fact. Most of the data one can gather from the above quoted exposition do not *obviously* entail the consequence which they are supposed to entail, namely the inadequacy of defining *vyāpti* in terms of



*upādhi*. The only exception is the idea that *vyāpti* and non-existence of *upādhi* are not materially equivalent. But precisely for the supposition of non-equivalence it is difficult to find support. The explicit statement that absence of *upādhi* is a *lakṣaṇa* of *vyāpti* even militates against that hypothesis. But there are not merely textual impediments. Also objective theoretical obstacles exist. Intuitively the notion of *vyāpti*, usually translated as 'pervasion', exhibits a close affinity of the concept of a subset. Examples and explanations of *vyāpti* suggest that *vyāpti* is a binary relation connecting items that possess sets as plausible counterparts and which is true of two items precisely if the corresponding sets satisfy the subset relation. There is no need to *identify* the relation of *vyāpti* with that of a subset. But precisely because their identity cannot be taken for granted a higher level of abstraction and some technicalities are required for a precise account of possible analogies or deviances. The decisive point is that a combination of relational properties characterizing the subset relation would guarantee the material adequacy of a definition of *vyāpti* as absence of *upādhi*, provided that *vyāpti* exhibits the pertinent relational properties and that one interprets the term *upādhi* in a certain way that is suggested by the explanations provided by various textual sources. Viewed against the background of the current notion of binary relations as sets of ordered pairs it follows that what has been characterized above as the material equivalence of *upādhi* and absence of *upādhi* amounts to the fact that *vyāpti* and absence of *upādhi* are the same relation (in the pertinent sense of 'relation'). Accordingly the question of the justification of the rejection of defining *vyāpti* as absence of *upādhi* is tantamount to the question as to why it is appropriate to deny that a term can be defined by a term that expresses the same relation.<sup>3</sup>

There is only one possibility to disclaim the equivalence of *vyāpti* and non-existence of *upādhi* apart from attributing to the term *upādhi* a conceptual content different from the import suggested by texts: To establish that *vyāpti* does *not* exhibit the pertinent relational properties. Reflexivity and transitivity are the most decisive properties in this connection.

### III

The relation of a subset ' $\subseteq$ ' is reflexive and transitive but not symmetric<sup>4</sup>. Therefore it holds true that

<sup>3</sup> It is not only quite easy to discern the implicit relational nature of the term *anupādhi(ka)tva*, 'absence of *upādhi*' but also possible to immediately gather certain structural characteristics from the remarks of the NL. Thus one can recognize that absence of *upādhi* is describable as a relation that is satisfied by any items  $x$  and  $y$  precisely if there is no  $z$  such that  $z F x$  and  $z G y$ , or, depending on the intended interpretation of 'F' and 'G', if there is no  $z$  such that  $x F z$  and  $y G z$ . Since 'x' and 'y' are the only free variables the above expressions represents schemes of binary relations.

<sup>4</sup> This means that it holds true for any (set)  $x$  that  $x \subseteq x$  and that if both  $x \subseteq y$  and  $y \subseteq z$  then  $x \subseteq z$ , for any  $x, y, z$ . It holds not good, however that for every (set)  $x$  and every (set)  $y$ , if  $x \subseteq y$  then also  $y \subseteq x$ .

$A \subseteq B$  if and only if there is no set  $x$ , such that  $B \subseteq x$  and not  $A \subseteq x$ ; in other words if there is a set  $x$  such that  $B$  is a subset of  $x$  then  $A$  is also a subset of  $x$ . It is easy to prove this:

1. Theorem: If  $A \subseteq B$  then there is no set  $x$ , such that  $B \subseteq x$  and not  $A \subseteq x$ .

Proof:

Let us assume that  $A \subseteq B$  and that  $C$  is a set such that  $B \subseteq C$  and not  $A \subseteq C$ .

Then because of  $A \subseteq B$  and  $B \subseteq C$  it must hold good because of transitivity of ' $\subseteq$ ' that  $A \subseteq C$ . Therefore a contradiction results if not  $A \subseteq C$  is accepted.

2. Theorem: If there is no set  $x$  such that  $B \subseteq x$  and not  $A \subseteq x$  then  $A \subseteq B$ .

Proof:

Let us assume that there is no set  $x$  such that  $B \subseteq x$  and not  $A \subseteq x$ , i.e. that for all  $x$ , if  $B \subseteq x$  then  $A \subseteq x$ .

Then it must hold good that if  $B \subseteq B$  then  $A \subseteq B$ . But because of reflexivity of ' $\subseteq$ ' it must hold good that  $B \subseteq B$  and accordingly it follows by *modus ponendo ponens* that  $A \subseteq B$ .

Since both the first and the second theorem are provable it must hold good that  $A \subseteq B$  if and only if there is no set  $x$ , such that  $B \subseteq x$  and not  $A \subseteq x$ . This can be generalized. For any relation ' $R$ ' that is both reflexive and transitive it holds true for any ' $a$ ', ' $b$ ':

- (E)  $aRb$  if and only if there is no  $x$ , such that  $bRx$  and not  $aRx$ .

Exhibition of reflexivity and transitivity by *vyāpti* would be a sufficient condition for the possibility to replace ' $R$ ' in (E) by a term expressing that relation. Although this does not rule out that a relation might comply with (E) because of the possession of other characteristic properties even if it lacked reflexivity or transitivity (or even both), an investigation of the issue of whether *vyāpti*, as conceived by authors of various texts, is reflexive and transitive possesses obvious importance in the present context.

It has been mentioned before that intuitively *vyāpti* appears like a non-Western correlate of the familiar concept of a subset. But it needs to be critically examined whether such intuitions are really justified. Therefore it is appropriate to have a closer look at the nature of the connection between the two ideas under the aspect of the question which way of connecting them would entail that *vyāpti* is both reflexive and transitive in the same manner as ' $\subseteq$ '.

## IV

One can immediately specify a sort of relation that would guarantee reflexivity and transitivity and accordingly compliance with (E) for *vyāpti*. Informally, one can say that *vyāpti* would exhibit those characteristics if the following would hold true: All items connected by *vyāpti* possess unique sets as counterparts and any two counterpart sets are related by the subset relation if and only if the items of which they are counterparts are related by *vyāpti*.

That the claim is correct can be best demonstrated by making the idea a little more precise. Supposed that  $V$  is a relation defined for certain types of objects and that a function  $f$  exists which assigns sets to all objects for which the pertinent relation is defined and that for all  $x$  and all  $y$ ,  $f(x) \subseteq f(y)$  if and only if  $xVy$ , i.e. whenever the pertinent function assigns sets  $A$  and  $B$  to objects  $x$  and  $y$ , such that  $A \subseteq B$ , then  $xVy$  and whenever  $xVy$  the corresponding sets exemplify the subset relation. Then one can verify that  $V$  is both reflexive and transitive. For any function that assigns sets to objects  $f(x) \subseteq f(x)$  holds good, so that on the given premise  $xVx$ . For any such function it holds also good that if  $f(x) \subseteq f(y)$  and  $f(y) \subseteq f(z)$ , then  $f(x) \subseteq f(z)$ , so that it must hold true that if  $xVy$  and  $yVz$  then  $xVz$  for any  $x$ ,  $y$  and  $z$ . Consequently it must be valid with respect to ' $V$ ' that (for any  $a$  and  $b$ )  $aVb$  if and only if there is no  $x$ , such that  $bVx$  and not  $aVx$ .

If one uses the symbol ' $Uxyz$ ' for representing the three-place relation ' $yVx$  and not  $zVx$ ' and stipulated that this symbol might be read as ' $x$  is an  $U$  with respect to  $y$  and  $z$ ' — note that the order between ' $y$ ' and ' $z$ ' cannot be freely reversed here — one could formulate the same state of affairs equally in the following ways:

$aVb$  if and only if there is no  $x$ , such that  $Uxba$

$aVb$  if and only if there is no  $x$ , such that  $x$  is an  $U$  with respect to  $b$  and  $a$

The conjecture suggests itself that the relation of *vyāpti* might represent a possible interpretation for the letter ' $V$ ' and that the term *upādhi* could be understood as a possible interpretation of ' $U$ '. If that were the case then the wordings

$a$  and  $b$  are related by *vyāpti* if and only if there is no  $x$ , such that  $x$  is an *upādhi* with respect to  $b$  and  $a$

$a$  is pervaded by  $b$  if and only if there is no *upādhi* with respect to  $b$  and  $a$

and similar ones could represent exactly the same state of affairs. In fact on the assumption that *vyāpti* is a relation complying with the above formulated

assumption (that there is a function mapping objects in the domain and the range of that relation into sets and that *vyāpti* holds good between objects exactly if the pertinent sets exhibit the subset relation) then one can correctly assert that any  $x$  is related by *vyāpti* to  $y$  if and only if there is nothing to which  $y$  is related by *vyāpti* and to which  $x$  is not related by *vyāpti* and we could assume that the idiom ' $x$  is related by *vyāpti* to  $y$ ' should be understood in the sense of ' $x$  is pervaded by  $y$ ' (as this latter phrase is usually understood). This account would furnish a possible explanation not only for the natural view that the relevant theorem can be correlated with (a theorem of) set theory or possesses a basis in it but also for possible intuitions of scholars who employ terms of set theory for representing theorems of "Indian Logic".

Here it would be inappropriate to object that the notion of *vyāpti* was probably not conceived as a relation applicable to sets and that the theoretical framework(s) in which the term *vyāpti* had been used presumably lacked the "Western notion" of a set. For the hypothesis considered here does not presuppose identity between relata joined by *vyāpti* and sets. It is merely *compatible* with this assumption because it has not been explicitly stipulated above that the function assigning sets to possible relata of *vyāpti* is *not* a function mapping sets on themselves. On the other hand we could readily concede that the individuation of the entities between which *vyāpti* was supposed to hold was "finer grained" than that of sets. In fact, textual evidence suggests this. It appears that ranges allegedly comprising exactly the same objects, e.g. the ranges of what is nameable and what is knowable — which according to several schools comprise all objects of the universe — were nevertheless regarded as (numerically) non-identical ranges. Such a view would not be admissible if the pertinent ranges were identified with sets (since for any sets  $A$  and  $B$ ,  $A = B$ , if  $A$  and  $B$  contain exactly the same elements). But these circumstances are irrelevant for the present issue because the existence of a function does not entail a one to one mapping; it merely rules out the occurrence of mappings from one to many but not mappings from many to one. Therefore the (possible) fact that the individuation of relata of *vyāpti* was finer-grained than the individuation of sets can never furnish a decisive argument against the contention that theorems of *vyāpti* can be correlated with theorems of set theory.<sup>5</sup>

If the conjecture

- (C)  $x$  is related by *vyāpti* to  $y$  if and only if there is no  $z$ , such that  $z$  is an *upādhi* with respect to  $y$  and  $x$

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<sup>5</sup> This supposition is by no means eccentric. It is quite possible that certain terms relate to abstract aspects of individuals that leave individuating features out of account and that *vyāpti* could be a term that refers to aspects which can be accounted for in set theory.

is true and a reflection of a valid theorem of set theory, there are hardly any chances of finding a reasonable basis for a denial of a definition, such as

(T)  $x$  is related by *vyāpti* to  $y$  =<sub>df</sub> There is no *upādhi* with respect to  $y$  and  $x$

by assailing (C) and alleging the possibility that the two (binary) relations ' $x$  is related by *vyāpti* to  $y$ ' and 'there is no *upādhi* with respect to  $y$  and  $x$ ' are not extensionally equivalent.

## V

A well-known definition of *upādhi* runs:

*sādhavyavyāpakatve sati sādhanāvyāpaka upādhiḥ*

This explanation occurs in various textual sources and is adopted in the well-known *Tarkasaṃgraha* (TS) of Annambhaṭṭa.<sup>6</sup> It describes a state of affairs that corresponds to the following formulation:

Any  $z$  is *upādhi* exactly if some  $y$  is related by *vyāpti* to it ( $z$ ) and some  $x$  is not related by *vyāpti* to it ( $z$ ), where  $y$  is a *sādhya* and  $x$  is a *sādhana*.

Here the phrase ' $a$  is related by *vyāpti* to  $b$ ' is to be understood as equivalent to ' $b$  is a *vyāpaka* of  $a$ ' or ' $a$  is a *vyāpya* with respect to  $b$ '. Consequently, the state of affairs described by 'There is no *upādhi* (with respect to  $y$  and  $x$ )' is the same as the one described by 'There is no  $z$ , such that  $y$  is related by *vyāpti* to  $z$  and  $x$  is not related by *vyāpti* to  $z$ , given that  $y$  functions as a *sādhya* and  $x$  as a *sādhana* (in some pertinent context)'. The theorem that some  $x$  is related by *vyāpti* to some  $y$  if and only if there is no *upādhi* should be unobjectionable, at least as far as situations are concerned, in which  $y$  functions as *probandum* (*sādhya*) and  $x$  as *probans* (*sādhana*)<sup>7</sup>. If *vyāpti* is a relation which is reflexive and transitive, one cannot argue that a definition of *vyāpti* as non-existence of *upādhi* must be rejected because within the range of pertinent *sādhya*s and *sādhana*s it can occur that the *definiens* is applicable but not the *definiendum* or *vice versa*. For it is possible to retort that if one properly constructs the logical form of the *definiens* and *definiendum* and acknowledges that the equivalence between *vyāpti* and non-existence of *upādhi* mirrors a set-theoretical theorem, the equation is trivial rather than problematic. Such a definition could be defective at best for other reasons.

<sup>6</sup> In the edition of Y.V. Athalye 1974 the passage appears on p. 46 (section 56). The sentence preceding the definition reads: *sopādhiko vyāpyatvāsiddhaḥ*. It says that a *probans* possessing an *upādhi* is a *probans* regarding which it is not established that it is *vyāpya* with respect to the *probandum*.

<sup>7</sup> Henceforward we employ the terms *probans* and *probandum* as equivalents of *sādhana* and *sādhya* respectively.

One can equally show that the explicit reference to a *probandum* and a *probans* exhibited by the above mentioned definition of *upādhi* does not necessarily affect the situation concerning the material equivalence between *definiens* and *definiendum* in a definition of *vyāpti* in terms of absence of *upādhi*. The reason is that definitions of *vyāpti* manifest the same reference to *sādhya* and *sādhana*. Accordingly it is natural to suppose that (T) represents merely a generalized version of

(T)\*  $x$  is a *sādhana* and  $y$  is a *sādhya* and  $x$  is related by *vyāpti* to  $y$   
 $\text{=}_{df}$   $x$  is a *sādhana* and  $y$  is a *sādhya* and there is no *upādhi* with respect to  $y$  and  $x$

The material adequacy of (T)\* can be vindicated by supposing that it implies a state of affairs which could be described in the following ways:

(P)  $xVy$  and  $x$  is a *sādhana* and  $y$  is a *sādhya* if and only if there is no  $z$ , such that  $yVz$  and not  $xVz$  and  $x$  is a *sādhana* and  $y$  is a *sādhya*.

or

(Q) If  $x$  is a *sādhana* and  $y$  is a *sādhya*, then  $xVy$  if and only if there is no  $z$  such that  $yVz$  and not  $xVz$ .

Here ' $xVy$ ' functions as a shorthand of ' $x$  is related by *vyāpti* to  $y$ '. It is easy to see that (P) and (Q) embody a specification of (C). Notwithstanding the difference between (T)\* and (T) the facts considered until now provide no compelling reason for considering (T) as inappropriate because (C) does not hold true or to suppose that the views underlying the definitions of *vyāpti* and *upādhi* are not compatible with an acknowledgment of (P), (Q). For a refutation of (C) one would have to show that some writer held the opinion that if two items  $x$  and  $y$  do not possess the status of a *probans* and *probandum* respectively then (and only then) it could occur that  $x$  is related by *vyāpti* to  $y$  and there is also an *upādhi* with respect to  $y$  and  $x$ , or that there is no *upādhi* with respect to  $y$  and  $x$ , but  $x$  is not related by *vyāpti* to  $y$ . *Prima facie* this does not appear very probable because in principle everything can function as *probans* or *probandum*. The only pertinent reservation is that an item must possess the required ontological or logical properties, such as being a qualifier of some particular or being representable by a one-place predicate. It could be objected, nevertheless, that even if (T) and (C) should not be *incompatible* with the definitions of *vyāpti* and *upādhi* or the underlying views they might be *irrelevant* on account of the circumstance that the relation of *vyāpti* had been conceived as a relation between a *probans* and a *probandum*. Therefore the generalization inherent in treating it as a binary relation between arbitrary relata might not "exactly reflect what Indian authors thought". In this connection it is, however, appropriate to notice a number of facts: First, the above cited definition of *upādhi* indicates that the conception of *vyāpti* was not generally restricted to pairs consisting of a

*probans* and *probandum*. Two closely related terms, i.e. *vyāpaka* and *vyāpya*, are explicitly applied to an item that is certainly *not* conceived as either a *probans* or a *probandum*. The very least one can say is that an idea of a relation existed that was either identical or closely related to that of *vyāpti* and which involved that at least one of the relata is not a *sādhana* or *sādhya*. Thus the definition of the TS embodies a step towards a generalization. Maybe, various texts and various writers differed on this subtle point and it could be even surmised that the author of the NL intended to restrict the term and the related concept to a connection that holds true on condition that the related items function as *probans* and *probandum* in some context. A pertinent presupposition could be that the *vyāpti*-relation *could* be equally conceived in a more general and comprehensive manner, even if that conception is immaterial in some particular context. Anyhow, even the circumstance that a generalization has not been envisaged at all must not necessitate its irrelevance, provided one does not embrace the dogma that in the context of studies on the history of philosophy nothing matters which does not merely reflect "thoughts which some writer had in mind". In the present case one can ascertain, however, that a generalization would tally well with the nature of the concerned theory. It could be even brought into accord with the general outlook of individual writers. A not restricted *vyāpti*-conception would simplify accounts concerning the content of the concerned notion as well as of its theoretical role. Furthermore, a generalization reveals objective aspects of a pertinent problem. It presents a most straightforward way to demonstrate against the background of the subset relation and its relational properties that a definition in terms of *upādhi* cannot be *materially* inadequate, given the currently hypothesized understanding of the latter term. For the present, we can disregard the question of the objective theoretical significance of a generalized conception of *vyāpti*.

## VI

It should go without saying that the preceding statements are not apt to disprove that some sort of restriction to *probans* and *probandum* might affect the issue of whether *vyāpti* is in fact reflexive and transitive. The problem is crucial because, if it were not, then it becomes difficult to recognize a legitimate basis for representing this notion by ' $\subseteq$ ' and the practice of scholars borrowing terms of set theory for formulating theorems involving reference to *vyāpti* becomes increasingly problematic.

To be sure, even the supposition that *vyāpti* is not reflexive and transitive would not necessarily discredit the practice of paraphrasing sentences in which *vyāpti* or related terms occur by sentences referring to the subset relation. Translations of sentences can preserve truth conditions even if not all their constituent parts are equivalent. In opposition to a tenet sometimes suggested in the field of Indian Studies it must be emphasized that the existence of a procedure of converting in some systematic manner sentences to sentences containing different terms as constituents while preserving their global import or their truth conditions, can be of utmost theoretical

significance and it is precisely the fact that sentences are rephrased in *different* terms which bestows importance to their transformation. Moreover, it could be a fundamental error to employ an alleged divergence between *vyāpti* and '⊆' or possibly other set theoretical terms as an argument for the irrelevance of any sort of correlation because it is just against the background of the latter that one is able to detect crucial deviations and thereby essential properties of a pertinent notion.

Nevertheless, if one resorts to arguments of this sort one does not vindicate that a definition of *vyāpti* in terms of absence of *upādhi* reflects something which has its roots in relational properties of the subset-relation. Let us suppose that *vyāpti* were a term of a concept which is defined or true of relata only if they function as *probans* and *probandum* in the sense of the technical terms *sādhana* and *sādhya*. A first thing one can ascertain is that this assumption does not entail the non-validity of (C). Supposed that both *vyāpti* and *upādhi* were notions that are undefined for items that do not function as *probans* and *probandum*. This can render the left side of the biconditional untrue whenever it is not the case that one item is a *probans* and one item a *probandum*. But the same circumstance would equally rule out that the right side of the biconditional is true. A (material) biconditional stipulates merely, that the right and the left side do not possess different truth values; it is true if the connected propositions are both untrue, or satisfied if the connected open sentences are both not satisfied. As far as the NL is concerned, the ascription of a view incompatible with the present assumption that the ranges for which *vyāpti* and *upādhi* are defined do not deviate appears improbable. The terms *sādhya* and *sādhana* occur both in the explanations of *vyāpti* and *upādhi*, so that the consequences with respect to being defined or not being defined should be the same in both cases.

If, on the other hand, the fact that one of the relata of 'x' is related by *vyāpti* to 'y' and 'there is no z, such that z is an *upādhi* with respect to y and x' is not a *probans* and a *probandum* respectively renders the pertinent propositions false, if, in other words, the relations are false of any pair of items among which one is not a *probans* or one is not a *probandum*, the truth of (C) is automatically guaranteed in such cases. Only instances in which 'x' relates to a *probans* and 'y' to a *probandum* could vitiate (C). Now it becomes appropriate to point out that (P) and (Q) formulated in the preceding paragraph possess the same content as

(R)  $xVy$  and x is a *sādhana* and y is a *sādhya* if and only if there is no z, such that  $yVz$  and y is a *sādhya* and not  $xVz$  and x is a *sādhana*.

We can use 'xV\*y', 'yV\*\*z' and 'xV\*\*\*z' as abbreviations for 'xVy and x is a *sādhana* and y is a *sādhya*', 'yVz and y is a *sādhya*' and 'xVz and x is a *sādhana*' respectively. In the same manner as 'Uxyz' was introduced before as an abbreviation of (the open sentence) 'yVx and not zVx' we can introduce 'U\*xyz' as an abbreviation for 'yV\*\*x and not zV\*\*\*x'. Accordingly, the formulation



(S)  $xV*y$  if and only if  $U*zyx$

is merely a shorthand of

(R)\*  $xV*y$  if and only if there is no  $z$ , such that  $yV**z$  and not  $xV***z$ .

Thus (C) could represent a variant formulation of (S). The only difference is that the import of (C) slightly differs from the one that was originally envisaged. It is by no means unnatural to interpret (C) in this manner. It amounts to a reading of (C) according to which it is tacitly presupposed that the relation of the two terms 'x' is related by *vyāpti* to 'y' and 'there is no z, such that z is an *upādhi* with respect to y and x', i.e. possible referents of 'x' and 'y', function (in some context) as *probans* and *probandum* respectively. In this manner a connection to the subset-relation is clearly preserved. For the modified concepts of *vyāpti* and *upādhi* <sup>8</sup>, symbolized by 'V\*' and 'U\*', explained in terms of 'V\*\*' and 'V\*\*\*', are defined in terms of 'V' which has been originally defined in terms of '⊆'. There is no need to refer to reflexivity and transitivity regarding the concept of *vyāpti* itself. But the circumstance that '⊆' exemplified those properties remains decisive.<sup>9</sup>

It has been conceded above that the expression *vyāpti* might represent a concept that is false or undefined for items not functioning as *sādhana* or *sādhya*. This was done for the sake of argument and not because it was supposed as certain that such an interpretation must be correct. Up to now the only basis for that hypothesis lies in the circumstance that a number of explanations given in textual sources exhibit references to a *probans* (*sādhana*) and a *probandum* (*sādhya*) in combination with the hypothesis that those references are implicit ingredients of the *meaning* of the term. Thereby the question whether the supposition is in fact justified is, however, not settled.

An argument in favour could be the circumstance that apparent definitions of *vyāpti* occurring in various textual sources contain references to *sādhya*

<sup>8</sup> The modification could be even made explicit within (C) by using expressions such as 'x is related by *vyāpti*\* to y' and 'there is no z, such that z is an *upādhi*\* with respect to y and x' instead.

<sup>9</sup> This is not to say that a concept of *vyāpti* that is undefined or false of relation not functioning as a *probans* and *probandum* relative to some context cannot be reflexive and transitive. As a matter of fact, such a concept could exhibit transitivity for a trivial reason. Given that, relative to some context, *vyāpti* can hold good only between two items it cannot occur that x is related by *vyāpti* to y and y is related by *vyāpti* to z and not x is related by *vyāpti* to z for some z that differs both from x and y. If z is identical with y, then such a situation can evidently not happen either. If, on the other hand, z is identical with x, then 'if x is related by *vyāpti* to y and y is related by *vyāpti* to z, then x is related by *vyāpti* to z' is equivalent to 'if x is related by *vyāpti* to y and y is related by *vyāpti* to z, then x is related by *vyāpti* to z, then x is related by *vyāpti* to z, then x is related by *vyāpti* to z, then x is related by *vyāpti* to z'. The truth would be guaranteed if *vyāpti* were reflexive — but surely not otherwise.

(*probandum*) and *sādhana* (*probans*). This is not decisive because explanations of a term can possess the function of specifying an import for some particular relevant context. One could, for example, specify the import of the terms *probans* and *probandum* for the context of their occurrences in investigations on Indian theories of inference. It should be obvious that those expressions do not generally possess the specific import which they embody if they are used to represent the technical terms *sādhana* and *sādhya*. In a similar manner it is conceivable that explanations of *vyāpti* are presented with the intention to specify their import for the specific context in which the term occurs for specifying a condition for the validity of inferential marks with respect to something that needs to be inferred or proven. If one reads in the *Tarkasaṃgraha* (TS), p. 34 in the edition of Athalye 1974

*yatra yatra dhūmas tatrāgnir iti sāhacaryaniyamo vyāptih*

“Wherever there is smoke there is fire” [this] restriction of co-occurrence is pervasion (*vyāpti*)

one would never dream of interpreting this as a statement to the effect that *vyāpti* is to be defined as a relation between smoke and fire. It is clear that the reference is made for the purpose of illustration. In view of the fact that the same text also speaks of *vyatirekavyāpti* (p. 40) and thus employs the term equally in the context of a relation that does not connect a *probans* and *probandum* — but holds good between the complement of a *probandum* and *probans* — one must assume that a more general notion is relevant. Why should we be forced to suppose that whenever in textual sources terminological explications exhibit explicit references to *sādhya* and *sādhana* this must imply a corresponding restriction in meaning?

## VII

One cannot discern any compelling objective theoretical reason for the espousal of a *vyāpti* concept that is semantically restricted in the above considered manner. On the other hand, however, it is by no means true that there are no potential reasons for adopting a *vyāpti*-concept that is not reflexive and transitive. More specifically, the property of reflexivity is problematic. It had been noted earlier that the criteria of identity of possible relata of the *vyāpti*-relation are finer grained than those of classes and sets. For example, albeit the qualities of being nameable and being cognizable are supposed to be “co-extensive”, i.e. are exhibited by all particulars, it is admitted that the first can function as a *probandum* and the second as a *probans* (in some particular context)<sup>10</sup>. Both are treated as different and exhibit *vyāpti*. However, one does not find instances in which the same

<sup>10</sup> This fact is so well-known that it should suffice to cite *Tarkasaṃgraha* (p. 40) *anvayamātravyāptikam kevalānvayi yathā ghaṭo ‘abidheyaḥ prameyatvāt paṭavat / atra prameyatvābhidheyatvayor vyatirekavyāptir nāsti sarvasyāpi prameyatvād abidheyatvāc ca. (-abhineyatva-* in the edition of Athalye seems to be a printing error)

relation is exhibited by identical terms, and presumably it was generally supposed in the Nyāya tradition that such cases should be ruled out. To be sure, there are no or hardly any explicit statements to this effect, but plausible theoretical reasons can be easily identified. Because of the fact that *vyāpti* was intimately connected with the context of inferring and proving an imbueement of the meaning of the term by features that are inseparably connected with such situations is most natural. The reason is that the usage of the term is embedded in a theoretical outlook according to which inferences or proofs are considered as correct or appropriate only if they are cognitively relevant and that trivial pieces of reasoning, such as 'P because P' or 'Fa because Fa', were rejected as inappropriate even in the earliest stages of the Nyāya tradition.<sup>11</sup> The idea was obviously that a *probans* must fulfil a higher degree of probability than the *probandum* and this excludes identity.<sup>12</sup> It is obvious that if the requirement of non-identity were inbuilt into the meaning of *vyāpti* then that term could never denote a relation that is reflexive. At the same time, one must recognize, however, that objectively there is no compelling reason for such a terminological restriction either. The relevant purpose could be fulfilled equally well, if not even better, by the alternative of adopting a reflexive concept of *vyāpti* and guaranteeing the desired exclusion of tautological pieces of reasoning by other theoretical means, such as the requirement that the *probans* must be known to occur in some instance — embodied in the terminology of later Nyāya by the expression *pakṣadharmatā*. The fact persists that (C) can continue to be valid even in the former case if the irreflexivity of *vyāpti* would be inherited by the concept of *upādhi*.

It could be idle to speculate about the question which of the two alternatives is the correct one and it would be definitely idle to speculate over the issue whether authors "really meant" that *vyāpti* or *upādhi* is reflexive or not or — even worse — what Nyāya thinkers "really thought" with respect to reflexivity and transitivity whenever they produced or heard or read the words *vyāpti* and *upādhi*. To the extent to which there was no reflection on that topic in the Nyāya tradition no decision can be expected by resorting to matters of

<sup>11</sup> *Nyāyasūtra* 1.2.8 *sādhyāviśiṣṭaḥ sādhyatvāt sādhyasamaḥ* hints at the circumstance that something is in need of a proof in the same manner as something to be proven as the decisive ground for classifying as fallacious the category of reasons, named *sādhyasama*, in which the *probans* is not different from the *probandum*.

<sup>12</sup> It is not true, however, that such a conception was always implicitly acknowledged. Dharmakīrti claimed validity for inferences, such as 'This is a tree because it is a Śiṃśapā(-tree)' (*vṛkṣo 'yaṃ śiṃśapātvāt*). Here one can definitely not assert that the (proposition that includes) the *probans*, viz. (something's) being a Śiṃśapā, possesses a higher degree of probability than (the proposition that includes) the *probandum*, viz. (something's) being a tree, rather the relationship is reversed. This is only one aspect of the problematic nature of the integration of such examples in the framework of a theory that primarily accounts for inferences, such as that from smoke to fire, and indicates a fundamental theoretical deficit pervading "Indian Logic" as a whole.

psychology. What can be done is to explore whether some or the other alternative is objectively or theoretically reasonable, but sometimes several options are reasonable in the light of what authors generally believed or aspired at. This does not render irrelevant the question as to whether or not the relation of *vyāpti* is reflexive and transitive. For how can this question be irrelevant if a relational concept that exhibits those properties must be different from a concept that does not? The difference might be irrelevant to the extent that it does not necessitate a divergence regarding the validity of (C), but the topic possesses fundamental importance in some other respect and casts light on the nature of understanding. If the question as to whether *vyāpti* and *upādhi* are both reflexive and transitive cannot be definitely settled then the conceptual import of those terms cannot be definitely settled either. In this case any scholar who claims to completely know the meaning of those words or who declares that he offers explanations of the associated concepts would betray lack of insight, provided he does not practice fraud. The present phenomenon is interesting because on the one hand it illustrates the structure of objective semantic indeterminacies of general terms and on the other hand indicates why such indeterminacies can be left unsettled *for specific purposes*. Both aspects are intimately connected. A crucial cause of the objective non-decidability of semantic content is precisely the circumstance that potential semantic differences do not entail dissimilar verifiable consequences. This is also one of the reasons why successful linguistic practice with vague terms is possible.

On the other hand a sweeping denial of the proposition that ambiguous as well as vague general terms or expressions containing them can exhibit logical relations is not appropriate because against the background of pluralities of conceptual implementations logical connections can be ascertained even for vague terms. For example, one might say that replacements of 'F' in

Everything that is F is F

by vague terms exhibit logical tautologies if both occurrences of 'F' are substituted by identical terms and if both occurrences possess an identical conceptual import that is admissible for the relevant term.<sup>13</sup> Sentences with vague terms instantiate logical theorems relative to admissible interpretations of those terms. As far as equivalence between sentences is concerned, one has to distinguish between different cases: 1) (A vague expression) 'P' might be equivalent to (some vague expression) 'Q' inasmuch as both 'P' and 'Q' possess an admissible reading according to which they are equivalent. 2) 'P' is equivalent to 'Q' inasmuch for every admissible interpretation of 'P' (or alternatively of 'Q') there is an admissible interpretation of 'Q' ('P') making 'P' and 'Q' equivalent (in that interpretation). 3) 'P' is equivalent to 'Q' inasmuch

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<sup>13</sup> Whereas strong affinities exist between pronouns of natural languages and variables in logic significant affinities exist between vague predicates of natural languages and schematic letters in logic.

for some admissible interpretation of 'P' 'Q' is equivalent to 'P' in all its admissible interpretations, 4) 'P' and 'Q' are equivalent in all their admissible interpretations. One can accordingly distinguish between weak, significant, strong and absolute equivalence corresponding to 1), 2), 3) and 4). In this connection it does not matter which type of equivalence is at stake, e.g. material or (some sort of) logical equivalence. Although the term 'admissible' should relate to restrictions based on linguistic conventions and usage (linguistic or lexical import of expressions), it need not be restricted to this dimension but can also comprise (pragmatic) admissibility relative to a context of linguistic interaction. Therefore the validity of the equivalence expressed in (C) is not necessarily affected by the possible semantic differences or indeterminacies which have to be taken into consideration in connection with *vyāpti* and *upādhi*.

### VIII

Up till now we have orientated ourselves towards a common explication of *upādhi* that deviates from the one presented in the NL and which reads:

[*upādhitvam*] *sādhyakṛtsnasahacāriṇaḥ sādhanaika-deśavṛttitvam*  
 [The property of being an *upādhi* is] the occurrence in some instance(s)  
 [but not in all instances] of the *probans* of something that is  
 concomitant with the whole *probandum*.<sup>14</sup>

In Sjödin 2006:87 and 90 it is suggested that the explication given in the NL is equivalent to the common definition presented above.<sup>15</sup> This is, to put it mildly, an exaggeration. For on a fairly strict reading the explanations are surely not equivalent. According to the above cited definition it is required that an *upādhi* has to occur in at least one instance of the *probans* whereas the explication presented in the TS and other sources must not possess such an entailment.<sup>16</sup> Something that is exemplified by every instance of some

<sup>14</sup> Or perhaps: '... the whole of the *probandum*.' In Sjödin 2006:87 the following translation is offered: '[That which has the character of] complete association with the *sādhyā* has the character of being present in one part [of the locus] of the *sādhanā*.' — The syntactical analysis presupposed by Sjödin's translation is surely not recommendable. It would amount to a gross misunderstanding to suppose that the wording of the NL expresses the proposition that everything that has complete association with the *sādhyā* is present in one part [of the locus] of the *sādhanā*, and there is no reason to hypothesize an covert copula between *sādhyakṛtsnasahacāriṇaḥ* and *sādhanaika-deśavṛttitvam*.

