

## II. Indigenous Tibetan Logic: *Collected Topics* and the Logic of Consequences

### 1. *Introduction, history, and texts*

As we had mentioned in section 1 of the previous chapter, the post-classical period in Tibetan Buddhist epistemology and logic includes a notable development of an indigenous Tibetan logic. It is considerably less of a copy or even interpretation of India than are the theory of good reasons and the related discussions in Tibetan commentaries on *Pramāṇavārttika* and *Pramāṇaviniścaya*, and it has little to do with the Dharmakīrtian prescriptive rules of *vāda* (“debate”) as set forth in the *Vādanyāya*. It figures especially in the *bsdus grwa* literature—what we have been calling “Collected Topics”—from the fifteenth century on.

In fact, the Tibetan term *bsdus grwa* is not an easy one to translate. Shunzō Onoda gives what may be the most thorough explanation, taking it as probably *bsdus pa slob pa'i sde tshan gyi grwa* “the schools or classes in which [primary students] learn *bsdus pa* or summarized topics [of logic or dialectics];” he then quotes a later etymological explanation according to which the word *bsdus grwa* meant “the class where many arguments are summarized together” (*rigs pa'i rnam grangs du ma phyogs gcig tu bsdus pa'i grwa*).<sup>1</sup> In short, while the term *grwa* clearly refers to the first classes in the monastic curriculum, it is less clear what *bsdus pa* refers to, especially because it might well suggest the *tshad ma'i bsdus pa* of Phya pa Chos kyi Seng ge (1109-1169), the so-called “Epistemological Summaries” of the pre-classical period. A translation of the term *bsdus grwa* as “Collected Topics” or “The Class (*grwa*) of Collected Topics (*bsdus pa*),” however, emphasizes the fact that *bsdus grwa* is a collection of various topics in the form of “lessons” (*rnam bzhas*) ranging from

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<sup>1</sup> Onoda 1996, 187.

colours, ontology, concepts, and causality to consequences (*prasaṅga*) and the “exclusion theory of semantics” (*apohavāda*).<sup>2</sup>

What, though, are we to make of the connection between *Collected Topics* and the earlier *Epistemological Summaries* (*tshad ma'i bsdus pa*), either those of Phya pa Chos kyi seng ge himself or of the many other writers associated with Phya pa's monastery of gSang phu sne'u thog located south of Lhasa? It is well-known that Klong rdol bla ma (1719-1794), in his *Tshad ma rnam 'grel sogs gtan tshigs rig pa las byung ba'i ming gi rnam grangs*, spoke of eighteen lessons by Phya pa, most of which have the same titles as those of *Collected Topics*.<sup>3</sup> This fuelled speculation that *bsdus grwa* must be the direct successor to Phya pa's *Tshad ma'i bsdus pa*, or even that Phya pa's *Tshad ma yid kyi mun sel* is itself a *bsdus grwa* or the original *bsdus grwa*.<sup>4</sup>

Now, it is no doubt true that there was strong influence from the *Epistemological Summaries*. That said, the origins of *bsdus grwa* are probably multiple. There were several other writers of such *Summaries* besides Phya pa. rGya dmar ba Byang chub grags (fl. c. 1095-1135), who was a teacher of Phya pa, supposedly wrote more than one *tshad ma'i bsdus pa*<sup>5</sup>—the many other *bsdus pa* authors include figures like Chu mig pa Seng ge dpal (thirteenth century) and the author of the (extant) *Tshad bsdus*, which is attributed to Klong chen Rab 'byams pa (1308-1364) but

<sup>2</sup> For the lessons, see Onoda 1992, 60-65 and 1996, 189-191. Note that what we are taking as *bsdus grwa* is what Onoda 1996 terms *bsdus grwa* in a “narrow sense.” One also sometimes includes *rtags rigs* and *blo rigs* texts, using the term *bsdus grwa* in a wider sense to include Dharmakīrtian *trairūpya* theory and basic epistemic categories as found in the sevenfold epistemic division (*blo rigs bdun du dbye ba*), as well the Abhidharma's classification of minds (*sems = citta*) and mental factors (*sems byung = caitta*). However, when we speak here of “*bsdus grwa* logic,” we are not generally discussing those primers on Dharmakīrtian philosophy of logic, epistemic categories, or the Abhidharma.

<sup>3</sup> See Onoda, 1992, 60 & 1996, 191.

<sup>4</sup> See Hugon and Stoltz 2019, 63-64, n. 59 on the not infrequent confusions concerning Phya pa's *Tshad ma yid kyi mun sel*. For work on Phya pa's logic of consequences as evidenced in his rediscovered *Tshad ma yid kyi mun sel*, see Hugon 2013, 2011. More generally, for Phya pa's formulation of the influential sevenfold classification of cognition (*blo rigs bdun du dbye ba*), see van der Kuijp 1978 as well as Hugon and Stoltz 2019; on other aspects of Phya pa's philosophy, see van der Kuijp 1983, chapter II; for the numerous Sa lugs-Phya lugs debates on epistemology and ontology, see Dreyfus 1997.

<sup>5</sup> Onoda 1996, 191.

may rather have been composed around Phya pa's time or soon after.<sup>6</sup> A reasonable hypothesis would seem to be that much of *bsdus grwa* did not come directly from Phya pa but reflected shared, thematized discussions, especially those that took place in the colleges of gSang phu sne'u thog. Various dGe lugs pa/dGa' ldan pa and Sa skya pa scholars interacted there (the monastery was divided roughly half and half into dGe lugs and Sa skya colleges) discussing the *Epistemological Summaries* with what must have been a significant level of commonality. Although the Sa skya pa *Tshad ma rigs gter* tradition is known to have engaged in vigorous arguments against the *Summaries* of the Phya pa-tradition, especially from the fifteenth century on with g.Yag ston seng ge dpal (1348-1414), earlier Sa skya pa were often very sympathetic to them. The *bsdus pa* and *rigs gter* traditions thus regularly interweave.<sup>7</sup> Conspicuously, too, many of the definitions (*mtshan nyid*) and divisions (*dbye ba*) typical of the lessons of *Collected Topics* are found in the *sDe bdun la 'jug pa'i sgo don gnyer yid kyi mun sel*, often attributed to Tsong kha pa Blo bzang grags pa (1357-1419), who, on his study tour of various monasteries (*grwa skor*), spent time in gSang phu and gSang phu ba affiliates.<sup>8</sup> In sum, instead of overweighting the direct role of Phya pa, as has been done, I think that *bsdus grwa* is best viewed as a digest that records the thinking of diverse gSang phu intellectuals over three centuries.<sup>9</sup>

<sup>6</sup> Hugon and Stoltz 2019, 47-51; see van der Kuijp 2003 on the *Tshad bsdus*.

<sup>7</sup> See Dreyfus 1994, 5-11. Although the Sa skya tradition engaged in very vigorous polemics against the *Summaries* of the Phya-tradition, there also seems to have been a type of Sa skya pa *Summary*, the *bsDus pa rigs sgrub* of 'U yug pa Rigs pa'i seng ge (?-1253), who was the major student of Sa skya Paṇḍita. On the *Summaries* of 'U yug pa, rGya dmar ba, Chu mig pa and several others, see D. Jackson 1987, 128-131, van der Kuijp 1989, 17.

<sup>8</sup> Onoda 1992, 14.

<sup>9</sup> Up until the late 1990's the works of Phya pa were unavailable, both to Tibetan and Western scholarship. They were already classified as rare (*dkon po*) in a nineteenth century Tibetan catalogue. (This is the *dPe rgyun dkon pa 'ga' zhig gi tho yig* of A khu Shes rab rgya mtsho; included in Part 3, pp. 503-601 of Lokesh Chandra 1963.) Fragments were cited, and claims were made by Tibetan authors—in the case of Sa-tradition authors this was generally for polemical purposes. Now that we are finally gaining access to a number of Phya pa's own texts, it turns out that they have less in common with *Collected Topics* than some of us, myself included (and perhaps many Tibetans), had imagined.

Significantly, it is now *not* clear that the *thal-phyir* logic of consequences (“it follows that ... because ...”), which Stcherbatsky had attributed to Phya pa as its probable inventor,<sup>10</sup> did actually come from Phya pa himself.<sup>11</sup> Its precise origins are still obscure. Hugon 2008a shows how important argumentation by analogy was in Phya pa—if the opponent affirms *P*, then *Q* should be true too, because they are similar (*mtshungs pa*). The debate would increase in complexity when it is replied that they are not similar (*mi mtshungs*) and that some other proposition *R* would be similar, etc., etc. This relentless tit-for-tat style of argumentation seems to have been a preferred tactic of Phya pa in debate, seemingly more so than the *bsdus grwa* style *thal-phyir* reasoning.