<sup>15</sup> See footnote 367: 'This definition of *upādhi* has two parts: 1) Pervading the *sādhyā* and 2) Not pervading the *sādhanā*' and p.90 'After stating this differentiating definition (*lakṣaṇa*) Vallabha goes on to define *upādhi* by giving a characterization which could be understood in a twofold way as: 1. pervading the *sādhyā* and 2. not-pervading the *sādhanā*, i.e. *sādhyavyāpaka* and *sādhānāvvyāpaka*.'

<sup>16</sup> There is definitely no linguistic reason to interpret the expression *sādhanaika-deśavṛttitvam* in the sense of: 'The property of occurring *at most* in some part of [the realm of] the *probans*.'

*probandum* can be completely absent from the entire range of some *probans* if there is no instance of the *probans* which is also an instance of the *probandum*, a situation which is referred to by the technical term *viruddha* (*hetvābhāsa*) and in which the intuitively corresponding sets do not have any element in common. The deviation is less blatant as far as the equivalence of (C) is concerned. But even here the two readings of *upādhi* do not amount to exactly the same. The technical term *asādhāraṇa* (*hetvābhāsa*) refers to fallacious reasons in which a *probans* is not exhibited by anything in the universe (of discourse) apart from the pertinent subject of inference, the *pakṣa*. A standard example is an argument or an inference in which the proposition that sound is eternal is inferred from the fact that sound exhibits the corresponding universal, i.e. possesses sound-ness (*yathā śabdō nityaḥ śabdatvād itī*). Given the "majority-view" that sound is, as a matter of fact, not eternal, it follows that nothing can both pervade the *probandum* and be instantiated in some part of the *probans*. The latter condition can never be met because the *probans* itself occurs in (at most) one instance. In contrast, the requirement would be immediately satisfied by the *probandum* itself or anything that is co-extensive with the *probandum* if the second condition were replaced by the stipulation that an *upādhi* must not pervade the *probans*. Accordingly anything co-extensive with the *probandum* could be qualified as an *upādhi* according to the standard represented by the formulation of — among other sources — the TS, but never according to the standard embodied by the formulation of the NL. Therefore in the theoretical framework suggested by the formulation of the NL it would be required to rule out *asādhāraṇa* inferences as the above cited one by some other means than the requirement that an acceptable *probans* cannot possess any *upādhi*. Moreover, non-occurrence of *vyāpti* could not be a sufficient condition for the faultiness of a *probans* if *vyāpti* and non-occurrence of *upādhi* are equivalent. By the same token *vyāpti* could never play the role of the only decisive criterion for a segregation of acceptable logical reasons from unacceptable ones. Against the background of the fact that the NL declares non-existence of *upādhi* (*anupādhikatva*) as a (defining) characteristic (*lakṣaṇa*) of *vyāpti* one could surmise that the problem created by *asādhāraṇa* reasons and indirectly the peculiar nature of the definition that the NL provides for *upādhi* might be an objective reason to discard the definition of *vyāpti* as non-existence of *upādhi*. However, this consideration essentially relies on the supposition that the wording of the definition in the NL should be taken literally. Such a supposition is surely not unreasonable in view of the fact that it was hardly Vallabhā's intention to offer a sloppy explanation of a central technical term, but it is not mandatory either. Moreover, problems connected with *asādhāraṇa*-reasons can hardly be the main subjective motive for the dismissal on the part of the author of the text. For in his refuting argument Vallabha refers to some altogether different type of fallacious reasons. The decisive basis for the reluctance to accept a definition of *vyāpti* in terms of absence of *upādhi* must lie somewhere else.

It can be suspected that the very circumstance that the NL does not refer to the issue of *asādhāraṇa* in the context of rejecting the idea of defining *vyāpti*

as non-existence of *upādhi* indicates a presupposition that is not made explicit by the formulation of the text. It was remarked even before that possibly or presumably *vyāpti* has not been (always) conceived as a fully reflexive relation by Indian authors. More specifically, even if the possibility was granted that co-extensive items might satisfy *vyāpti* it was tacitly assumed that the relation cannot be instantiated between any item and itself. This presupposes surely a finer-grained principle of individuation of the entities that function as possible relata of the pertinent relation than identity of extension. Unfortunately the textual sources do not make the issue of criteria of identity between such relata topical. The precise specification of identity conditions is inscrutable for us and possibly there is not even any objective determinacy in this regard. Such vagueness is, however, compatible with the surmise that a) the identity of items that might be connected by *vyāpti* is finer grained than co-extensiveness and b) identity of terms — whatever identity is in this case — was (tacitly supposed as) irreconcilable with *vyāpti*. The latter supposition harmonizes with other features exhibited by theories of *anumāna* and in the final analysis results from the fact that Indian theories of inference are by nature *not* theories of deduction. Now, the definition that the NL provides for *upādhi*, viz. *sādhyakṛtsnasahacāriṇaḥ sādhanāikadeśavṛttitvam*, relates in an indirect manner to *vyāpti*. For the compound representing the first condition is by virtue of its formulation closely related to the accepted explication of *vyāpti*, viz. *sādhanasya sādhyasāhityaṃ kārtsnyena*. The supposition that the expressions *sādhyakṛtsnasahacārin* and *sādhyasāhityaṃ kārtsnyena* are meant to relate to exactly the same relation of invariable occurrence together with a *probandum* is highly probable. Consequently any respect in which *vyāpti* is not reflexive can be plausibly ascribed to the relation represented by *sādhyakṛtsnasahacārin* and therefore also to the relation represented by *sādhyasāhityaṃ kārtsnyena* occurring in the explication of *upādhi*. If this is correct, then the first component-condition of *upādhi* does not amount to the mere fact that something occurs in all instances in which a *probandum* occurs, but it means that something can be *upādhi* only if it a) occurs in all instances in which a *probandum* occurs and b) is different from the *probandum*. The whole requirement for the status of something's (y) being an *upādhi* relative to some *probans* (x) is accordingly that 1) the former (y) pervades the *probandum*, i.e. exhibits a relation of *vyāpti* with respect to a pertinent *probandum*, and 2) occurs in some (proper) part within the realm of objects in which the *probans* (x) occurs, *provided that* 3) the former (y) and the *probandum* are not identical.

## IX

It is against this background that reasons for a rejection of the explanation of *vyāpti* as non-existence of *upādhi* can be discerned that differ from the possibilities considered before.

If a *probandum* could itself possess the status of an *upādhi* then any *probandum* would be an *upādhi* just in case it occurs only in some (proper) part of the realm of entities in which the *probans* is instantiated — according

to the definition of the NL — or if it does not pervade the *probans* — according to the definition of the TS and other sources. If a *probans* is on the one hand instantiated in some objects in which the *probandum* is instantiated and on the other hand instantiated in some objects in which the *probandum* is not instantiated — a situation which corresponds to the one that is stipulated as the defining criterion for the fallacious reason termed *sādhāraṇa* and which represents one major variety of *anaikāntika* in the TS<sup>17</sup> — then the *probandum* would occur in some (proper) part of the realm of the *probans* and would not pervade the *probans* and accordingly be qualified for the status of an *upādhi* under the given premise. Accordingly an *upādhi* would always exist for this type of fallacious reason.

As far as *asādhāraṇa* reasons are concerned any *probandum* that is not instantiated in the subject of inference, the *pakṣa*, would be an *upādhi* according to the explication provided by the TS. On the other hand, the definition of the NL would not license such a consequence. One could accordingly surmise that if the writer of the NL intended to rule out inferences of the pertinent type by stipulating that *vyāpti* never occurs in those cases he would have had a reason for rejecting the equation of *vyāpti* and non-existence of *upādhi*. The problem is, however, that even if one makes the assumption that *asādhāraṇa*-inferences must be rejected on account of non-existence of *vyāpti* a natural consequence would be rather to modify the definition of *upādhi* instead of censuring the definition of *vyāpti* as non-existence of *upādhi*.

To be sure, the author of the NL could have had a good objective reason not to adopt the kind of explanation of the TS because a reference to the term *vyāpaka* within a definition of *vyāpti* threatens to introduce plain circularity. But the idea of defining *vyāpti* by reference to *upādhi* does not make this particular way of defining *upādhi* mandatory. If there is any non circular way of defining *vyāpti* there should be equally a non circular way of defining *upādhi* which is obtained by simply replacing the component *vyāpaka* in the explanation of the TS by a suitable adaptation of the provided *definiens* of *vyāpti*. To be sure, this would entail that the same conceptual resources which *can be* exploited for the definition of some term, in the pertinent case *vyāpti*, are exploited for the explication of some other term, viz. *upādhi*, which *is* employed for the explication of the first term. Such a manoeuvre could in

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<sup>17</sup> The two other varieties in that text are *asādhāraṇa* and *anupasaṃhārin*. Among these the first corresponds to the category discussed above. The second relates to the special case in which the subject of inference is constituted by all objects of the universe (of discourse). Here there is no *anvaya*, no *vyatireka* and no pertinent examples (*dr̥ṣṭānta*) exist. Although the definition of the TS (p. 44 in Athalye) (*tatra*) *sādhyaḥbhāvavadvṛttiḥ sādhāraṇo 'naikāntikaḥ* explicitly refers only to the second component of occurring in some instance in which the *probandum* is not instantiated the context makes plain that the other component, namely that the *probans* does not exclusively occur in instances in which the *probandum* does not occur, is equally pertinent.



fact appear odd. One might explain the idea of successor of a natural number by saying that the successor of any natural number equals the sum of that number and the number 1 and one might also explain the same notion by saying that the successor of a natural number equals the sum of any natural number and the quotient of any natural number and itself. But isn't the second alternative unduly cumbersome? Shouldn't one postulate that if one among two equivalent definitions refers to additional concepts, e.g. the concepts of division and quotient, the alternative deserves to be preferred? Shouldn't one generally say that among various materially equivalent alternatives the most simple one should be chosen for purposes of definition? Considerations of (alleged) simplicity and straightforwardness might indeed provide a motivation for rejecting a definition in favour of some other alternative. Since, however, the pertinent textual passage does not even allude to notions such as simplicity, straightforwardness or conceptual parsimony, it is far from certain that the underlying argument for the rejection of an explication of *vyāpti* by non-existence of *upādhi* was merely lack of maximal simplicity. Moreover, the notion of simplicity is vague and it is by no means obvious that a postulate of maximal simplicity is generally valid. Even as far as the number of concepts referred to is concerned, it is by no means sure that explanations which are simpler in this sense always possess greater merit. Explanations which might not be advisable for school-children or laymen because they refer to less usual concepts could possess in theoretical contexts the advantage of making certain theoretical connections manifest and further a deeper understanding. Consequently the writer of the NL would have based his argument on a doubtful basis if presumed simplicity should have been his only reason for the rejection of a pertinent definition of *vyāpti*.

As a result no compelling rationale can be discerned against an equation of *vyāpti* and non-existence of *upādhi* even in the light of particular assumptions suggested by the NL under the premise that something might simultaneously possess the status of a *probandum* and of an *upādhi*.

What is, however, the situation if something's being different from a *probandum* is a necessary condition of its being an *upādhi*? Evidently, in this case the demands on the existence of an *upādhi* are stricter, at least if one does not presume some guarantee to the effect that for every *probandum* there is something different which is "co-extensive" with it. Supposed there is in fact nothing different coextensive with the *probandum*. Then there might be a *probans* that is instantiated everywhere — such as, given Nyāya-Vaiśeṣika assumptions, being knowable — whereas a *probandum* is instantiated everywhere except in one instance. But since everything pervading the *probans* must be instantiated in more objects than the *probandum* there is absolutely nothing pervading the *probandum* that does not equally pervade the *probans*. In a situation that complies with the requirements of an *anaikāntika* reason there would be no *upādhi*. As there can be no doubt that in the views of the author of the NL, as of any Nyāya writer, *vyāpti* never holds good in cases of *anaikāntika*-reasons, the condition of non-existence of *upādhi* would be fulfilled in some condition in which *vyāpti*

does not occur. Non-existence of an *upādhi* could therefore not be a sufficient condition for occurrence of *vyāpti*, if the above formulated premises were accepted. Nevertheless, it is doubtful and even quite improbable that the author of the NL rejected the explication of *vyāpti* as non-existence of *upādhi* on the basis of this consideration. The reason is not merely that the above considered example of a universally instantiated *probans* and an almost universally instantiated *probandum* is quite unusual. More decisive is the fact that the writer of the text appears to acknowledge the extensional equivalence between *vyāpti* and non-existence of *upādhi* because he explicitly declares that non-possession of an *upādhi* (*anupādhikatva*) is a *lakṣaṇa* of *vyāpti*. If the term *lakṣaṇa* should imply the relation of a necessary and sufficient condition, and not merely that of a necessary condition, the above account can hardly be correct.

However, under the presupposition of a necessary difference between *upādhi* and *probandum* there are also other possible reasons for a rejection of defining *vyāpti* in terms of non-existence of *upādhi*. It had been pointed out above that the term *anaikāntika* or at least the most important type of *anaikāntika* embodies the idea of a *probans*' occurring in some part, but not in the entire realm of instances of the *probandum*. It is easy to see that this idea does not entail any reference to the existence of something different from the *probandum* that equally does not pervade the *probans*. On the other hand, it had also been ascertained that *anaikāntika* reasons represent a major variety of fallacious reasons in which *vyāpti* generally does not hold good. Now, if one puts the question as to why *anaikāntika*-reasons are incompatible with *vyāpti* the answer appears plain: It is because the *probandum* is not instantiated wherever the *probans* is. What matters is merely a fact concerning the *probans* and the *probandum*, whereas anything pertaining to something which differs from both the *probans* and the *probandum* is absolutely immaterial. The consequence is that only if *vyāpti* is explained in a manner that does not refer to something that differs from *probans* and *probandum* the connection between being *anaikāntika* and failure of *vyāpti* can be immediately established. By saying something (conceptually) equivalent to the proposition that *vyāpti* between *probans* and *probandum* is a relation that holds good precisely if every instance of *probans* is also an instance of *probandum* the connection between the idea of a *probans* that is instantiated where the *probandum* is not instantiated and non-occurrence of *vyāpti* is most immediate. If *vyāpti* were defined as non-existence of something different from the *probandum* that pervades it and does not pervade the *probans* one would require an additional step for deriving non-occurrence of *vyāpti* from being *anaikāntika*. Starting from the proposition a) that there is some x that exemplifies the *probans* and does not exemplify the *probandum* one can derive b) that there is some Y different from the *probandum* that is instantiated wherever the *probandum* is instantiated and such that some x exemplifies the *probans* but does not exemplify Y only by adding c) that for any *probandum* there is some Y differing from the *probandum* that is instantiated wherever the *probandum* is instantiated and

such that every  $x$ , that exemplifies  $Y$  exemplifies the *probandum*.<sup>18</sup> In contrast one does not require c) for deriving from a) the proposition that results if the component 'different from the *probandum*' were eliminated in b). If existence of *upādhi* would merely mean that something, be it the *probandum* itself or something else, is instantiated wherever the *probans* is instantiated but not instantiated wherever the *probans* is instantiated, it would immediately follow from the proposition that not everything that exemplifies the *probans* exemplifies the *probandum*. But if *upādhi* entails difference from the *probandum* its existence embodies a stronger claim that can be derived from the supposition that defining characteristics of an *anaikāntika* are present only by hypothesizing an additional assumption which might be, and probably is, true in the eyes of the author of the NL, but which does not represent merely a logical consequence of that supposition.

It is not mere simplicity which would motivate a rejection of the explication of *vyāpti* in terms of non-existence of *upādhi* in the present account. The conception is rather that as (certain) fallacious reasons exhibit lack of *vyāpti* it is theoretically important to account for this connection and that an account which establishes an inferential proximity between defining properties of those reasons and absence of pervasion is preferable against one which does not. The notion of inferential proximity could be explicated by saying that a proposition  $P$  is inferentially closer to  $Q$  than to  $R$  if the minimal set of propositions containing  $Q$  that would logically entail  $P$  is smaller, i.e. contains less atomic propositions, than the corresponding minimal set containing  $R$ , allowing for the possibility that a minimal set containing a proposition might only contain the pertinent proposition itself.<sup>19</sup> It is by no means impossible,

<sup>18</sup> The derivation can be depicted in the following manner:

(1) There is some  $x$ , such that  $x$  exemplifies the *probans*  $H$  and  $x$  does not exemplify the *probandum*  $S$ .

*Assumption corresponding to a)*

(2) For every *probandum*  $p$  there is some  $Y$ , such that  $Y \neq p$  and every  $x$  that exemplifies  $p$  exemplifies  $Y$  and every  $x$  that exemplifies  $Y$  exemplifies  $p$

*Assumption corresponding to c)*

(3) For every *probandum*  $p$  there is some  $Y$ , such that  $Y \neq p$  and every  $x$  that exemplifies  $p$  exemplifies  $Y$  and every  $x$  that does not exemplify  $p$  does not exemplify  $Y$

*From (2)*

(4) For the *probandum*  $S$  there is some  $Y$ , such that  $Y \neq S$  and every  $x$  that exemplifies  $S$  exemplifies  $Y$  and every  $x$  that does not exemplify  $S$  does not exemplify  $Y$

*From (3)*

(5) There is some  $Y$ , such that  $Y \neq$  the *probandum*  $S$  and everything that exemplifies  $S$  exemplifies  $Y$  and there is some  $x$  that exemplifies the *probans*  $H$  and  $x$  does not exemplify  $Y$

*From (1) and (4). Corresponding to b)*

<sup>19</sup> Or, if one makes proximity relative to a derivational system, one could say:

Proposition  $P$  is inferentially closer to  $Q$  than to  $R$  according to a derivational system  $D$  if and only if the minimal set of atomic propositions containing  $Q$

and not even improbable, that the author of the NL as well as many other writers of that tradition had some implicit grasp of the idea of a logical consequence even if that notion was never brought to the fore, let alone that it was explicated. This idea could even be in the background when texts refer to the possibility or non-possibility of the emergence of doubt, such as in the *Nyāyalīlāvatiṭprakāśa* p. 500 (in the edition of H. Śāstrī 1927).<sup>20</sup> Therefore it is important to stress the fact that the above presented account does not reduce the question of definitional adequacy to matters of psychology. It implies rather that the basis lies in objective, or at least non-psychological conditions, pertaining to logical connections.

It would be a mistake to interpret this last remark as embodying the claim that logical connections must have been the psychological motive for Vallabha's rejection of pervasion as non-existence of *upādhi*. It might be true that the actual psychological motivations existed only because of the existence of logical relations as described above. But even then saying that the attitude of the writer of the text was motivated by logical issues is too gross a description of the actual state of affairs. Moreover, the presumption that matters of logic are involved does not preclude that considerations pertaining to cognitive issues were equally pertinent. This holds true in the first place for the circumstance that the relation between the fact a) that something (A) is instantiated where something else (B) is not instantiated and the fact b) that it does not hold good that wherever the former item (A) is instantiated the latter item (B) is instantiated is more obvious than the relation between the fact a) that something (A) is instantiated where something else (B) is not instantiated and the fact c) that the former item (A) is not instantiated in something (C) which is instantiated wherever the latter item (B) is instantiated but differs from it, viz. the latter item (B). Nevertheless, this deviance with respect to (the degree of) obviousness is not merely a contingent matter of psychology. The parallel in the dimension of logical proximity makes plain that in so far as psychological dispositions of recognizing something as obvious differ with respect to the pertinent cases they possess a correlate which is appropriately characterized by the term 'cognitive'. The connection is that increase in logical distance induces increase in cognitive opacity which in its turn might induce increase in psychological non-transparency. Against this background one could distil as principles of definitional adequacy that an adequate explication should minimize a) logical distance, b) cognitive opacity and c) psychological non-transparency with respect to relevant theoretical connections. Among those c) is less essential.

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needed for deriving P in D is smaller than the minimal set containing R needed for deriving P in D

<sup>20</sup> *ato 'trānaikāntikatve 'pi yady anaupādhikatvaṃ syāt tadā ko virodha iti śaṅkāvatarati / anaikāntikatve 'pi kṛtsnasambandhaḥ syād iti śaṅkā nāsti vyāghātād ....* As a matter of fact, the idea underlying such statements might not be simply logical entailment, logical incompatibility etc. but a more restrictive notion of evident logical entailment, logical incompatibility etc.

Needless to say that this statement does not purport to mirror "thoughts which the author of the NL had in mind".<sup>21</sup>

## X

The argument embodied in the formulation *anaikāntike sopādhivod-bhāvanāpatteḥ* does not explicitly refer to one of the above mentioned notions. Therefore the relationship between the argument presented in the NL and the facts that have been pointed out needs to be clarified. The preceding remarks support the following conditional conclusion: *If* the connection between the presence of the defining characteristics of (the most important variety of) *anaikāntika* on the one hand and non-compliance with requirements stipulated for *vyāpti* on the other should be as immediate as possible *then* it would be preferable to accept the definition propagated in the NL rather than a definition in terms of absence of *upādhi*. But for a vindication of the proposition that a *vyāpti*-definition in terms of non-existence of *upādhi* is less adequate or even inadequate one needs a vindication of the antecedent of the conditional. This means one must demonstrate that the fact that defining characteristics of *anaikāntika* are present should not merely rule out *vyāpti* but should engender this consequence in a most immediate manner. Even on the hypothesis, however, that minimizing logical distance, cognitive opacity or psychological non-transparency are relevant parameters for the quality of definitions the truth of that proposition is by no means evident. Up to now no plausible reply has been indicated that meets the following objection:

"Let us grant for the sake of argument that any satisfying theoretical account of *anaikāntika* and *vyāpti* should imply that lack of *vyāpti* is a characteristic feature of (the most important variety of) *anaikāntika*. But why is it important that a maximally tight relation of entailment between the terms is ensured? As long as no compelling reason exists to challenge the transitivity of *vyāpti* or the connection expressed by 'wherever x is instantiated y is instantiated' there is no reason for calling into question the entailment between a definition of pervasion as absence of *upādhi* on the one hand and the fact that *asādhāraṇa*-reasons militate against *vyāpti* on the other. Whenever there is something differing from the *probandum* which is instantiated wherever the

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<sup>21</sup> In this connection it is vital to clearly differentiate between the following issues: 1) Did some writer possess a (tacit) disposition to acknowledge minimal logical distance and cognitive opacity as ideals for terminological explications? Could one assert that a disposition to that effect is common among theoreticians even if they belong to different cultural traditions? 2) Are 'logical distance' and 'cognitive transparency' or 'cognitive opacity' terms which need to be relativized to individual subjects or even stages during the life of rational beings? Are human beings generally disposed to give (more or less) identical verdicts with respect to logical proximity or distance and cognitive transparency or opacity or are there divergences in accordance with factors, such as language, tradition or cultural milieu? Such differences need not amount to a merely psychological matter. They could be parallel to distinctions relative to different derivational systems.

*probandum* is instantiated but not instantiated wherever the *probans* is instantiated it follows that the *probandum* cannot be instantiated wherever the *probans* is instantiated. The mere transitivity of 'a is instantiated wherever b is instantiated' guarantees this implication. Thus if *vyāpti* were defined as non-existence of something different from the *probandum* instantiated wherever the *probandum* is instantiated but not instantiated wherever the *probans* is instantiated, lack of *vyāpti* would amount to the existence of something different from the *probandum* pervading it but not pervading the *probans*. This implies that it cannot be the case that wherever the *probans* is instantiated the *probandum* is instantiated too. Consequently a definition of *vyāpti* in terms of absence of *upādhi* should warrant that whenever *vyāpti* does not obtain there must be an entity in which the *probans* occurs but not the *probandum* — provided that the *probans* is instantiated at all. In other words: Whenever there is no *vyāpti* with respect to some instantiated *probans*, then the characteristic feature of *anaikāntika*-s, viz. occurrence in something lacking the *probandum*, must be present. Given that *de facto* every *anaikāntika* meets both the conditions pertinent for the existence of an *upādhi*, — namely the two conditions implied by the idea of the existence of something different from the *probandum* pervading the *probandum* but not the *probans* — the stipulation that *vyāpti* is non-existence of an *upādhi* together with an acknowledgment of the fact that a *probans* of the *anaikāntika*-type violates the conditions inherent in the term *vyāpti* thus defined should suffice for generating the result that a *probans* of the *anaikāntika*-sort violates the postulate that a *probans* must not occur in some instance in which the *probandum* is not instantiated. This means that with respect to *anaikāntika*-reasons the pertinent set of assumptions entails a violation of the conditions stipulated by the *vyāpti*-definition in its accepted form. Why is such an account not feasible? Why should it be imperative to relate *anaikāntika*-reasons to a concept of pervasion that corresponds to the accepted definition of *vyāpti*?"

An answer has already been indicated in a concealed manner above. It is the idea of a factor responsible for the faultiness of a certain type of fallacious reason that is crucial in this context. The conjunction of the two propositions, a) that non-compliance with the requirement that wherever a *probans* is instantiated the *probandum* is instantiated should represent precisely that which makes *anaikāntika*-reasons fallacious and b) that a definition of *vyāpti* should represent a requirement whose violation makes those reasons fallacious rules out the possibility of defining *vyāpti* in such a way that a violation of the conditions embodied in the definition *merely implies* that *anaikāntika*-reasons must be fallacious. Albeit the conjunction of the three propositions i) that violation of *vyāpti* renders logical reasons faulty — i.e. the conditional: 'if something violates *vyāpti* then it is faulty' — and ii) that *de facto* all logical reasons occurring in some instance where the *probandum* does not occur possess an *upādhi* and iii) that *vyāpti* is absence of *upādhi* yields the correct result that all *anaikāntika*-inferences are faulty, it furnishes this outcome, as it were, on a basis that is beside the point: The critical factor is not that the *probans* occurs in something that does not exhibit a pervasive

property different from the *probandum* but that it occurs in something that does not exhibit the *probandum*.<sup>22</sup> Given that the defining characteristic feature of an *anaikāntika* should be alone sufficient to render the corresponding reasons faulty the circumstance that the defining characteristic of an *anaikāntika* does not logically entail non-existence of *vyāpti* defined as absence of *upādhi* possesses vital importance. It emerges thus that the author of the NL did not consider as satisfactory a definition of *vyāpti* which only entails that *anaikāntika*-reasons are faulty. Rather he expected from such a definition that it should make evident *why* those specimens of fallacious reasons are flawed.

If an *upādhi* needs to differ from a *probandum* there is no way of establishing both the propositions that the characteristic exhibited by *anaikāntika*-reasons is the decisive feature accounting for their fallaciousness and the proposition that they exhibit lack of *vyāpti*, defined as existence of some *upādhi*, without hypothesizing some additional assumption that is not a logical consequence, and *a fortiori* not an immediately evident logical consequence, of those propositions, either taken alone or together. A derivation of the crucial property of faultiness from the defining characteristic of an *anaikāntika* via the proposition that the requirements of *vyāpti* are not satisfied must rely on an assumption that warrants equivalence of *vyāpti* and absence of *upādhi*, in particular the proposition that for every *probandum* that does not pervade the *probans* there is something different pervading it but not the *probans*. A correlate of this is the circumstance that non-compliance with the *vyāpti* definition together with exhibition of faultiness can never be verified without some (at least implicit) appeal to a fact that is not a logical consequence of the proposition that certain features are exhibited by some type of *probans* and that exhibition of those features renders this type of *probans* fallacious. Since a verification must rely on the fact that something other than the *probandum* exists pervading the *probandum* and not the *probans* it is required either to point out such an object, or to prove that such an object *must* exist, if the verification should be fully explicit. Precisely that appears to be the import of the phrase *sopādhivodbhāvanāpatteḥ*.

If the requirement of difference from the *probandum* were not pertinent for an *upādhi* the demands of verification would not exceed the framework of the relation of the instantiation ranges of *probans* and *probandum*. If existence of

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<sup>22</sup> It is apposite to emphasize that the relevance of this fact does not essentially depend on the proposition that *vyāpti* embodies a general criterion for validity or non-faultiness of inferences. Only the presupposition that *vyāpti* constitutes a necessary condition of validity and acceptability for some set of inferences to which inferences employing *anaikāntika*-reasons belong is critical. — The issue as to whether *vyāpti* is a general requirement for validity will be pertinent in the subsequent chapter. — It is possible to detach the vital point from the presupposition regarding the role *vyāpti* plays for validity by formulating it in the following manner: *Even if vyāpti* defined as absence of *upādhi* would warrant an assessment of *anaikāntika*-reasons as faulty, it would yield this consequence on an inappropriate basis.

*upādhi* amounted merely to the fact that something pervading the *probandum* is instantiated somewhere but not everywhere in the realm of the *probans*, the condition would be automatically fulfilled for the (pertinent variety of) *anaikāntika*, given that the relation of pervasion is both transitive and reflexive. A verification must only take into consideration the circumstance that the *probandum* itself is instantiated only in some part of the instantiation range of the *probans*. In a similar manner in situations described by the technical term *viruddha*, where *probandum* and *probans* have no instance in common, the *probandum* would be qualified for the status of *upādhi* if the definition of the TS were hypothesized. The commentaries *Nyāyalīlāvati-kaṅṭhābharaṇa* and *Nyāyalīlāvati prakāśa* (p. 499-500) imply that such a state of affairs does not hold good at least as far as *anaikāntika* fallacies are concerned.

The *Nyāyalīlāvati-kaṅṭhābharaṇa* makes the following comments:

*anaikāntikatvaṃ hi vyāptivirahonnāyakatayā yadi dūṣaṇaṃ tadā tatra sopādhikatvaṃ yad vyāptivirahaḥ prathamam sa evodbhāvvyate tarhy anumeyam anudbhāvnyonnāyakodbhāvanāvasaraḥ aprāptakālatvāpatteḥ / vyāptiviraharūpatayā<sup>23</sup> ced dūṣakatvaṃ yadā (correct: tadā ?) kārtsnyena saṃbandho vyāptir ity āyātaṃ sādhyābhāvavadvṛttitvasyānaikāntikatvasya kārtsnyena saṃbandhābhāvarūpatvād ity arthaḥ*

This passage can be rendered in the following manner:

For if being *anaikāntika* is a fault on account of the circumstance that it induces/implies lack of *vyāpti*, then in the first instance nothing but (*eva*) the lack of *vyāpti*, which is in this case possession of an *upādhi*, is made apparent; [but] then it is an appropriate occasion to mention that which induces/implies [the pertinent consequence] without mentioning the *probandum*, because the consequence ensues that it is an inopportune instant [to refer to the *probandum*]. If [on the other hand] that which renders [an *anaikāntika*] faulty is due to [its] nature of lack of *vyāpti* then [the thought/proposition] that *vyāpti* is the connection [of the *probans*] in its entirety [with respect to the *probandum*] is [immediately] at hand because being *anaikāntika* which is occurrence in something that possesses non-occurrence of the *probandum* (i.e. being instantiated in something in which the *probandum* is not instantiated) has the nature of a lack of a connection [of the *probans*] in its entirety [with respect to the *probandum*].

The import appears to be the following: If the defect of an *anaikāntika* is due to its implying lack of *vyāpti*, then a definition of *vyāpti* as non-existence of *upādhi* induces the consequence that verification of non-existence of *vyāpti*

<sup>23</sup> In the citation of this passage in Sjödin 2006:89 footnote 374 *vyāpti-virahonnāyakatayā* as well as *vyāptiviraharūpatayā* appear respectively as *vyāpti-virahonnāyakatvayā* and *vyāptiviraharūpatvayā*, which are apparently misprints.



needs to refer to something different from the *probandum* and not the *probandum* itself and accordingly a reference to something that pervades the *probandum* but is not identical with the *probandum* would be needed for a vindication of the faultiness of this type of inference. If, on the other hand, the faulty nature is due to the fact that the nature of *anaikāntika*-reasons consists itself in absence of *vyāpti*, then the consequence that *vyāpti* is the existence of an invariable connection between *probans* and *probandum* obtrudes itself because the defining characteristic of an *anaikāntika* lies in the fact that it is a (purported) *probans* that is instantiated where the *probandum* is not instantiated, which is by nature the same as non-existence of an invariable connection between *probans* and *probandum*.<sup>24</sup>

The *Nyāyalilāvati prakāśa* gives a subtle and intricate explanation which reads:

*ayam arthaḥ — anaikāntikasya dūśakatvaṃ vyāptivirahatayā tadunnāyakatayā vā satpratipakṣavat vyāptivighaṭanam akurvataḥ svāntryeṇa vā / nādyāḥ upādhiviraharūpavyāpter abhāva upādhir evety anaikāntike upādhyudbhāvanāpatteḥ / na dvitīyāḥ vyāptivirahasyopādhirūpatvenānaikāntikena tadunnayane upādhyudbhāvanāpatteḥ / yadunnayanadvārā hi yasya dūśakatvaṃ tena tad avaśyaṃ duṣṭyartham unnayanīyam / anyathā tadunnayanaṃ vinaiva tasya dūśakatve tadunnāyakatvena yad dūśakatvaṃ uktaṃ tad bhajyeta / na tṛtīyāḥ evaṃ tat syād yadi vyāptipakṣadharmatājñāne saty anaikāntikatvānvayaprayukto*

<sup>24</sup> Presumably the structure of the argument embodied in the second sentence is as follows:

- (a) The (characteristic) nature of *anaikāntika*-reasons consists in the property that there is something in which the *probans* is instantiated and the *probandum* is not instantiated, i.e. in their property of being instantiated in some entity in which the *probandum* is not instantiated.
- (b) The property that there is something in which the *probans* is instantiated and the *probandum* is not instantiated = the property that it does not hold good that wherever the *probans* is instantiated the *probandum* is instantiated too.
- (c) Assume that the (characteristic) nature of *anaikāntika*-reasons = absence of *vyāpti*
- (d) Then absence of *vyāpti* consists in the property that it does not hold good that wherever the *probans* is instantiated the *probandum* is instantiated too, because of (a), (b) and (c)
- (e) Therefore (presence of) *vyāpti* consists in the property that wherever the *probans* is instantiated the *probandum* is instantiated too
- (f) The property that wherever the *probans* is instantiated the *probandum* is instantiated too = the connection of the *probans* in its entirety with respect to the *probandum*
- (g) Thus (presence of) *vyāpti* consists in the connection of the *probans* in its entirety with respect to the *probandum*
- (h) Accordingly non-existence of an invariable connection between *probans* and *probandum* is the crucial property which renders (pieces of reasoning employing) *anaikāntika*-reasons faulty.

*'numitivyatirekaḥ syāt / na tv evam anaikāntikatve vyāptivirahasyaivānu-  
bhavikatvāt / tasmād anaikāntike ānubhaviko vyāptivirahas tadaiva param  
upapadyate yadi tasya vyāptiviraharūpatvam tadunnāyakatvaṃ vā syāt tatra  
ca bādhakam uktam eveti /*

This passage can be rendered as follows:

This is the meaning [of the remark *na punar anupādhitvaṃ anaikāntike sopādhivodbhāvanāpatteḥ* of the NL]: The faultiness of an *anaikāntika* lies either in its lacking a *vyāpti* or its implying it (i.e. a lack of *vyāpti*) or in its independence [inasmuch as the capacity of rendering a *probans* fallacious is concerned] being something that does not affect *vyāpti* as [in the case of] a reason which possesses a counterbalancing reasoning. The first [alternative] is not the case. For the non-existence of a *vyāpti* that consists in non-existence of an *upādhi* is nothing but [the existence of an] *upādhi*; accordingly the [unacceptable] consequence results that in case of an *anaikāntika* an *upādhi* [needs to be] referred to. The second [alternative] is not the case. For due to the fact that non-existence of *vyāpti* has the nature of [existence of] *upādhi* [it holds true that] if that (namely lack of *vyāpti*) is demonstrated by an *anaikāntika* [by deriving this as an implied consequence] the [unacceptable] consequence results that in case of an *anaikāntika* an *upādhi* [needs to be] referred to. For something (x) which creates a fault by implying something (y) this (y) must be demonstrated [as something entailed] by that (x) for the purpose of censure. Otherwise if this created a fault even without [the need of] demonstrating that [then] that which has been proclaimed as creating a fault by the fact that it implies it would cease to be valid (i.e. it would cease to hold good that the property creating a fault is due to the fact that something possesses the pertinent entailment). The third [alternative] is not the case. For it might be so if a non-occurrence of a cognition produced by inference (*anumiti*) that results from a connection with the property of being *anaikāntika* (i.e. which is induced by the fact that something is *anaikāntika*) in a situation in which [the existence] of *vyāpti* as well as the [actual] occurrence of the *probans* in [the pertinent substratum of inference, i.e.] the *pakṣa* is [definitely] known. But [in fact] it is not so because in a case [in which something possesses the property] of being *anaikāntika* lack of *vyāpti* is perceived and nothing else. Therefore the lack of *vyāpti* that is perceived in connection with an *anaikāntika* is possible at most then if it (i.e. an *anaikāntika*) either has the nature of lack of *vyāpti* or implies it. But the refutation with respect to this (i.e. the refutation of those alternatives) has already been stated.

For the present issue the remarks pertaining to the first two alternatives are relevant. The decisive point is that also the *Nyāyalīlāvatiḥ prakāśa* presupposes that verification of the existence of an *upādhi* must not be required for a vindication of the faulty character of *anaikāntika* reasons. Without the premise

that a *probandum* cannot itself be *upādhi* this assumption would be unreasonable. Both texts acknowledge that a particular relation between the instance ranges of *probans* and *probandum*, viz. that the *probandum* is not instantiated wherever the *probans* is instantiated, are crucial for the faultiness of *anaikāntika* reasons.

## XI

The position of the author of the NL, and presumably that of the above cited commentaries, depends on the postulate that *vyāpti* must not merely entail the non-satisfaction of the conditions rendering *anaikāntika* reasons defective, but that the content of that term must be equivalent to those conditions, which implies that if those conditions exist then *vyāpti* cannot occur. The first requirement that whenever *vyāpti* is instantiated conditions which are sufficient for the faultiness of *anaikāntika* reasons must not be fulfilled appears straightforward and plausible. But is the reverse also mandatory?

It is indeed not mandatory but reasonable. Although it does not generally hold good according to theories of *anumāna* that validity and acceptability of inferences and proofs solely depend on the relationship of the instantiation ranges of *probans* and *probandum*, the idea that a suitable *probans* must not be instantiated where the *probandum* is not instantiated, in other words, that the range of the *probans* does not encompass entities lying outside the range of the *probandum* or that the *probans* is "invariably connected" with the *probandum*, which means that if anything is an instance of the *probans* then it is also an instance of the *probandum*, was a central ingredient of "Indian Logic" through all times, with the possible exception of the earliest beginnings<sup>25</sup>. Violation of this condition has always been considered as a most vital defect that renders inferences and arguments fallacious. In fallacies of the *anaikāntika* and the *viruddha* types this flaw is exhibited. Consequently it is highly reasonable to refer to the pertinent requirement by some term and *vyāpti* is on account of its lexical meaning and its association with the verb *vyāp-* meaning among others 'permeate', 'cover', 'fill', 'spread through' suited for this role. If *vyāpti* should perform such a task its content must be materially equivalent to that of the described notion of "invariable concomitance". However, if the fact that the NL declares that non-possession of an *upādhi* is a *lakṣaṇa* of *vyāpti* betrays that the writer of the text held the view that *vyāpti* is instantiated if and only if non-possession of an *upādhi* is instantiated (with respect to identical terms), his criticism of the definition of *vyāpti* in terms of non-existence of *upādhi* must be based on the assumption that material equivalence is not sufficient for an acceptable definition. The

<sup>25</sup> This does not mean that the idea has always been implemented as a postulate pertaining to the domain of all objects of the universe (of discourse). Although there is strong evidence to the effect that in many theories of *anumāna* the subject of inference, technically the *pakṣa*, has been excluded from the pertinent realm, the idea of invariable connection itself was operative even in this framework.

relationship between the idea embodied in an acceptable definition of the term and that of an invariable connection between *probans* and *probandum* must be stricter than that of material equivalence. Now, if the principle is valid that something which functions as a *probandum* cannot simultaneously function as an *upādhi* with respect to the same piece of inference, then the definition of *vyāpti* as non-existence of *upādhi* is not logically equivalent to a definition that stipulates that all instances of the *probans* are instances of the *probandum*.<sup>26</sup> Or more precisely, it is not logically equivalent to current (Western) notions of logical equivalence. One cannot logically deduce from the assumption that some *probans* H and some *probandum* S are not related in the manner of "invariable concomitance" that some *upādhi* exists with respect to H and S and one equally cannot logically deduce the other way around that if an *upādhi* does not exist with respect to H and S that H is instantiated only by objects which exhibit S. For a logical deduction an additional assumption is required as demonstrated above. Is it improper to say that the writer of the NL tacitly presupposed that the pertinent relation for a definition of *vyāpti*, or of definitions in general, is that of logical equivalence between the concepts embodied by the *definiens* and the *definiendum*? What is improper is at any rate the objection that the author of the text — and other authors belonging to the same tradition — did not explicate a concept of logical equivalence or logical consequence as opposed to the concept of material equivalence or material consequence. For the pertinent conjecture does not encompass such a claim in the same manner as the statement that speakers of a linguistic community speak an ergative language does not entail that children speaking the language possess a concept of ergativity. Should one object that the writer of the NL could not have had a grasp of the notion of logical consequence because this is a "Western" notion and thinkers of the East thought in completely different terms? Yet the presumption that "thinkers" of the "East" and the "West" must have always thought in completely different "terms" is nothing but a reckless dogma — at least as long as it is hypothesized *a priori* and not substantiated by strong empirical evidence. After all, terms such as 'material equivalence', 'material implication', 'logical entailment', 'logical equivalence' etc. might represent explications of (pre-theoretical) logical intuitions. A separate argument would be needed showing that logical intuitions of Western and Non-Western writers substantially differed in pertinent regards in order to substantiate the claim that modern Western logical terms can *never* be suitably applied to non-Western sources.

The fact persists, nevertheless, that the evidence for the assumption that the author of the NL hypothesized an adequacy condition of definitions that was stricter than material equivalence is much stronger than the support for the presumption that the pertinent connection was that of logical equivalence. Although it is futile to speculate about the question of what exactly was in the

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<sup>26</sup> For this the question of whether the syntagma 'all instances of A are instances of B' possess an existential import, i.e. implies or presupposes that the range of A's (or the corresponding set) is not empty, is immaterial.

mind of the author of the NL and "triggered off" the rejection of definition of *vyāpti* in terms of *upādhi* at the time of writing the pertinent textual passage, the actual formulation found in the text suggests that an idea played a role that is objectively connected with the concept of logical equivalence but differs from it in the way that not everybody entertaining it must also entertain a concept of logical equivalence or non-equivalence. It is the idea of a (standard) manner of verification of something's falling under a concept or of a way of verification associated with a sentence on account of its meaning. Inasmuch as *vyāpti* and non-possession of *upādhi* (*anupādhitva*) and the propositions that particular items exhibit those relations are materially equivalent it holds true that whenever satisfaction regarding one of those terms can be verified satisfaction with respect to the other term can be also verified in principle. This means with respect to *vyāpti* and lack of *upādhi* that whenever there is a way of establishing that items exhibit the relation of *vyāpti* there is also a way of verifying that the same items exhibit the relation of lack of *upādhi* and vice versa. But that does not entail that the manner in which those propositions are verified or falsified is exactly the same in both cases. Given that an *upādhi* must be different from a *probandum* a (standard) way of verifying that an *upādhi* exists with respect to a *probans* H and a *probandum* S involves a demonstration to the effect that something different from (both H and) S, apart from pervading S does not pervade H. The analogue with respect to *vyāpti* according to the preferred definition of the NL consists in a demonstration to the effect that S does not pervade H. Given the assumption that a particular definition of a term entails some standard procedures of verification of satisfaction or non-satisfaction in combination with the postulate that any acceptable standard verification procedure associated with *vyāpti* must only take the *probans* and the *probandum* into consideration, a justification of a rejection of a definition of *vyāpti* in terms of lack of *upādhi* ensues as an immediate consequence. Should one object that the idea of a standard verification method associated with a term or a sentence due to its semantic content is a modern and Western notion? But both the formulation of the NL and the above cited explanations in the commentaries support the account given above. What counts more, evidence in textual sources or the dogma that thinkers of the East always thought in different terms?

## XII

According to the foregoing analysis the impossibility of something's playing both the role of a *probandum* and that of an *upādhi* in the same context of inference possesses crucial importance for understanding the rejection of an explication of *vyāpti* in terms of absence of *upādhi* in the NL. The theorem that *probandum* and *upādhi* must be (numerically) different items is a tacit presupposition of the reviewed textual passage. To be sure, in the NL the idea of difference is patently suggested by the wording of the phrase *sādhyakṛtsnasahacāriṇaḥ* = 'of something which exhibits whole concomitance (*sahacāra*) with the *probandum*', i.e. is invariably associated with the *probandum*. As long as one considers the formulation in isolation, one cannot

rule out that the difference alluded to relates merely to an accidental feature or some general property that is typically connected with some type of entity but not linked to it by necessity. This is, however, obviously not the case and does not correspond to the import intended by the writer of the text. An equivalent conception is presumably also represented by definitions of *upādhi* in terms of terms related to *vyāpti*, as e.g. the explication in the TS. At any rate, if that is true, then this fact vindicates that *vyāpti* has been conceived as an irreflexive relation.

It should not be overlooked, however, that from a purely theoretical standpoint this stance is not mandatory. It is even doubtful that it is advantageous. Against the background of a relation of 'pervasion' which deviates from that of *vyāpti* merely by the quality of being reflexive and an analogous concept of *upādhi* one could provide a definition of *vyāpti* in terms of *upādhi* that is not affected by the objections discussed above. Such a definition would stipulate that any item 'a' is related by pervasion to some item 'b' exactly if there is no item x, such that everything that exemplifies 'b' exemplifies x and such that it does not hold good that everything that exemplifies 'a' exemplifies x. If we symbolize the pertinent reflexive pervasion-concept by 'V' and the corresponding concept of *upādhi* by 'U' we could formulate the following theorem for a reflexive notion of *vyāpti*:

(U)  $a \underline{V} b$  if and only if there is no x, such that  $\underline{U} x b a$

which amounts to exactly the same as:

(U)'  $a \underline{V} b$  if and only if there is no x, such that  $b \underline{V} x$  and not  $a \underline{V} x$

On this basis one can easily specify for the irreflexive concept of *vyāpti*:

(V)  $a \underline{V} b$  if and only if there is no x, such that  $\underline{U} x b a$ , and  $a \neq b$

which would be equivalent to

(V)'  $a \underline{V} b$  if and only if there is no x, such that  $b \underline{V} x$  and not  $a \underline{V} x$ , and  $a \neq b$

and says that some 'a' is related by *vyāpti* to 'b' exactly if 'a' and 'b' are not identical and there is no item, either identical with or different from 'b', which pervades (the *probandum*) 'b' and does not pervade (the *probans*) 'a', where the underlining signals a corresponding reflexive import of the term. Obviously this formulation exhibits a surplus of theoretical significance in comparison with the definition adopted in the NL. Apart from making the quality of being irreflexive regarding the explicated *vyāpti*-concept explicit, the theorem represented by (V)/(V)' entails the idea of an 'invariable concomitance' between *probans* and *probandum* — embodied in the formulation *sādhanaśya sādhyasāhityaṃ kārtsnyena* of the definition in the NL. The former is, however, not entailed by the latter. (V)/(V)' conveys the additional information that in cases in which *vyāpti* obtains the same

connection of invariable concomitance that holds true of the *probans* and the *probandum* equally holds good between the *probans* and every item that is related to the *probandum* in the same manner by invariable concomitance as the *probans* and the *probandum*. It is hard to recognize any plausible motive for rejecting a definition of *vyāpti* in accordance with (V)/(V)' on account of the fact that it exhibits a higher degree of generality. Rather the opposite is plausible, namely that the surplus of generality and informational content should be credited as a virtue of the alternative definition. At any rate, the considerations contemplated in the preceding sections do not furnish any convincing reason for rejecting this possibility.

Possibly the irreflexive nature of *vyāpti* and even the theorem that nothing can simultaneously play the role of a *probandum* and of an *upādhi* in some context reflect implicit intuitions and a vague grasp concerning the pertinent subject matter on the part of other scholars, including Sjödin. In this sense those tenets might not be completely novel. This must not be exploited as an argument for leaving those matters in a stage of intuition and vagueness, however. Even regarding a fact that is commonly taken for granted the circumstance that it *is* a fact can possess utmost significance. In the present case a full explication of the above identified ingredients of the position exhibited by the NL is needed for recognizing the fact that, at least in theoretical respect, the adoption of the pertinent stance is by no means supported by compelling reasons.

Against the background of the necessary difference between *probandum* and *upādhi* the tenet that absence of *upādhi* is acknowledged as a *lakṣaṇa* of *vyāpti* is even more remarkable. This holds good at least if in the present context being a *lakṣaṇa* does not only encompass a necessary but also a sufficient condition. To be sure, if some *probans* is invariably connected with some *probandum* in the manner stipulated by the pertinent definition of *vyāpti* it follows that everything different from the *probandum* must be related by invariable concomitance with the *probans* if it is invariably connected with the *probandum*. But the reverse relation is not at all trivial.

It has been pointed out before that on a fairly strict reading of *sādhanaikadeśavṛttitvam* something qualifies as an *upādhi* only if its instantiation range encompasses a proper part of the range of the *probans*. So-called *kevalavyatirekin*-reasons exhibit the peculiar feature that they occur exclusively in the pertinent substratum of inference (*pakṣa*).<sup>27</sup> By this the possibility is ruled out that *any* property or universal is instantiated in a proper part of the range of the *probans*. Accordingly there can be no difference as far as non-existence of *upādhi* is concerned from any inference employing the

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<sup>27</sup> An example is:

(The substance) earth differs from other (substances) because it possesses smell.

(In the wording of the TS: *pr̥thivītarebhyo bhidyate gandhavattvāt*). — The underlying assumption is that no other (known) substance possesses smell.

same *probans* and some arbitrary other *probandum*, say for example, being liquid instead of being different from other substances than earth on account of the possession of smell. However, precisely this could be a plausible reason for denying that the wording of the text is exact, and Sjödin's assumption regarding the *intended import* that there is no substantial difference between the NL and the TS might be correct.<sup>28</sup> Far more important is the following fact: A material equivalence between *vyāpti* and absence of *upādhi* requires that for every potential *probandum* some numerically different entity exists that is instantiated in at least as many objects. Thus the plausibility of the tenet that absence of *upādhi* is a defining characteristic of *vyāpti* depends on debatable premises. Apart from the presupposition that *probans* and *probandum* must differ the tenet implies that in the range of potential *probanda* items exist which are not unique with respect to their instantiation range, i.e. there are at least two different items possessing the same extension exists. It can be considered as certain that according to the position adopted in the NL inferences exhibiting a *probans* and a *probandum* that are both universally exemplified are always acceptable and that *vyāpti* should be instantiated in such cases. But how can one take for granted that with respect to existence or absence of an *upādhi* those special cases are different from all corresponding cases deviating from the former ones merely on account of the circumstance that the extension range of the *probandum* is smaller than that of the *probans* by excluding one entity?<sup>29</sup> That is to say, how can it be guaranteed, as it should be, that an inference is faulty in which some omnipresent *probans* is employed to infer the occurrence of a particular quality that is exhibited by all except one object in the universe (of discourse) and that an *upādhi* exists with respect to the case in question? This point can be generalized. Regarding cases in which *probandum* and *probans* have the same extension but are not universally instantiated it is possible to ascertain in general that absence of *upādhi* is a guarantor of *vyāpti* only if every *probandum* possesses a numerically different correlate encompassing exactly

<sup>28</sup> To be sure, this consideration to the effect that the wording of the TS represents a more felicitous formulation of Vallabha's intention than his own wording in the NL depends on the premise that *vyāpti* is exhibited by *kevalavyatirekin-s*. If one takes the accepted definition *sādhanaśya sādhyasāhityaṃ kārtsnyena* literally that assumption would be warranted. On the other hand, formulations found in other textual sources often involve a covert reference to the universe apart from the subject of inference, the *pakṣa*. If one interpreted the definition in analogy to those wordings it would entail that the co-occurrence of *probans* and *probandum* must be instantiated in the realm outside the *pakṣa*, i.e. — according to a terminology common in Buddhist texts — in the realm of *sapakṣa*. Such a reading would be even mandatory if one regarded the use of *kārtsnyena* 'in full', 'entirely' as an indicator that a *probans* must be instantiated more than once.

<sup>29</sup> Theoretically, there are as many possible extension ranges excluding exactly one object as there are objects in the universe (of discourse). It could be surmised in principle that some or even all items possessing those extension ranges do not qualify as possible *probanda*. However, if this proposition were adopted in the framework of the NL it would nevertheless hold true that the material equivalence between *vyāpti* and absence of *upādhi* rests on a non-trivial and debatable tenet.



the same range in the realm of the *probans*.<sup>30</sup> It appears that both commentators and scholars have ignored that the tenet of the material equivalence of *vyāpti* and absence of *upādhi* is even more challenging than the rejection of a definition of *vyāpti* in terms of absence of *upādhi*. To be sure, the objective problem would be circumvented by assigning a different position to the writer of the NL, either by denying the principle that no *probandum* can itself play the role of an *upādhi* or by supposing that the theorem that absence of *upādhi* is a *lakṣaṇa* of *vyāpti* should merely imply that the former is a necessary condition of the latter. Those solutions are, nevertheless, questionable if they are taken as representing intentions of the author. It appears more probable that the NL advocates a stance which in fact requires not only that *vyāpti* relates items whose identity conditions are finer grained than those of sets but that even any item that can be related by *vyāpti* possesses at least one counterpart encompassing the same extension-range. This is a non-trivial, although not inconsistent tenet.<sup>31</sup> We cannot decide, however, whether the author of the work consciously accepted this proposition as a consequence of his views.

Against the background of the account presented in the preceding paragraphs Sjödin's translation of *udbhāvana-* in *sopādhivodbhāvanāpatteḥ* by '(because the state of being with an *upādhi*) would [have to] arise (in the case of a deviating *sādhana*)' is not appropriate because the pertinent expression refers to the need *to show* that some *probans* does not exhibit *vyāpti* with respect to a pertinent *probandum* by *pointing out* the existence of an *upādhi*. Among the equivalents which dictionaries mention for the expression *udbhāvana* 'announcement', 'communication' as well as 'making visible', 'manifestation' would be suitable.

For every relation 'R' that is transitive, but not reflexive it holds good that if aRb then there is no x, such that bRx and not aRx, but the reverse does not necessarily hold true. For this reason the circumstance that *vyāpti* ('pervasion') has been used to signify a relation which is not only not reflexive, but irreflexive attains central importance due to the fact that properties of *vyāpti* between *probans* und *probandum* have been transferred to the relation

<sup>30</sup> The generalization attains relevance if it is not certain that for every item encompassing a range of particulars and every particular or range of particulars there is another item of the same sort encompassing exactly the elements belonging to the former ranges. If we consider items such as kinds or species we can recognize that the existence claim is not at all self-evident. — What is the species different from the species of fishes that pervades the realm of fishes but not the realm of aquatic animals? — To be sure, for sets and classes this principle is valid, i.e. for every set and every particular there is a set containing that particular and the particulars of the former set as elements and for any two sets there is a set identical to their union. But as far as one can see, such theorems were never overtly stipulated for the types of entities that could be related by *vyāpti* or *upādhi*.

<sup>31</sup> That the author of the NL, as other writers belonging to the same tradition, took for granted that *some* items possessed such counterparts, as in the case of nameability, knowability etc., is beyond any reasonable doubt.

between *probandum* and *upādhi*. There is also another interesting aspect of the matter relating to a topic of 'semantic evolution'. One might think that the term *vyāpti* as an element of the language or at least as a technical term must entail irreflexivity as a semantic ingredient. But it is far from certain that this view represents a fair account of the actual situation. It is true that in the framework of theories of inference *vyāpti* is primarily applied to pairs of a *probans* and *probandum*. The mere circumstance, however, that items in this field of application exhibit without exception a certain feature, such as numerical difference, does not necessitate the conclusion that the feature constitutes also a semantic requirement for the application of the term in question. In view of the fact that in a particular range of application the feature is exhibited by all pertinent items it could function as a 'semantic presupposition', which in itself does not demand the existence of a rule imposing a corresponding restriction that needs to be extrapolated to other areas of application. Assuming that *vyāpti* or related terms are employed in texts, such as the TS, to characterize a relation between *probandum* and *upādhi* which equals the one stipulated in the NL, this fact can be taken as indicating a transformation from a semantic presupposition to an entailed semantic ingredient. The point can be generalized. On the one hand, natural languages possess a lot of terms whose usage is specified by applications to standard examples belonging to a delimitable realm. Although possibilities of extrapolations from one realm to others are usually not completely arbitrary it appears unrealistic to suppose that extrapolations are always strictly determined by previous usage. This does not rule out the possibility that features of objects exhibited in the original realm of application operate as restrictive factors for extended application causing, due to extrapolation, a transformation of semantic presuppositions to (normative) restricting components,<sup>32</sup> even if it must not be determined from the outset which presuppositions would attain this status whenever there are various possible candidates. These considerations should suffice to indicate a reason why it is unsound to deduce from the existence of semantic restrictions sometimes imposed on acceptable applications of a term corresponding conclusions for the term as a unit of a language. In principle the bearing of this caveat pertains to *vyāpti* in the same manner as to other technical and non-technical terms, e.g. 'tolerance' — which was a topic of discussions in Indian studies — and possibly also natural kind terms. One is entitled to claim that, irrespective of whether the view suggested above is correct or not, the range of relevance of the topic itself is not confined to theoretical linguistics alone and affects even conceptual studies in philology, in particular the field which is called 'philologische Begriffsforschung' in the German tradition.

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<sup>32</sup> Apparently semantic evolutions increasing determinacy can also consist in the elimination of presuppositions — due to integration of novel objectives. A case in point might be the evolution from ordinary expressions of the type 'All F's are G' to '( $\forall x$ )(Fx  $\rightarrow$  Gx)' and equivalent formulations which unequivocally discharge the presupposition of the existence of F's.

***VYĀPTI AND SĀDHYĀBHĀVAVIRODHA***



I

Given that the writer of the NL rejected a definition of *vyāpti* in terms of lack of *upādhi* on the basis of the presupposition that *definiens* and *definiendum* must be more intimately related than by mere material equivalence or identity of extension there is no compelling reason to suppose that the rejection of *vyāpti* as opposition to non-existence<sup>1</sup> of the *probandum* (*sādhyaḥbhāva-virodha*) must be grounded on a difference of extension. The problem is that it is even hard to recognize a logical difference between Vallabha's preferred definition and the criticized alternative considering the fact that 'Every H is S' and 'There is no H which is not S' intuitively amount to the same and the equivalence of '(x)(Fx → Gx)' ('For every x: if x is F, x is G') and '¬(∃x)(Fx & ¬Gx)' ('There is no x, such that x is F and x is not G') is a theorem of predicate-logic.

The commentaries, such as the *Nyāyalilāvatiṭīprakāśa* and the *Nyāyalilāvatiṭīkaṅṭhābharaṇa* (p. 500), assume however an inadequacy due to failure of material equivalence. According to both texts the explanation of *vyāpti* as opposition to non-existence of the *probandum* is defective because in the special case in which the *probandum* is instantiated by all objects in the universe (of discourse) there is no instance of the non-existence of the *probandum*, i.e. nothing exists where the *probandum* is absent. Any *probans* which is combined with a universally instantiated *probandum* is commonly designated by the technical term *kevalānvayin*. In situations in which *kevalānvayin*-reasons are employed absence of the *probandum* is nowhere instantiated and accordingly a vital requirement involved in the second definition could not be met if it entailed that absence of the *probandum* must be instantiated somewhere, i.e. that there is at least one particular that does not exhibit the *probandum*.

According to the commentaries *Nyāyalilāvatiṭīprakāśa* and *Nyāyalilāvatiṭīkaṅṭhābharaṇa* the second alternative definition<sup>2</sup> possesses the mentioned implication and therefore cannot account for certain cases where *vyāpti* supposedly holds good. The import of the two texts is almost identical. The *Nyāyalilāvatiṭīprakāśa* (p. 500-501) reads:

*sādhyaṅtyantābhāvavadavṛttitvam api na vyāptiḥ kevalānvayini sādhyaṅtyantābhāvāprasiddher avyāpter ity arthaḥ*

Even non-occurrence [of the *probans*] in something possessing complete non-existence of the *probandum* is not *vyāpti* because in the

<sup>1</sup> We will employ both 'non-existence' and 'absence' as equivalents of *abhāva* without implying any difference of meaning.

<sup>2</sup> We will use 'second definition' as a convenient term to refer to the second explication of *vyāpti* that is rejected in the pertinent textual passage of the NL.

case of a *kevalānvayin* there [would be] no *vyāpti* since a complete non-existence of the *probandum* is not established (i.e. there is nothing in which non-existence of the *probandum* is instantiated and could be known to be instantiated).

The *Nyāyalīlāvātikaṅṭhābharaṇa* (p. 500-501) says:

*sādhyābhāvavirodhitvam api na vyāptir ity āha — nāpīti / kevalānvayini sādhyābhāvāprasiddhyā tatrāvyāpter ity arthaḥ / prāpter iti / prasakter ity arthaḥ*

[Considering] that *vyāpti* is not opposition to non-existence of the *probandum* [the author of the NL] has said: 'Not either'. The import is: Because, due to the fact that in the case of a *kevalānvayin* non-existence of the *probandum* is not established, there [would be] no *vyāpti* there. [The expression] *prāpti* means 'ensuing consequence'.

In Sjödin 2006:89-90 this sort of explanation is basically accepted. The explication of the alleged deficiency of the definition is, however, related to the special case in which *both probans* and *probandum* are universally instantiated — arguments or inferences such as: 'The pot is nameable because the pot is cognizable'.<sup>3</sup> No explicit argument for this restriction is provided. But the considered account is doubtful anyhow.

It must be conceded that the explanation provides a clear argument for the justification of the rejection. A definition of *vyāpti* entailing the need to suppose that lack of *probandum* is instantiated somewhere can hardly be accepted. Here the decisive reason is not primarily that inferences and arguments in which a *probandum* is everywhere instantiated are usually accounted as valid but that it is desirable to possess a term that pertains to the extensional relation between *probans* and *probandum* and exhibits sufficient generality to encompass also such cases. So it is appropriate to

<sup>3</sup> Sjödin makes the following comments on the second definition and its rejection:

The second definition of *vyāpti* refuted by Vallabha is that a *sādhana* characterized by *vyāpti* is such that it appears only in places that have absence of absence of *sādhya*. According to Vallabha, this definition fails to cover the so-called *kevalānvayin* (positive-only inference) where the *sādhana* and the *sādhya* are omnipresent. In a *kevalānvayin* inference the *sādhana* and *sādhya* are found in every place there is, so it is not possible to ascertain *vyāpti* if one works with such a definition. This is because there is no possibility to point to a place where both the *sādhya* and the *sādhana* are absent. For example in the inference, "the pot is nameable because the pot is cognizable", the absence of the *sādhya* is not possible to find because everything that exists is by definition nameable (*abhīdeyatva*) nor is the absence of the *sādhana* to be found since every existent thing is by definition cognizable (*jñeyatva*).

bestow to *vyāpti* this sort of generality. The crux is that various assumptions on which the account rest seem problematic.

The first question deserving to be examined is whether it is in fact true that the pertinent definition, *sādhyābhāvavirodhaḥ*, must entail that absence of a *probandum* is somewhere instantiated. An implication to this effect could be derived from a presumed existential import of the component *sādhyābhāva*-. There is no definite article in Sanskrit, and accordingly no way to decide whether the composite expression must be read in the sense of 'opposition to the non-existence of the *probandum*' or 'opposition to a non-existence of the *probandum*'. An existential import would be implied by the mere meaning of the constituent expression at best if the former reading were hypothesized. Another possible basis for an existential import could lie in the word *virodha*. The idea would be that the notion of 'opposition' must be conceived as something that holds true between existing *relata*. This is reminiscent of the arguments which have been formulated in the Madhyamaka-text *Vigrahavyāvartanī* and put in the mouth of an opponent with the aim to demonstrate an internal inconsistency of Nāgārjuna's philosophical position. That argument is, as a matter of fact, naive and aptly discarded by Nāgārjuna. A critical reader of the remarks in the verses 61 ff of the *Vigrahavyāvartanī* can easily gather why such a piece of reasoning is defective. It is a fact that not every linguistic expression resembling a relation by allowing for (grammatical) subject and object complements also represents a relation that is satisfied only by pairs of really existing *relata*. The verbs 'touch' and 'imagine' though grammatically similar deviate in this crucial respect. Moreover, even expressions which can be used as expressing genuine relations between concrete particulars in some contexts sometimes possess different logical properties in other contexts. The verb 'reject' is an example pertinent for the discussion in the *Vigrahavyāvartanī*, and therefore Nāgārjuna's remark to the effect that his acts of rejection consist in nothing but making known that something is not the case is fully appropriate. The upshot is that there is no cogent reason to attribute to the expression *sādhyābhāva* in the definition under consideration an existential import or to assign to *virodha* the implication of being in opposition to anything that exists. It would be more plausible to read the formulation as amounting merely to a statement of existential negation, such as 'There is nothing which exemplifies both the *probans* and does not instantiate the *probandum*'. We can accordingly ascertain that if the writer of the NL had based his rejection of the supposition of an existential import derived from an alleged existential commitment involved in the term *virodha* then he would have succumbed to a mistake that was pointed out as such centuries before him. We might even surmise that his reflection was at least in some respect decidedly below the level exhibited by the *Vigrahavyāvartanī* and its author. To be sure, this merely shows that there is no objectively compelling reason for the ascription of existential import and that the author of the NL would have based his argument on doubtful considerations *if* he argued in the manner described above. This does not refute the possibility that the writer of the text actually did such a thing and that the interpretation is accordingly correct. Moreover,

one might point out that the writer of the text could have intended to provide some *ad hominem* refutation supposing that the propounder of the rejected definition presupposed a corresponding existential import. This would certainly weaken the significance of Vallabha's criticism, but not definitely rule out the correctness of the concerned interpretation.

It is not difficult to recognize that the explanation under review presupposes a slightly concealed manner of presenting the refuting argument: The comprehensive term *anvayin* which, taken literally, relates to all cases where the *probans* and the *probandum* are instantiated in one and the same object (different from the subject of inference, the *pakṣa*) is supposedly employed to refer to the special case in which the *probandum* is universally instantiated, and therefore substitutable by the more appropriate term *kevalānvayin*. The explanation given in Sjödin 2006 presupposes an even more specialized import. One would not merely need to assume that *anvayin* has been used in the sense of or as a substitute of *kevalānvayin* — something which is not impossible in principle<sup>4</sup> — but that *anvayin* has been employed to designate a special subclass within the subclass of *kevalānvayin* reasons, namely those in which not only the *probandum* but also the *probans* are universally instantiated. This appears, *prima facie* at least, odd. At any rate, Sjödin's account does not furnish any improvement.

According to Sjödin's explanation on p. 89 the second definition of *vyāpti* should amount to the requirement that a *probans* characterized by *vyāpti* appears only in places that have absence of absence of *probandum*. It is not immediately evident how the supposition of this import can be reconciled with her own translation of the expression *sādhyābhāvavirodha* as 'the absence of the absence of the *sādhyā*'. At least on a fairly literal reading the statement that *vyāpti* is the absence of the absence of the *probandum* should convey that a non-occurrence of the *probandum* does not occur in cases of *vyāpti*. That could mean that if *vyāpti* occurs the *probandum* must be universally instantiated. One should fairly acknowledge that this is presumably not Sjödin's intended import. It appears therefore at first glance tempting to suppose that the expression 'of' represents merely a misprint for 'in' and that the translation should be equivalent to 'the absence [of the *probans*] in the absence of the *probandum*'. Since, however, the same formulation occurs also on pp. 127 and 128 we must presume that the use of 'of' is actually intended

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<sup>4</sup> This concession might unduly play down a difficulty: If it were in fact true that *anvayin* is (like in the *Nyāyavārttika*) employed in the sense of *kevalānvayin* then an element conveying most important information has been omitted without good reason. Even if the author should have pursued conciseness or brevity as an ideal in the pertinent context a multitude of alternative more transparent formulations would have been possible, e.g. *kevalānvayyasiddhiprāpteḥ* or even *kevalānvayini pratibandhāsiddheḥ*. — It is easy to conjecture the information that the last mentioned phrase expresses an unwelcome consequence in the concerned context. — In fact, the details of the wording are a significant reason not to take the accounts of the Indian commentators as well as of Sjödin 2006 simply for granted.



and that the translation is a misleading way of conveying the thought that the *probandum* is never absent wherever the *probans* occurs.