The earliest *Collected Topics* is the *Rwa stod bsdus grwa* of the gSang phu abbot ‘Jam dbyangs mChog lha ‘od zer (1429-1500). Several other authors subsequently took up the genre. ‘Jam dbyangs bzhad pa (1648-1722), of Bla brang monastery, wrote a small *Collected Topics* in verse, and four other works concerned, in one way or another, with subjects in *bsdus grwa*. There are works of varying size and affiliated with different dGe lugs pa monastic colleges—e.g., the *Collected Topics* of bSe Ngag dbang bkra shis (1678-1738), representing the tradition of Bla brang, or those of Yongs ‘dzin Phur bu lcog Byams pa tshul khriims rgya mtsho, representing especially Se ra.<sup>12</sup>

*Collected Topics* has been predominantly dGe lugs pa but not exclusively so. The Sa skya pa monastery of Nalendra, founded in ‘Phan yul in 1436, patterned its curriculum after gSang phu, and in more recent centuries seems to have adopted the *Rwa stod bsdus grwa*. And there is said to be a seventeenth century Sa skya pa *bsdus grwa*, the *Chos rnam rgyal gi bsdus grwa*, a copy of which is preserved in the Library of Tibetan

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<sup>10</sup> Stcherbatsky 1932, Vol. 1, 55, 58.

<sup>11</sup> I myself long tended to attribute it to Phya pa. See Tillemans 1999, 117.

<sup>12</sup> bSe (Sras) Ngag dbang bkra shis was a student of ‘Jam dbyangs bzhad pa and was also an abbot of Bla brang bKra shis ‘khyil monastery in present-day Gansu. Few of these texts have been studied in publications by contemporary scholars. Essential, however, are the many Japanese articles of Shunzō Onoda and the English study summarizing their results, Onoda 1992 and 1996. See also Sierksma 1964, Liberman 2004, Goldberg 1985a, 1985b, Dreyfus 2003, Perdue 1976, 2014, and Tillemans 1999. For handy access to Onoda 1996, see the site of the Tibetan and Himalayan Library, <http://www.thlib.org/encyclopedias/literary/genres/genres-book.php#!book=/studies-in-genres/b10/dn1/>

works and Archives in Dharamsala, India.<sup>13</sup> I would hypothesize that this is likely to be the (otherwise unavailable) *bTsan po bsdus grwa* of gSer Khang pa Dam chos nam rgyal, a later abbot of Rwa stod college of gSang phu; *bTsan po bsdus grwa* may well have constituted an important bridge between the Rwa stod tradition and that of ‘Jam dbyangs bzhad pa, as it was written on the request of one of the latter’s teachers.<sup>14</sup>

*Collected Topics* continue to be studied and even composed in the Tibetan cultural community, both in the Tibetan Autonomous Region and the diaspora. Indeed, debate is still widely practiced as a study technique in the dGe lugs curriculum. One of the most extraordinary recent records of actual Tibetan debates and sophisms is the “Mnemonic Notes on *Collected Topics*” (*bsdus grwa brjed tho*) composed in Tibetan by the twentieth century Mongolian abbot of sGo mang college of Drepung monastery, the late dGe bshes Ngag dbang nyi ma. *Collected Topics* is regularly studied in Dharamsala in the dGe lugs pa “School of Dialectics” (*mtshan nyid slob grwa*) and in Sarnath at the Central University for Tibetan Studies, as well as in some modern Sa skya pa institutions. In short, *Collected Topics* and its logic are alive and well in communities both within and outside Tibet. The examples I give below of reasonings from *Collected Topics* come essentially from *Yongs ‘dzin bsdus grwa*, *bSe bsdus grwa*, *Rwa stod bsdus grwa*, and *bsDus grwa brjed tho*, though sometimes considerably simplified. I also rely on some personal experience and observation of debate in the dGe lugs pa school.<sup>15</sup>

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<sup>13</sup> Onoda, 1996, 195.

<sup>14</sup> See Onoda, 1996, 192-193; Hugon and Stoltz, 2019, 63, n. 58

<sup>15</sup> A little personal note. I, like Shunzō Onoda, Stephen Batchelor, and other foreign students, had the very good fortune to study *bsdus grwa* and related Tshad ma texts in Switzerland with a number of teachers in the 1970’s and early 80’s, principally dGe bshes rTa mgrin rab brtan (Geshé Rabten), dGe bshes bKa’ dbyangs, and the Mongolian/Buryat dGe bshes Ngag dbang nyi ma, *inter alia*. Georges Dreyfus was also—and still is—a huge source of insider information on dGe lugs texts and debates. Debaters subscribe, in varying degrees, to a Tibetan proverb *methun na mkhas pa min* (“Only fools agree.” More literally, “If you agree, you’re not learned.”). Indeed, while most teachers aimed at having their students arrive at a kind of *determinatio* of the right answer, others were more playful deconstructionists and seemed to aim at doubt and the inquisitive spirit. Ngag dbang nyi ma was particularly impressive to me in this respect: he would debate both sides of any question calling his hapless pupil back (*rgya’u ‘dir shog*,

Finally, what does it mean to say that *Collected Topics* are “indigenously Tibetan,” “original,” or even “un-Indian?” The matter is somewhat complicated by the fact that the dGe lugs pa/dGa’ ldan pa regularly back-read the positions of *Collected Topics* onto Indian Pramāṇa texts; the originality of the dGe lugs/Phya ideas is thus often disguised or downplayed. Nonetheless, *Collected Topics* offers interesting and important developments that, as we shall see, are *not* found in India and need to be seen in their own rights. These indigenous developments often depend upon features of the Tibetan language that are significantly different from those of Sanskrit. They also reflect a different direction in logic. As we shall see in sections §§4-5 below, the debate logic of *Collected Topics* is much less oriented towards metaphysical and epistemological issues than is its would-be Indian ancestor, i.e., the Dharmakīrtian theory of Pramāṇa, to which *bsdus grwa* is somewhat misleadingly said to be the “magical key” (*‘phrul gyi lde’u mig*).

## 2. *The rules of the game*

Let us take up the recurring feature and probably major contribution of *Collected Topics*: the *thal-phyir* debate logic, i.e., the logic of consequences, or what Stcherbatsky called the “logic of sequence and reason.” As we have seen, the triple characterization—the key structure of Indian Buddhist logic—was fraught with problems of interpretation. Indeed, in fourteenth or fifteenth century dGe lugs pa philosophical texts, and certainly in the logic of the *Collected Topics*, the triple characterization became marginalized and figured relatively little in the working logic used

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“Hey beard, come here!”) relentlessly, sometimes till exhaustion, at which point the dGe bshes would exclaim *da the tshom za* “Now you have the doubt.” The contrast between debate as a religious pedagogical tool, akin to memorization, and debate as inquiry, or even deconstruction, is brought out in fascinating autobiographical detail in Dreyfus 2003, chapter XII; Dreyfus contrasts a “right answer,” or religious, approach like that of Geshé Rabten with the emphasis on freewheeling inquiry of his teacher Gen Nyi ma (not the same individual as the Mongolian Ngag dbang nyi ma). See also Liberman 2004 for an ethnomethodological analysis of the practice of debate in the dGe lugs pa; Liberman 2008 on the role of sophistry in debate. My initial discovery of *Collected Topics* was in Dharamsala, India, with dGe bshes bKra shis dbang rgyal in the early 1970’s.

in discussions of philosophical issues.<sup>16</sup> What takes its place is a tightly rule-guided game between opponents and proponents: a game of debate in the technical sense of game theory, one that has strategies, moves, winning and losing, and also recurring, embedded formal structures. The actual debates as found in *Collected Topics* or other texts using this debate logic had comparatively little role for the “truth-establishing” triply characterized reason and instead remained centered on the legitimacy of moves from one acceptance to another. Indeed, issues of truth and objective reality seem to have played a lesser (or at least very different) role than in the Indian texts or Tibetan Tshad ma literature dependent upon them. Questions of how things are in fact (or *really* are, etc.), or how they are irrespective of the moves sanctioned by the game, look out of place, almost as though one worried whether the bishop, in chess, *really* did move diagonally and was not just legitimately thought or said to do so.<sup>17</sup>

Debates in *Collected Topics* proceed from one acceptance (*khas len* = *abhyupagama*) to another via a regulated series of “consequences” (*thal gyur* = *prasaṅga*) and “replies” (*lan* = *parihāra*). A consequence is simply defined as *thal ngag su bkod pa* “what is presented as a statement that something follows [from something else],” or to put it conditionally, that “something would follow [from something else] (*thal ngag*).” The consequence, in short, need only state what *would* follow from what the opponent accepts, or what the opponent would have to consistently accept

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<sup>16</sup> More specifically, the novelty of the new debate logic can be seen in the relative unimportance it attaches to the use of the *sgrub ngag*, “statement of a proof,” which *does* involve a triply characterized reason establishing a true conclusion. The *sgrub ngag* (= *sādhanaṅkāya*) was, in later Indian and Tibetan Buddhism, a two membered reasoning along the lines of: “Whatever is produced is impermanent, like a vase. Now, sound is produced.” The conclusion “Sound is impermanent” is implied but not stated. The *sgrub ngag* may possibly have been used in some Tibetan debates in the eleventh to fifteenth centuries but figures very little in actual debates centered on *Collected Topics* or even in dGe lugs pa monastic textbooks (*vig cha*). It is, in effect, a holdover from the Dharmakīrtian *trairūpya* and inferences for others (*parārthānumāna*), playing only a comparatively minor role in actual Tibetan debates from at least the fifteenth century on. For Dharmakīrti’s development of a two-membered *parārthānumāna*, see Tillemans 2000, 30-32 and 36.

<sup>17</sup> Cf. Tillemans 1999, 120, Krabbe 1982, 126-7 on debate logics and the difference between a debate approach and an ontological approach to logic.



given his or her position. Generally, the form common to all consequences in this indigenous Tibetan debate logic is:

“Take *A* as the subject (*chos can*); it follows (*thal*) that it is *B*, because (*phyir*) it is *C*.”

Such is the style of reasoning that was, and still is, used in the context of dGe lugs pa (and some Sa skya pa) monastic debates in Tibetan Buddhism, both in actual oral debates and in written records of them. It is the staple fare of *Collected Topics* and is then applied to the five major Indian texts (*poṭi lnga*) of the dGe lugs curriculum<sup>18</sup> as well as to the commentaries and monastic textbooks (*yg cha*) upon them.

The contrast with the triply characterized reason is striking. While the latter, requires, *inter alia*, that *A* actually be qualified by *C*, and that all *C*'s be *B*'s—this is the requirement that the characteristics be “established/ascertained by *pramāṇas*”—a consequence's goodness (*thal 'gyur yang dag*) need not turn on key statements actually being true, but only on them being accepted by the opponent. Goodness is largely dependent on what is “established by positions” (*khas len pas grub pa* = *\*abhyupagamasiddha*) rather than on “establishment by *pramāṇas* (*tshad mas grub pa*),” as in the case of triply characterized reasons. More specifically, the consequence is a good one if the opponent cannot consistently maintain what she accepts and still reply (*lan 'debs mi nus pa*) in one of the three permitted manners.

- (a) *'dod* (= *iṣṭaḥ*). I agree that *A* is *B*.
- (b) *rtaḡs ma grub* (= *liṅgam asiddham*). The reason is not established. That is to say, in effect, I maintain that *A* is not *C*.
- (c) *khyab pa ma byung/ma khyab* (= *na vyāptiḥ*). The pervasion does not hold. That is to say, I maintain that it is not so that all *C*'s are *B*'s.<sup>19</sup>

<sup>18</sup> The five texts are those of logic and epistemology (principally *Pramāṇavārttika* of Dharmakīrti), *Prajñāpāramitā* (i.e., *Abhisamayālaṅkāra* of Maitreya), *Madhyamaka* (i.e., *Madhyamakāvatāra* of Candrakīrti), *Vinaya* (i.e., *Vinayasūtra* of Guṇaprabha), and *Abhidharma* (i.e., *Abhidharmakośa* of Vasubandhu).

<sup>19</sup> Sa skya Paṇḍita, in his *mKhas pa la 'jug pa'i sgo*, speaks of the position of “Tibetans” (*bod rnams*) that there are three ways and three ways only to reply to a consequence (*thal 'gyur la lan gsum*); he thus seems to attribute this position to Phya pa himself or Phya pa's followers in gSang phu sne'u thog. See Onoda 1992, 87 and 112, n. 35. Sa paṇ



Note that the latter two replies do not allow for an opponent being simply skeptical or in want of some further persuasive argumentation. If the opponent says that the reason is not established, this is interpreted to mean that she has the belief that the reason actually does *not* qualify the subject. It is similar for the pervasion. In short, the replies *rtags ma grub* and *khyab pa ma byung* allow the proponent to infer that her opponent believes the opposite proposition, and then argue accordingly against that belief by presenting further consequences.

Also, an opponent's inability to reply (within a quite short time!) is not accepted as just slowness or prudence; it is, *de facto*, an admission that the consequence tells against one of the positions she holds, and it thus allows the proponent to reiterate the argument to probe which position the opponent will agree to abandon. If the opponent simply remains mute, she loses the debate. On the other hand, if the opponent *does* reply in one of the three permissible ways, then the debate will continue, and the proponent will have to argue to show that those replies lead to other consequences. This process continues until the opponent can not consistently reply and, on probing, will have to give up something: this is then a partial victory for the proponent who can then backtrack using that concession to bring about other consequences further undermining the opponent's position. Typically, the concession will become the reason in the new consequences. The debate will then proceed in this fashion until the opponent is forced to give up her "root position" (*rtsa ba 'i dam bca' = \*mūlapratijñā*), i.e., the fundamental proposition that started the debate. At this point, of course, the proponent can claim complete victory and the debate ends.<sup>20</sup>

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split "no pervasion" into two, i.e., (a) the reason was "contradictory" (*'gal ba*) because it implied the opposite of the property and (2) the reason was "uncertain" (*ma nges pa*) because it neither implied the property nor its opposite. See Onoda 1992, 87-90. This is clearly borrowing from the Indian *hetuvidyā* classifications of bad reasons (*hetvābhāsa*) and transposing them onto consequences in debate logic. Indeed, Sa paṅ's goal here seems simply to discredit the Phya lugs as un-Indian. However, his quibble seems hardly a serious contribution to the discussion on logic. It is of no importance to the key idea of good consequences being those where the opponent cannot consistently reply, for it changes nothing whether the debater could have used one general term "no pervasion" or two varieties of "no pervasion." For other debates between the Sa lugs and Phya lugs on classifications of consequences, see Onoda 1992, 71-86.

<sup>20</sup> The proponent will punctuate her victory, by clapping her hands three times while say-

So much for the moves found abundantly in the texts. There are also moves and strategies that rarely figure in the texts but are often used in actual *Collected Topics* debates. One of them is to say *chos can skyon can* (“Faulty subject!”) when the subject term involves a double meaning or other trick. When a pervasion might normally hold but is taken in a deliberately ambiguous way or involves a patently sophistical special case, the reply can be ‘*dir ma khyab*’ “There would be no pervasion in *this* case!”<sup>21</sup>

A reply that is particularly ingenious—and worth exploring in some detail, as it seems to be largely unknown to Western tibetologists—goes by the exotic name “Knowable thing and crushed garlic!” (*shes bya sgog rdzog*). It does figure once in *Yongs ‘dzin bsdus grwa chung*,<sup>22</sup> but without any explanation, as it is the kind of orally learned reply competent debaters know and use as a kind of shorthand for claiming that an argument commits a particular type of fallacy.<sup>23</sup> The reply *shes bya sgog rdzog* meant that one

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ing *rtsa ba’i dam bca’ mtshar, mtshar, mtshar*—roughly translated as, “Shame, Shame, Shame for your root position, or “Your root position is finished, finished, finished,” if we understood the homophonic *tshar* instead of *mtshar*. The audience may also take up this clapping and even jeer loudly at the opponent.

<sup>21</sup> For example, it is common to debate about the pervasion in the reasoning, “On the smoky hill, there is fire because there is smoke,” viz., “where there is smoke there is fire.” Smart, beginning debaters will then say that in the cigarette smoker’s mouth there must (absurdly) be fire because there is smoke. To this the reply is “There would be no pervasion in this case!” (*dir ma khyab*), the point being that the place is too precisely specified: there is fire somewhere relatively near the smoke but not in the smoker’s mouth.