In the present context another point is more important: The wording ‘the absence [of the *probans*] in the absence of the *probandum*’ — in a similar manner as current formulations such as ‘das Fehlen des Grundes beim Fehlen der Folge’ etc. — could express the idea that the *probans* never occurs if the *probandum* does not occur. It might, however, also be understood as embodying the import that both absence of *probandum* and absence of *probans* exist and that whenever the former occurs the latter occurs too. The *Nyāyalīlāvātikāṅghābharaṇa* offers no support for the view that the existence of absence of the *probans* is implied as an unacceptable consequence by the second definition. The text only refers to absence of *probandum* and the fact that this is not established in the case of *kevalānvayin*-inferences. On the other hand the paraphrase of the second definition given in the *Nyāyalīlāvātiprakāśa*, viz. *sādhyātyantābhāvavadavṛttitva*, i.e. ‘non-occurrence (of the *probans*) in anything possessing complete absence of the *probandum*’ could be the outcome of such an understanding. Nonetheless, the supposition that the component-expression *-avṛttitva* = ‘non-occurrence [of the *probans*]’ involves an existential import to the effect that absence of the *probans* must be instantiated somewhere represents at most a conceivable possibility. Possibly the writer of the *Nyāyalīlāvātiprakāśa* was completely unaware of the fact that somebody might understand his formulation like that. But let us assume for the sake of argument that the writer of the text wanted to be understood in this manner. Then there is no reason to consider his interpretation of the NL correct. One can establish that there is no objectively valid basis to derive from the second definition the consequence that it needs rule out the employment of ‘omnipresent’ logical reasons. The following attempt to establish the contention that the rejected definition is faulty because it unduly entails that even omnipresent logical reasons must be instantiated by at least one particular is definitely flawed. Let us consider the following sequence of steps:

Theorem: Every valid *probans* exhibits the property of not occurring in any instance of absence of any *probandum* S

- 1) H exhibits the property of not occurring in any instance of absence of the *probandum* S [Assumption]
- 2) The non-occurrence (= the absence) of the *probans* H exists [because of 1]
- 3) For any item x, if non-occurrence (absence) of x exists then non-occurrence (absence) of x is instantiated somewhere [Assumption]
- 4) For any x, if non-occurrence (absence) of x is instantiated somewhere then there is some particular y that does not exemplify x [because of 3]
- 5) Non-occurrence (absence) of the *probans* H is instantiated somewhere and therefore some particular y exists that does not exemplify H, i.e. there is a particular in which H is not instantiated.

1) results from the theorem assuming that 'H' designates a valid *probans*. As line 1) follows (by the rule of universal quantifier elimination) from a proposition that does not depend on assumptions concerning 'H' and 'S' and line 5) is derived from line 1) without making particular assumptions concerning the issue of whether S and H are omnipresent or not, the derivation must be valid for any arbitrary S and H including cases where the *probandum* S is omnipresent. (This corresponds to a feature that is deemed relevant for the rejection of the second definition in both commentaries). Under those circumstances 1) is true only if S is exemplified by all particulars, i.e. there is no particular which lacks S. Thus 1) as well as 3) and 4) could be true together only if 1) does not involve that an absence of S exists. That corresponds to a reading which does not possess existential import with respect to absences of *probanda*. But in this case 2) does not follow from 1) because under the pertinent premise 1) merely asserts that it is not the case that there is an instance of absence of S where H occurs. In particular, one cannot apply 2) in combination with 3) to 1) to derive that absence of H is instantiated somewhere due to the fact that absence of H is instantiated together with absence of S. Thus the basis for a derivation of 5) collapses. If, on the other hand, it were supposed that 1) possesses existential import with respect to an absence of S, then 1) could not be true if it were supposed that, as a matter of fact, there is no absence of S. In this case 1) would imply a wrong presupposition or entail a false proposition. It could follow from the 'theorem' only of this entailed that for every *probandum* there is at least one instance of its absence, so that the mere existence of omnipresent *probanda* that can be inferred from *some* valid reason would falsify the theorem and the question of whether those reasons are omnipresent would be irrelevant. If, however, 1) is itself not true, 5) need not be true even if it could be validly derived from 1), 2), 3) and 4) together. Whenever among a set of premises at least one is not true valid derivation does not imply truth of the consequence. If, on the other hand, not only 1) in the reading implying existential import but even 2) and 3) were supposed to be true, then the truth of the proposition that absence of H is instantiated somewhere would follow. In this case, however, the theorem that absence of H is instantiated relies on its being instantiated in some realm of absences. One might allow for the possibility that absences of universally instantiated *probanda* exist and that instantiations of absences of other items in that realm are feasible. The crux is, however, that as soon as one concedes this possibility, one simultaneously severs the inferential link between an absence's being instantiated somewhere and the non-universality of its counterpart. By the very act of admitting that instantiation of some absence of a *probans* might consist in the fact that the relevant item is instantiated in the realm of the absence of some universally instantiated feature one destroys the basis on which the derivation of something's not being universally instantiated from its being instantiated in some absence relies. One surrepticiously assigns to terms such as 'being instantiated', 'occurring' etc. a deviant import — allowing for instantiations e.g. in 'possible' or 'fictitious' objects. Evidently, homonymous expressions possessing different senses must not exhibit the same logical and inferential properties. Accordingly a derivation of 5) from 1)-4) in combination with an

attribution of an existential import to 1) is tantamount to a fallacy employing equivocation of terms. An alternative way of describing the situation is that if it were supposed that (5) is entailed by the 'theorem' then there are two possibilities: (a) the range of (items counted as) particulars does not exceed the domain of instantiations of omnipresent properties, (b) the range of particulars exceeds this domain. In the case of (a) the conclusion does not follow from the pertinent premises. In the case of (b) omnipresent logical reasons, i.e. valid reasons that are instantiated in all particulars which are not absences, are not ruled out even on condition that (5) can be validly derived from the theorem.

Decisive is the fact that even if the paraphrase *sādhyātyantābhāvavad-avṛttitva* should embody a correct paraphrase of the definition of *vyāpti* in terms of *sādhyābhāvavirodha* one is not entitled to claim that the second definition must discard all inferences employing universally instantiated logical reasons. Considering the matter against the background of the wording of the NL itself, one can easily recognize that the definition does not involve implications concerning the universality or non-universality of the *probans*. It merely refers to an incompatibility between the *probans* or its occurrence and an absence of the *probandum*. As far as the argument rejecting the definition is concerned it surely does not say that the definition involves the undesirable consequence of ruling out inferences employing a universally instantiated *probans*, and this holds good even if *anvayin*, as supposed by the commentators and Sjödin, were used as an equivalent of *kevalānvayin*. If, on the other hand, the argument is, that the definition does not leave room for *kevalānvayin*-inferences<sup>5</sup> because it involves an existential commitment pertaining to absences of *probanda*, then the issue of the universality of the *probans* is completely irrelevant. A definition that does not provide room for inferences with universally instantiated *probanda* eo ipso does not leave room for inferences where both *probans* and *probandum* are omnipresent. The alleged existential commitment regarding the absence of *probandum* should be the only decisive foundation for the refutation of the proposal to define pervasion in terms of opposition to non-existence of *probandum*. Accordingly the following proposition can be maintained: Even if it were true that Vallabha found the second definition objectionable because of an alleged existential commitment regarding absences of *probanda* it must not be equally true that the author imputed to it a similar existential import regarding absences of *hetu*-s.

## II

The interpretation presented in the preceding paragraph rests on the following assumptions: 1. The term *anvayin* in the phrase *anvayini pratibandhāsiddhiprāpteh* possesses the same import as *kevalānvayin*. 2.

<sup>5</sup> More correctly one should say 'inferences employing *kevalānvayin*-reasons'. In the following we employ expressions like '*kevalānvayin*-inferences' in this manner and use *anvayin* referring to *kevalānvayin* and *anvayavyatirekin* together.

*pratibandha-* is a variant term of *vyāpti*. 3. The expression *sādhyābhāvavirodha* presupposes the existence of non-occurrences or absences of the *sādhyā*, i.e. the *probandum*, and thereby the definition becomes too restrictive by ruling out inferences in which *probanda* are omnipresent. We have seen that reliance on 3. decreases the significance of the criticism given in the NL. For irrespective of whether the *expression* occurring in the definition possesses the alleged existential import or not, the objective possibility exists of defining the relation of *vyāpti* as a relation that holds good exactly if there is nothing which simultaneously exhibits the *probans* and does not exhibit the *probandum*. Therefore it seems appropriate to contemplate the issue of whether there are objective reasons for discarding the option of explaining a term of pervasion in the suggested manner. This issue is not irrelevant. If it turns out that there are such reasons, even if they differ from those discussed in the previous section, then the position adopted in the NL is more reasonable than if this were not the case. For the stance adopted by the writer of the NL is presumably not that certain, arbitrarily selected, alternative definitions are inadequate or infelicitous but that there *are* not other differing ways of defining *vyāpti* which are equally good as the preferred one. Moreover, even if it were conceded that the argument for the rejection of the definition of *vyāpti* in terms of opposition to non-occurrence of *probandum* had been correctly identified in the *Nyāyalīlāvatiṭprakāśa* and the *Nyāyalīlāvatiṭkaṇṭhābharaṇa* this must not rule out that the author of the text based his stance also on other considerations which are not identical to any official argument and which might not have found expression in textual sources.<sup>6</sup> Although the notion of what an author really thought is so

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<sup>6</sup> From own experience I know that such a situation can arise. Once I took part in a discussion about a definition of sentence synonymy that can be described as follows: Two (declarative) sentences S and S\* are synonymous if a) their equivalence is immediately obvious (although it is not immediately obvious whether they are true or false) and b) they can be dissected into two components C<sub>1</sub> and C<sub>2</sub> and C<sub>1</sub>\* and C<sub>2</sub>\* respectively so that C<sub>1</sub> and C<sub>1</sub>\* as well as C<sub>2</sub> and C<sub>2</sub>\* are related in some special manner. — The particular relationship is that in every linguistic context in which the (alternative) insertion of C<sub>1</sub> or C<sub>1</sub>\* as well as C<sub>2</sub> or C<sub>2</sub>\* yields pairs of declarative sentences the statements made by those sentences (i.e. the members of those pairs), if uttered in identical contexts of utterance, evidently possess identical truth values. Behind the proposal lies the motivation that since the common notion of cognitive synonymy requires (or seems to require) some similarity of internal compositional structure not all sentences should be regarded as synonymous which as a whole stand in the above mentioned relation of cognitive equivalence. On the other hand, the requirement that only those pairs of sentences S and S\* are synonymous which exhibit the feature that every component of S constitutive for its meaning can be mapped to a component of S\* constitutive for *its* meaning (the meaning of S\*) such that the components exhibit the relation described above (for C<sub>1</sub> and C<sub>1</sub>\* as well as C<sub>2</sub> and C<sub>2</sub>\*) and that the same relationship also holds good the other way around from S\* to S, appears excessively strong. This entails that R. Carnap's notion of intensional isomorphism embodies a too demanding requirement for synonymy between sentences. — In the discussion I myself raised objections trying to present pertinent counter-examples which should show that the proposed explication runs into trouble. The decisive point is, however, that the underlying motive for my

misleading and vague that it deserves to be banned from scientific discourse, one thing is clear: Being really thought is not equivalent to being explicitly asserted in some textual source.

Questions pertaining to not explicitly articulated motives can and need to be controlled by the criterion of objective adequateness. In theoretical contexts this means that one examines whether some hypothetical reason or motive for adopting a particular theoretical stance or tenet would be adequate relative to the own theoretical framework in which it is embedded as well as certain pertinent data, e.g. the manner in which the concerned tenet or stance has been explicitly formulated and justified. Whenever a stance or view is known to be held by some thinker and a conceivable reason would be adequate against the complex background specified above its identification cannot be dismissed as irrelevant irrespective of whether or not it can be definitely shown that the reason was actually an operative subjective motive. In general the probability that some unarticulated reason might have provided a subjective motive for a certain attitude or way of behaviour decreases in proportion to a decrease of reasonability. For this reason the dimension of objective adequacy matters.

One can ascertain the existence of justifying reasons differing from the argument assumed in the commentaries and at the same complying with the above portrayed prerequisites of relevance. They are in principle suited to play the role of inarticulate motivations. On the other hand it is remarkable that they can be even connected with the wording of the pertinent textual passage. Hence a critical examination of those alternatives under the aspect of argumentative validity and strength as well as other objective qualities is called for. After all, the argument hypothesized in Sjödin 2006 in accordance

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dissatisfaction was completely different. It was the absence of a recognizable principle lying behind the compromise between consideration and disregard of the internal structure of sentences. Something of the internal structure, but not everything, not even everything pertaining to compositional structure, should matter. The pertinent question was: What is the rationale justifying this particular way of segregating the relevant from the irrelevant? What distinguishes dissection into pairs of exactly two equivalent components against finer grained compositional analyses? (Maybe, the correct answer is that the intuitive concept of cognitive synonymy or certain varieties of this notion are susceptible to differences of degree like ideas of similarity in general. Then it would be a mistake to hypothesize exactly one correct explication). Anyhow, due to this 'personal' experience I attribute importance to the possibility of deviances between 'official arguments' and covert motives for approval or disapproval. Possibly in contrast to some scholars who have intimated that in explorations of Indian philosophy understanding of persons is always more important than understanding of philosophical doctrines or theories I concede only that understanding of persons possesses importance even in theoretical fields in certain contexts. But it is precisely under the aspect of understanding persons that exclusive focus on theses and arguments which have been explicitly advocated and propounded tend to engender distortions.

with the investigated commentaries exhibits the objective flaw of vitally relying on debatable presuppositions and the existence of objective deficiencies must always be deemed a potential threat to interpretations entailing them. Even so the relevance of the general principle that theoretical shortcomings endanger interpretations implying them can be assessed with respect to particular cases only against the background of possible alternatives in combination with their properties. For that reason the laborious task of a comparative examination of the strength or weakness of conceivable alternative reasons for rejecting the second definition or closely related varieties needs to be an integral part of the investigation. In this connection problems of uncertainty concerning relevant factors come into play like variables for which various possible value-assignments or 'interpretations' need to be taken into consideration. Since, however, pertinent issues should not be settled by mere feelings or impressions we are not ready to avoid those complexities. The very fact that matters which could appear simple at first glance exhibit objective intricacies possesses even interest in itself.

### III

According to a straightforward interpretation the term *anvayin* refers to all cases in which there is at least one instance (apart from the *pakṣa*) where *probans* and *probandum* are instantiated together. Given that *anvayin* should only encompass acceptable reasons, the *probans* must not be instantiated somewhere where the *probandum* is not instantiated. The expression *pratibandha* can naturally relate to an internal connection between *probans* and *probandum* responsible for the circumstance that a *probans* does not occur without the *probandum* implying the relation of invariable co-occurrence itself. The fact that in the immediately preceding context — which cannot be discussed in this article — *pratibandha* is employed in a manner suggesting reference to that relation is suited to corroborate such an understanding. Relying on considerations pertaining to linguistic meaning and context it is plausible to understand the formulation *anvayini pratibandhāsiddhiprāpteh* = 'because it results as a consequence that the *pratibandha*-connection in the case of an *anvayin* is not established' as conveying the thought that if *vyāpti* were defined in the suggested manner then (the existence of) an essential link between *probans* and *probandum* responsible for the circumstance that whenever the *probans* is exhibited the *probandum* is exhibited too would not be safeguarded. The question is: Can it be plausibly supposed that a *pratibandha*-connection would not be guaranteed or even ruled out by a definition of *vyāpti* as *sādhyābhāvavirodha*?

It is important to assess this question against the background of a reading that does not involve the existential commitment highlighted before. Relative to a definition possessing existential commitment regarding absence of *probandum* the argument mentioned in the commentaries is satisfactory. But relative to a definition deviating from the former one by not involving existential commitment the reasoning hypothesized in the *Nyāyalīlāvati*-

*prakāśa* and the *Nyāyalīlavatikāṅṭhābharāṇa* is absolutely irrelevant and worthless.

To see the situation more clearly let us have a look at the effect which an addition of the phrase 'and this connection does not hold good merely by accident' or 'and this relation is not merely contingent' to pertinent formulations would provoke. In the case of the accepted definition one gets: '(vyāpti holds good between a *probans* H and a *probandum* S if and only if) H in its entirety goes together with S and this relation is not merely contingent'. Now, we can take 'H in its entirety goes together with S' as a paraphrase of 'Every H is S'<sup>7</sup> or more technically: 'For any object x, if H occurs in x, then S occurs in x'.<sup>8</sup> The referent of the term 'this relation' can be immediately identified as the relation expressed by the last mentioned formulation. If the same phrase were attached to '(vyāpti occurs if and only if) H is opposed to absence of S' one cannot any more immediately recognize that the referent of 'this relation' is a relation that can be paraphrased by 'Every H is S'. The reason is patent: One could by no means regard 'H is opposed to absence of S' as a mere paraphrase of 'Every H is S' or 'For any object x, if H occurs in x, then S occurs in x'. It can be at best a paraphrase of the formulation: 'There is no x, such that H occurs in x and S does not occur in x'. If one does not shy away from introducing some complexity in the discourse one might make the pertinent relation more precise and say: The wording 'H is opposed to absence of S' is a possible paraphrase of a formulation logically equivalent to a formulation of which 'H in its entirety goes together with S' is a possible paraphrase.

According to a current concept of a relation the relation denoted by 'this relation' is the same in both cases. But one could say that the same relation is referred to under different aspects. The first might be called 'inclusive' and the second 'exclusive'. Let us say that a formulation F presents a relational aspect A logically directly if it can be considered as a paraphrase of a formulation F\* representing A inasmuch as it is a fully explicit and non-ambiguous expression of it, whereas a formulation G presents an aspect A logically indirectly if it does not present A directly and is a paraphrase of a formulation G\* and if F\* and G\* are logically equivalent. Thus formulations such as 'H always goes together with S' represent the inclusive and the exclusive aspect in a logically direct and indirect manner respectively whereas formulations such as 'H is opposed to absence of S' are logically direct representatives of the exclusive and logically indirect representatives of the inclusive aspect. Accordingly one could describe the difference between the

<sup>7</sup> Let us disregard here the slight difference between expressions of relations and closely related sentence-schemes obtained by substituting general terms by letters.

<sup>8</sup> Saying that the latter formulations are paraphrases of the former is not incompatible with considering the former one as less transparent. This issue is related to the general topic of whether the language, or rather the form of language, employed in the NL and other texts of the same tradition was really a most suitable means for scientific discourse of the pertinent sort.

two alternative sorts of definitions of *vyāpti* by saying that the preferred definition of the NL is a logically direct representative of the inclusive aspect while the other alternative presents it indirectly.

One could critically ask what entitles us to declare formulations such as 'H in its entirety goes together with S' and 'For any object x, if H occurs in x, then S occurs in x' or 'H is opposed to absence of S' and 'There is no x, such that H occurs in x and S does not occur in x' as paraphrases. In the present context it suffices to resort to an explication which is reminiscent of the relation of 'cognitive equivalence' current in modern philosophy.<sup>9</sup> Cognitive equivalence constitutes an at least necessary condition for being a paraphrase in the area of declarative sentences. In the present context we can hypothesize that a formulation F is a paraphrase of a formulation F\* if everybody who correctly understands both F and F\* is thereby able to recognize that if F expresses a truth F\* expresses a truth too and vice versa and that if F expresses a falsehood then F\* expresses a falsehood too and vice versa. It is possible, but not required here, to explicate and refine the basic idea further to account for sentences that are in themselves evidently true or false (analytical truths or falsehoods) as well as for ambiguous formulations, formulations containing indexical elements or even "schematic letters".<sup>10</sup> We are supposing that a correct understanding of the formulation 'H in its entirety goes together with S' (or any of its instances) entails the ability to recognize that its truth value and that of the formulation 'Every H is S'<sup>11</sup> cannot differ provided the latter formulation is also understood. If somebody denies this equivalence, then his denial can be taken as an indicator that he does not correctly understand one of the two formulations. In contrast it surely cannot be claimed that if somebody acknowledges 'H in its entirety goes together with S' or 'Every H is S' and denies e.g. 'It never occurs that something is H and is not S' this must indicate a defective or incorrect understanding of the concerned expressions. — It might at best indicate deficiency of understanding of a different sort.

It follows from the preceding observations that the alternative between defining some concept of pervasion in the way advocated in the NL and by formulations, such as 'A *probans* never occurs without the *probandum*', entails a substantive difference whose significance exceeds that of the difference between, say 'Every H is S' and 'Everything which is H is S'. Whereas a recognition of the equivalence between the last mentioned formulations is exclusively a matter of linguistic understanding one might say that a recognition of the equivalence between e.g. 'Everything which is H is S' and 'Nothing which is H is without S' is a matter of both linguistic and logical

<sup>9</sup> For a discussion of this notion see e.g. W. Künnle 2005: 42-48 (§ 2.1.3), and in particular p. 42 for an explication.

<sup>10</sup> Some additional clarifications concerning the notion of cognitive equivalence and its relevance are given in the postscript on paraphrase and redundancy.

<sup>11</sup> We disregard here the fact that both formulations are not entirely unambiguous and that according to certain readings they do not amount to exactly the same as 'Every x, if x is H then x is S' because of existential implications regarding Hs or Ss.



understanding. Therefore adoption of the definition preferred by the author of the NL and simultaneous rejection of a definition amounting to 'Nothing exemplifying the *probans* is without the *probandum*' must not exclusively rely on the supposition that the first formulation is more felicitous, e.g. by being more elegant or more explicit, than the latter. But demonstration of a substantial difference does not entail that there could be a valid justification for adopting one particular account and rejecting another. It does not show why there might be an objective reason for preferring the definition adopted in the NL against an account that explains pervasion as a relation obtaining exactly if it never occurs that something exhibits the *probans* and does not exhibit the *probandum*.

It is against the background of a particular theorem presumably maintained by the author of the NL that a possible rationale for rejecting definitions of the described kind emerges: Inferences are not made acceptable and valid by the mere circumstance that a *probans* never occurs without the *probandum*. If such a situation holds good by sheer coincidence then inferences are or might be invalid. If that restriction is incorporated in the concept of *vyāpti* this term must relate to a connection of invariable concomitance that is subject to a qualification. At first glance this could appear immaterial because if, say 'Every H is S' and 'No H occurs without S' describe the same relation — which would need to be supposed in accordance with a common notion of relation — then every qualification pertaining to the first must pertain to the latter and vice versa. This is true but, given that in both cases one and the same relation is characterized under different perspectives, the difference can obtain relevance under cognitive aspects. 'P and Q' and 'It is not the case that either not P or not Q' are usually considered as logically equivalent and if a proposition of the first form is necessary then a corresponding proposition of the second form is necessary too and vice versa. But saying that 'P and Q' is necessary (or not necessary) and saying that 'It is not the case that either not P or not Q' is necessary (or not necessary) may nevertheless possess deviating informational import or relevance. Given that recognizing that 'P and Q' is true exactly if 'It is not the case that either not P or not Q' is true is not exclusively a matter of linguistic understanding, somebody who imparts information to the effect that the former is necessary cannot expect that mere linguistic understanding of the conveyed message will guarantee a recognition or the capacity of recognition that the latter is necessary, and the same holds, evidently, also the other way around. In an analogous manner defining something as a relation obtaining exactly if every H is S that is not contingent and defining it as a relation obtaining exactly if no H is not S that is not contingent deviates regarding informational import or relevance.

#### IV

But why could it be more advantageous to define the relation of pervasion under the inclusive aspect and not in terms of opposition to non-occurrence of *probandum*? Here one has to take into account what constitutes the non-

contingent nature of the pertinent connection in the related theoretical framework.

It is well known that Dharmakīrti has introduced the postulate that a relation of necessitation is indispensable for the validity of inferences and proofs. Although that relation could be regarded as being of a conceptual nature in certain cases it was not considered as such by Dharmakīrti and is clearly not conceptual in instances which were subsumed in Dharmakīrti's theory under the category of (inferences with) *kāryahetu-s*. Here it is the hypothesis of a causal connection between occurrence of *probandum* and occurrence of *probans* that is pertinent in combination with the premise that the occurrence of the *probans* cannot have any other cause. The decisive point is that the basis for the non-contingent nature of the relation between *probans* and *probandum* pertains to a relation between the occurrence of those items. The term *svabhāvapratibandha* was employed to designate a relation between *probans* and *probandum* which supposedly ensures that the occurrence of the former warrants the occurrence of the latter. If one classifies this connection as a relation of necessitation one must bear in mind that the concerned concept of necessity is fundamentally different from the concept of logical necessity, as usually understood. The decisive difference is not primarily that many instances in which *svabhāvapratibandha* is supposed to hold, we would not be willing to accept that one item strictly necessitates another. To be sure, in the case of *kāryahetu-s* one cannot plausibly apply the idea that it is *inconceivable* that something might hold good without something else's holding true. It is, *pace* Dharmakīrti, not even likely that necessitation amounts to more than relevant increase of probability.<sup>12</sup> However, the

<sup>12</sup> In fact, the supposition that a relation between *probans* and *probandum* is not merely accidental as well as the postulate of non-contingency by no means demands absolute infallibility. The acknowledgment of some relation of necessitation is well compatible with the view that in situations where a cause is inferred from some (supposed) effect, such as fire from smoke, the occurrence of the latter merely increases the probability of the former. Therefore Dharmakīrti's theory of *svabhāvapratibandha* would not automatically lose its value by denying the (implausible) theorem that the identity of a (causal) effect depends on the identity of the cause in the sense that it is impossible that nothing could be what it is if it did not possess the cause which it actually has. The supposition that causal connexions are relevant for the identity of sorts or kinds is indeed not absurd. One could even acknowledge that this theorem embodies an important insight, namely the recognition that it does not always depend on purely phenomenal qualities whether a particular belongs to some sort or kind. Thus being smoke or being a sugar maple might not be merely a matter of 'superficial' qualities recognizable in smoke or sugar maples. In the case of a sugar maple one could attribute significance to the fact that the concerned entity exhibits a specific causal genesis, that it stems from some other item belonging to the natural kind of a tree. Accordingly something which is in all phenomenal aspects indistinguishable from a sugar maple might nevertheless not be classifiable as a sugar maple given that it lacks the required connection to the pertinent natural kind. Similarly, one could suppose that questions pertaining to the sort of cause producing something looking like smoke possess relevance for its being smoke or not. Nevertheless, the theorem that nothing of a particular sort can be

difference lying in the non-logical nature of the necessitation is more crucial. One could in fact consider the concerned nexus as a linkage between states of affairs: The state of affairs consisting in the occurrence of the *probans* in some substratum (the subject of inference) necessitates the state of affairs consisting in the state of affairs consisting in the occurrence of the *probandum* in the same substratum. Since Indian theories of inference exclusively considered cases in which the *probans* and *probandum* should be instantiated in the same substratum, the necessitating relation was regarded as a link between the *probans* and the *probandum* itself — or as a link pertaining to the occurrences of the *probans* and *probandum*.

A relation that is defined as a dissociation regarding the *probans* and the negated counterpart of the *probandum* can never be identical to the above described connection of *svabhāvapratibandha*. The reason is that, if the latter one holds good between instances of the *probans* and the *probandum* and the former one between instances of the *probans* and the negated counterpart of the *probandum*, the relations cannot be the same both according to an intuitive and a technical understanding of 'relation'. The same result is obtained if one takes as related items properties representing the *probans* and *probandum* in the one case and properties representing the *probans* and the negated counterpart of the *probandum* in the other, and even if the related terms were states of affairs consisting of the possession of a *probans* by a particular and the possession of a *probandum* by the same particular or respectively the possession of a *probans* by a particular and the possession of the negated counterpart of the *probandum* by the same particular. The question as to whether properties or their negated counterparts exist in the form of possessing instantiations in objects is completely irrelevant. Given the premise that the relation of *vyāpti* is identical to the nexus of *svabhāvapratibandha* it is by no means legitimate to define it

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produced by different kinds of causes is surely, to put it mildly, an exaggeration. It does not correspond to the natural understanding and could be tenable at best on the basis of an artificial concept of a kind or a sort. If some non-phenomenal property is critical for something's being gold or not, its molecular structure or other chemical features would be more relevant than the type of producing causes. The theorem itself that the identity of sort or kinds can be dependent on non-phenomenal, concealed properties must be strictly separated from the particular tenet that belonging to a kind rules out being produced by alternative sorts of causes. Furthermore, by appealing to a hidden nature of things one does not in the least eliminate the infallibility of inferences from effects to causes. A strengthening of the nexus between the occurrence of a *probans* and the occurrence of a *probandum* is counterbalanced by a corresponding increase of uncertainty regarding the occurrence of the *probans*. The crux is that an account along Dharmakīrti's lines jeopardizes the possibility to recognize the existence of a *probans*. If being smoke depends on production by some particular sort of cause as a non-phenomenal, covert property or nature it becomes inexplicable how one is able to know its occurrence in standard inferential situations, which are characterized by the absence of prior knowledge of the *probandum*. Infallibility is obviously an inappropriate maxim.

as a relationship that holds good between a *probans* and a negated counterpart of a *probandum*. If two sets of pairs are such that one of them contains a pair consisting of the property of being H and the property of being S as elements whereas the other set does not contain this pair, but instead a pair consisting of the property of being H and the property of being not-S, the two sets cannot represent the same relation. Divergence with respect to one such pair is a sufficient condition of difference, and one needs not even rely on the technical conception of a relation to find this plausible. The same verdict is equally appropriate under the weaker premise that some subset of *vyāpti* is identical to *svabhāvapratibandha* or to some subset of *svabhāvapratibandha*. It emerges that there is an objective reason not to define *vyāpti* as a relation between logical reasons and negated counterparts of *probanda* under premises which do not entail that the range of the concerned relation comprises only instantiated items, specifically that negated counterparts of *probanda* are absences which need to be instantiated in at least one object

The author of the NL, even if he might be unwilling to acknowledge this fact, is presumably under the impact of the tradition initiated by Dharmakīrti. One can at least definitely ascertain that against the background of the theoretical outlook of the text there are possible reasons to discard an explication of pervasion as opposition to absence of the *sādhya* which do not require the premise of existential commitment hypothesized in the commentaries. It suffices for a rejection to assume that *vyāpti* should at least partially coincide with a relation of *pratibandha* which, in the same manner as Dharmakīrti's *svabhāvapratibandha*, holds true between logical reasons and *probanda*. Reference to *kevalānvayin*-inferences is absolutely superfluous and irrelevant in the same manner as the hypothesis of existential commitment involved in *sādhyaḥbhāvavirodhaḥ*. Only the assumption is required that the expression designates a relation between a *probans* and something different from a *probandum*. This would hold good in particular if *sādhyaḥbhāvavirodha* is taken as expressing a relation between *probans* and something that could be characterized by 'absence of *sādhya*' (irrespective of whether there is an object instantiating it). Is it a coincidence that the formulation *anvayini pratibandhāsiddhiprāpteḥ* would be a suitable expression of the thought that if *vyāpti* were defined as opposition between *probans* and absence of *probandum* then the consequence would result that the *pratibandha* which *vyāpti* must be in the case of *anvayin*-inferences, namely a connection between *probans* and *probandum*, would not be warranted? For inferences employing *anvayin*-reasons rely on the fact that the *probans* invariably entails the *probandum* in the realm outside the substratum of inference. To be sure, one cannot assert that the existence of a *pratibandha* is rendered impossible by the definition. But one can maintain that the existence of a *pratibandha* as something that coincides with *vyāpti* is precluded under those circumstances.

The premise of an at least partial coincidence between *vyāpti* and a *pratibandha* relating to logical reasons and *probanda* remains a crucial

premise.<sup>13</sup> The fact that the argument for the rejection of the alternative definition refers to the class of *anvayin*-inferences must not imply that *pratibandha* between *probans* and *probandum* is not a requirement of *vyāpti* in other cases. The reason could be that in contrast to *kevalavyatirekin*-inferences invariable concomitance between *probans* and *probandum* in the domain outside the substratum of inference is always exploited as a basis for inferences employing *anvayin*-reasons whose validity exists only if the positive concomitance is a relation of *pratibandha* = *vyāpti*.<sup>14</sup>

What would be the outcome if *vyāpti* need not coincide with a *pratibandha* between *probans* and *probandum*? After all, one could adopt the position that among inferences in which pervasion holds good only those are valid where in addition *probans* and *probandum* are connected by *pratibandha*. Or pervasion might be conceived as a connection holding good between *probans* and *probandum* if no object instantiates the former and not the latter provided additional requirements of validity, for example *pratibandha*, are satisfied. This description would fit an explication like the following:

(D<sup>E</sup>) (*Probans*) H is related by *vyāpti* to (*probandum*) S precisely if there is no particular possessing both H and not-S and this connection is based on circumstances ensuring validity.

Obviously a definition of pervasion referring to the exclusive aspect is not necessarily inadequate. Nevertheless, from the fact that a certain *definition* is not inadequate it does not follow that *defining* a term in accordance with the definition is appropriate. If one compares (D<sup>E</sup>) with

(D<sup>I</sup>) (*Probans*) H is related by *vyāpti* to (*probandum*) S precisely if every particular possessing H possesses S and this connection is based on circumstances ensuring validity.

one can easily see that in contrast to (D<sup>I</sup>) the explanation (D<sup>E</sup>) suggests that conditions of validity consist in a nexus pertaining to occurrence of a *probans* H and non-occurrence of a *probandum* S.