<sup>22</sup> F. 25a ed. S. Onoda and T. Kelsang.

<sup>23</sup> We also find the phrase *shes bya sgog gtun ma* (“Knowable thing and garlic [ground by] pestle and mortar!”) being used—a search of the Buddhist Digital Resource Center site ([www.tbrc.org](http://www.tbrc.org)) reveals that it occurs six times in the Tibetan texts in this collection. It figures, for example, in the *Thal ‘gyur gyi ‘phreng ba ngag gi dbang po’i rdo rje* of gSer mdog pañchen Śākya mchog ldan (1428-1507), where this Sa skya pa replies to an argument by saying “Moreover, this proof of pervasion is refuted by the reasoning concerning knowable thing(s) and garlic [ground by] pestle and mortar” (*gzhan yang khyab sgrub de shes bya sgog gtun ma’i rigs pas sun dbyung ba’i phyir /*). The search also reveals the variant *shes bya sgog rdung gi rigs pa* (“the reasoning concerning knowable thing(s) and mashed garlic”) in a text of the dGe lugs pa scholar Blo bzang dpal ldan (1881-1944). Finally, the term does occur in the *sGom sde tshig mdzod chen mo* (i.e., sGom sde lha ram pa 2013) but not in other dictionaries, to my knowledge at least. On p. 2798 we find the following: *shes bya sgog rdzog khyab log sgrog pa’i don*

thought an opponent's reasoning committed the same fallacy as in the following faulty argument:

*shes bya chos can / khyod rdzog pa [or rdzog rgyu] yin par thal / sgog pa khyod yin pa gang zhig sgog pa rdzog pa [or rdzog rgyu] yin pa'i phyir /.*

“Take as the subject *knowable thing*. It follows [absurdly] that it is crushed [or crushable], because garlic is one and garlic is crushed [i.e., crushable].”

Or a little less exactly:

“Take as the subject, *knowable thing*; it follows that it is crushable, because garlic is a knowable thing and garlic is crushable.”

The debater knows that the reply to this reasoning must be: “There is no pervasion” (*khyab pa ma byung*), for obviously it is not so that when garlic is an instance of  $x$  and garlic is crushable then  $x$  itself must be crushable. If there were such an implication, you would have to agree that *knowable thing* itself is crushable.

Here, then, is the structure of the fallacious arguments that *shes bya sgog rdzog* supposedly encapsulates:  $A$  is  $B$ , because an instance of  $A$  is  $B$ . This is, in fact, an understandable and genuine fallacy, one that uncritical people, unfortunately, tend to commit quite frequently. For example:

“Humankind is evil, because the serial-killer Son of Sam is human and Son of Sam is evil.”

Indeed, to put it another way, *shes bya sgog rdzog* is a common Tibetan way to claim that the opponent is pursuing bad inductive reasoning. True, the debate can continue to determine whether the opponent's reasoning really

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*yin / dper na shes bya rdzog rgyu yod par thal / sgog pa rdzog rgyu yod pa gang zhig sgog pa shes bya yin pa'i phyir zhes pa'i thal ba 'phen pa lta bu la shes bya sgog rdzog zer /.* “‘Knowable thing and crushed garlic’ means that one proclaims the pervasion is wrong. For example, when the consequence is implied that it would follow [absurdly] that *knowable thing* would be crushable, because garlic is crushable and garlic is a knowable thing, then one says ‘Knowable thing and crushed garlic!’”

is a case of bad inductive reasoning, as alleged. But what is striking for our purposes is that the usual Dharmakīrtian *metaphysical* and *epistemological* arguments in favour of natural connections (*svabhāvapratibandha*) existing in the real world and hence *against* establishing generalizations by merely not seeing a counterexample (*adarśanamātra*), will play no role whatsoever. In effect, those metaphysical and epistemological issues (“What exists in reality? What do we know?”) are either ignored or reformulated in terms of rule-guided moves, or set pieces, as when one claims *shes bya sgog rdzog*.<sup>24</sup> But questions about grounding for pervasions in reality are not germane, as such questions would in effect make a debater step back and appeal to what is so outside the debate, instead of following the rules wherever they take her. What there really is outside, or underlying, the rule-guided activity of debate seems to be largely irrelevant: Tibetan debate logic is a kind of formalism.

### 3. *Two sorts of consequences*

Consequences, in *Collected Topics*, are sometimes, but certainly not always, recognizable Indo-Tibetan forms of *reductio ad absurdum*, in which the consequence *B* follows from the reason *C* that the opponent accepts, but is in contradiction with the other positions of the opponent. Sometimes, but not always, the truth of the opposite proposition is then derived by an application of contraposition.

Thus, for example, suppose that a non-Buddhist Mīmāṃsaka, or someone like him, holds that sound/a word (*śabda* = *sgra*) is permanent, that it is produced from causes and conditions, but also accepts that whatever is produced is impermanent. To this individual, the Buddhist can give the following consequence:

(1) *sgra chos can / ma byas pa yin par thal / rtag pa yin pa'i phyir /*.

“Sound, the subject; it would follow that it is unproduced [from causes and conditions], because it is permanent.”

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<sup>24</sup> I personally recall that when I was studying *bsdus grwa*, *shes bya sgog rdzog* was very often invoked. It was a potent “Gotcha!” move.

The Mīmāṃsaka opponent is then faced with a situation where each permitted reply entails abandoning a statement in which he himself believes, and so he cannot reply leaving all his Mīmāṃsaka philosophy intact. In that sense (1) is a “good consequence” for him.

In Tibet, as in India, one also speaks of a so-called “contraposition of the consequence” (*thal bzlog = prasāṅgaviparyaya*). The contraposition of the consequence in (1) provides a “proof” (*sgrub byed = sādhana*) as follows:

(2) *sgra chos can mi rtag pa yin te byas pa yin pa'i phyir /.*

“Sound, the subject, it is impermanent, because it is produced [from causes and conditions].”

The reason of the consequence in (1) is negated and becomes the property to be proved in (2); the property in (1) is negated and becomes the reason in (2). Crucially, in (2) the reason is indeed supposed to satisfy the three characteristics, so that the goodness of *that* reason is not just a matter of acceptance but of establishment via *pramāṇas*. That is why (2) is considered to be a *proof* and not just itself another consequence.

The type of consequences as exemplified by (1) are said to be “consequences that imply a proof” (*sgrub byed 'phen pa'i thal 'gyur*). What does “imply” (*'phen pa = \*kṣipta*) mean here? This is clearly not just simple prediction that actual opponents will, *as a matter of fact*, come to understand and accept a proof after hearing a consequence showing a contradiction in their positions. In fact, in (1) we seem to be dealing with a type of *ideal* rational individual, a “proper opponent” (*phyi rgol yang dag*), who *knows* with a *pramāṇa* that sound is produced (or to put it more traditionally, he has a *pramāṇa* that refutes that sound is not produced) and knows that all products are impermanent; yet he still mistakenly believes that sound is permanent. In that case, this opponent will arrive at (2). In short, to say that a proof is “implied” presupposes that certain statements are not just accepted but are in fact known to be true, i.e., “established by *pramāṇas*” (*tshad mas grub pa*). Of course, the ideal individual who would know all these truths and still have the required mistaken belief is no doubt rare, but arguably that is not the point. The explanations in Indo-Tibetan *Pramāṇa* texts about consequences that imply proofs are best seen as normative discourse about what follows from what and about what moves rational people should make; it is not simply anthropology or sociology about how some or most people actually do think.

In India, many significant thinkers, such as Dharmakīrti and Bhāviveka, insisted that *prasaṅga* by itself is incomplete to establish truth and that there must be an implied proof, sometimes termed a *svatantrahetu* (*rang rgyud kyi gtan tshigs*) or “autonomous logical reason,” i.e., one that, as in the above example, satisfies the triple characteristic and is thus duly established by *pramāṇas*. It seems unclear to what degree this was a purely theoretical requirement, i.e., that the proof *can* be derived by a rational individual, and to what degree Indian debaters actually did make the contrapositions and arrive at proofs. In any case, in Tibetan *Collected Topics*, consequences are *in fact* rarely contraposed to yield proofs.

Some consequences *could*, of course, be contraposed by an ideal debater to yield a proof and triply characterized reason, although they simply were not. Others, however, *could not* be contraposed even ideally. Sometimes these are known as simply “refuting consequences” (*sun ‘byin pa’i thal ‘gyur = \*dūṣaṇaprasaṅga*), where a contradiction is derived from an ensemble of propositions, but where there *can* be no use of contraposition to arrive at a proof like in (2). For example:

(3) *sgra chos can / rtag pa yin par thal / mig shes kyi gzung bya yin pa’i phyir /*.

“Take sound as the subject; it follows that it would be permanent, because it is apprehended by visual consciousness.”

If (3) were contraposed, we would get the following bad reasoning:

(4) *sgra chos can / mig shes kyi gzung bya ma yin te / mi rtag pa yin pa’i phyir /*.

“Take sound as the subject; it is not apprehended by the visual consciousness, because it is impermanent.”

This is obviously not a triply characterized reason, because the pervasion does not hold. On the other hand, (3) can serve to discredit the debater’s position by deriving a proposition in contradiction with the ensemble of his beliefs and thus placing him in a position where he cannot consistently reply in one of the three manners. In that sense, he is refuted. Nonetheless, if he arrives at (4) he clearly has not ascertained the truth on the basis of a

good reason where the various characteristics were ascertained. At most, he was just lucky to arrive at a truth by means of a bad reason.<sup>25</sup>

The “refuting consequence” is thus one type of consequence that does not imply a proof (*sgrub byed mi 'phen pa'i thal 'gyur*). It is not a *proof* of a specific statement by *reductio ad absurdum*, as in (1) and (2) or in famous Western uses of *reductio*, like the indirect proof of the irrationality of the square root of two. Although it can derive a consequence that is absurd for the opponent and proponent, it is being used as a sort of demolition of the adversary’s whole position: if it proves anything at all, at most, it proves that the conjunction of the propositions accepted by an opponent is not true. A natural interpretation of the logic of Candrakīrti was that he used such a type of *reductio ab absurdum* to refute the opponent’s position, i.e., he merely demonstrated that the *ensemble* of the opponent’s propositions was false, by its own internal inconsistency, but did not himself claim any individual propositions to be true or false and did not accept any derivation of *prasaṅgaviparyaya*.<sup>26</sup> This style of consequence was known by Phya pa, rNog lo tsā ba and other early writers on Tshad ma. It is part of what I have called “typical Prāsaṅgika” philosophy (Tillemans 2016, 51f.) It is, however, of relatively little importance in *Collected Topics*. Moreover, the dGe lugs pa do *not* characterize Candrakīrti’s logic in this way, either. While the dGe lugs pa recognize that some *other* Indo-Tibetan Mādhyamikas interpreted Candrakīrti as making no truth claims and only refuting opponents’ views, their own exegesis of his Prāsaṅgika philosophy is much more complicated and does allow that Candrakīrti made specific truth claims on many issues.<sup>27</sup>

In fact, in *bsdus grwa* logic the vast majority of consequences that do not imply proofs are not like (3). Moreover, they seem to be distinctively unlike what we find in *any* Indian uses of *prasaṅga*. They are *not* an

<sup>25</sup> The usual technical term for believing in a truth on the basis of a reason like (4) is *rgyu mtshan ma nges pa'i yid dpyod* “a true presumption where the reason is uncertain.”

<sup>26</sup> See Tillemans 2016, chapter V. There it is described as “method B” in *reductio ad absurdum* reasoning. On Phya pa’s use of this refuting consequence, see Hugon 2013. It can be argued whether a merely refuting consequence should be called a “*reductio ad absurdum*” at all given that it is not an indirect proof. This is perhaps largely a matter of terminological choice. I have argued in Tillemans 2016 that both in the West and in India method B was a well attested type of reasoning from absurdity.

<sup>27</sup> See chapter V of this volume for Tsong kha pa’s view on Candrakīrti’s *prasaṅga* method.



indirect proof by *reductio ad absurdum* as in (1) nor are they a type of *reductio ad absurdum* qua demolition as in (3). Rather, the implied statement preceding *thal* will typically be thought to be true by Buddhists, even established by a *pramāṇa*, and thus not an absurdity at all from the point of view of the Buddhist proponent.<sup>28</sup>

Here is the stock example. (Again the opponent is a Mīmāṃsaka-like thinker who believes that sound is produced, that all products are impermanent, but who does not accept that sound is impermanent):

(5) *sgra chos can / mi rtag pa yin par thal / byas pa yin pa'i phyir /.*

“Sound, the subject; it follows that it is impermanent, because it is produced.”

Our first reaction is probably going to be that this looks suspiciously like the stock example of a triply characterized reason. Of course, if we compare the second type of consequence with triply characterized reasons, the acceptance that the reason is established (i.e., that  $(x) (Ax \rightarrow Cx)$ ) corresponds roughly to the *pakṣadharmatva* of the triply characterized reason. Similarly, the acceptance of the pervasion (i.e.,  $(x) (Cx \rightarrow Bx)$ ) corresponds to the second and third characteristics (i.e., *anvayavyāpti* and *vyatirekavyāpti*). However, a main difference is that the reason statement and pervasion statement need not be *known* to be true, only accepted or thought to be so by the opponent. The reason in this *prasaṅga* is thus not assessed by the same criteria of goodness as for a triply characterized reason. The consequence is, as usual, good if the opponent cannot make one of the three permissible replies while remaining consistent with his other acceptances. Truth, and reality, *pramāṇas*, and so forth are, strictly speaking, not crucial here.

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<sup>28</sup> This type of consequence is, as far as I can see, a purely Tibetan invention, or if there were any cases of it in India, they are not clearly documented or discussed in the scholastic literature.

**4. *Why use consequences rather than triply characterized reasons?*  
*The problem of nonexistent subject terms and āśrayāsiddha***

What difference would it make for Tibetan debaters to use a consequence like (5) rather than a corresponding triply characterized reason? First and foremost, and contrary to what the first characteristic of the *trairūpya* demands, the subject in a “consequence that does not imply a proof” need not exist at all, as it need not be established by a *pramāṇa*—we find numerous good consequences in *Collected Topics* that have as their subject a rabbit’s horn or a barren woman’s child. In Indian logic, by and large, it is a requirement that knowledge and good reasons be about existent things. And, not surprisingly, this is a requirement too in the context of triply characterized reasons. When subject terms do not exist, the reason incurs the fallacy of a “non-established locus” (*gzhi ma grub pa = āśrayāsiddha*)—the problem led to numerous philosophical debates between Indian Buddhists and Naiyāyikas. We will not, however, go into these issues in India nor into their extremely elaborate Tibetan developments; they have been taken up in some detail elsewhere.<sup>29</sup>

Of course, the underlying intuition behind the Indian fallacy of *āśrayāsiddha*—viz., that an argument typically goes wrong when there is subject failure—is quite sound and is amply recognized East and West. One can make relevant comparisons with Western debates on Russell’s theory of descriptions, and on the question as to whether a nonexistent subject leads to the falsity of the statement, or instead to a presupposition failure, such as when a debate on Santa Claus’ would-be North Pole citizenship becomes moot when it is understood that there is no Santa Claus at all. In Indian Buddhist logic, the emphasis is undoubtedly on presupposition failure: arguments generally cease when the subject is shown to be nonexistent. A reason’s possession of the triple characterization presupposes that the subject be “commonly recognized by both parties” (*ubhayaprasiddha*); this requirement figures prominently in the works of Dignāga, Dharmakīrti, and those of their Svātantrika-Mādhyamika followers, such as Bhāviveka, Śāntarakṣita, Kamalaśīla, *et al.*<sup>30</sup> As Dharmakīrti expresses it, if there *is* a

<sup>29</sup> See, for example, Tillemans and Lopez 1998, reprinted in Tillemans 1999.