The account of *upādhi* presented in the subsequent section of the NL reveals that invariable concomitance between *probans* and *probandum* in the entire domain apart from the substratum of inference, the *pakṣa*, is by itself not a sufficient condition of validity. — Let us employ the term ‘non-*pakṣa* universe’ to refer to the universe (of discourse) that remains if the *pakṣa* is

<sup>13</sup> In this connection it deserves to be noted that according to Sjödin 2006 *pratibandha* is a(nother) term for *vyāpti* — see p. 179 and also p. 78, footnote 331. We will, nevertheless, attempt to avoid basing our conclusions on this assumption.

<sup>14</sup> This is so because *kevalavyatirekin*-s are the only reasons acknowledged as valid apart from *anvayin*-s and because *kevalavyatirekin*-s appeal to the fact that the substratum of inference exhibits some unique feature which never occurs in cases in which the *probandum* is absent.

excluded. — Validity requires in addition a) that the entire universe including the *pakṣa* exhibits the same kind of invariable concomitance, so that in this respect a feature exhibited by the non-*pakṣa* universe can be extrapolated to the entire universe (of discourse) and b) that the fact that extrapolation generates a correct outcome is not fortuitous. The underlying intuition is that the invariable concomitance in the non-*pakṣa* universe must be due to some factor which on the one hand licences extrapolation to the entire universe including the *pakṣa* and on the other hand brings about that the comprehensive nexus between *probans* and *probandum* is not purely coincidental. We can safely assume that in the theory of the NL *pratibandha* is meant to play this role. Now, in the case of *kevalavyatirekin-*inferences the question of the legitimacy of extrapolation is irrelevant because there is no extrapolation. But in the case of inferences employing *anvayin-*reasons — which contain *kevalānvayin-*s, i.e. reasons instantiated together with the *probandum* in the non-*pakṣa* universe but never not instantiated in something in which the *probandum* is absent as a special subvariety — there need always be some guarantor warranting that the regularity in the non-*pakṣa* universe is not coincidental and licensing its extrapolation.

Let us assume first a weak conception of *vyāpti* implying inseparable connection between *probans* and *probandum* in the entire universe (of discourse) but not validity and envisage that *vyāpti* were defined under the exclusive aspect. It must be surmised then that *vyāpti* constitutes a necessary, though not sufficient condition of validity. Thus the following can be derived:

An inference employing H as *probans* and S as *probandum* is valid only if nothing possessing H possesses not-S and if additional conditions of validity are satisfied.<sup>15</sup>

Against the background of the theorem that validity of *anvayin-*inferences requires that the regularity of inseparable connection in the non-*pakṣa* domain is not coincidental so that it can be extrapolated and the extrapolated relation is not coincidental it emerges that a crucial requirement for validity is that the *vyāpti-*relation itself is not coincidental.<sup>16</sup> It is easy to see that the pertinent assumptions generate a conclusion that exhibits close affinity to (D<sup>E</sup>):

An *anvayin-*inference employing H as *probans* and S as *probandum* is valid only if nothing possessing H possesses not-S and if this relation is not coincidental.

<sup>15</sup> We cannot replace 'only if' by 'if and only if' because there is no doubt that according to the theory of the NL as well as of all other treatises of the same tradition exhibition of the *probans* by the *pakṣa* is also a necessary requirement.

<sup>16</sup> Note that inseparable connection (in the non-*pakṣa* universe) can be considered both under an inclusive and an exclusive aspect — because it is the same relation after all — and that the idea in itself is neutral with respect to this difference.

Let us now suppose a strong conception of *vyāpti* involving validity provided that a pertinent substratum exhibits the *probans*. The following could be derived against the background of the remarks concerning *upādhi* and an exclusive definition of *vyāpti*.

An *anvayin*-inference employing H as *probans* and S as *probandum* is valid if and only if a) the *pakṣa* exhibits H and b) nothing possessing H possesses not-S and c) something which warrants that the regularity of b) in the non-*pakṣa* universe is not coincidental licenses its extrapolation to the whole universe (of discourse) and entails that the outcome of the extrapolation is also a state-of-affairs which is not coincidental.

It is easy to see that the above given description does not reveal that the factor warranting regularity and licensing extrapolation is a relation of necessitation between the occurrence of the *probans* and the occurrence of the *probandum*. Given the natural assumption that the formulation 'Nothing possessing H possesses not-S' describes the state of affairs representing the outcome of the extrapolation one can immediately derive that the factor licensing extrapolation from the non-*pakṣa* universe warrants that both with respect to the non-*pakṣa* domain and the whole universe (of discourse) a state of affairs is not accidental that is expressed by the cited phrase, viz. 'Nothing possessing H possesses not-S'. This induces an inference to the effect that the pertinent factor *prevents* that the complement or the absence of a *probandum* is exhibited by anything exhibiting the *probans*. If this is true then it is definitely also true that a wording, such as

*Vyāpti* is the opposition of the *probans* to the absence of the *probandum*

generates the same outcome.

The upshot is that a formulation corresponding to the second definition in the same manner as alternative formulations representing the exclusive aspect render it impossible to derive in a direct manner that in the field of *anvayin*-inferences some factor licensing extrapolation from the non-*pakṣa* universe and responsible for the non-contingency of the manner *probans* and *probandum* are related is identical with a *pratibandha* connection between *probans* and *probandum*. Now it is apposite to draw attention to the fact that the terms *siddhi* as well as *asiddhi* often possess an epistemic import. Dictionaries mention among others 'demonstration', 'proof' as equivalents of *siddhi*, and as correlates of *asiddhi* one can find 'conclusion not warranted by the premises', 'want of proof'. The assignment of an epistemic significance to this expression in *anvayini pratibandhāsiddhiprāpteh* is therefore justified on that account. If one assumes the hypothesis that the pertinent occurrence of *asiddhi* possesses in fact such an epistemic import, one could provide the following explication for the rejection of the second definition: It is inappropriate to define *vyāpti* as opposition (of the *probans*) relative to

absence of the *probandum* because if that would be done in the present context and in the pertinent theoretical framework the consequence would result that no warranty exists for deriving that in the case of (inferences employing) an *anvayin*-reason it is a *pratibandha*-connection between *probans* and *probandum* that constitutes the decisive basis of extrapolation from the non-*pakṣa* universe and is a requirement of validity.

It could be objected that the suggested contrast between an exclusive and an inclusive definition concerning the derivability of a *pratibandha* is an exaggeration. Isn't the difference not merely a matter of degree? If the difference between exclusive and inclusive definitions consists only in highlighting dissimilar aspects of the same relation and if their expressions represent logically equivalent propositions doesn't this merely show that a particular, presumably relevant, conclusion is derivable in a comparatively more direct manner in the latter case?

In fact the verdict that the alternative between giving inclusive and exclusive definitions amounts merely to a difference of degree is an understatement. To see the issue more clearly let us consider the hypothetical situation that the author of the NL had adopted the rejected alternative definition without mentioning his preferred one. To be sure, if *vyāpti* had been defined as opposition of the *probans* with respect to non-occurrence of the *probandum* one *could* reason as follows: Since the description of the definition applies to a relation that is equally describable as a concomitance of the *probans* with (the occurrence of) the *probandum* in all of its (i.e. the *probans*) instances, an invariable nexus between the *probans* and the *probandum* themselves *might* be a factor licensing an extrapolation of this connection from a non-*pakṣa* universe to the entire universe (of discourse). The crux is that everybody who reasons in this way has a compelling motive to be surprised by the fact that the relevant connection has been defined in terms of opposition to absence. It is precisely the existence of the possibility to resort to a different logically equivalent description that is apt to induce the inference that a special motive must lie behind the avoidance of the seemingly most appropriate alternative. The same principle becomes operative here that induces conversational implicatures: As the need to find a plausible explanation for the linguistic behaviour of the producer of an utterance provokes the attribution of a deviant import to literally tautological ('War is war' etc.) or literally contradictory ('Wine is not wine') statements, so in the present case the quest for intelligibility of linguistic behaviour is suited to prompt the hypothesis that the particular wording indicates a special communicative intention. Admittedly, if the choice of a wording highlighting pervasion under the exclusive aspect indicates a communicative intention to the effect that a *pratibandha* between *probans* and *probandum* should not be regarded as a factor licensing extrapolation and warranting validity, the



intended import is thereby not uniquely determined.<sup>17</sup> But this holds true for conversational implicatures in general. There remain various conceivable interpretations. The formulation could be understood as a means to convey that some sort of incompatibility between *probans* and absence of *probandum* is decisive. This could lead us back to the assumption of the existential import hypothesized in the commentaries: If the pertinent connection should not be tantamount to necessitation between occurrence of *probans* and occurrence of *probandum* the decisive difference might lie in the fact that the relation is instantiated only if an absence of the *probandum* exists. However, this is only one possible way of connecting the striking linguistic behaviour with a point. Another plausible motive could lie in the intention to signal that *vyāpti* embodies a weaker concept of universal concomitance than one could be inclined to think, in particular that *vyāpti* involves no modal implication and that the relation obtains precisely if *de facto* everything instantiating the *probans* instantiates the *probandum*. In the case of *anvayin*-inferences this amounts to the circumstance that *vyāpti* holds good if an extrapolation from the non-*pakṣa* universe to the *pakṣa* itself yields a conclusion that is *de facto* true. Whether the invariable concomitance between *probans* and *probandum* in the entire universe is accidental or not does not matter. In such a situation a *pratibandha* would not be a factor that licenses extrapolation and would even be irrelevant for validity if *vyāpti* plus instantiation of the *probans* in the *pakṣa* were sufficient conditions of validity. If playing the role of licensing extrapolation is a semantic ingredient of *pratibandha*, one can assert that under the pertinent premises a *pratibandha* in *anvayin*-inferences is not warranted. If the author of the NL hypothesized a concept of *vyāpti* possessing the indicated modal ingredient, then *defining* the term *vyāpti* in terms of opposition to non-occurrence of *probandum* on *his* part would be definitely inapt, and the same holds good regarding definitions relating to the exclusive aspect in general. The existence of objective reasons not to espouse the alternative of defining pervasion in terms of absence of *probandum* irrespective of its material adequacy is beyond doubt. What can be doubted is only whether such reasons were also subjective motives.

These considerations suggest a number of conclusions. 1. The rejection of the second definition *must not* be based on considerations pertaining to the semantic content of a definition. Reluctance to define pervasion in terms of opposition to non-occurrence of *probandum* can be equally related to phenomena which are nowadays current under the name 'conversational implicature'. What comes into play is the very important distinction between consequences of the content of what is said and consequences of somebody's saying something with a particular content in a specific situation in a specific manner.<sup>18</sup> 2. It emerges that a definition can be criticized on account of two

<sup>17</sup> Strictly speaking, it suffices for the entailment of disadvantageousness that a definition in terms of opposition to non-occurrence of *probandum* provides room for *suspecting* a communicative intention that is in fact not existent.

<sup>18</sup> Commentators tend to ignore the second aspect. This might also explain why both the *Nyāyalīlavatīprakāśa* and the *Nyāyalīlavatīkaṅṭhābharaṇa* resort to an explanation

fundamentally different reasons. Apart from possible defects pertaining to the content of a definition the behaviour of providing a definition possessing some content under specific circumstances can justify criticism. One might acknowledge an entailment to the effect that if the content of a definition is inappropriate then the act of its propagation (and acceptance) is also inappropriate, but the reverse does surely not hold good. Even if the content of a definition is materially adequate it can be improper to offer it, and the possible reasons are not at all confined to matters of ambiguity or stylistic awkwardness. 3. It is at most possible, but by no means mandatory to suppose that the reluctance to accept a *vyāpti*-definition in terms of opposition to absence of *probandum* on the part of the writer of the NL is exclusively based on one type of defect, i.e. either deficiency of content or inappropriateness of linguistic behaviour. Different motives could be operative even if only one of them is represented by an (official) argument. 4. It appears probable that the full content of *vyāpti* exceeds the mere wording of the accepted definition. If *vyāpti* never entailed a non-contingent relationship between *probans* and *probandum* it would not be plausible to reject a definition on account of the circumstance that it does not imply a relation warranting extrapolation and excluding fortuitousness in the case of *anvayin*-reasons.

It should go without saying that the preceding statements do not amount to a claim to the effect that the writer of the NL had the above considerations in mind. In the first place the objective is to demonstrate that, even if the interpretation of the *Nyāyalīlāvatīprakāśa* and the *Nyāyalīlāvatīkaṅṭhābharaṇa* were correct, the stance of the writer of the NL would be better justified than the official argument reveals. In the second place it is, however, also important to realize that the interpretation offered in the commentaries is by no means mandatory. It should also be evident that the supposition that avoidance of unwanted conversational implicatures comes into play does not imply that the writer of the text had the theoretical notion of conversational implicature "in mind". If evasion of adverse implicatures was a motivating factor, it can only mean that the author intuited the possibility of misunderstandings which a certain way of linguistic behaviour is apt to generate and which, as a matter of fact, can arise because of conversational or "pragmatic" implicatures. Conversational implicatures were a real phenomenon in linguistic communication even before P. Grice identified it and coined a technical term.

## V

In the light of the preceding clarifications one can recognize that a dismissal of the definition of *vyāpti* as *sādhyābhāvavirodha* could be based even on

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referring to *kevalānvayin*-inferences. They (tacitly) presupposed that the vital deficiency of the rejected alternative should pertain to matters of the content of what is literally said. Such an assumption is generally natural, but must not be true in all particular cases.

reasons which do not rest on considerations of undesirable implicatures. It must be surmised that those reasons are not represented by Vallabha's rejection of the second definition because the wording of the text does not permit such an interpretation. But it is worthwhile to consider this alternative because it provides additional support for the contention that the subject matter itself does not make an inadequate criticism of a definition in terms of opposition to absence of *probandum* mandatory. Taking 'pervasion' as denoting an object complying with a current notion of relation one can ascertain two alternative, equally legitimate, ways of specifying this object. Employing the terminology introduced in the preceding paragraph one can say that the pertinent relation can be identified both under an inclusive and an exclusive aspect. Now, if one intends to provide a definition of that relation there is no point in defining it under both alternative ways simultaneously. One could either choose the method to offer two alternative definitions or the method to present only one definition relating either to the inclusive or the exclusive aspect. Given the latter choice the necessity exists to make a selection between a specification referring to the inclusive and a specification referring to the exclusive aspect. On these conditions the pertinent task consists in making a choice between two materially equivalent alternatives and base a decision on considerations not pertaining to material adequateness. That preference is given to a definition relating to the inclusive aspect, is however not unreasonable. After all the original question which the concept of 'pervasion' was meant to settle is the following: 'What is the criterion of assessing an argument of the form 'a is S because a is H' as acceptable or valid?'. If one adopts the stance that the decisive criterion pertains to a specific connection between the properties or qualities of being H and being S, then it is most natural and suitable to specify the relevant connection under an aspect which most immediately refers to the properties or qualities involved. Thus the preference in favour of the inclusive aspect relies on the fact that it represents an optimal way of making transparent the relationship between the theoretical role of the term *vyāpti* and the nature of the problem which should be settled with its help.

The reason why this alternative account is more adequate than the approach imputed by the commentators to the NL and possibly adopted by the author of the text himself lies not merely in the circumstance that no argument relying on a biased reading of a formulation comes into play. More decisive is the fact that the alternative manner of settling the issue of the definition of *vyāpti* as *sādhyaḥbhāvavirodha* clearly acknowledges the existence of alternative aspects exhibited by the relevant object and in accordance with this the existence of various equally legitimate ways of defining a term. A preference for a definition referring to the inclusive aspect can be maintained even under those premises. The decisive difference is that the decision is not based on a narrow-minded ideology rejecting a definition of pervasion in terms of opposition to absence of the *probandum* simply as inadequate and inadmissible.

One can ascertain, however, that also other considerations can be invoked for a critical appraisal of the idea of defining *vyāpti* as *sādhyābhāvavirodha*. They can be equally regarded as representing more insightful ways of dealing with the issue than the one which the author of the NL would have adopted if the assumptions of the *Nyāyalīlāvati prakāśa*, the *Nyāyalīlāvati kaṅṭhābharaṇa* or of Sjödin were correct.

## VI

It could seem that the envisaged motivations for the rejection of a definition of *vyāpti* in terms of opposition to non-occurrence of *probandum* essentially depend on the premise that to define a concept of pervasion in this manner means to construe it as a relation holding between logical reasons and complements of *probanda* or between entities, such as the occurrence of a *probans* and the non-occurrence of a *probandum* as *relata*. In fact, if *vyāpti* possessed the nature of connecting logical reasons with absences it could not be identified with any relation holding between logical reasons and *probanda* or between items where they are instantiated or even between states of affairs of their occurrence in some substratum. However, the assumption that the second definition dictates such a construal of pervasion and that the considerations of the preceding paragraph are relevant only under that premise is not correct.

If someone asks which relation is expressed by

(S1) The capital of France is bigger than the capital of Austria.

a natural answer would be that the sentence relates two capitals of two different countries by the relation expressed by 'bigger than'. This means that (S1) is analyzed as if it were the result of a substitution of 'x' and 'y' in 'x is bigger than y' by 'the capital of France' and 'the capital of Austria' respectively. But surely this analysis is not compelling. One could equally consider (S1) as a sentence relating two countries. The corresponding relational expression would be less natural though. It could be represented by 'the capital of x is bigger than the capital of y' so that (S1) would be considered as a result of substituting 'France' and 'Austria' for 'x' and 'y' respectively. One could describe this relation as a relation between countries that holds good between them if the capital of one of them is bigger than the capital of another, or more exactly as a relation between any country x and any country y that holds true precisely if the capital of the former (x) is bigger than the capital of the latter (y). Now let us consider

(S2) The *probans* excludes the absence of the *probandum*.

We can easily recognize the same kind of ambiguity<sup>19</sup>. A natural view is that (S2) expresses a relation of exclusion and states that this relation holds good between an item designated by 'the *probans*' and an item designated by 'the absence of the *probandum*'. As before, this analysis is not mandatory. (S2) can be equally considered as expressing a relation between a *probans* and a *probandum*. The corresponding relational expression would again be less natural and could be represented by 'x excludes the absence of y'. The connection can be characterized as a relation that holds true between a *probans* x and a *probandum* y exactly if the former (x) excludes the absence of the latter (y). The same result applies to variant formulations of (S2), in particular to

(S3) The occurrence of the *probans* is incompatible with the non-occurrence of the *probandum*.

If one poses the question as to how the authors of the commentaries *Nyāyalīlāvati prakāśa* and *Nyāyalīlāvati kaṅṭhābharaṇa* might have understood the (implicit) relation expressed by *sādhya bhāva virodha* ('opposition to the absence of the *probandum*') there is no immediately obvious answer. One can plausibly surmise, however, that they were rather inclined to regard the formulation as representing a relation between items functioning as logical reasons (*probans*) and absences of items functioning as *probanda* than a relation connecting logical reasons and *probanda*. The expression *virodha* 'opposition', 'conflict' is a far more natural representative of a relation than an expression, such as *abhāva virodha* = 'opposition to the/an absence (of)', 'conflict with an absence (of)'. Whereas the former word is immediately connected with the relational verb *virudh* 'to oppose', 'to obstruct', 'to be inconsistent with'<sup>20</sup>, the latter expression can be at best brought in connection with complex syntagmas functioning as verb-phrases. Nevertheless, as soon as one poses the question as to whether the (reconstruction of) the argument hypothesized in the mentioned commentaries essentially relies on an analysis of *abhāva virodha* in *sādhya bhāva virodha* as a relation connecting absences of *probanda* with logical reasons, the irrelevance of the "psychological" considerations becomes manifest. Though it might be in fact true that the authors of the commentaries understood the definition in the above assumed manner and though the argument hypothesized in the *Nyāyalīlāvati prakāśa* and *Nyāyalīlāvati kaṅṭhābharaṇa* can be immediately related to such an understanding of the rejected definition the argument itself does not *require* such an analysis.

<sup>19</sup> To be sure, what is called 'ambiguity' here is not possession of different meanings. It is rather an ambiguity of structure. One might accordingly draw a distinction between ambiguity of sense and ambiguity of analysis with respect to linguistic expressions.

<sup>20</sup> All the mentioned English expressions are equivalents mentioned (among others) in current dictionaries, such as Apte or Monier-Williams.

To see this more clearly let us assume that the expression *sādhyābhāva-virodha* were not analysed as resulting by substitution from 'x-*virodha*', but from 'x-*abhāvavirodha*'. On the level of corresponding complete sentences this entails an analysis of (S3) as resulting from

(S3)\* The occurrence of x is incompatible with the non-occurrence of y.

A crucial premise of the argument supposed by the commentaries is that the term 'the non-occurrence of y' can fail to denote anything that exists even if the corresponding counterpart of the non-occurrence, a pertinent *probandum* exists. This is the case exactly if a *probandum* is omnipresent. On a more general level the premise is that a term of the form 'the F of a' may fail to denote anything even if 'a' refers to something existent. This assumption is, in principle at least, fully warranted. It may generally hold good that if 'a' refers to an existing state or country then 'the capital of a' equally denotes something existent. But if we replace 'the capital of' by, say 'the queen of', then it becomes obvious that the existence of 'a' does not always guarantee that a term of the form 'the F of a' refers to something that exists too. By interpreting 'the occurrence of', 'the absence of' — in modern terminology — as functors mapping objects to objects and understanding *abhāva* in this sense the claim that it might occur that something is existent whereas its *abhāva* does not exist is fully justified. To be sure, the claim that this *might* occur is justified on a formal level.<sup>21</sup> Whether absences are more akin to queens than to capitals is a different matter. And whether absences of omnipresent *probanda* need to be considered as non-existent is again a different matter. Nevertheless, it is possible to derive a rejection of the second definition on the basis of an understanding that analyses it as expressing a relation between logical reasons and *probanda* in conjunction with additional assumptions by using the argument hypothesized in the commentaries. An interpretation of *abhāva* as a functor mapping objects to other objects opens a way for deriving the relevant conclusion from the pertinent argument. To be sure, it has been pointed out earlier that there is no compelling reason to read *abhāva* in this way because due to the lack of a definite article in Sanskrit it is not mandatory to interpret its occurrence within *sādhyābhāvavirodha* in any sense that equals a possible sense of 'the absence (of the *probandum*)'. There is not even unmistakable evidence to the effect that the commentators conceived *abhāva* akin to a functor of the described kind. It can be ascertained, nevertheless, that it is not improbable that the authors of the commentaries were inclined to such an understanding. What matters most is, however, that on this basis it is possible to demonstrate that

<sup>21</sup> Evidently, this does not mean that expressions, in particular singular terms, containing *abhāva* as constituent denote functors. The situation would be analogous to the difference between 'the non-occurrence of ...' and e.g. 'the non-occurrence of smoke'. Inasmuch as *abhāva* is used to refer to objects of the second type, it would be appropriate to draw a clear distinction between different senses of the term.

their argument does not essentially depend on the presupposition that the relation indicated in the second definition contains absences in its range.<sup>22</sup>

Such a dependence is, however, crucial for the second argument considered above, namely the contention that if *vyāpti* were defined as opposition to absence of the *probandum* then the *pratibandha* which *vyāpti* is supposed to be could not be a relation between a *probans* and *probandum*. Without the premise that the definition stipulates a relation that has absences in its range the argument is irrelevant. Therefore one must acknowledge that the increase of scope that distinguishes this argument from the one hypothesized by the Indian commentators by eschewing questionable existential implications is counterbalanced by the restriction of its relevance to a particular analysis of the concerned definition.

## VII

What should one say about the possibility that Vallabha was not only aware of the ambiguity of analysis exhibited by the definition rejected by him but that he even rejected it on exactly this account? Might one suppose that his argument against the definition of 'pervasion' in terms of opposition to absence of *probandum* relies in this insight? As before, we should not accept to settle the pertinent questions of interpretation on the basis of subjective feelings without a detailed examination of the intricacies of the matter.

It is remarkable that quite a compelling argument against the employment of the second definition can be obtained precisely on account of the circumstance that it exhibits the above described ambiguity of analysis. In contrast to the accepted definition which unmistakably characterizes *vyāpti* as a connection between a *sādhana* = *probans* and a *sādhya* = *probandum* the alternative explanation lacks a comparable clear specification of the nature of the relation. Therefore the ambiguity of analysis exhibited by the second definition is a serious shortcoming. If the author of the NL had raised the objection that the definition possesses the consequence that it does not "establish" the *pratibandha* in the sense that it does not specify the nature of

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<sup>22</sup> This is by no means equivalent to saying that the idea of taking absences as functions opens a way to free the commentators' argument based on *kevalānvayin*-inferences from problems. Not merely the tenet that all absences of possible *probanda* must exist, but also the premise that existence requires instantiation is crucial. By the same token as absences of *probanda* are supposed to exist only if there is at least one particular in which they are instantiated one should suppose that possible *probanda* exist only if there is at least one particular in which they are instantiated. Properties that are nowhere exemplified cannot occur in *valid* inferences but they are possible *probanda*. If properties that are nowhere instantiated do not exist there can be no function mapping them to objects and *a fortiori* there can be no absence-function mapping them to absences. Accordingly there are no absences of the required sort. But how can this result be reconciled with an assumption of absolute absences, so-called *atyantābhāva*-s, as possible objects?

the concerned relation, then he had offered a counterargument that is more momentous than the one ascribed to him by the *Nyāyalīlāvātiprakāśa*, the *Nyāyalīlāvātikaṅṭhābharaṇa* and by Sjödin.

The following circumstance, however, could constitute a problem: Reference to some particular variety of valid logical reasons and inferences appears implausible if a general criticism on account of indeterminateness, lack of precision or vagueness should be brought forward against a definition. In other words, it can seem that the argument under review would harmonize with the formulation *pratibandhāsiddhiprāpteḥ* but not with *anvayini pratibandhāsiddhiprāpteḥ*. Do particular details of the formulation refute the hypothesis that Vallabha's rejection of the second rival *vyāpti*-definition relies on a recognition of analytical ambiguity? In this connection several facts become relevant:

1. From a syntactical point of view it is not absolutely compelling to connect the constituent *anvayini* with the entire clause *pratibandhāsiddhiprāpteḥ* and to suppose that the phrase expresses that a particular consequence arises specifically with respect to *anvayin*-reasons. It is commonly known that a noun outside a compound can be syntactically construed with its first member. Therefore an interpretation such as 'because the consequence results that [the nature of] the connection (*pratibandha*) [that exists] in the case of *anvayin*-s is not settled' can be equally feasible. This would mean that the rejecting argument represents the objection that the considered definition is flawed on account of the fact that because of the analytical ambiguity which it exhibits the nature of the connection signified by *pratibandha* cannot be unambiguously determined.

A statement like this could be definitely made if it were supposed that the existence of a *pratibandha* is certain only in the case of *anvayin*- and not in the case of *kevalavyatirekin*-inferences or that a specification of the nature of *pratibandha* is completely irrelevant with respect to *kevalavyatirekin*-s. Such a stance would be in fact appropriate in the framework of a system like Dharmakīrti's. It is well known that Dharmakīrti and his tradition rejected the validity of *kevalavyatirekin*-inferences so that an equation between *svabhāvapratibandha* and *pratibandha* would entail that a *pratibandha* cannot exist in the case of those specimens of reasoning. On the other hand, it is equally beyond reasonable doubt that *svabhāvapratibandha* in Dharmakīrti's sense differs from the idea of invariable concomitance between *probans* and *probandum* because it is the factor that (allegedly) renders actual invariable concomitance non-accidental and bestows validity to logical reasons. To be sure, *if*, unlike Dharmakīrti, the author of the NL supposed that *pratibandha* is absolutely identical to *vyāpti* and that *pratibandha* exists in the case of *kevalavyatirekin*-s then the reference to *anvayin*-inferences in Vallabha's argument could diminish the plausibility of the hypothesis that the indeterminacy characterizing the second definition is the decisive reason for the dismissal. As was remarked earlier, Sjödin 2006 claimed that *vyāpti*



and *pratibandha* are the same. But apparently no compelling evidence is provided in the book for this thesis and it is advisable not to draw conclusions which need to take this assumption for granted.

Anyhow, as far as the existence of a *pratibandha* in *kevalavyatirekin-*inferences is concerned there are only two plausible possibilities: a) the *pratibandha* connects the absence of the *probandum* and the absence of the *probans*, b) the *pratibandha* connects *probans* and *probandum* exclusively in the subject of inference, the *pakṣa*. In the case of b) Vallabha's concept of *pratibandha* would decisively differ from Dharmakīrti's *svabhāvapratibandha*. This is surely possible, but in principle the assumption that a property occurring together with some other property exclusively in the subject of inference instantiates *vyāpti* and not *pratibandha* is also a viable alternative. In this case the writer of the NL would concur with Dharmakīrti with respect to *pratibandha*, but reject the tenet that *pratibandha* is absolutely indispensable for validity. That role would be allocated to *vyāpti* alone. If, however, a) were supposed then it would not be even imperative to resort to the above considered syntactical analysis of construing *anvayini* with *pratibandha*-. For it is evident that if the relation of *pratibandha* is inscrutable with respect to *anvayin-s* then it is also inscrutable with respect to *kevalavyatirekin-s*. The overt reference to *anvaya* in the statement expressing the dismissal could be due to the fact that Vallabha intended to make plain that his own preferred definition exactly specifies the pertinent relata in the case of *anvayin-*inferences so that it is plain that *pratibandha* in the realm of *kevalavyatirekin-s* can only relate to the absences of *probandum* and *probans*. A fully explicit rendering of the thought represented by *anvayini pratibandhāsiddhiprāpteḥ* could thus read: 'Because the consequence would result that unlike in my own definition the nature of the *pratibandha* is not unambiguously determined in the case of *anvayin-s* — and is therefore all the more inscrutable for *kevalavyatirekin-s*'.<sup>23</sup>

2. According to the account of Vallabha's rejection of the first alternative *vyāpti*-definition given in the preceding chapter, the author of the NL attributed importance to the circumstance that a definition should make relevant facts, e.g. the reason why most eminent examples of fallacious reasons are flawed, as plain as possible. It is, on the other hand,

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<sup>23</sup> In fact, it might be appropriate to interpret the negation represented by 'a-' in *asiddhi-* as possessing wide scope. Thus the import is rather: 'Because the consequence would result that it is not the case that [like in my own definition] the nature of the *pratibandha* is unambiguously determined in the case of *anvayin-s* — so that the relation is all the more inscrutable for *kevalavyatirekin-s*'. Or alternatively: 'Because the consequence would result that it is not the case that the nature of the *pratibandha* [that is determined in my own definition] with respect to *anvayin-s* is unambiguously determined — so that the relation is all the more inscrutable for *kevalavyatirekin-s*'.

patent that the need to specify a relation connecting *probans* and *probandum* and not corresponding absences exists in the first place in the realm of inferences where an *anvaya* between *probans* and *probandum* exists, that is in the class designated by the technical terms *anvayavyatirekin* and *kevalānvayin*. After all, it is particularly in this sphere where examples (*dṛṣṭānta/udāharaṇa*) exhibiting *probans* and *probandum* provide corroborating instances for the pertinent connection. It is therefore by no means unnatural, given the presuppositions of the NL, that making the character of *vyāpti* as a relation between *probans* and *probandum* relative to inferences possessing an *anvaya* manifest should constitute a requirement for the appropriateness of a *vyāpti*-definition. It follows from this that, the other way round, a definition must be rejected that does not unambiguously specify *vyāpti* as a relation between *probans* and *probandum* at least with respect to inferences possessing an *anvaya*, and precisely this could be expressed in these lines in the text. Under those circumstances the postulate that a definition of *vyāpti* should make the nature of *anvaya* manifest could be a correlate of the desideratum to make perspicuous the reason why *anaikāntika*-reasons are faulty, which had become virulent in connection with the definition of *vyāpti* as absence of *upādhi*.

3. It is a well-known fact that in contrast to Buddhist philosophers belonging to the tradition of Dignāga and Dharmakīrti adherents of the Nyāya-school admitted *kevalavyatirekin*-inferences as valid. Vallabha's point of employing the expression *anvayini* could accordingly lie in signalling his disagreement with the Buddhist position. The disagreement is indicated by the fact that somebody who discards *kevalavyatirekin*-inferences propagating the tenet that *all* valid inferences need rely on a (*svabhāva*)*pratibandha* would indeed appropriately formulate a rejection of the second definition by a corresponding formulation without that expression. The qualification embodied by *anvayini* is only apposite if inferences depending on a 'positive concomitance' do *not* exhaust the pertinent realm.

As far as one can see, the *anumāna*-chapter of the NL does not permit to definitely settle relevant issues regarding the existence and nature of *pratibandha* in the realm of inferences where no instance of concomitance of *probans* and *probandum* can be found in the non-*pakṣa* universe. This makes increases the difficulty of giving a definite verdict about the appropriateness of the interpretation proposed by the *Nyāyalīlāvatiṭīprakāśa* and the *Nyāyalīlāvatiṭīkaṅthābharaṇa* must be incorrect. On the other hand the fact persists that ambiguity of analysis could provide a more compelling basis for criticism. Hence a most momentous reason for *not* assuming that ambiguity of analysis played a decisive role for Vallabha's rejection of the second definition of *vyāpti* could be the misgivings about the appropriateness to attribute to the writer of the NL a degree of theoretical sophistication whose assumption the hypothesis necessitates. If this hesitation should be unjustified, it would be all the more unjustified to take

the correctness of the interpretations assumed by the indigenous commentaries as well as by Sjödin for granted.

Every definition of *vyāpti* that does not unambiguously specify it as an invariable connection between *probans* and *probandum* arouses the question of the *point* of resorting to a less straightforward explication and — against the background of the fact that *kevalavyatirekin*-inferences do not provide any plausible answer — suggests that the peculiar linguistic behaviour is a result of the opinion that in the realm of inferences relying on extrapolations the factor warranting extrapolation is *not* an invariable nexus between *probans* and *probandum* and that the mere non-occurrence of anything possessing the *probans* and lacking the *probandum* is sufficient for validity. Thus non-observation of counter-examples in the non-*pakṣa* universe would become the primary methodological criterion. This tenet is emphatically rejected by Dharmakīrti.<sup>24</sup> Shouldn't one suppose that the writer of the NL and Dharmakīrti held similar views in this respect?

### VIII

It appears indubitable that the number of reasons on which a rejection of *vyāpti* in terms of opposition to absence of *probandum* could be based exceeds the number of explicit arguments given in the NL. It can hardly be questioned that a number of reasons exist which are objectively suited to motivate a criticism on the part of the author of the NL. Against this background it must appear remarkable that the writer of the NL confines himself to mentioning only one argument without discussing in more detail the issue of defining *vyāpti* in terms of opposition to absence of *probandum*. Moreover, since *vyāpti* can be specified under the exclusive aspect in ways which render the explications logically equivalent to the accepted definition, one might wonder, why those possibilities are completely passed over in silence although in the case of the equally discarded definition in terms of non-existence of *upādhi* the author explicitly admits that its content is a *lakṣaṇa* of *vyāpti*, and presumably that both specifications are materially equivalent. Shouldn't it be proper to assign to the specification of *vyāpti* in terms of opposition to absence of *probandum* at least the status of a *lakṣaṇa*?

If the contention is correct that *vyāpti* according to the accepted definition and absence of *upādhi* are by no means logically equivalent, and that their material equivalence is warranted merely by the acceptance of additional premises, the difference of treatment might be explainable by this circumstance: Precisely because the equivalence of the two notions is not trivial the author considered it appropriate to point out this fact and to discuss the issue of the relation between *vyāpti* and absence of *upādhi*. But does this justify negligence of the fact that the author's own definition does not represent the only manner of specifying the same relation, in particular that, as we had put it, the same relation can be specified by formulations that are

<sup>24</sup> See for example *Pramāṇaviniścaya* II, 66-70.

not merely paraphrases of the definition but represent it under a different aspect? Is it permissible to attribute to the writer of the NL ignorance or lack of astuteness because of his omission to acknowledge that the second definition represents an alternative aspect that can be clearly detached from the problems which its embodiment in the form of the second definition allegedly entails? Should one diagnose a deterioration between Vasubandhu's illustrious definitions: *nāntariyakārthadarśanaṃ tadvido 'numānam* = '(means of) inference is the observation of an object that does not occur without [the *probandum*] for someone who knows this [fact]' as well as *tādr̥gavinābhāvidharmopadarśanaṃ hetuḥ* = 'the [logical] reason is the presentation of a property which does not occur without such a thing' and Vallabha's account?

Presumably the correct answer is that not sheer ignorance or blindness but lack of interest is responsible for the neglect. It would be surely unfair to criticise a writer of a philosophical treatise only because he did not pursue the same issues which *we* consider worth pursuing, especially if an author belongs to a different cultural tradition. Nevertheless, the omission on the part of the writer of the NL is presumably symptomatic for a lack of historical interest and at the same time highlights the potential relevance of historical investigations in philosophy. *Had* Vallabha contrasted his own explications with accounts given in earlier sources, in particular with prominent Buddhist texts, he could have found a motive to highlight the fact that a matter can be legitimately accounted for in different terms without offering merely uninteresting varieties of paraphrases<sup>25</sup>. Detection of possibilities of viewing an identical subject-matter under different aspects is an important aspect of relevance for historical and "cross-cultural" studies in philosophy, and this fact

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<sup>25</sup> In connection with the topic of paraphrase the issue as to what distinguishes the relation between e.g. (a) 'Everybody is happy' and (b) 'Everyone is happy' from (a) 'Everybody is happy' and (c) 'Nobody is not happy' is worth considering. Why could it be appropriate not to regard (a) and (c) as paraphrases in the same manner as (a) and (b)? A possible answer is: (a) and (c) can be naturally connected with different procedures of justification. Let us assume that an assertion of 'P' commits the asserting subject to justify 'P' and an assertion of 'Not-P' a challenge for any opponent to justify 'P', and that 'Every ....' involves the commitment to justify '....' for every entity and 'No ....' the challenge to refute the statement by a counterexample. Whereas (a) and (b) provide an opponent with the right to arbitrarily select a particular concerning which the proponent has to justify that it satisfies the predicate 'is happy', (c) is associated with the challenge to justify somebody's being not happy on the part of an opponent, i.e. the "justification-game" would contain as component an act equivalent to the assertion that somebody is not happy. As a matter of fact, the question of whether justification rules are stipulated in exactly this or in some other manner is unimportant. What matters is that the idea of procedures of justification or of verification-games provide possibilities to present analogies to the difference of structure which intuitively distinguishes (c) from both (a) and (b). This circumstance corroborates the surmise that recognition of the equivalence between (a), (b) and (c) is not purely a matter of understanding of individual expressions but also a matter of recognition of semantic structure.

reveals the injudiciousness of the fashionable slogan of exploring philosophical traditions only "in their own terms". Anyhow, granting the author of the NL the right to have priorities which suppress the interest of accounting for *vyāpti* under different logically equivalent aspects is not tantamount to attributing objective irrelevance to the issue itself. As a matter of fact, the topic is significant. Its pursuit leads to problems that are connected to 'logic' in a stricter sense than the issues that constitute the main topics of what is commonly called 'Indian Logic'. One can consider the second definition as a gateway to the realm of logic, or, more cautiously, to a different type of logic. Mere reflection on the import of Vallabha's own preferred definition and the aspiration to explore its different aspects would be a natural starting point for this enterprise. The fact that the writer of the NL does not pass through the door appears noteworthy: It could highlight the difficulty to enter new areas which are not recognized as relevant in a community and the propensity to remain in fields cultivated by others and associated with prestige.

The present issue is also suited to throw a critical light on the linguistic form employed in the NL as well as in other texts of the Indian philosophical tradition. One does not need to make use of symbolic language to describe the difference between the internal and external aspects of pervasion in quite a precise manner. One might, for example, present the following two alternative specifications:

(A1) Pervasion is a relation between any *probandum* and *probans* that holds true exactly if anything that possesses the latter also possesses the former.

(A2) Pervasion is a relation between any *probandum* and *probans* that holds true exactly if there is nothing that possesses the latter and does not possess the former.

This could be easily generalized and extended to connections between arbitrary items belonging to the same (ontological) category as logical reasons and *probanda*. Let us refer to this category by the term 'property', disregarding the question whether or to what extent the word 'property' is suited to represent the category of possible *sādhya*-s and *sādhana*-s in the system of the NL or in other texts of the same tradition. Thus we can stipulate:

(A1)\* Pervasion\* is a relation between any property and any other property that holds true exactly if anything that possesses the former also possesses the latter.

(A2)\* Pervasion is a relation between any property and any other property that holds true exactly if there is nothing that possesses the former and does not possess the latter.<sup>26</sup>

The vital point is that (A2) and (A2)\* clearly do not involve any commitments regarding the existence and instantiation of absences. They render the considerations which are regarded as crucial in the *Nyāyalīlāvatiṭprakāśa* and the *Nyāyalīlāvatiṭkaṅṭhābharaṇa* completely irrelevant. It is not difficult to identify the decisive reason for the difference: The verbal phrases in (A2)(A2)\* possess noun-phrases as correlates in the second definition. More specifically, the phrase

there is nothing that possesses ... and does not possess \_\_\_\_

corresponds to

... is opposed to (the) absence of \_\_\_\_

in the wording of the second definition, if one reduces the noun *virodha* 'opposition' to its verbal correlate. It is the nominal diction of the Sanskrit text that induces a crucial vagueness and ambiguity in this place. On the one hand, the formulation leaves indeterminate whether the component *sādhyaḥbhāva* 'absence of *probandum*' is intended as a referring expression or not and on the other hand it suggests as a possibility that the pertinent term could not refer to anything if it purported to relate to a particular absence that is nowhere instantiated. It should be obvious that such ingredients are by no

<sup>26</sup> Formulations, such as

Every property pervades another property precisely if anything that possesses the latter also possesses the former.

Every property pervades another property precisely if there is nothing that possesses the latter and does not possess the former.

make the direction of the relation even more explicit. On the other hand, if one desires to make by the *definiens* of the definition fully explicit that the related items must not be identical — and only then — it becomes difficult to dispense with the employment of symbolic letters without loss of clarity. In this case formulations like the following would be suitable:

Every property P pervades a property Q precisely if P and Q are different and if anything that possesses Q (if there is any such thing) also possesses P.

Every property P pervades a property Q precisely if P and Q are different and there is nothing that possesses Q and does not possess P.

However, even those wordings are not far removed from ordinary language and can be understood mainly on the basis of common linguistic competence.

means entailed by the idea of an exclusive definition of pervasion. It might be surmised that the formulation presented in the NL is adequate precisely because Vallabha intended to refer to a definition that involved the mentioned commitments. Then one must retort, however, that the writer of the text dealt with quite an unimportant point. Given as presupposition a theory of absences ascribing existence to absences only if they are instantiated by particulars and the supposition that some definition of pervasion stipulates a relation to absences of *probanda* the observation that the pertinent definition cannot account for inferences where *probanda* are omnipresent is rather trivial. It does by no means imply a biased position regarding significance if one claims — in terms of the terminology explicated above — that an exploration of the features of the relational aspect which the second definition presents in a logically direct manner<sup>27</sup> is more significant than an exploration of the consequences that result by taking the definition as implying absences of *probanda* against the backdrop of a special view regarding absences. To be sure, if a critical assessment of the relevant theory of absences were at stake, the situation might have been entirely different. But that issue is certainly not an objective in the concerned passage of the NL.

The nominal form of expression is apt to entangle the treatment of the topic in relatively unimportant issues due to the ambiguities it engenders and the propensity to suggest implications that are not necessarily essential to some subject matter. To be sure, the predilection for the use of nominal phrasings, in particular the abundance of nominal compounds could be regarded as a *symptom* of an ideology that tends towards reifications. But it is presumably incorrect to consider this tendency merely as an effect of a certain manner of thinking. The nominal diction is also suited to engender or reinforce reifications. Its most relevant drawback is however lack of differentiation and semantic opacity. The advantage of easiness which the linguistic form current in Sanskrit theoretical treatises offers for encoding contents is counterbalanced by the disadvantage of loss of syntactic structure entailed by complex noun-phrases. This might have, among other factors of course, contributed to the abundance of commentarial literature in the Sanskrit philosophical tradition. At any rate, a form of language that requires paraphrase and explication for making contents unambiguous and precise is suited to impede the focusing on the theoretically most important aspects of a subject matter. Needless to say that this statement does not at all mean that

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<sup>27</sup> Strictly speaking, according to our own explanation the second definition can present the exclusive aspect in a logically direct manner only if the expression *sādhyaḥbhāvavirodha* does not involve a modal component, i.e. if it is understood as saying merely that absence of the *probandum* is instantiated nowhere in the realm of the *probans* and not as expressing that there is something that necessitates this exclusion because the definition could not be considered as a mere paraphrase of the proposition that *probans* and *probandum* never occur together. Due to the occurrence of *virodha* one could indeed understand the definition as possessing the stronger import. Nevertheless, mere intuition reveals that even in this case the wording of the second definition is significantly related to the exclusive aspect. There should be no need for a more precise and detailed elaboration.

Sanskrit is unsuited for theoretical discourse. On the level of language Sanskrit presumably does not significantly differ in this regard from most other natural languages. But this tenet is compatible with the proposition that certain styles, certain established manners of using a natural language for specific purposes can be more or less felicitous. The phenomena detectable in connection with the second definition are also suited to underscore the importance of using regimentated forms of language. It needs to be emphasized here that recourse to modern symbolic logic represents a possible means to that end which is, however, not mandatory. The decisive point is regimentation itself, whereas the instruments employed to promote this objective must not be restricted by any form of ideology. For the analysis of theoretical treatises of the Sanskrit literature one needs to clearly differentiate between levels. On the level of translations employment of a regimentated form of expression is usually inappropriate. For a translation should — under normal circumstances at least — faithfully represent the — presumably envisaged — content. If the content is vague then this feature should be preserved by the translation. On this level improvements of content are not appropriate. If this is a defensible position concerning translations it does not follow, however, that one must discard regimentated linguistic forms on every level. Two functions need to be mentioned in the first place: 1) The detection and explication of features of ambiguity or vagueness exhibited by some textual passage, 2) Making the statements of an interpreter unambiguous and precise. For those objectives employment of linguistic forms that are semantically transparent is better suited than those which are not. Accordingly the fashionable tenet that recourse to regimentated languages should be discarded in textual analysis because this method conceals what an author really thought rests on a detrimental confusion. It might be true, nevertheless, that regimentation and semantic transparency is most relevant in philosophical analysis itself.

## IX

The above considered idea that definitions of *vyāpti* might be criticizable because they militate against the acknowledgment of a nexus between *probans* and *probandum* does not entail the proposition that the theorem of (*svabhāva*)*pratibandha* embodies an adequate postulate for inferences. It appears indeed plausible that a proper inference must not yield a true outcome due to mere coincidence. But the tenet that a *pratibandha* between *probans* and *probandum* is suited to yield a criterion for separating proper from improper inferences is erroneous. It is erroneous at least if it were meant to yield a criterion that is generally relevant. The reason is not merely that the tenet of *pratibandha* does not comply with the acceptability of a vast range of inferences where an indicator is taken to establish a state of affairs due to the circumstance that its occurrence significantly enhances the probability of the occurrence of the latter. Even in the realm of common inferences which are usually considered as absolutely compelling and safe, the doctrine of *pratibandha* imposes undue limitations. It might suffice here to highlight only two aspects illustrating crucial restrictions of scope.



1. Contextual factors, in particular social rules and conventions, often affect the invariability of a nexus between two types of phenomena. Regarding certain types of lottery one can during a certain phase of a draw predict that the numbers of the following balls will definitely not equal certain numbers. The reason does surely not lie in some connection between effect and cause as it is (allegedly) the case in the inference from smoke to fire. The *probandum* is an event in the future that cannot be construed as a cause of the occurrence of the *probans*. The connection can neither be akin to a connection like that between being a sugar maple and being a tree. There is definitely nothing in the nature of the pertinent objects or events that makes the existence or occurrence of one of them necessary due to the occurrence or existence of the other. In fact there is no invariable nexus at all except in the context of a certain frame. The vital factor ensuring invariability of nexus in the pertinent frame as well as for the reliability of the inference is a particular convention or, as one might say, the rules of a specific social game. Even conceding the point that Dharmakīrti's famous doctrine of *svabhāvapratibandha* must not be the only conceivable alternative of implementing the idea of a nexus between *probans* and *probandum*, phenomena like the described one present at least a problem for that conception. Specifically the contention that social conventions might equally possess relevance for the connection<sup>28</sup> and that further specifications must be added to the *probans* as well as the *probandum* is disputable. On the one hand the idea that the connection should exist between items such as 'being a ball carrying number X and falling down during the draw of a lottery of type T' and a *probandum* such as 'not being succeeded by the falling of a ball carrying number X in the same draw' appears highly artificial in comparison with an account acknowledging that two phenomena are inseparably related in a particular context. Moreover, it is difficult to reconcile such a hypothesis with statements pertaining to previous observations of analogous cases of co-occurrence of *probans* and *probandum*. Anyhow, there are also other limitations.

2. Many common inferences do not exhibit the logical form presupposed by all theories of *pratibandha*. Immediately after the last year's semi-finals in the world championship of woman's football one could safely predict that (none except) either Brasil or Germany will become world-champion. The reason justifying the inference lies in the fact that it is a convention that nobody can be world-champion if he has not won a pre-final game in the pertinent tournament. — That somebody else might be illegitimately declared as world-champion is a different matter. — In the present case the truth of

<sup>28</sup> A number of (Non-Buddhist) sources suggest in fact that inferences exploiting regularities based on social conventions are valid. In the *Praśastapādabhāṣya* the example of inferring the concealed presence of the Hotṛ-priest from the observation that an Adhvaryu-priest is just reciting the syllable 'om' is mentioned (*adhvaryur omśrāvayan vyavahitasya hotur liṅgam*). This position is maintained even in texts after Dharmakīrti, such as the *Nyāyakandali*.

the predicted disjunctive proposition is established due to the result of the semi-finals in a situation in which none of its disjuncts have been decided as true. Such examples do not only present a serious challenge to all doctrines postulating a nexus between different attributes pertaining to an identical subject as a requirement for inferential validity, but also reveal that the prospects of acquiring a satisfactory account of inference from the NL or other sources of the same tradition are exceedingly slim.<sup>29</sup>

A criticism of the second definition is most plausible on the hypothesis that *vyāpti* entails a *pratibandha* between *probans* and *probandum* guaranteeing that a *de facto* concomitance between them is not accidental. In this case an explanation of pervasion that unambiguously refers to exactly the same relata as those which are connected by *pratibandha* is surely preferable to any explication that does not. The *definiens* of the accepted definition, however, neither includes an overt reference to *pratibandha* nor contains any modal component indicating that *vyāpti* cannot hold true between items that are invariably connected by mere coincidence. Since it was presumably not intended by the writer of the NL to present a sloppy paraphrase as a definition of a most important term one could be inclined to draw the conclusion that *vyāpti* must be understood as a weaker concept that possibly does not entail validity of an inference in combination with the premise that the *pakṣa* is known to exhibit the *probans*. This in its turn is apt to diminish the probability of the hypothesis that avoidance of inappropriate pragmatic implicatures was a major motive lying behind Vallabha's reluctance to accept the second definition or some possible modification of the explication in terms of opposition to absence of *probandum*. Therefore the fact is significant that remarks occurring in the succeeding context contain indications supporting the hypothesis of a more restrictive conception of *vyāpti*. The supposition of a divergence between the literal content of the canonical definition and the actual conceptual import might be unavoidable even under the premises of the interpretations adopted by the *Nyāyālīlāvātiprakāśa*, the *Nyāyālīlāvātikāṅṭhābharaṇa* as well as Sjödin 2006 concerning the argument against the second alternative *vyāpti* definition.

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<sup>29</sup> It is remarkable that with respect to logical form a number of recently propagated theories of commonsense reasoning exhibit a similar tendency of emphasis as 'Indian Logic'. For example, one can immediately recognize that the defaults of Reiter's default logic:

$$A(x): B_1(x), \dots, B_n(x) / C(x)$$

readable as:

If, for a specific  $x$ ,  $A$  can be shown derive  $C$  with respect to  $x$ , provided that  $B_1 \dots B_n$  cannot be shown for  $x$

are tailored to pieces of reasoning where something is derived from something else with respect to the same subject.

## ***UPĀDHI AND NON-UPĀDHI***



I

In the subsequent paragraph dealing with various kinds of situations in which an *upādhi* can occur, it is said among others that if being a child of Mitrā<sup>1</sup> is *probans* then transformation of vegetable food etc. is *upādhi* (*yathā maitratānayaṭve śākādyāhārapariṇatīḥ*). It can be assumed as certain that the remark should describe a situation in which being a child of Mitrā is employed as a *probans* in order to infer the possession of a dark coloured skin with respect to some particular (possibly yet unborn) child of a particular person, called 'Mitrā'. The pertinent *upādhi* consists in the property of having eaten and digested food containing among other things (certain kinds of) vegetable. It is presumed that in the situation of inference there is evidential support but no known counterexample to a regularity between occurrence of *probandum* and occurrence of *upādhi*, i.e. that in everything in which the *probandum* occurs the *upādhi* occurs too. This suggests a strong concept of *vyāpti* of the nature explained in the preceding discussion on the basis of the following consideration:

- (1) Since *vyāpti* is coextensive with non-existence of *upādhi* existence of *upādhi* implies non-occurrence of *vyāpti*.
- (2) In the pertinent situation an *upādhi* is supposed to exist.
- (3) Therefore *vyāpti* cannot be instantiated by being a child of Mitrā as *probans* and possessing a dark coloured skin as *probandum*.
- (4) The supposition that *de facto* every child of Mitrā possesses a dark skin is compatible with the envisaged situation.
- (5) There is a situation compatible with the supposition that everything exhibiting the *probans* exhibits the *probandum* in which *vyāpti* is not instantiated.
- (6) Non-occurrence of *vyāpti* is compatible with the supposition that everything exhibiting the *probans* exhibits the *probandum*.

If one asks why (6) should be true the most plausible answer is: The requirement for the existence of *vyāpti* is stricter than non-occurrence of *probans* without *probandum* and the decisive reason is that *vyāpti* is supposed to imply that an invariable co-occurrence between *probans* and *probandum* is not accidental. In fact, even if the text does not state such a thought explicitly it can be surmised that the inference of

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<sup>1</sup> The reading *mitrātānaya-* of the *Nyāyalīlāvatiḥ prakāśa* is adopted here. The printed texts of the NL have *maitratānaya-* instead. However, the pertinent phrase occurs within a passage of the NL whose exact reading is not entirely certain. See Sjödin 2006:73, footnote 303. At any rate, the difference is immaterial for the present argumentation. Of minor importance is also the fact that in contrast to Sjödin 2006, who translates and interprets *tānaya* as 'son', our interpretation does not involve any commitment to sex. The masculine form can be explained as a default. One might also say that *tānaya* functions as an expression which can alternatively replace either *tānaya* or *tanayā*.

somebody's exhibition of dark skin on the basis of the datum that he or she is the child of a particular mother is considered as faulty because *if* it were in fact true that every child of the mother concerned possesses a dark skin, then the connection is a matter of coincidence or at least it cannot be safely ruled out that the connection is due to coincidence.

Unfortunately the above presented derivation is not entirely free from problems. Whereas (3) can be safely concluded from (1) and (2) and (5) together with (6) might be considered as plausible consequences of (1) – (4), the assumptions (1), (2) and (4) must be independently justified.

As far as (1) is concerned the main support lies in the statement that non-existence of *upādhi* is a *lakṣaṇa* of *vyāpti*, whereas (2) is supported by the fact that the reference to the property represented by *śākādyāhārapariṇati* with respect to the property of being a child of Mitrā occurs in the form of an example for an *upādhi* in which one of its defining marks is definitely ascertained and the context leaves no doubt that the property of being a child of Mitrā is envisaged as a *probans* and the other property as an *upādhi*. Nevertheless, the above presented derivation depends on the assumption that the mere fact that the pertinent *probans* occurs licenses the attribution of the status of an *upādhi* to the other property. This means that in *every* situation in which being child of Mitrā occurs in the function of a *probans* with respect to a property such as being dark skinned the quality represented by the expression *śākādyāhārapariṇati* can occupy the status of an *upādhi* irrespective of further details of the actual situation. In fact this supposition cannot be taken for granted. The reason is that the remark to the effect that sometimes one of the characteristic features of an *upādhi* is ascertained, represented by *kva cin niścītānyatararūpaḥ*, does not strictly speaking necessitate this conclusion. The alternative view is the following: In situations in which being a child of Mitrā occurs in the function of a *probans* and a quality such as being dark-skinned as a *probandum* a property such as being an offspring of someone who has consumed food containing vegetable is *sometimes* an *upādhi*. It is an *upādhi* exactly if all the two defining characteristics of *upādhi* are in fact present. This means with respect to the pertinent example that *śākādyāhārapariṇati* is an *upādhi* with respect to *mitrātanayatva* as *probans* and being dark skinned as *probandum* in the special case in which i) everybody who is dark skinned is the child of a person who has eaten some sort of vegetable food before and ii) at least one of Mitrā's sons is not born after consumption of vegetable food and not dark-skinned. In other situations, for example in a situation in which all of Mitrā's sons are dark skinned and Mitrā has always consumed vegetable food, the property represented by *śākādyāhārapariṇati* is in fact not an *upādhi* with respect to being a child of Mitrā and being dark skinned, though it *could* have occupied such a status if Mitrā's behaviour had been different. One might object that this entails the implausible

consequence that pieces of reasoning in which being dark skinned is inferred on the datum that somebody is the child of a particular person sometimes exhibit and sometimes do not exhibit non-existence of *upādhi* and that the same sort of reasoning can be either valid or non-valid according to contingent circumstances. Unfortunately we need decline this offer of vindicating our above presented deduction. The reason is not primarily that validity is supposed to rely on contingent circumstances. More decisive is the fact that it cannot be taken for granted that validity and non-validity of a *probans* is fully concordant with non-existence or existence of *upādhi* or occurrence or absence of *vyāpti*. One would need a separate argument to establish that the author of the NL acknowledged even this equivalence.

It has been tacitly accepted above that a view shared by the writers of the *Nyāyalīlāvatiḥābharaṇa + Nyāyalīlāvatiḥābharaṇa* as well as by Sjödin 2006 is correct, namely that a property expressed by *śākādyāhārapariṇati* constitutes a necessary condition of the quality of being dark skinned. The commentators claim that such a connection is vindicated by "medical science". One might have qualms about the empirical adequacy of the rule, that the property of being dark skinned is invariably connected with a particular eating habit of parents. A way of diminishing the implausibility could be to suppose that a more specific *probandum* is at stake, such as being dark skinned to an excessive degree or possessing a colour that is darker than that of the parents, i.e. dark relative to some hypothesized object of comparison. Another alternative could be to assume that the *probandum* — which *nota bene* is not explicitly specified in the NL — is in fact not simply being dark skinned but equivalent to being a dark skinned child of Mitrā (= being a child of Mitrā and being dark-skinned). In this case it would suffice for a satisfaction of the requirement that an *upādhi* pervades the *probandum* that among Mitrā's children all those who are dark skinned have been born after consumption of vegetable food. Thus the pertinent causal regularity is merely that in the case of Mitrā the consumption of food with vegetable is an indispensable factor for giving birth to dark skinned children. Nevertheless this has only a minor effect on the satisfaction of the defining *upādhi* characteristics. Instead of saying that the first requirement is fulfilled if everybody, who is dark skinned is the child of a person who has eaten some sort of vegetable food before, we should now say that all dark skinned children of Mitrā have been born after Mitrā has consumed food with vegetable. The problems which were at stake in the preceding paragraph however remain the same.

More significant than the issue of empirical plausibility is the fact that the commentators interpret the expression *anyatara-* in *nīścitānyatararūpa* as indicating that the first and not the second *upādhi* condition is satisfied. This is surprising because *anyatara* usually means 'one of the two' and not 'the first' and if a writer wants to express the meaning of 'the first' he has alternative expressions at his disposal

which convey this idea much more clearly. In Sjödin 2006:87 and 92 the view of the commentators is accepted without reservation. Some critical reflection is, however, apposite in this regard. It can be shown that there is no need to suppose an unusual import of *anyatara* and it could even be explained why the writer of the NL describes the situation in this manner. As mentioned before, the commentators suppose that the assumption of a universal regularity between being dark skinned and being born by somebody who has consumed food with vegetable shortly before is pertinent in this context. This assumption is doubtful even irrespective of the problem of the empirical adequacy of the involved regularity. Presumably the author of the NL did not presuppose this universal regularity in his account of the relevant inferential situation.<sup>2</sup> Instead his perspective was rather an account of the structural properties of a situation in which apart from the exhibition of the *probans* by a pertinent subject of inference, i.e. a *pakṣa*, in the domain apart from the *pakṣa* an *upādhi* is instantiated at least as often as the *probandum*. It is plausible to consider this feature not only as a characteristic ingredient of the situation of the inference in which the property of being dark skinned is concluded from the datum of being a child of a particular person but even as a factor that justifies a criticism of this sort of reasoning in general. For it is imagined in the pertinent example that regarding a child about which the inferring subject does not yet possess definite (perceptual) knowledge with respect to its skin colour somebody conjectures that it will be dark skinned and that he does this on the basis of the consideration that all other children of the same mother are dark skinned. The underlying hypothesis is that being a child of a particular person is a sufficient condition of being dark skinned. Now, a most relevant means of exposing the fallaciousness of this sort of reasoning is to show that all corroborating instances of the *probandum* also exhibit some other common quality. In this manner it is made plausible that exhibition of the additional quality could be a necessary condition for occurrence of the *probandum* and that possibly the combination of the original *probans* and the additional feature constitute both a necessary and sufficient condition for the occurrence of the *probandum*. In the pertinent example it could be co-extension between *probandum* and the additional quality in the realm of previous ascertainment, i.e. the realm of all of Mitrā's children except the one who functions as *pakṣa* in the inference. If it happens that all other children of Mitrā are both dark-skinned and born after consumption of vegetable food, then the extension of both qualities is the same in that realm. However, the pertinent point can be generalized and made to cover all cases in which in the non-*pakṣa* universe everything exhibiting the *probandum* also exhibits some other quality.

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<sup>2</sup> To be sure, this must be carefully distinguished from the question as to whether the writer of the concerned textual passage in fact *believed* that such a regularity exists or might exist.



It is not difficult to show that given two premises, namely 1) that a pertinent substratum of inference, a *pakṣa*, exhibits some *probans* H, e.g. being child of Mitrā, and 2) everything in the non-*pakṣa* universe which exhibits a *probandum* S also exhibits some additional quality U it follows that at least one of the following two conditions must be satisfied, namely a) Everything which exhibits S exhibits U, b) There is something which exhibits H and not U. The proof can be given as follows:

- (I) Let us suppose that a) were not true, i.e. there is something which exhibits both S and not U. Then the *pakṣa* must exhibit both S and not U because according to 2) everything other than the *pakṣa* exhibiting S also exhibits U. But according to 1) the *pakṣa* also exhibits H, and accordingly the *pakṣa* exhibits H, S and not-U together and consequently exhibits both H and not-U. Therefore (by existential generalization) it follows that there is something which exhibits H and not-U.
- (II) Let us suppose that b) were not true. Then everything which exhibits H exhibits U. Accordingly the *pakṣa* exhibits both H and U. Because of 2) everything apart from the *pakṣa* that exhibits S exhibits U. As the *pakṣa* itself exhibits both H and U, it follows that if the *pakṣa* exhibits S then the *pakṣa* exhibits H and therefore everything which exhibits S exhibits U.<sup>3</sup>

If one replaces the stronger requirement assumed among others by the *Nyāyilīlavatikāṅthābharaṇa* and the *Nyāyilīlavatiprakāśa* that the *upādhi* is a necessary condition for the occurrence of the *probandum* by the weaker assumption that the *probandum* is invariably concomitant with an *upādhi* in the non-*pakṣa* universe, if, so to speak, an *upādhi* is a necessary condition of the occurrence of the *probandum* in that domain, one can ascertain that either the first or the second *upādhi* condition or even both together must be

<sup>3</sup> A more concise description of the proof is the following:

(1)	Hp	A(ssumption)= 1. Premise
(2)	(x)(x≠p → (Sx → Ux))	A = 2. Premise
(3)	-(x)(Sx → Ux)	A
(4)	(∃x)(Sx & -Ux)	From 3
(5)	Sp & -Up	From 2,4
(6)	Hp & -Up	From 1,5
(7)	(∃x)(Hx & -Ux)	From 6
(8)	-(∃x)(Hx & -Ux)	A
(9)	(x)(Hx → Ux)	From 8
(10)	Hp → Up	From 9
(11)	Up	From 1,10
(12)	(x)(Sx → Ux)	From 2,11

fulfilled provided that the *pakṣa* exhibits the *probans*.<sup>4</sup> It is only ruled out by those circumstances that none of the two conditions is satisfied. The fact that the conclusion is less definite than the hypothesis made by the commentators is counterbalanced by the advantage that a higher degree of generality is attained. It does not any more depend on the dogmatic assumption that an *upādhi* is a necessary condition for the occurrence of the *probandum* in all instances. In the pertinent case it is not required to assume that every dark skinned being is born after consumption of vegetable food but that this dependence holds good only in the realm of those beings who are not the object of investigation. If one supposed in addition that the pertinent *probandum* is being a dark skinned child of Mitrā the circumstance that all other observed dark skinned children of Mitrā are born by the same mother after consumption of vegetable food would be sufficient. Accordingly the occurrence of the actual formulation of the text is no mystery. It only shows that sometimes an author is more subtle than his commentators.

The difference entails a slight divergence concerning the requirements relevant for the status of an *upādhi* as well as the range of extension of this concept on the supposition that in the pertinent example the mentioned property is an *upādhi* irrespective of further contingent circumstances. Instead of demanding that it is ascertained *of* some particular defining feature that it is exhibited in a particular case an ascertainment to the effect *that* one of the defining features must be exemplified is sufficient. This provides room for a variety of *upādhi*-s which are invariably connected with the *probandum* in the non-*pakṣa* universe, but which are not exhibited by the *pakṣa* itself even if the *pakṣa* should possess the *probandum*. On the other hand, the surplus of liberality concerning the pertinent demands on an *upādhi* is counterbalanced by a need to assign a stricter import to the formulation embodied by *sādhyakṛtsnasahacārin* representing the first definitional feature: Invariable concomitance between *probandum* and *upādhi* in the entire universe (of discourse), including the *pakṣa*, is now necessary. If one adopted the interpretation of the commentators it would be possible to suppose that the first definitional feature might merely relate to the non-*pakṣa* universe. One must admit that the latter supposition is not eccentric because there is evidence from other textual sources that exclusion of the *pakṣa* from the relevant realm is sometimes tacitly presupposed. Given that in the relevant example pervasion between *upādhi* and *probandum* in the non-*pakṣa* universe is excepted from doubt, it can be definitely acknowledged that the first condition in its weaker variety is ascertained. If one supposes, however, that in the considered case satisfaction is not ascertained *of* the

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<sup>4</sup> Or more precisely, this holds good without qualifications if the common definition of *upādhi* in the version of the TS and other texts is presupposed. If one hypothesises the version in the NL the tenet is, strictly speaking, valid except in the special case in which a *probandum* is instantiated only in the *pakṣa*, in the case of *asādhāraṇa*-reasons. This is due to the (subtle) divergence between the different *upādhi*-definitions that has been mentioned before.

first defining *upādhi*-feature, then the relevant condition must be stricter to allow for the possibility that non-satisfaction results from the fact that the *pakṣa* exhibits the *probandum* but not the *upādhi*.