<sup>30</sup> On the Svātantrika-Prāsaṅgika debate, see Dreyfus and McClintock 2003. See also chapter V in Tillemans 2016.

debate about such and such a property, then *ipso facto* it is understood that the subject is commonly recognized.<sup>31</sup>

Interesting Indian examples of the problem of subject failure were the debates about the existence of pseudo-entities such as God (*īśvara*) or the Sāṃkhyas' Primordial Nature (*prakṛti*). The obvious conundrum is that such a debate would seem to be "short circuited" by the fallacy of *āśrayāsiddha* if the debate actually succeeded in proving the subject's nonexistence. Dignāga, Dharmakīrti, and others devoted great efforts to avoiding such self-refutation.<sup>32</sup> They would argue that the real subject was

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<sup>31</sup> See, e.g., *Pramāṇavārttika* IV.77: *vicāraprastuter eva prasiddhaḥ siddha āśrayaḥ / svecchākalpitabhedeṣu padārtheṣv avivādataḥ //* "Since there is actually an undertaking of an investigation [as to whether the property to be proved (*sādhyadharmā*) is present or not in the subject], then the locus (*āśraya*) is established as commonly recognized (*prasiddha*); for there would be no debate about things whose particularities are [just] imagined according to one's wishes." See Tillemans 2000, 108-109. Note, however, that this requirement for *ubhayaprasiddha* as it figures in k. 77 and elsewhere in Pramāṇa literature does not seem to be *simply* a *de facto* mutual agreement between the parties but also involves a normative aspect: not only is there a consensus that the subject exists, but people are, in some sense, right in having such a consensus. It looks like, for Dharmakīrti and many Tibetans, a highly religious society's consensus on the existence of God, for example, would not suffice to make God a genuinely commonly recognized entity. If that is right, the precondition for debate would actually be twofold: (1) consensus amongst the parties on the subject's existence; (2) the subject being in fact established by a *pramāṇa*.

<sup>32</sup> In Tibet this problem of potential "short circuiting," or self refutation, in the case of nonexistent subjects was well known. Se ra Chos kyi rgyal mtshan gives an amusing illustration of the exegetical predicaments that would arise if one could *not* use good reasons to prove anything about nonexistent things. *rNam 'grel spyi don* 78a: *mkhas pa kha cig / gzhi ma grub chos can du bzung ba'i bsgrub rtags yang dag yod de / skyes bu 'di chos can / sdug bsngal ba yin te / ri bong rwas phug pa'i phyir / zhes bkod pa'i tshe ri bong gi rwas phug pa chos can / skyes bu sdug bsngal bar bsgrub pa'i gtan tshigs ltar snang yin te / de sgrub kyi rtags su bkod pa gang zhig / de sgrub kyi phyogs chos ma yin pa'i phyir zhes bkod pa'i tshe / de sgrub kyi rtags su bkod pa gang zhig / de sgrub kyi phyogs chos ma yin pa de / ri bong rwas phug pa skyes bu sdug bsngal bar bsgrub pa'i rtags ltar snang du bsgrub pa'i rtags yang dag yin pa'i phyir /* "A learned opponent might argue that there are good probative reasons for which an unestablished locus is stated as the subject. This is because of the following. Suppose someone says, 'Take as the subject, the man over here. He is suffering; because he has been gored by a rabbit's horn,' then one could argue, 'Take as the subject being gored by a rabbit's

not God, but the concept of God; or they would argue that nonexistence, being a non-implicative negation (*prasajyapratishedha*), a mere denial of entityhood, does not presuppose any existent real entity as subject. But while there is considerable ingenuity here, it has to be said that such debates are not easily pursued within the framework of the triply characterized reason. The later Indian scholastic writers, and Tibetans too, thus had to do some of their most subtle *apoha* philosophy of language to preserve the requirement that the subject exist.<sup>33</sup>

Consequences show much greater flexibility than the triply characterized reason in that their goodness usually only demands that the opponent *thinks* that the subject exists. Thus, a proponent's personal conviction that the subject is not actually established by a *pramāṇa* may well have no impact on the debate: there is no strict need for mutual consensus, nor for establishment by a *pramāṇa*. The advantage that consequences have over triply characterized reasons, then, is that they allow debates about properties that have no existence-implication and thus can be predicated of nonexistent subjects. It becomes unproblematic, for example, for Buddhists to argue that a creator God does not exist: no talk of subsistent concepts, the theory of *apoha*, or purely non-implicative negation is needed. There is no need to worry that debates become moot when the presupposition of the subject's existence fails.

In many cases, *neither the opponent nor the proponent* thinks that the subject exists, but nonetheless it is quite possible to argue about its properties via a consequence. In the Tibetan *Collected Topics* we see that, in effect, some properties imply that the subject exists, but others do not.

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horn; it is a bad reason for proving that the man is suffering, because it is given as a reason for proving that [he is suffering] and it is one that is not a property of the subject (*paṅśadharmā*) [i.e., being gored by a rabbit's horn is not property of the man]. When one says that, then 'being given as a reason and not being a property of the subject' is a good reason for proving that being gored by a rabbit's horn is a bad reason for proving that the man is suffering."

<sup>33</sup> Many of them did this by arguing that subjects like God, etc. at least *subsist* as concepts and are thus not completely nonexistent but not fully fledged existent entities in the external world, either. In short, they borrowed from their theory of concepts, their *apohavāda*, replacing God, etc., with double negative conceptual stand-ins, having no actualizations in the world. See Tillemans 1999, chapters VIII and XI; see also chapter III in this volume.

Let's borrow a term from Nino Cocchiarella 1968, and call these existence-implicating-properties "E-attributes" for short. For example, if one is arguing about a rabbit's horn being sharp, then sharpness, being an E-attribute, would necessitate that the rabbit's horn exists; a property like "being something expressed by the words that mention it" (*rang zhes brjod pa'i sgra'i brjod bya*), however, does not necessitate existence. In the case of E-attributes, statements are considered to be false when such an attribute is asserted of subjects that are nonexistent. However, *Collected Topics* has numerous reasonings concerning properties that are not E-attributes, and in those cases the statements may well be accepted to be true, in spite of the commonly recognized nonexistence of the subject. Thus, for example, if we have an argument about whether every item, existent or nonexistent, is expressed by words, then all existent and nonexistent things—including nonexistent but possible things, like a rabbit's horn, and even impossible items like a barren woman's child—can be the subjects without any danger of *āśrayāsiddha* or the debate rhetorically collapsing. None of this is easily handled with a triply characterized reason.

### 5. Pervasion in the Tibetan debate logic and in Dharmakīrti

As we saw earlier, the pervasion (all *C*'s are *B*'s) in Dharmakīrtian logic had to be grounded by a type of necessary relationship, i.e., a so-called natural connection (*svabhāvapratibandha*) between the terms *C* and *B*. Ontology is at the heart of the triply characterized reason. The Tibetan *bsdus grwa* logic of consequences, on the other hand, had a much simpler account of pervasion, that of a debate logic in which ontology played little role. Indeed, that debate logic probably would have made Dharmakīrti wince, as it comes uncomfortably close to Īśvarasena's *adarśanamātra* (merely not seeing a counterexample) method of establishing pervasion. Here are the details.

One of the rules of this debate logic is that if an opponent challenges a pervasion, by saying *khyab pa ma byung* "the pervasion doesn't hold," the proponent can say, "Give me a counterexample!" (*ma khyab pa'i mu zhog*), and if that counterexample is not forthcoming in a reasonable time, the proponent has the right to say that the pervasion does in fact hold. Necessary connections and ontological considerations play little role. What counts is not so much whether there *are* in fact or could be counterexamples, but what one can show in a relatively limited time. This

might seem to unpack as close to the accursed *adarśanamātra* method in that one asserts pervasion so long as the adversary hasn't (speedily) come up with a counterexample. But it could also be argued in defence of the Tibetans, that Dharmakīrti, in introducing grounding, raised the bar far too high and unnecessarily complicated a rather clear and easy matter of logic. *Collected Topics* elaborated the truth conditions for a universally quantified material implication, viz., that there is no  $x$  such that  $Cx$  and *not*  $Bx$ , but without the Dharmakīrtian epistemology and metaphysics that tended to obscure a purely logical account.

In short, Tibetan debate logic seems to have made a separation between the logical question of what pervasion *is* (viz., absence of counterexamples), the ontological question of what in reality grounds it (viz., natural connections), and the epistemological issue of what we need to know (viz., an example that instantiates both the reason and the property to be proved) if we are to be able to understand that there is a pervasion. These three issues need to be separated by clear thinkers and it is arguably no mean achievement to do so in the context of Buddhist logic.

### **6. Other formal aspects of the logic of consequences: quantification and variables**

While consequences function in a context of debate with various permitted moves, there are clearly also significant formal features that can be extracted. In effect, the establishment of the reason and the pervasion means that the opponent accepts  $(x)(Ax \rightarrow Cx)$  as well as  $(x)(Cx \rightarrow Bx)$ . The step to having to accept  $(x)(Ax \rightarrow Bx)$  is uncontroversial: an opponent would be considered irrational and disqualified from the debate if he persisted in rejecting that uncontroversial formal implication.