The assumption that the first *upādhi* condition involves a strict import is also supported by the example mentioned subsequently in the text as illustrating a case in which the second but not the first *upādhi*-feature is ascertained. This holds true at least if one accepts a suggestion provided by the *Nyāyalīlāvatiṭprakāśa* (p.512). The suggestion is that a situation exists in which the quality of being something that can be engraved by an object consisting of iron functions as *probandum*, the quality of consisting of the element earth as the *probans* and the property of having a loose consistency as *upādhi*. The *pakṣa* itself does not exhibit the *upādhi*. It is itself an instance which proves that the *probans* is not invariably connected with the *upādhi*, i.e. it is constituted by earth but does not exhibit loose connectedness of the earthen atoms.<sup>5</sup> It is doubtful whether the *probandum*, viz. being scratchable by iron objects, is invariably connected with the *upādhi*. This supposition is doubtful and not ascertained as false, because, as we can gather, in the non-*pakṣa* universe it has not been and presumably cannot be ascertained that the *probandum* is not invariably connected with the *upādhi*.<sup>6</sup> We could imagine a situation in which an object consists of a material which is — according to the outlook of Nyāya-Vaiśeṣika — constituted by earthen atoms and at the same time solid, which, however, has never been tested before regarding its disposition to being engraved by objects consisting of iron. Given such circumstances the doubt relating to the satisfaction of the first condition can only derive from the fact that in an inferential situation it is necessarily left as unascertained whether the *pakṣa* exhibits the *probandum* or not. If the *pakṣa* should exhibit the *probandum* then there would be an instance in which the *probandum*, viz. being disposed to be scratched by some iron object, is instantiated whereas the *upādhi*, viz. possession of loose consistency, is not instantiated. If the *pakṣa* is an instance, or even the only instance, which can falsify the first defining feature of *upādhi*, then the embodied requirement must pertain to a universe including the *pakṣa*.<sup>7</sup>

<sup>5</sup> This remark is presumably not meant to rule out that other objects than the *pakṣa* might equally exhibit occurrence of the *probans* and absence of the *upādhi*. There is accordingly no incompatibility with the remark of the *Nyāyalīlāvatiṭkanṭhābharaṇa* (p.511) that in a diamond the *upādhi* loose consistency does not occur although the *probans* is instantiated (*hīrake hetau saty api praśithilasamyogābhāvāt sādhanāvvyāpakatvaniścayaḥ*).

<sup>6</sup> *Nyāyalīlāvatiṭprakāśa* (p. 512) *carameti / caramaṃ rūpaṃ sādhanāvvyāpakam ity arthaḥ / yatheti / idaṃ lohalekhyam pārthivatvād ity atra sādhanāvvyāpakatvaṃ pakṣa eva niścitaṃ sādhyavyāpakatve tu sandeha ity arthaḥ /*

<sup>7</sup> There is accordingly—pace Sjödin 2006:93—no reason to regard as implausible the supposition that it is not possible to establish that everything scratchable by iron is loosely connected, i.e. that everything exhibiting the *probandum* exhibits the *upādhi*.

## II

It cannot be plausibly imagined that the whole point of this and the preceding example as well as of the entire passage beginning from *sa cāyaṃ kvacin* till *praśīthilasamyogitvam* is to demonstrate that it sometimes happens that an *upādhi* exists even if it is not definitely known that the characteristic features are instantiated. The point that an object can exist and somebody or even everybody in a particular situation does not know that it exists is pretty trivial. It is even a truism that one can possess knowledge of an object without knowing everything which is true of an object. Why should it not be possible to know some property and even know something about a property, such as being instantiated in certain particulars, without knowing that it exhibits characteristics of an *upādhi*, supposed that this is the case? But there is no need to assume that the passage beginning with *kva cin* should relate some platitudes.

Presumably the decisive point is that both the example associated with the term *nīścitānyatararūpa* and the illustration mentioned in connection with *nīścitacaramarūpa* are distinguished by the fact that in the entire domain outside the *pakṣa* the *probandum* is invariably connected with an *upādhi*, or more cautiously a property that is possibly an *upādhi*. This should not merely be a characteristic feature exhibited by the examples but an essential property of the two categories designated by *nīścitānyatararūpa* and *nīścitacaramarūpa*. On the one hand, there are possible *upādhi*-s which are connected to a *probandum* in the same manner as a *probandum* to a *probans* in valid inferences. This means that one is entitled to suppose that in the same manner as a valid *probans* is invariably connected with the *probandum* in the entire universe (of discourse) including the *pakṣa* the *probandum* is invariably connected with the *upādhi*. Precisely this relationship obtains if being produced (*kṛtakatva*) — or rather: being cognizable and produced (*prameyatve kṛtakatva*) (?) — functions as an *upādhi* with respect to the *probandum* being impermanent (*anityatva*) given that the *probans* is, for example, being an object of means of valid cognition (*prameyatva*). One can even surmise that the *probandum* is linked to the *upādhi* by a (*svabhāva*)*pratibandha* so that the invariable concomitance is not merely accidental. The validity of an inference to the effect that something impermanent is produced can rely on the circumstance that being impermanent and being produced are non-accidentally connected.<sup>8</sup>

<sup>8</sup> In Sjödin 2006, p. 91 it is suggested that with respect to being impermanent (= being non-eternal) as *probandum* and being an object of (means of valid) knowledge as *probans* the first requirement of an *upādhi* is fulfilled because being impermanent pervades being produced — 'Here every produced thing is non-eternal ....'. But only the reverse relation that every non-eternal thing is produced can be relevant here. — In fact the example of an inference using being produced as *probans* and being impermanent as *probandum* occurs in many texts, but the underlying assumption is

Nevertheless, one must presume that the range of *upādhi*-s is by no means restricted to such cases. Rather there are specimens for which an invariable concomitance with respect to a *probandum* can be deemed possible because in the non-*pakṣa* universe there are no (known) instances militating against this assumption. The question of whether in those cases the relation of concomitance between *probandum* and *upādhi* is *de facto* merely accidental or *de facto* non-contingent but not proven to be such is of secondary importance. Decisive is that only invariable concomitance between *probandum* and *upādhi* in the non-*pakṣa* universe can be taken for granted. This is equivalent to considering the first *upādhi* condition applied to a non-*pakṣa* universe as positively established. In the domain of those cases one can definitely ascertain the existence of different possibilities: It can happen that something pervading the *probandum* in the non-*pakṣa* universe is ascertainable as being not instantiated in certain instances of the *probans*. This implies that, given that the *pakṣa* exhibits the *probans* it is only the first condition of *upādhi* that could be violated by the *pakṣa* in principle. The term *nīścitacaramarūpa* describes exactly this feature. If the *probans* is invariably connected with the *probandum* in the non-*pakṣa* universe, it must even hold good that the *pakṣa* is the only instance able to violate a general regularity of co-occurrence between *probandum* and *upādhi*. If, on the other hand, compliance with the second *upādhi* condition is not ascertained then it can still be ascertained that at least one of the two *upādhi* conditions must be fulfilled, as demonstrated above. The expression *nīścitānyatararūpa* depicts that situation. Formally its distinctive feature is that the non-*pakṣa* universe complies both with  $\forall x(Hx \rightarrow Sx)$  and with  $\forall x((Hx \ \& \ Ux) \rightarrow Sx)$  and 'Hp' is employed for deriving 'Sp'. All this is an outcome of the pertinent assumption that in the non-*pakṣa* realm the *upādhi* is instantiated wherever the *probandum* is instantiated together with the supposition that the *pakṣa* instantiates the *probans*. Thus we possess an excellent explanation for the fact that the text does not acknowledge *upādhi*-s for which both *upādhi* features are not ascertained.<sup>9</sup>

The possibility to ascertain that at least one or the other of the two *upādhi* features is satisfied is a minimal implication according to the pertinent

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that the two properties are co-extensive. This is clearly manifest in Dīnāga's *Hetucakraḍamaru*.

<sup>9</sup> If all logical possibilities regarding the relation between an *upādhi*'s actual satisfaction of the two defining characteristics and somebody's knowledge that they are satisfied were played through, one would evidently obtain a fourfold distinction: a) both conditions, b) the first condition, c) the second condition, d) none of the conditions are known to be satisfied. According to our analysis it is, however, *not* the point of the relevant textual passage in the NL to inspect possible connections between actual satisfaction of the two defining characteristics of *upādhi* and states of knowledge pertaining to them.

outlook.<sup>10</sup> The explicit reference to specimens fulfilling only the minimal condition can be motivated by the circumstance that in cases in which the *probans* pertains only to a very limited realm, such as the *probans* being a child of Mitrā, *ad hoc* regularities can easily result. The exclusion of inferences exploiting contingent *ad hoc* regularities is, however, justified. Pointing out alternative regularities is a valid criticism in such cases even if they are equally merely contingent. Therefore the acknowledgment of an *upādhi* such as being born after consumption of vegetable food even if it failed to comply with one of the stipulated *upādhi*-conditions for contingent reasons would be objectively not unreasonable. To those who wonder why ascertainment of the first and non-ascertainment of the second feature has not been explicitly envisaged as a possibility in the text, a clear answer can be given: In the context of a passage dealing specifically with cases in which at most invariable concomitance between *probandum* and *upādhi* in the non-*pakṣa* universe is taken for granted there is no room for this variety. Moreover, it is relatively uninteresting because the conjunction of the first two varieties mentioned in the text, viz. *niścītobhayarūpa* and *niścītānyatararūpa*, implies that it can occur in principle. On the other hand, the very wording *niścītānyatararūpa* is a suitable means to signal the irrelevance of a variety characterized by uncertainty regarding the second *upādhi*-condition and certainty with respect to compliance with the first condition of *upādhi* in its strong version which relates to the whole universe including the *pakṣa*.

Apparently there is no rule whether an *upādhi* needs to be ascertained in the substratum of inference, the *pakṣa*, or not. The commentaries suggest that it is either possible that the occurrence of an *upādhi* in the *pakṣa* is definitely ascertained, that its occurrence is doubtful or that its non-occurrence can be established and one might even allocate these three possibilities to the examples provided for the categories *niścītobhayarūpa*, *niścītānyatararūpa* and *niścītacaramarūpa* respectively. If the above account is correct some vital points must have been disregarded in Sjödin 2006.<sup>11</sup>

The thought that apart from *upādhi*-s invariably connected with a *probandum* in a non-contingent manner *upādhi*-s are admissible that are ascertained as invariably connected merely in the non-*pakṣa* universe and which might be even merely contingently related in this manner harmonizes well with the supposition that the requirements for the status of an *upādhi* are less strict than the first condition on its strict, and

<sup>10</sup> Otherwise it would be extremely difficult to detect a rationale for the statement that if something is such that both *upādhi*-features are not ascertained it is not *upādhi*. This would be as if somebody said e.g. that if it is not ascertained of a natural number that it cannot be divided by any prime between 1000 and 10000 and is not a product of natural numbers between 500 and 2500, then it *is* not a number possessing those properties.

<sup>11</sup> See in particular Sjödin, pp. 91-93.

presumably intended reading. Accordingly the function of an *upādhi* could lie in the exclusion of cases in which relations of invariable concomitance between *probans* and *probandum* are merely accidental. The point is to demonstrate with respect to such cases that the existence of an additional necessary condition for the occurrence of the *probandum* is conceivable and that therefore the derivation of the occurrence of the *probandum* from the occurrence of the *probans* with respect to a pertinent *pakṣa* is not valid. If one combined this with the proposition that *vyāpti* exists only in cases of valid inferences, a restrictive conception of this idea would ensue as a consequence.

Unfortunately even this consideration cannot definitely settle the issue. The main reason lies in the existence of a still viable alternative. According to the variant account an *upādhi* not satisfying the criteria embodied in the expressions *sādhyakrtsnasahacārin* and *sādhanaikadesāvṛttitva* is not an *upādhi* but merely equivalent to an *upādhi* in certain regards. The latter type could be designated by the term 'quasi-*upādhi*'. The decisive characteristic of a quasi-*upādhi* is that in the same manner as a genuine *upādhi* its existence entails the invalidity of a corresponding inference. Although the commentators are not fully explicit concerning the point as to whether that which has been termed 'quasi-*upādhi*' here can be regarded as a genuine *upādhi* or not the view that such "suspected" *upādhi*-s render inferences invalid is stated in unambiguous terms.<sup>12</sup> This possesses the significant consequence that on the premise that validity is a necessary condition of *vyāpti* *vyāpti* could not exist in all cases in which the *probans* is *de facto* invariably connected with the *propandum*. For example in case all children of Mitrā are, as a matter of fact, dark skinned and have been born after consumption of vegetable food so that everything exhibiting the *probans* exhibits the *probandum* and the second *upādhi*-condition is violated the argument would need to be assessed as fallacious. If justified suspicion of existence of *upādhi* were a sufficient condition for invalidity then the question of the precise determination of the range of genuine *upādhi*-s would be irrelevant. Thus an immediate way for deriving the demanding *vyāpti*-notion could exist. At any rate, even if this was an intended consequence of the commentators the question concerning the correct exegesis of the NL remains undecided.

It is advisable to pay foremost attention to aspects of the issue which are undeniable. Therefore the objective consequences of the alternatives that

<sup>12</sup> The *Nyāyalīlāvati*prakāśa (p.512) says: ... *vyabhicāraśaṅkādhāyakatvena dūṣaṇatvāt sandigdghānaikāntikavat / yanniścayo 'numitipratibandhakas tacchaṁśayasyāpi tathātvāt*

The *Nyāyalīlāvati*kaṅthābharaṇa (p.511) remarks: *vyabhicāraśaṅkādhāyakatve sandighopādher api dūṣakatvāt sandigdghānaikāntikavat / tadbhāvanānarhatve 'pi svārthānumāne doṣatvadhrauvyāt sandigdghopādhyupādhir (= sandigdghopādhir upādhir?) eva*

are at stake should be considered. One can easily ascertain a significant implication of the supposition that the status of *upādhi* is sensitive to facts pertaining to a *pakṣa*. Let us suppose that in the example of the inference of being dark-skinned from the datum that somebody is a child of Mitrā the difference between the situation in which one of Mitrā's children is not born after consumption of vegetable food and is not dark-skinned (whereas this holds true of all the remaining children) on the one hand and a situation in which all children are both dark-skinned and born after consumption of vegetable food on the other, entails a difference of the status of the quality of being born after consumption of vegetable as an *upādhi*. Then it follows that recognition of *upādhi* is sensitive to increase of information concerning a subject of inference. If, for example, later investigations yield the result that all children of Mitrā are in fact dark skinned the ascription of the status of *upādhi* to the property of being born after the consumption of vegetable food could not be maintained. In contrast to this the status of *upādhi* would remain stable if invariable concomitance between *probandum* and *upādhi* in the realm of (known) instances apart from the *pakṣa* were decisive. If one added to this the theorem that in a situation in which the contingent details concerning the *pakṣa* are not ascertained a property such as being born after consumption of vegetable food (objectively) possesses the status of an *upādhi* then the first alternative would entail a concept of *upādhi* that could be classified as non-monotonic with respect to increase of information whereas the latter alternative would yield a concept that would have to be classified as a monotonic notion of *upādhi* with respect to increase of information. If one enlarges the set of suppositions by the assumption that *vyāpti* is equivalent to non-existence of *upādhi* this would yield a difference between a non-monotonic and a monotonic concept of *vyāpti* with respect to increase of information.<sup>13</sup> Even if one cannot ascertain in the light of those differences which alternative interpretation should be adopted as the correct one and

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<sup>13</sup> The need of the qualification 'with respect to increase of information' is a correlate of an analogous need in the context of the validity of reasons. Those who claim that the concept of validity of a logical reason in Indian theories is monotonic or that "Indian Logic" is a theory of monotonic reasoning overlook the fact that the original (Western) concept of monotonicity (of implication or logical consequence) involves that an inference that is valid from a set of premises remains valid if arbitrary propositions are added to the set of premises. A correlate of remaining valid under increase of information would be preservation of validity if true premises are added. This is however entailed by but not equivalent to the former concept. It remains doubtful that Indian theories of inference contain any ingredients allowing one to establish a significant relationship to the concept of monotonicity because this hangs together with the idea that from a false proposition everything can follow. On the other hand, it can be plausibly argued, that a notion of validity remaining invariant with respect to increase of information was pertinent in certain theories of *anumāna*. Such a notion is nevertheless not monotonic according to the above explicated sense. The circumstance that this area of analysis induces an enrichment of our own conceptual framework is surely important but seems to be still exceptional in studies on foreign cultural traditions.



even if the supposition that there exists exactly one correct interpretation representing the author's intentions could be false, the considered alternative consequences might facilitate an assessment of the reasonability of views against the background of data provided by the text. The supposition of a strict conception of *vyāpti* and a liberal conception of *upādhi* allowing for contingent connections between *probandum* and *upādhi* is an immanently consistent alternative, although certain details of the wording suggest other interpretations.

### III

In the present context of investigation the remaining remarks concerning exclusion of *upādhi* cannot be left out of consideration. An explanation of *aniścitobhayarūpa* has been given above. According to that account the expression signals that satisfaction of the first *upādhi*-condition in the non-*pakṣa* universe is a necessary prerequisite for every *upādhi*. This is a plausible assumption. It appears that the *Nyāyalīlāvatiṭprakāśa* does not comment on *aniścitobhayarūpa*. There is no cogent reason to discard the expression from the original text, however.

The subsequent part [*a*] *nirūpitarūpaś ca deśakālasādhyetaravṛttitvam anumānamātravyavahāravicchadakatvān nopādhiḥ* raises some questions which need to be clarified.

In Sjödin 2006:88 the segment *aniścitobhayarūpo 'nirūpitarūpaś ca deśakālasādhyetaravṛttitvam anumānamātravyavahāravicchadakatvān nopādhiḥ* has been translated as

The presence in something different from the place [of the *sādhana*], the time [of the *sādhana*] and the *sādhya* [of the *sādhana*], which has both [aspects] unascertained and whose nature is indefinite is not an *upādhi* because it [would] destroy the practice of every inferential process.

There is not only no need to interpret *aniścitobhayarūpo 'nirūpitarūpaś ca* as qualifications of one single variety but it is even improbable that such an import was intended. What has been established above shows that *aniścitobhayarūpo* can be plausibly understood as relating itself to a separate category of non-*upādhi*. Moreover, Sjödin's analysis is syntactically problematic because it ignores the deviance of gender of *aniścitobhayarūpo 'nirūpitarūpaś (ca)* on the one hand and *deśakālasādhyetaravṛttitvam* on the other. Neither the *Nyāyalīlāvatiṭprakāśa* nor the *Nyāyalīlāvatiṭkaṇṭhābharāṇa* interpret the words *aniścitobhayarūpa* and *anirūpitarūpa* as qualifying attributes of the expression *deśakālasādhyetaravṛttitvam*. Both commentaries suppose that *anirūpitarūpa* relates to the act of criticising an inference by pointing out the possible existence of an *upādhi*. In other words, they consider *anirūpitarūpa* as alluding to events in which somebody raises the objection that there will (or might) be

some *upādhi*, but does not specify any particular property. In the *Nyāyalīlāvātikanṭhābharāṇa* this variety is distinguished from *anīścitobhaya rūpa* where the satisfaction of the two pertinent *upādhi*-conditions is doubtful.<sup>14</sup> The commentaries suggest the thought that whenever somebody claims that there could be an *upādhi* which is, however, not known, then something possessing an unspecified form or nature exists. This is as if one would reason that whenever somebody says in an asserting manner that a husband might possess some secret girl friend whom he cannot specify then there is somebody secretly related to that husband exhibiting an unspecified nature. Irrespective of whether or not this interpretation corresponds to the intended import of the original text, one can ascertain that there is no need to hypothesize a logic of gossip to the NL.<sup>15</sup>

One can circumvent such consequences by assuming that *anirūpitarūpa* represents a description of that which is denoted by the expression *deśakālasādhyetaravṛttitva* without functioning as a grammatical attribute. This means that the syntactical and semantic structure of the phrase *anīścitobhaya rūpo 'nirūpitarūpaś ca deśakālasādhyetaravṛttitvam anumānamātravyavahāravicchadakatvān nopādhiḥ* can be exhibited by the following description: 'An A and the B, namely C, are not D because of E'. Here 'A' is substitutable by *anīścitobhaya rūpa*, 'B' by *anirūpitarūpa*, 'C' by *deśakālasādhyetaravṛttitva*, 'E' by *anumānamātravyavahāravicchadakatva* and 'D' by '(an) *upādhi*'. As far as the import of [*a*] *nirūpitarūpaś (ca) deśakālasādhyetaravṛttitvam* is concerned it is equivalent to the formulation 'and the one whose form/nature is not specified, namely the property of occurring at another place, time and *sādhya*'. Thus the syntactical structure is similar to the one exhibited by the parallel phrases of the preceding paragraph such as *nīścitānyatararūpaḥ, yathā maitratānyatve śākādyāhārapariṇatīḥ* or *nīścitacamarūpaḥ, yathā pāṛthivatve praśīthilasamṃyogitvam*. The reason that no *yathā* occurs between [*a*] *nirūpitarūpa* and *deśakālasādhyetaravṛttitva* is that the latter expression is not meant to furnish one among various possible illustrations of the type

<sup>14</sup> *Nyāyalīlāvātiprakāśa* (p.512) *anirūpiteti / bhaviṣyati kaścid atropādhir ity evaṃrūpa ity arthaḥ*

*Nyāyalīlāvātikanṭhābharāṇa* (p.512) *anīściteti / yasya sādhyavyāpakatvaṃ sādhanāvyāpakatvañ ca sandigdhaṃ tasyātiprasaṅgakatvāt nopādhitvam ity arthaḥ / anirūpitarūpo bhaviṣyati kaścid atra upādhir ity evaṃrūpaḥ*

<sup>15</sup> One should carefully distinguish between the situation in which somebody points out the possibility that there might be something which is in fact an *upādhi* relative to some pertinent *probans* and *probandum* on the one hand, and the situation in which somebody points out that there is in fact a property which is possibly an *upādhi*. The commentators obviously refer to the first and not to the second situation. That the truth of 'there might be an F' does not entail 'there is an F' and that even a true assertion to the effect that there might be a property p that is an *upādhi* does not legitimize the supposition that there is a p which is an *upādhi* appears pretty obvious. Should we assume that the writer of the NL wanted to instruct us of this fact?

designated by the preceding expression but represents a complete specification of the instances of the pertinent category.

Concerning the import of the compound *deśakālasādhyetaravṛttitva* the best way to avoid the difficulties and shortcomings of the account provided in Sjödin 2006<sup>16</sup> appears to lie in the supposition that the expression *sādhya* is employed to refer to the substratum of inference, i.e. the *pakṣa*.

<sup>16</sup> Commenting on *anīścitobhaya rūpo 'nirūpitarūpaś ca deśakālasādhyetara-vṛttitvam anumānamātravyavahāravicchadakatvān nopādhiḥ* Sjödin 2006:93-94 deliberates different possibilities that diverge even regarding the grammatical analysis. In this connection the following is said:

This passage has proven very hard to interpret but I have nevertheless made a tentative interpretation. The *upādhi* could have the form of being altogether doubtful, in which both the pervasion of the *sādhya* and the non-pervasion of the *sādhana* are uncertain and in which case it is not an *upādhi*. It would have the form of being indefinite, explained in the KB as "there might be some *upādhi* here". This apparently entails a mere suspicion of an *upādhi*, but no particular, definite *upādhi* is pointed to. As for the rest of this passage I have interpreted the compound, "*deśakālasādhyetara-vṛttitvam*", as "the presence in something different from the place [of the *sādhana*], the time [of the *sādhana*], and the *sādhya* [of the *sādhana*]". This then, according to Vallabha, is not an *upādhi*. If one takes the stock-example of fire from smoke it would however be unclear whether the something that is different from the place of the *sādhana* is different from the mountain, i.e. the particular *pakṣa*, or from every single place of smoke in general. The former would at least satisfy the "*sādhanāvvyāpaka*" restriction and could be the kitchen for example; this would also be something different from the time of the *sādhana*. What is meant by something different from the *sādhya* remains however unclear to me. In the commentaries, the reason for this not being a real *upādhi* is self-contradiction (*svavyāghāta*).

Alternatively one might interpret the compound as "presence of another *sādhya* in a [particular] time and place". This "presence of the other *sādhya* in a [particular] time and place" cannot be an *upādhi* although it might seem to be one. In the inference of fire from smoke on the mountain one could mistakenly take the "kitchen-fire", or equally "fire in the woods" (i.e. every fire other than mountain-fire), as a counterexample where smoke is present but not mountain-fire. The pseudo-*upādhi* in that case would be formulated as the above compound.

In the most straightforward reading the passage amounts to stating the fact that when there is no *upādhi* to present in an argument there is no way of resorting to the presence of an *upādhi* as a counter-argument. That is, one could not say — as a counter argument — there might be some *upādhi* here. If this was possible, every attempt at inferential knowledge would be impossible. And that is obviously not the case since there is such an activity amongst human beings; this at least seems to be an implicit point of departure of Vallabha's argument.

That both *sādhya* and *anumeya* are sometimes used in this manner, i.e. as equivalent to *sādhya*darmin / *anumeyadharmin* instead of *sādhya*dharma / *anumeyadharma*, is well established and mentioned e.g. in H.N. Randle 1976 (1930):185, note 1; 263. On this basis it becomes possible to gather a palpable point from the remark concerning *anirūpitarūpa*. A typical *anumāna*-inference consists in an extrapolation of a regularity observable in the non-*pakṣa* universe to a *pakṣa*. This type of reasoning can be illustrated by many specimens of common-sense inference — apart from the stock example of smoke and fire. A pertinent example is the conclusion that some individual mushroom is edible because it belongs to some particular species of edible mushrooms. The inductive support consists in the (supposed) fact that all mushrooms of the pertinent species apart from the individual mushroom that is the object of consideration are edible. The property of occurring at some other place, some other time and being different from the *sādhya* = *pakṣa* is exhibited by all objects in the non-*pakṣa* universe<sup>17</sup> and could be considered as a possible necessary condition of the occurrence of the *probandum*. On the other hand, it is immediately evident that this property does not pervade the entire range of the *probans*, given that the *pakṣa* exhibits the *probans*. Therefore the situation is parallel to the one that characterizes the previously mentioned variety denoted by the term *nīścitacamarūpa*. In both cases the second *upādhi* condition is ascertained, the pervasion with respect to the *probandum* in the non-*pakṣa* universe assured and the satisfaction of the two pertinent *upādhi* requirements is possible. The decisive disparity is merely that in the case of a *nīścitacamarūpa upādhi* a definite difference of nature is specified whereas this does not hold true for the *anirūpitarūpa*. Related to the example of the inference of the edibility of a mushroom this amounts to the difference between pointing out some particular distinctness of species, possibly some sub-distinction within some species, on the one hand, and the notification of the undeniable fact that all instances supporting an extrapolation of a regularity to a *pakṣa* exhibit difference from it in the dimension of time, location and individuation.<sup>18</sup> It is easy to

<sup>17</sup> If one analyses the compound *deśakālasādhya*tara- in *deśakālasādhya*tara-*vṛttitvam* as a Dvandva resulting from *deśa*-*itara* + *kāla*-*itara* + *sādhya*-*itara* and supposes that *X*-*itara* in *sādhya*tara exemplifies the same semantic structure as in *dakṣiṇa*-*itara* = '(the) left (hand)' = (the hand) different from right' the pertinent sense results in a most immediate manner. One might wonder, why formulations such as *sādhya*tara*deśakāla*vṛttitvam or *sādhya*deśakā*leta*ravṛttitvam do not occur. An explanation could be that the author of the NL intended to make plain that not two but three constituents are involved: the most natural reading of the first formulation is: 'occurrence at a different place and time than (that of) the *sādhya*' and the latter can be easily understood as 'the occurrence at something different from the place and the time of the *sādhya*'.

<sup>18</sup> Note that a conjoined property, such as 'occurring at a different place than the *pakṣa* and occurring at a different time than the *pakṣa* and being non-identical with the *pakṣa*' is, as far as the satisfaction of the first *upādhi*-condition in the non-*pakṣa* universe and the satisfaction of the second condition are concerned, stronger than needed. The same requirements would be equally met by the three items 'occurring

see that if one assigned to such a property the status of *upādhi* and combined this with the theorem that if an *upādhi* exists, then an inference is not valid, the basis would be destroyed to assign validity even to the stock examples of *anumāna*. Therefore the remark of the NL that this property cannot be recognized as an *upādhi* because the whole practice of inference would lose its basis becomes completely intelligible.

It is perhaps not intended to relate the remark regarding the abolition of all inferential activities equally to the variety designated by *aniścitobhaya rūpa*. In this case the semantic structure of the phrase *aniścitobhaya rūpo 'nirūpitarūpaś ca deśakālasādhyetaravṛttitvam anumānamātra vyavahāravicchadaktvān nopādhiḥ* is more adequately described by 'An A is not D, and the B, namely C, is not D because of E' rather than 'An A and the B, namely C, are not D because of E'. At any rate, in contrast to the interpretation of the *Nyāyalilāvati prakāśa* and *Nyāyalilāvati kaṅṭhābharaṇa* the present alternative implies the specification of a property concerning which the assignment of the status of an *upādhi* is rejected. The basis of the characterization as *anirūpitarūpa* is not that nothing has been specified which might be considered as an *upādhi* but that that which has been specified as a problematic instance of *upādhi* lacks a specification of a possible nature of particulars.<sup>19</sup> The involved specification is merely relational or "formal" and is *eo ipso* instantiated in every object in the non-*pakṣa* universe. The whole segment beginning with *aniścitobhaya-* and ending with *nopādhiḥ* could be translated as follows:

A [quality for which] both [definitional] features [of an *upādhi*] are unascertained as well as that whose nature is not determined, [namely] being at some different place, time and [being] different from the *sādhya* [that is the *pakṣa*], is not *upādhi* because [this would entail the consequence] of the abolition of the entire inference practice.<sup>20</sup>

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at a different place than the *pakṣa* etc. taken separately. Perhaps it is the second point which the NL is meant to convey.

<sup>19</sup> This interpretation implies that the component *-rūpa* in *anirūpitarūpa*, unlike the preceding occurrences, does not relate to the *upādhi*-conditions. One should note, however, that even the understanding of the *Nyāyalilāvati prakāśa* and the *Nyāyalilāvati kaṅṭhābharaṇa* presupposes the assumption of a divergence of import regarding the different occurrences of that word. The formulation *bhaviṣyati kaścid atropādhir ity evaṃrūpa (ity arthaḥ)* suggests that *-rūpa* in *anirūpitarūpa* refers to the manner of specification of an *upādhi*.

<sup>20</sup> In contrast to the analysis presented above, the two commentaries suppose that *deśakālasādhyetaravṛttitva* relates to a separate category of non-*upādhi* different from the one designated by *anirūpitarūpa*. It seems that the statements in the *Nyāyalilāvati prakāśa* and the *Nyāyalilāvati kaṅṭhābharaṇa* are not independent of each other. The first reads: *deśeti / etaddeśīyānyasādhanatvam etatkālinānyasādhanatvañ ca svavyāghātātvañ nopādhir ity arthaḥ* (P. 512-513). The wording of the second text (p.511) is identical to this with the exception of *deśakāleti* instead of *deśeti* (and *-sādhanatvaṃ ca* instead of *-sādhanatvañ ca*).

## ADDENDUM

The words *deśa* and *kāla* could be meant to relate to cases in which a pertinent *pakṣa* is a location in space or time — if e.g. a proposition such as ‘There is fire now’, ‘There is fire there’ is to be inferred — whereas *sādhya* has been specifically employed to refer to the category of all *pakṣa*-s that are not spatial or temporal locations. This supposition would enable us to assign to the compound *deśakālasādhyaetaravṛttitva* an analysis that is more straightforward from a grammatical point of view. In that case a translation could be: ‘... [namely] occurring elsewhere than the time, the place and the *sādhya* (the non-spatiotemporal particular) [which is the *pakṣa* in the pertinent case]’. On the other hand, if temporal and spatial locations are considered as possible *pakṣa*-s they should also be considered as possible examples, i.e. non-*pakṣa* instances of a *probans* and *probandum* (or their absence). It is, however, not meaningful to say of a spatial or temporal location that it occurs somewhere else than another spatial or temporal location, though one can say that the locations are different. Accordingly, correlating to the senses of *vṛtti* as ‘being’ and ‘occurring’, both a reading of *-vṛttitva* as ‘the property of occurring in/at (something different from ....)’ and a reading as ‘being (something different from ....)’ would be objectively reasonable. It is not certain, but possible that a double reading has been intended by the writer of the NL. The actual wording could thus be interpreted as a concise way of referring to a plurality of properties, namely a) ‘being a different spatial location [than the spatial location which constitutes the *pakṣa*]’, b) ‘being a different temporal location [than the spatial location which constitutes the *pakṣa*]’, c) ‘being a different object [than the *pakṣa*]’, d) ‘occurring at some other place [than the *pakṣa*]’, e) ‘occurring at some other time [than the *pakṣa*]’ as well as various derivable properties, such as f) ‘being a different object and occurring at some other place [than the *pakṣa*]’ etc. This circumstance would also make plausible that the writer of the NL evaded a formulation such as *deśakālapakṣetaravṛttitva*: A suggestion to the effect that exclusively spatial or temporal locations constituting different *pakṣa*-s should be referred to needs to be avoided. Finally it deserves to be noted that the writer of the NL could have even intended to include ‘conjunctive’ properties consisting of one of the above mentioned attributes and some ordinary *probans* into the pertinent realm. An example would be the quality that corresponds to an open sentence such as ‘x possesses smoke and is (numerically) different from the mountain functioning in the present context) as the *pakṣa*’. — To be sure, as far as one can see, it is impossible to prove that the writer of the NL possessed an explicit intention to that effect. But one can ascertain that such an extension would be objectively warranted.

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At first glance one could think that the understanding represented by the commentaries implies a confusion of category, i.e. a reference to a quality of a property instead of a specification of a quality of bearers of properties, as in the case of genuine *upādhi*-s. This consequence would be avoided, however, if one interpreted the constituent ‘X-*sādhana*-’ as a Bahuvrīhi and the expressions *etaddeśīyānyasādhanatva* and *etatkālinānyasādhanatva* as synonymous with ‘the property of having a *probans* of something else than that which occurs at the place / at the time of this (i.e. the *sādhya* = the *pakṣa*)’. Nevertheless it remains unclear how this understanding has been or should be derived from the transmitted wording of the NL.

## **SUMMARY**





## SUMMARY

It is neither possible nor appropriate to review all the individual results of the previous investigations. But a summary of the treated issues and a general outline of some salient consequences should be apposite. Under this perspective we can note the following points:

1. We are entitled to presume that the NL tacitly stipulates a criterion for the adequacy of definitions that implies stricter demands than material equivalence concerning the relation between *definiens* and *definiendum*. The phenomenon that non-existence of *upādhi* is admitted as a *lakṣaṇa* of *vyāpti* but not as *definiens* is an outcome of this presupposition. In this respect the idea of specifying in a definition the "nature" or "essence" in an item, mentioned e.g. in Sjödin 2006:130, points in the right direction.<sup>1</sup> On the other hand it appears that one can make more precise statements and give a more specific account of the issue.<sup>2</sup> The decisive point is that the writer of the NL connected a definition of 'pervasion' with the *desideratum*

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<sup>1</sup> Sjödin 2006:129-130:

The by now quite obvious problem in the *vyāpti* section is that the two definitions (no. 1 & 2) given by Vallabha apparently oppose each other, that is to say, in the discussion on def. 1, def. 2 is rejected, and then later on def. 2 is reinforced as *lakṣaṇa*. Although Vallabha rejects Udayana's definition of the nature of *vyāpti* as being without *upādhi* he utilizes this very concept in his second definition. I have chosen an interpretational path of charitable reading of the text, since I do not think it probable, or constructive, to read this apparent contradiction as a mistake by the author of the text. This appears to be the path taken by Chakraborty as well who, to my knowledge, is the only scholar who has taken notice of and tried to explain these two definitions. Chakraborty distinguishes between two aspects of the definitions of *vyāpti* in Vallabha's text. The first definition (no. 1) tells us something about the essential feature of *vyāpti*, in other words, of what *vyāpti* is made of. The second aspect of Chakraborty's understanding is that Vallabha uses the concept of *upādhi* in order to explain *vyāpti* in the last definition (no. 2). Chakraborty's differentiation between the two definitions of *vyāpti* could, in my opinion, be understood partly in terms of a definition of what *vyāpti* is, its nature or essence, in short its ontological status, and secondly in terms of how it is singled out from anything else, how it is known or recognized, its epistemological status.

<sup>2</sup> There is no reason to relate the difference between a definition and presenting a *lakṣaṇa* of *vyāpti* to a distinction such as specifying its essence or "ontological status" on the one hand and the manner in which a *vyāpti* is recognized or its "epistemological status" on the other. On the contrary it has been claimed above that "epistemic" aspects such as the manner of verifying absence of *vyāpti* in a number of significant cases plays a crucial role for acceptability or non-acceptability of a definition.

that it should itself manifest the ground *why* most prominent specimens of fallacious reasons are flawed.<sup>3</sup>

2. One cannot absolutely rule out the possibility that the remark to the effect that absence of *upādhi* is a *lakṣaṇa* of *vyāpti* should merely imply that the former represents a necessary condition of the latter. Nevertheless, the correctness of the view, shared by various previous scholars, that the writer of the NL intends to convey that — provided *probans* and *probandum* differ — both notions are materially equivalent and that absence of *upādhi* should be taken as both a necessary and sufficient condition of the occurrence of *vyāpti*, appears highly probable. Thus the circumstance that an explication of *vyāpti* as absence of *upādhi* is explicitly discarded in the NL validates a significant conjecture: The theorem that anything which functions as a *probandum* with respect to some *probans* cannot simultaneously function as *upādhi* with respect to the same *probans* constitutes a tacit presupposition of the expounded theoretical outlook. The combination of those propositions implies, however, the acceptance of another non-trivial theorem, namely that for every *probandum* there should be at least one numerically different correlate encompassing in the realm of the *probans* exactly the same entities as the *probandum* itself. Ultimately, the adopted position suggests that regarding the entities constituting the domain and the range of the *vyāpti*-relation it holds good that every item possesses at least one counterpart that possesses exactly the same range of instantiation. One can ascertain that inasmuch as the *lakṣaṇa* tenet concerning *vyāpti* and absence of *upādhi* depends on such theorems this reliance constitutes an objectively valid reason for discarding an explication of the meaning of *vyāpti* as absence of *upādhi*. But the position of the author of the NL is significant precisely because the theoretical premises on which it rests are far from compelling. In this

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<sup>3</sup> Given that in the NL a general intuition lies behind the dismissal of defining 'pervasion' as non-existence of *upādhi* it could be spelled out as follows:

A definition 'D(ξ) =<sub>df</sub> D\*(ξ)' — where 'D(ξ)' is *definiendum* and 'D\*(ξ)' *definiens* and 'ξ' can be taken as an abbreviation for any number of free variables — is adequate only if the following situation does not occur: A standard verification of the non-satisfaction of 'D\*(ξ)' requires the ascertainment of facts which need not be ascertained for a standard verification of the non-satisfaction of 'D(ξ)', where any verification or falsification of the satisfaction of 'D(ξ)' or 'D\*(ξ)' is a standard verification only if it does not rely on an employment of the alleged equation between 'D(ξ)' and 'D\*(ξ)'. Despite the circumstance that the rejection of the definition of *vyāpti* in terms of absence of *upādhi* does, strictly speaking, not entail such a consequence it appears likely that the author of the NL presupposed an even more general idea with respect to appropriateness of definitions. According to this view a definition of a term is appropriate only if every (plausible) verification or falsification of the satisfaction of the *definiens* can rely on an ascertainment of exactly the same facts on which a corresponding verification or falsification of the satisfaction of the *definiendum* can rely without presuming in advance the equivalence between *definiens* and *definiendum*.

regard the theorem that absence of *upādhi* is *lakṣaṇa* of *vyāpti* and its set-theoretical counterpart fundamentally differ.

3. Avoidance of wrong pragmatic implicatures by giving a definition of a term could be a tacitly presupposed condition of adequacy having an effect on the rejection of the definition of *vyāpti* in terms of opposition to absence of the *probandum*. It is at any rate not eccentric to assume that for Vallabha's criticism of the alternative definitions of *vyāpti* an intuitive awareness of the fact that saying something in the context of a definition prompts particular implicatures that would not be generated in other contexts could have been operative. On the other hand the definition of *vyāpti* in terms of opposition to absence of *probandum* as it is presented in the NL exhibits a trait which can be characterized by the term 'extensional ambiguity'<sup>4</sup> and one can even surmise that the author of the NL would have been inclined to reject a definition if he should have detected that property with respect to any definitional explication. If the writer of the text was capable to recognize this property in some way or the other<sup>5</sup> it might be no coincidence that the wording of the argument representing the dismissal can be brought into accord with a criticism pointing out unacceptable consequences resulting from definitional ambiguity. The formulation exhibited by the text permits, on the other hand, a number of different (linguistically admissible) readings, among which the reading underlying the interpretation of the *Nyāyalīlāvati prakāśa* and the *Nyāyalīlāvati kaṇṭhābharaṇa* represents one alternative possibility. One could even wonder whether an intention to impart different thoughts in accordance with different linguistically possible readings is a realistic possibility. Anyhow, at present those issues cannot be definitely settled and the fact that relevant questions remain open is a most important result.

4. We can presume that according to the theoretical outlook of the NL the existence of *vyāpti* requires, apart from the fact that every object instantiating the *probans* is also an instance of the *probandum*, a relation

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<sup>4</sup> One can explain this concept as follows: An expression E of a concept or a relation is extensionally ambiguous if it allows for at least two readings or analyses A<sub>1</sub> and A<sub>2</sub> such that the concept or relation represented by E in accordance with A<sub>1</sub> differs with respect to its extension — the class of objects satisfying the concept or relation — from the concept or relation represented by E in accordance with A<sub>2</sub>. A definition is accordingly extensionally ambiguous if its *definiens* is extensionally ambiguous.

<sup>5</sup> In principle an ability to recognize a property could encompass the following components: i) the possession of conceptual resources to provide a definition of it and ii) the possession of a term expressing that property. Admitting that there are forms of recognition lacking i) [moderate standard of recognition] and forms of recognition lacking both i) and ii) [weak standard of recognition] one can assume that the writer of the NL might have recognized definitional ambiguity in the second alternative definition of *vyāpti*. On the hypothesis that recognition in the weak sense suffices for providing a motivation, definitional ambiguity could have motivated the author of the NL to reject a definition of *vyāpti* in terms of opposition to absence of *probandum*.

of necessitation between the occurrence of the *probans* and the occurrence of the *probandum*. This prerequisite might be limited to the vast majority of cases, or more specifically to all inferences with the exception of so called *kevalavyatirekin-s*. The main reason for conceding the alternative possibility that *vyāpti* does not require at all that *probans* and *probandum* are connected by a necessitating link is not that such sort of connection might be dispensable for validity but that the stance that a *pratibandha* of necessitation represents an additional requirement for validity apart from *vyāpti* is a viable theoretical possibility<sup>6</sup> in combination with the fact that only on this condition the wording of the accepted definition would exactly match the intended import. It is possible that the teaching of the NL exhibits an *objective* indeterminacy in this regard.

5. Although the explanation of the argument for the rejection of the definition of *vyāpti* as non-existence of *upādhi* provided by the *Nyāyalīlāvatiṭprakāśa* and the *Nyāyalīlāvatiṭkaṅṭhābharaṇa* appears to be mainly correct, the commentators completely fail to explore the objective implications of the tenets they attribute to the author of the NL. In particular they omit to identify vital premises on which the argument rests. The same indifference is also exhibited by the treatment in Sjödin 2006. A closer investigation reveals, however, that implications are at stake which are not only not trivial, but possess considerable significance. Significance is enhanced by the fact that implications are concerned which most probably were not obvious to the writer of the text.<sup>7</sup>

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<sup>6</sup> This theorem is in itself compatible with two alternatives: a) A necessitating *pratibandha* is a general necessary condition of validity, b) a necessitating *pratibandha* is usually, but not always a necessary condition of validity, more specifically, it is a necessary requirement in the realm of *anvayavyatirekin-* and *kevalānvayin-*inferences, but not with respect to *kevalavyatirekin-s*.

<sup>7</sup> One cannot argue that lack of obviousness makes the concerned issues irrelevant. On the contrary, one is entitled to assert that they are relevant precisely because they were (presumably) not evident to the writer of the text or later indigenous commentators and are not obvious for everyone. We would not have even dreamt of asserting that the thesis, that *vyāpti* as conceived in the NL differs from the relation of subset or that of a proper subset, describes some opinion which the author of the work advocated. There is no need to disclaim the contention that, since the notion of set was foreign to the tradition to which the investigated text belongs, the relations of subset and of *vyāpti* should not be identified. Important is rather the less obvious fact that despite intuitive analogies expectable parallels between *vyāpti* and the relations of subset or proper subset fail to hold good and that differences with respect to precisely definable relational properties can be ascertained. It is in the first place hidden and 'subtle' deviances which possess relevance if they reveal essential differences of theoretical outlook. Those who want to dispute this contention ought possess the courage to pose the question whether it would be suitable to abandon the whole project of investigating Indian traditions of thought.

The situation with respect to the interpretation of the second alternative *vyāpti*-definition and its rejection differs inasmuch as even the correctness of the account furnished by the two consulted commentaries concerning the dismissal of the definition is not absolutely certain. One can identify alternative arguments that would be objectively more appropriate. However, the circumstance that in the final analysis no absolutely certain conclusions are attainable regarding questions of the intended import of the relevant dismissal and its underlying motives cannot justify the contention that one should completely disregard the objective problems. It is in connection with Vallabha's rejection of the second alternative definition of 'pervasion' where disregard of the Buddhist tradition of epistemology and logic becomes especially problematic.

6. Although the relation of *vyāpti* can be regarded as a close analogue of the subset relation, the analogy is not perfect. The decisive reason is that, most probably, reflexivity is not a property of *vyāpti*, at least not according to its conception in the NL and presumably in many other texts too. One could assert, however, that reflexivity holds "almost" good for *vyāpti* because all items that are co-extensive with a *probans* are related to it by *vyāpti* except the *probans* itself. Possibly the fact that those items occur in a particular context as *probanda* is not essential. This means that any item functioning as *probans* (in a particular context of inference or proof) is related by *vyāpti* to all items pervading it no matter whether they function as *probanda* (in the respective context) or not.

7. Whereas the assumption is almost undeniable that the first characteristic feature of *upādhi* stipulated in the NL amounts to an "invariable concomitance" between *probandum* and *upādhi* in the entire universe of discourse including the substratum of inference, it is possible that for the acceptance of something as an *upādhi* a non-deviance between *probandum* and *upādhi* in the non-*pakṣa* universe is sometimes sufficient. It remains unclear though whether in circumstances in which non-deviance in the non-*pakṣa* universe occurs but only one of the *upādhi* characteristics is exemplified the pertinent item is a genuine *upādhi* or only equivalent to a genuine *upādhi* in certain relevant respects, in particular inasmuch as its existence deprives an inference of its validity. Unfortunately even the subsequent segment beginning with *unnīyate ca* does not, as far as one can see, furnish a clue that could definitely decide the issue. It can be ascertained, nevertheless, that from a theoretical point of view the adoption of a corresponding liberal standard regarding *upādhi* would be fully justified.

8. It is not absolutely certain but very plausible that the definition of *upādhi* is not fully exhausted by the two characteristics presented in the text in the beginning. If this is true then the structure of the specification of the concept of *upādhi* in the segment beginning with *kiṃ punar upādhitvam* and ending with *nopādhiḥ* must be assessed as follows: First a close approximation to the conceptual content of *upādhi* is imparted by the

characteristics represented by the expressions *sādhyakṛtsnasahacārin* and *sādhanaikadeśavṛttitva*. Then room is provided for an extension of the range of *upādhi* in the section beginning with *sa cāyaṃ kvacin* and ending with *anīścitobhayarūpo*. — The term *anīścitobhayarūpa* embodies merely an explication to the effect that there are no other *upādhi*-categories apart from the previously mentioned ones. — Finally the relaxation provided in the passage beginning with *sa cāyaṃ kvacin* is again restricted by the remark relating to *anirūpitarūpa*. This is necessary for an avoidance of the consequence that the initial relaxation entails the invalidation of *all* inferences. The plausibility and coherence of the train of thought is undeniable. Hence the consequence that the textual segment could possess little relevance for the primary subject matter is not mandatory.

9. The fact that in the NL the examples illustrating the *upādhi*-varieties *nīścitobhayarūpa*, *nīścitānyatararūpa* and *nīścitacaramarūpa* are explained by expressions of the form 'X-tve Y' poses a subtle, but possibly significant problem of interpretation. Sjödin, following the Indian commentators, takes for granted that properties corresponding to the expressions replacing 'Y' should constitute the relevant *upādhi*-s. There is, however, also the alternative possibility of identifying them with the conjunction of the qualities corresponding to the expressions occurring as substitutes for 'X' and 'Y'. Despite the fact that the first supposition harmonizes with usages of the term in other textual sources the latter hypothesis deserves serious consideration. Against the background of all admissible conceptions of the definition of *upādhi* provided in the text, qualities equivalent to conjoined properties designated by expressions of the form 'X-tve Y' are equally qualified for the status of *upādhi*-s. This circumstance possesses particular relevance with respect to the interpretation of the variety named *nīścitānyatararūpa*. Given that not the quality of being a result of vegetable food but being a result of vegetable food and simultaneously a child of Mitrā constitutes the relevant *upādhi*, the pertinent *probandum* cannot be the property of being dark-skinned but only the property of being a dark skinned child of Mitrā because otherwise the first definitional mark of *upādhi* would be clearly violated. It is possible that the writer of the text intended to signal precisely this fact by his formulation. If, as it is presupposed by the rival interpretation, the constituents of the form 'X-tve' had merely the function to indicate the relevant logical reasons, the bias that only the *probans* and not the *probandum* is explicitly specified in all cases is difficult to explain. If one supposes, however, that the *upādhi* is designated by expressions of the form 'X-tve Y' no bias calling for an explanation exists. Under this premise the circumstance that the pertinent logical reasons are mentioned is merely a (secondary) effect of the specification of the relevant *upādhi*-s.

10. In the present connection one must bear in mind that the remaining uncertainties are partly due to the fact that it cannot be taken for granted that the writer of a text is always completely consistent. This tenet is by no means incompatible with the principle that an interpretation entailing major inconsistencies should be avoided or at least critically scrutinized and that

it is a maxim to look for interpretations implying maximal consistency. But if differences of a more subtle nature are at stake the hypothesis of total consistency is sometimes unrealistic. This fact affects the prospect of deciding matters by reference to other textual passages written by the same author. Sometimes the supposition that a textual segment must be interpreted in the light of a purported parallel in accordance with the principle of avoidance of inconsistency is completely inappropriate.

11. The segment of the NL dealing with *vyāpti* poses a significant amount of problems both with respect to interpretation and with respect to analysis of content. A number of alternatives imply important differences and deserve to be clearly recognized irrespective of whether the problems can be definitely settled or not. In all such cases reports of traditional views on the pertinent subject matter cannot be deemed sufficient. If discovery of outstanding cultural values in the arts or the sciences constitutes one of the aims of historical studies on foreign cultures then the fact is relevant that interpreting individual creations in the light of its reception entails the danger to level down differences and to disregard precisely that which is most unique and original.

12. One needs to be aware of a crucial consequence which would result if research on foreign cultural traditions were conceived as a practice possessing the function of transmitting knowledge existing in some distant milieu to some other milieu, in particular to the milieu of Western citizens. If this sort of activity were its only function then a dissociation from other academic disciplines and of science in general is imminent. The reason is that academic research is intimately connected with the idea of obtaining knowledge which is absolutely novel at some time and not merely knowledge that is novel relative to some limited group at a particular time. In addition to this, the conception of a mere transmitter of information prompts a reversal of priorities: Instead of regarding methodological rigour as well as maximal degree of certainty as primary and simplicity, easiness etc. as secondary values the idea of a transmitting function enhances the status of the values of the latter category. This transformation becomes crucial and possibly fatal as soon as the order is reversed because it affects the quality of activities of institutions and finally the status of the concerned institutions themselves. Therefore a conception of Oriental studies as transmitters of information entails the necessity to reconsider the status of institutes devoted to such studies as academic or scientific establishments. It goes without saying that the same holds good if the essential function of those institutions would be defined as the formation of competence, such as linguistic competence, which members of distant societies and cultures naturally possess on account of their socialization. The issue does not only concern a possible merger between properties of academic research and properties of journalism but also a possible assimilation between the approaches of science and attitudes of religious sectarianism. It would not be necessary to mention those facts if one could be certain that they are universally acknowledged.





**Postscript: Some remarks concerning paraphrase,  
redundancy and justification**



**Postscript: Some remarks on paraphrase, redundancy and justification**

In the context of the present investigation the issue of a presumably important, but special type of paraphrase has been touched on. It can be designated by the term 'cognitive paraphrase' and described by the expression 'X is a cognitive paraphrase of Y'. In the area of sentences containing indexical elements one could cite as a most prominent example for cognitive paraphrase the relation between Sanskrit sentences containing finite verbs in the first or second person and sentences that contain in addition first or second person pronouns, pairs of sentences, such as

(S1) *grāmaṃ gacchāmi*

and

(S1)\* *ahaṃ grāmaṃ gacchāmi*

Let us say that two non-analytical sentences S and S\* containing indexical elements are cognitively equivalent if everybody who has the concept of context and fully understands both S and S\* can immediately recognize that for any context c, it cannot occur that S expresses a truth in context c and S\* does not express a truth in context c or that S does not express a truth in context c and S\* expresses a truth in context c. Against the background of this — or similar — definitions (S1) and (S1)\* are cognitively equivalent. However, if they are, taking the close similarity of syntactic structure into account, recognized as paraphrases, this does not mean that the difference between an employment or non-employment of a personal pronoun is immaterial in every respect. Presumably that is not the case. In "pragmatic" respects and possibly regarding other non-cognitive aspects of content there are differences between (S1) and (S1)\* and similar sentence-pairs. This is not the place to investigate the issue of such differences. Instead another point deserves to be mentioned: With the help of cognitive equivalence one can give a rather precise explication of cognitive redundancy. One can say that a constituent C of a sentence S is cognitively redundant in S with respect to constituent C' if and only if the result of concatenating C and C' equals S and C' is a grammatically acceptable expression that could be used as an independent sentence S' so that S and S' are cognitively equivalent. Accordingly the personal pronoun in (S1)\* is cognitively redundant. Note that *ahaṃ* cannot be a cognitively redundant element in

(S1)\*\* *ahaṃ eva grāmaṃ gacchāmi*

because the result of cancelling *ahaṃ* in (S1) is not a grammatically acceptable expression. But *ahaṃ eva* could be a cognitively redundant element relative to a reading according to which *eva* does not function as a quantifier ('only') but as a particle expressing mere emphasis.

One might wonder why cognitive redundancy has been relativized to other sentence constituents. One reason is that it is only a contingent feature of Sanskrit that a personal pronoun cannot be combined with an alternative finite verbal form that is neutral with respect to differences of person (and number) — like finite verbs in modern Swedish. If there were such a finite form, say \**gacch*, and if expressions like

(S1)\*\*\*      *ahaṃ grāmaṃ gacch*

were equally grammatical sentences, then one could with the same right declare that the element *-āmi* in (S1)\* is cognitively redundant with respect to a syntagma that equals (S1)\*\*\*. Therefore statements to the effect that certain elements of a sentence are redundant without qualification can be misleading by suggesting that certain sentence constituents are absolutely redundant even if they are not redundant against the background of a different dissection of the same sentence. A general and theoretically satisfactory explication of terms must, however, never depend on accidental features of particular natural languages. More important is, however, that the relativization permits more generality. Let us consider the following sentences:

(S2) Sarah's child is a boy.

(S2)\* Sarah's child is a boy and not a girl disguised as a boy.

Evidently (S1) and (S2) are cognitively equivalent because it is immediately obvious that, given identical reference of the proper name, (S2)\* is true (used to make a true statement) if (S2) is true and vice versa and that if (S2)\* is false (S2) must be false too and vice versa. According to the proposed definition the constituent 'and is not a girl disguised as a boy' is cognitively redundant with respect to 'Sarah's child is a boy'. On the other hand it is not true that the same verdict is legitimate with respect to any expression in which (S2)\* — or the chain of words exemplified by (S2)\* — occurs as a constituent. If we consider, for example:

(S3) Sieglinde said that Sarah's child is a boy.

(S3)\* Sieglinde said that Sarah's child is a boy and not a girl disguised as a boy.

we can easily recognize that if the expressions occurring in (S2) and (S3) are embedded under expressions of the form 'A said that' preservation of truth value is no longer guaranteed and the same holds good for other embeddings under verbs of saying.

Interestingly the phenomenon that preservation of truth value is not exempted from doubt holds true for embeddings under expressions containing verbs relating to providing evidence or justification. Must one say that if

(S4) This picture shows that Sarah's child is a boy.

is used to make a true statement in some situation then

(S4)\* This picture shows that Sarah's child is a boy and not a girl disguised as a boy.

must also express a true statement if it were uttered in the same situation? There are reasons to doubt this contention. Let us suppose that (S4) is used to make a statement in a situation in which a picture referred to by the definite noun-phrase shows a certain child as a boy and has been taken without any intention to induce untrue beliefs by creating pieces of misleading evidence. Obviously there are contexts of assessment in which existence of a picture showing a small child in boy's or girl's clothes would count as a satisfactory criterion for settling uncertainties about his or her sex. But even under such circumstances it must not hold good that the same piece of evidence suffices for deciding the issue of the truth of the proposition expressed in (S4)\*. An object or a fact furnishing reliable evidence for the truth of some proposition does not *eo ipso* provide evidence to the fact *that* the evidence it is suited to furnish under common circumstances is actually reliable. It seems mandatory to postulate that sufficient evidence for a conjunctive proposition 'P and Q' exists only if there is also sufficient evidence for the propositions 'P' and 'Q' taken singly. Accordingly the semantics of 'show' in the pertinent sense of the term is subject to the following principle:

If x shows that P and Q then x shows that P and x shows that Q = x shows that P and Q only if x shows that P and x shows that Q

But it seems that standards of evidence admissible for vindicating the proposition expressed by (S4) are usually not admissible for vindicating the proposition expressed by

(S5) Sarah's child is not a girl disguised as a boy.

This is a consequence of the circumstance that satisfactory evidence for a proposition is not automatically satisfactory evidence for any proposition that constitutes a necessary requirement for the truth of that proposition and that if a proposition 'P' necessitates a proposition 'Q' the proposition that there is (contextually adequate) evidence for 'P' does not entail the proposition that there is evidence for 'Q'. The same principle affects evidence-verbs such as 'show'. — Or more cautiously: The words 'evidence' and evidence-verbs are usually employed in this manner and if used in this way express statements that cannot be refuted as false by sceptical arguments because the statements they express if used in this way do not involve the claims a sceptic supposes that they involve. — If the preceding contentions are correct it follows that (S4) and (S4)\* should not be counted as cognitively equivalent, at least not in every admissible reading. Given this premise it follows that

even if the sentence-constituent 'and is not a girl disguised as a boy' is cognitively redundant in (S2)\* it must not be cognitively redundant in (S4)\*.

Making cognitive redundancy relative to different sentence-constituents permits to base assessments of cognitive redundancy on a less assailable foundation. With respect to (S3)\* and (S4)\* one can affirm that the constituent 'and is not a girl disguised as a boy' is possibly not cognitively redundant in (S3)\* as well as in (S4)\* and with respect to 'Sieglinde said that Sarah's child is a boy' or 'This picture shows that Sarah's child is a boy', whereas it is surely redundant respective to some sentence constituent of (S3)\* and (S4)\*, namely 'Sarah's child is a boy'.

The circumstance that a sentence constituent can be cognitively redundant in some context C and not redundant in some larger context C' and that the result of embedding the constituent in C is an expression cognitively equivalent to C itself whereas the result of embedding the same constituent in C' is not an expression cognitively equivalent to C' indicates that cognitive equivalence should not be equated with (cognitive) synonymy and that addition of a cognitively redundant element does not generally preserve (cognitive) synonymy. There might nevertheless be a subclass within the class of cognitive redundant elements that preserve synonymy. This class would be distinguished by the fact that cognitive equivalence is not affected by addition or omission in some (minimal) sentence-context as well as in any larger (linguistic) context containing the former as a constituent. (S1) and (S1)\* might comply even with this stronger demand.

The preceding contemplations touch on a point that can attain relevance for theoretical assessments of the doctrine of the 'three marks of a (valid) logical reason' designated by the term *trairūpya*. This would hold true if the notion of knowing and the verb 'to know' exhibits the property which has been considered as a possible feature of 'show'. The reason lies in the intimate connection between the concept of knowledge and that of possession of adequate evidence. This in its turn engenders theoretical importance for the distinction between 'epistemic' and 'non-epistemic' varieties of the conditions of *trairūpya* in some respect which has not been explicitly envisaged in my treatise *Studies on the Doctrine of Trairūpya* 1994, where the distinction between 'epistemic' and 'non-epistemic' variants has been emphasized. Whereas non-epistemic versions of *trairūpya* amount, roughly, to the requirement that a valid logical reason = *probans* must fulfil the following requirements:

- (a) The *probans* is instantiated in the substratum of inference (the *pakṣa*)
- (b) The *probans* is instantiated at least in some object(s) different from the *pakṣa* possessing the *probandum*
- (c) The *probans* is not instantiated in any object (apart from the *pakṣa*) that does not possess the *probandum*

epistemic versions stipulate that the fulfilment of the mentioned conditions must be known. Several formulations found in textual sources suggest "mixed versions", i.e. epistemic for some and non-epistemic versions for other conditions of *trairūpya*, if taken literally, but this can be disregarded here.

What matters is that epistemic versions of the second and third condition entail problematic consequences against the background of the conception of inference as a means of knowledge (*pramāṇa*). Regarding the first condition an epistemic version is not unnatural inasmuch as it entails that a person validly infers something on the basis of some state of affairs only if he knows that the relevant state of affairs really holds good. But the divergence between epistemic and non-epistemic versions regarding the subsequent conditions is momentous. Given that non-epistemic versions of the conditions two and three embody necessary requirements for the acceptability or validity of an inference as well as for the status of a belief as a piece of knowledge whenever it has been acquired only by inference, the corresponding epistemic version amounts to the requirement that certain necessary conditions of validity and knowledge must be known to obtain. In the light of the preceding observations it can be ascertained that this theorem is extremely problematic. Can't it suffice for perceptual knowledge *that* a perceiving subject has not fallen victim to a perceptual illusion even if she did not see any reason why she should verify precisely this fact and never undertook the trouble to base a relevant presupposition she has taken for granted on evidence adequate for *that* assumption? But if this is so, why should the situation be radically different in the realm of inferences and inferential knowledge? If, on the other hand, the requirement were acknowledged that necessary prerequisites for truth must *always* be known, one opens a fatal door to scepticism. The following two possible alternatives are relevant: (1) It is accepted that inferential knowledge complies with the principle that knowledge of a proposition does not invariably entail that knowledge pertaining to all necessary conditions of the truth of the concerned proposition exists. In particular one admits that something can be known on the basis of evidence without knowing facts that are indispensable for the circumstance that the evidence does not vindicate a false conclusion. (2) One stipulates that the satisfaction of all conditions in their epistemic versions is regarded as mandatory. In the first case it is legitimate to pose the question why, given that inferential knowledge should be based on known facts, fulfilment of the first condition in its epistemic version and of the remaining conditions in their non-epistemic versions should not suffice for recognizing inferences as valid and inferential belief as knowledge. Being a result of means of valid knowledge (*pramāṇa*) would, apart from truth of the outcome, entail that the upshot is based on evidence that is, as a matter of fact, appropriate for the pertinent instance. In the case of perceptual knowledge the circumstance that relevant acts of perception are *de facto* not illusory is vital. Regarding inferential knowledge the requirement is accordingly that the information on which the inference is based must be appropriately assessed as true and that the way of deriving the conclusion is in accordance with requirements that are in fact ensured by the actual state of affairs. Even if it were maintained that

knowledge pertaining to a satisfaction of the second condition should be necessary it would still be justifiable to hypothesize the third condition in its non-epistemic version because the vindication of universal propositions cannot be easily achieved. If, however, (2) were adopted, i.e. if the satisfaction of all conditions in their epistemic versions were regarded as mandatory, the question arises whether the only plausible rationale on which this demand rests must not entail a repudiation of the proposition that knowledge could merely depend on evidence which *de facto* corroborates a proposition as well as on ways of reasoning complying *de facto* with certain situational features, such that compliance with them engenders truth under ordinary circumstances, but not necessarily always. Inasmuch as epistemic versions of *trairūpya* indicate a rejection of modest standards of validity and knowledge they endanger crucial concessions that could be exploited for endorsing radical scepticism.

It is difficult to ascertain whether epistemic or non-epistemic readings of *trairūpya* render correct interpretations and whether it is decidable in principle which versions reflect actual intentions of individual authors. After all, there is no proof that intentions were determinate in this respect. One can ascertain, nevertheless, that from an objective perspective non-epistemic versions are by no means unreasonable. Even a non-epistemic version of the first condition of *trairūpya* can be vindicated as appropriate against the background of a conception according to which the *trairūpya*-canon should not specify conditions of validity of individual pieces of inferential reasoning but general conditions providing room for the occurrence of valid pieces of inferential reasoning. At any rate, apart from the issue of whether 'A knows that P' should entail 'A knows that his (A's) belief that P is knowledge' the question as to whether truth of sentences of the form 'A knows that P' requires the truth of 'A knows that Q', whenever the substitute of 'Q' represents a necessary prerequisite for the truth of the substitute of 'P' is relevant for the evaluation of epistemic and non-epistemic versions of *trairūpya*.<sup>1</sup> If those tenets are not approved, the non-epistemic version(s) regarding (the second and) the third condition could be more recommendable than the epistemic counterpart.

One might suspect that the position advocated above implies a dismissal of the doctrine of a (*svabhāva*)*pratibandha*. This is not true. The assertion that a standard of validity is admissible presupposing only that a *probans* is *de facto* instantiated in some object(s) apart from the subject of inference and never

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<sup>1</sup> This means that the deduction of 'NN knows that Q' from 'NN knows that P' and 'Necessarily: If P then Q' is not (logically) valid. Accordingly there is so far no cogent reason to postulate that 'NN knows that P' and 'NN knows that necessarily: if P then Q' (logically) entails 'NN knows that Q'. — It deserves to be remarked in this connection that endorsement of the tenet that 'NN believes that P' and 'Necessarily: If P then Q' does not entail 'NN believes that Q' is connected with the contention that the scope of textual interpretation exceeds the range of psychological facts pertaining to authors and of what individual writers believed and thought.



instantiated in objects lacking the *probandum* is not tantamount to saying that all stricter standards of validity are absolutely unjustified. As far as natural inference is concerned one ought rather provide room for different types of acceptability and validity such that a rational choice is to be made among the different varieties in accordance with the contextual circumstances. In particular, it can be deemed apposite to require that at least some evidential support for the assumption that the third *trairūpya*-condition is fulfilled must exist, even if the support might not be strong enough to vindicate knowledge-claims regarding the existence of an invariable concomitance between *probans* and *probandum* either with respect to the non-*pakṣa* realm or the entire universe of discourse. The idea of a *pratibandha* reflects the view that an individual piece of inferential reasoning should rely on evidence for the supposition that the *probans* never occurs where the *probandum* does not occur. Dharmakīrti argued that without a *svabhāvapratibandha* evidence to that effect would be missing even with respect to the non-*pakṣa* universe, and the underlying view that this kind of evidential support is not unimportant appears undeniable. In an analogous manner the proposition that the status of knowledge can be allocated to outcomes of inferences complying with non-epistemic variants of the (second and) third *trairūpya*-condition(s) is compatible with the tenet that there are contexts in which evidential support for this compliance needs to be taken into consideration. To say that ordinary knowledge *is* knowledge and to say that ordinary knowledge does not suffice for certain cognitive undertakings is no contradiction. Whether justified or not, doctrines of (*svabhāva*)*pratibandha* possess close ideological affinities to epistemic versions of *trairūpya*.

There is no need to go into further details of the matter. The points which have been highlighted above are undoubtedly relevant for an assessment of the validity of sceptical criticisms of the epistemological doctrines propounded in the Indian tradition of thought.



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## SUMMARY

The topic of this book is the investigation of a concise and fairly intricate textual passage appearing in a theoretical treatise presumably written in India in the 13<sup>th</sup> century AD dealing with questions of the appropriate explanation of two technical terms which play a central role in the framework of theories of inference at that time. Focus lies on a number of problems of textual exegesis which have either not yet found a definite and adequate solution in the previous Indian or Western literature dealing with the text or have not even been recognized as problems at all.

Apart from a sufficiently exact identification of the conceptual content of the key terms discussed in the textual passage, the ascertainment of the nature of arguments provided by the writer of the text for a rejection of alternative definitions as well as not explicitly formulated premises motivating their dismissal and tacitly presupposed requirements for the adequacy of definitions constitute major goals of the present study. Two aims of a more general kind are equally pertinent, viz. a) to explore limitations inhering in a reduction of the perspective of assessment to aspects that are envisaged by a tradition of which an object of investigation, such as a text or the author of a text, is a part and b) to demonstrate the intimateness of the relation between possessing a firm grasp of theoretical issues treated in Indian philosophical texts and a central concern of traditional philological investigations, namely ascriptions of content to linguistic items.