What about the use of variables and quantification? The language used in Tibetan debate is a technical form of Tibetan, in which we find an extensive use of pronouns in a manner that is analogous to the use of variables in an artificial language. The parallel between pronouns and variables is to be seen, for example, in the Tibetan debate idiom's use of *khyod*, which ordinarily means "you" but is used technically here to stand for all types of items: anything from inanimate things to animals and other sentient beings, to even nonexistent things. It is used here much in the same way as English third person pronouns. The phrase *khyod khyod dang gcig yin*, literally "you are identical with you," thus can also be rendered

as “it is identical with itself,” or better, simply, “ $x$  is identical with  $x$ .” Another variable-like word is *chos de* “that phenomenon,” typically used when *khyod* is already present and a second variable is needed, as in *khyod chos de'i rgyu yin*, literally, “you are the cause of that phenomenon,” but more accurately (though less literally), “ $x$  is the cause of  $y$ .” When only one variable is at stake, *khyod* is optional and is often omitted. It is not optional when two variables are needed to express, say, a dyadic relation. For example, one can say:

(6) *sgra chos can, khyod mi rtag pa yin par thal...*

“Sound, the subject, it follows that you (*khyod*) are impermanent...”

Or simply:

(7) *sgra chos can, mi rtag pa yin par thal ...*

“Sound, the subject, it follows that it is impermanent...”

What work does specifying “the subject” (*chos can = dharmin*) do in the Tibetan logic of consequences? In other words, why use the rather long-winded “sound, the subject, it follows that you are impermanent,” thus setting the subject apart, rather than just simply saying “It follows that sound is impermanent”? It is, I would argue, a special type of quantification, what we can term, following J.A. Faris, “singular quantification.”<sup>34</sup> To see this more clearly, let us take an example of a reasoning with *khyod* being used as a variable.

(8) *bum pa chos can khyod khyod dang gcig yin par thal khyod yod pa'i phyir*

“The vase, the subject, it follows that you are identical to yourself, because you exist.”

Or:

“The vase, the subject, it follows that  $x$  is identical to  $x$ , because  $x$  exists.”

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<sup>34</sup> See Faris 1968.



Note that if the opponent replies, “there is no pervasion” (*khyab pa ma byung*), the pervasion in question can be expressed as:

(9) *khyod yod pa yin na khyod khyod dang gcig yin pas khyab /.*

“If you exist then you are pervaded by being identical with yourself.”

Or:

“If  $x$  exists then  $x$  is pervaded by being identical with  $x$ .”

We can express (8) as a universally quantified material implication with  $x$  (*khyod*) functioning in a straightforward way as a variable bound by a universal quantifier that ranges over all items, existent or nonexistent. The quantification, in short, is without existential import so that “for all  $x$ ” means “for all existent or nonexistent items” and “for some  $x$ ” means “for some existent or nonexistent item.”<sup>35</sup> “Exists” will then be taken as a predicate and represented by “E!” As we see in (9), existence of  $x$  implies identity of  $x$  with itself. Thus, (9) is easily rendered in symbols where pervasion is a universal quantifier “for all  $x$ ” (without existential import) binding the variable  $x$ ; existence (*yod pa*) is simply treated as a predicate:

(x) (if E! $x$  then  $x = x$ )

“Subject” (*chos can*) also shows a type of quantifier binding the variable  $x$  (*khyod*). To see this, let’s back up and progressively reformulate a few English sentences:

Ollie loves Nicaragua.

Ollie is such that he loves Nicaragua.

Ollie, he is such that he loves Nicaragua.

We can see that the pronoun “he” in the last statement also works as a variable and that “Ollie,” in indicating the pronoun’s antecedent, is in effect binding that variable. Following Faris 1968, the *singular quantification* in this statement could be formalized as:

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<sup>35</sup> See, e.g., Routley 1966.

(Ollie  $x$ ) ( $x$  loves Nicaragua).

Read: “Of Ollie as  $x$ , it is so that  $x$  loves Nicaragua.”

This type of quantifier for singular statements can be integrated, as Faris shows, into the fabric of first order logic without any special problems. Granted, for the writers of a usual basic Western logic textbook, it might well be considered cumbersome and arguably wouldn’t do much that individual constants don’t already do. However, if we now turn to the Tibetan *Collected Topics*, it does have a significant role there. Sentence (8) becomes:

(the vase  $x$ ) ( $x = x$  because  $E!x$ )

Or:

(the vase  $x$ ) (if  $E!x$  then  $x = x$ )

Read: “Of the vase as  $x$ , if  $x$  exists then  $x$  is identical to  $x$ .”

Clearly the *khyod* or  $x$  in the statements (9) and in (8) are variables: what changes is only the quantifier; it changes from a universal quantifier to a singular quantifier. “Pervasion” (*khyab pa*) translates as a universal quantifier that binds the variable *khyod* or  $x$ ; “the subject” (*chos can*) translates as a singular quantifier binding the same variable.

### **7. The logic of consequences used like a logic of propositions**

Interestingly, the correctness of paraphrasing or translating sentences in *Collected Topics* with singular or universal quantifiers is further corroborated by the fact that this quantification can also be redundant and fail to bind variables. Redundant quantification is a possibility in first order predicate calculus—one could have a well-formed formula like:

( $x$ ) (if Mickey loves Minnie, then Donald loves Melania).

But redundant quantification is usually of practically little interest. Not so in Tibet. Consider the following:

(10) *sgra mi rtag pa yin na sgra byas pa yin pas khyab /.*

“If sound is impermanent, then sound is pervaded by being a product.”

Or:

(x) (if sound is impermanent, then sound is a product)

And:

(11) *shes bya chos can sgra mi rtag pa yin par thal sgra byas pa yin pa'i phyir /.*

“Take *knowable thing* as the subject; it follows that sound is impermanent, because sound is a product.”

Or, in the singular quantification idiom:

(*knowable thing* x) (sound is impermanent, because sound is a product)

Or, in other words:

(*knowable thing* x) (if sound is a product then sound is impermanent)

In all of these statements, the quantification is redundant simply because there are no pronouns, i.e., variables, for it to bind. Tibetan debaters express this idea of a redundant subject/singular quantifier as a *chos can nus med*, i.e., a powerless subject, an ineffectual subject. These powerless subjects enable Tibetans to keep the form and wording of a typical consequence but do something more like propositional logic than predicate calculus. In fact, they had no separate means to reason about propositions, but adapted the trappings of their logic of consequences to this purpose. We saw earlier that a pervasion such as  $(x)(Cx \rightarrow Bx)$  is true if and only if there is no  $x$  such that  $Cx$  and not  $Bx$ . Now, imagine a pervasion like  $(x)(P \rightarrow Q)$  with a redundant universal quantifier. Here again the pervasion will be true if and only if there is no  $x$  such that  $P$  and not  $Q$ . The basic move, in debate terms, remains the same in both cases: the proponent says *ma khyab pa'i mu zhog*, “Give me a counterexample!” And when that counterexample is not forthcoming in a reasonable time, it is presumed to be nonexistent, and the statement is thus accepted as true, at least for the purposes of the debate. If, as in (10), both  $P$  and  $Q$  are true propositions with no pronouns/variables, then clearly no genuine counterexample can be given. In this fashion, Tibetan *Collected Topics*, in effect, allows for implications, negation, contraposition, and the like between complete propositions.

This somewhat roundabout logic of propositions is what Tibetan commentators will use in reformulating many reasonings in Indian texts, often using *shes bya chos can* “knowable thing *x*” as a powerless subject familiar to those who are versed in debate. A typical example of such a text is the dGe lugs pa word-commentary (*tshig 'grel*) written by dGe 'dun grub pa (1391-1474) on *Madhyamakāvātāra*, where Candrakīrti’s first five chapters, concerning Buddhist ethics and religion, are often paraphrased in the form of reasonings having *shes bya chos can* followed by two complete propositions.<sup>36</sup> This type of paraphrase was partly for mnemonic and pedagogical purposes. It also, no doubt, provided some seeming argumentative rigor to what were largely faith-based assertions of the Buddhist religion.

### 8. Several types of pervasions and their interrelationships

*Collected Topics* elaborate logical relationships between propositions by introducing several different sorts of pervasion and then showing that a consequence in which a pervasion of, say, sort *S* holds must also be a consequence of which, say, sort *T* holds. The *rjes 'gro ldog khyab* lesson, in which these relationships are investigated, is, in spite of its name, significantly different from the usual Indian discussions of *anvayavyāpti* and *vyatirekavyāpti* and may well stem from Phya pa himself.<sup>37</sup> Thus, for example, in the usual sound-impermanent-product consequence in (5), the “main pervasion by co-presence” (*rjes khyab rnal ma*) is the familiar:

(x) (if *x* is a product then *x* is impermanent)

<sup>36</sup> I.e., his *dBu ma la 'jug pa'i bstan bcos kyi dgongs pa rab tu gsal ba'i me long*. Included in the *Collected Works of the First Dalai Lama dGe 'dun grub pa*, Vol. 3. Reproduced from prints from ‘Bras spungs dga’ ldan pho brang conserved in the library of the Venerable Dar mdo Rin po che of Kalimpong, India. Gangtok, Sikkim, 1981. Available at [tbrc.org/#!rid=W759](http://tbrc.org/#!rid=W759).

<sup>37</sup> See Onoda 1983, 437. In these sorts of discussions about pervasions, *Collected Topics* regularly presents the *prasaṅga* without any subject (*chos can*), i.e., a so-called *rtags gsal dang bcas pa'i thal 'gyur*, a “consequence that [only] has a reason (*rtags*) and the implied property (*gsal ba*),” as in *rtag pa yin par thal mtshon bya yin pa'i phyir* “It follows that *x* is permanent, because *x* can be defined.” See *Yongs 'dzin bsdus grwa 'bring* (ed. Kelsang and Onoda), f. 25b *et seq.*

The main pervasion by co-absence (*ldog khyab rnal ma*) is:

(x) (if x is not impermanent then x is not a product)

The first type pervasion is recognized to hold if and only if the second type of pervasion holds, whatever be the terms for the antecedent or the consequent.

There are other pervasions too, most seemingly unknown in the Indian literature. For example, *bsdus grwa* speaks of the “downward pervasion” (*thur khyab*), where the property to be proved is pervaded by the reason, and the “opposite pervasion” (*‘gal khyab*), where the reason is pervaded by the negation of the property to be proved. Indeed, there are usually said to be eight such pervasions, four main (*khyab pa rnal ma bzhi*) and four negated (*khyab pa phyin ci log bzhi*); the former are those where the terms are taken as they are and not negated; the latter are those where the antecedent is left as is but the consequent is negated. If we again take *C* as the reason and *B* as the property to be proved in the consequence, then the usual “eight doors of pervasion of a consequence” (*thal ‘gyur khyab pa sgo brgyad*), as explained in *Yongs ‘dzin bsdus grwa* or *bSe bsdus grwa*,<sup>38</sup> can be represented as follows:

The main pervasion by co-presence (*rjes khyab rnal ma*):  $(x)(Cx \rightarrow Bx)$

The main pervasion by co-absence (*ldog khyab rnal ma*):

$(x)(\neg Bx \rightarrow \neg Cx)$

The main downward pervasion (*thur khyab rnal ma*):  $(x)(Bx \rightarrow Cx)$

The main opposite pervasion (*‘gal khyab rnal ma*):  $(x)(Cx \rightarrow \neg Bx)$

The negated pervasion by co-presence (*rjes khyab phyin ci log*):

$(x)(Cx \rightarrow \neg Bx)$

The negated pervasion by co-absence (*ldog khyab phyin ci log*):

$(x)(\neg Bx \rightarrow \neg Cx)$

The negated downward pervasion (*thur khyab phyin ci log*):

$(x)(Bx \rightarrow \neg Cx)$

<sup>38</sup> See *Yongs ‘dzin bsdus grwa bring* (ed. Kelsang and Onoda) folio 25b *et seq.*, *bSe bsdus grwa* 233 *et seq.*

The negated opposite pervasion (*'gal khyab phyin ci log*):  
 $(x)(Cx \rightarrow \neg \neg Bx)$

As Onoda 1992, 99-100 points out, 'Jam dbyangs bzhad pa (1648-1772) added a third group to these two, with the somewhat mysterious name *kha bub* or *kha sbub* “face down,” “upended,” “upside down,” which we could perhaps render as “inverted.”<sup>39</sup> If we take the usual four pervasions, their inverted versions negate both the antecedent and the consequent in the corresponding main pervasions. Thus:

The inverted pervasion by co-presence (*rjes khyab kha bub*):  
 $(x)(\neg Cx \rightarrow \neg Bx)$

The inverted pervasion by co-absence (*ldog khyab kha bub*):  
 $(x)(\neg \neg Bx \rightarrow \neg \neg Cx)$

The inverted downward pervasion (*thur khyab kha bub*):  
 $(x)(\neg Bx \rightarrow \neg Cx)$

The inverted opposite pervasion (*'gal khyab kha bub*):  
 $(x)(\neg Cx \rightarrow \neg \neg Bx)$

A recurrent exercise in *bsdus grwa* is to see which ones are equivalent and which are exclusive. This is formulated in terms of debates about consequences that satisfy various numbers of pervasions. Thus, for example, it can be argued that any consequence in which the main pervasion by co-presence is satisfied is also one where the negated opposite pervasion will be satisfied. (N.B. the law of double negation elimination is recognized!) Or it can be debated whether there are consequences that satisfy such and such a number of pervasions. For our purposes, we cannot enter into the details here.<sup>40</sup> Suffice it to say that these are fairly sophisticated twelfth century exercises in formal relations between propositions—the relations hold completely independently of the propositional content. Nothing along the line of these twelve pervasions seems to be found in Indian Pramāṇa.

<sup>39</sup> Cf. Blo mthun bSam gtan *et al.* 1979 (*Dag yig bsar bsgrigs*) *s.v.* *kha sbub*: *mdun nam kha sa ngos la gtad pa'i don te, dkar yol kha sbub, byis pa kha sbub tu nyal lta bu /*. “It has the meaning of something turned on its front or on its face, as for example a cup that is upended/turned face down, or a child sleeping face down.”

<sup>40</sup> Onoda 1992, 100-106 goes into the details.

The only formal discussion in Indian Pramāṇa that might be comparable would be the nine types of reasons in Dignāga's *Hetucakra*.<sup>41</sup>

### 9. *Ex falso sequitur quodlibet*

A crucial feature of classical material implication, like “If *P* then *Q*,” is that the truth conditions are specified so that the whole implication is false only if *P* is true and *Q* is false—on any other assignment of truth-values to *P* and to *Q*, the material implication is true. The result is, of course, that the falsity of *P* guarantees the truth of “If *P* then *Q*.” In other words, the falsity of the antecedent is a sufficient condition for the truth of the whole conditional, i.e., the material implication. *Collected Topics* explicitly recognizes that when the so-called *khyab bya* (= *vyāpya*, i.e., property that is pervaded) has no instances, then the whole pervasion (*khyab pa* = *vyāpti*) will be established—in less literal terms, the falsity of the antecedent in the implication will imply the truth of the whole conditional.

Moreover, *Collected Topics* lucidly and explicitly recognizes that when the antecedent (i.e., the pervaded, *khyab bya* = *vyāpya*) is false, or more exactly instanceless, the pervasion will hold *whatever the consequent* (i.e., the pervader, *khyab byed* = *vyāpaka*) *may be*. This is a logical principle that mirrors the Medieval logician's maxim that *ex falso sequitur quodlibet* (whatever you wish follows from a falsity). It is even slightly eerie how well the Latin *sequitur quodlibet* (whatever you wish follows) corresponds to the Tibetan phrase used in these contexts, viz., *gang dren dren yin pas khyab* (“*x* is pervaded by whatever you might think of”). Thus, for example:

(12) *ri bong rwa yin na gang dren dren yin pas khyab /.*

“If something is a rabbit's horn it is pervaded by whatever you might think of.”

Thus, e.g., it is true that:

(13) *ri bong rwa yin na ru bal skra yin pas khyab /.*

“If something is a rabbit's horn then it is pervaded by being the hairs of a turtle.”

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<sup>41</sup> See Chi 1969.



Or:

(x) (if x is a rabbit's horn, then x is the hair of a turtle).

Once again, in debate terms, if the truth of (13) is challenged, then the command is always *ma khyab pa'i mu zhog*, "Give me a counterexample!" That counterexample will not be forthcoming simply because there is no rabbit's horn, or in other words, because the property that is pervaded (*khyab bya*) has no instances. The fact that the pervaded (*khyab bya = vyāpya*) is always instanceless ensures that the pervasion will be established whatever the pervader (*khyab byed = vyāpaka*) might be.

To my knowledge, there is no recognition of *ex falso sequitur quodlibet* in Indian Buddhist logic, probably because, in philosophies like that of Dharmakīrti, the pervasion needed existent terms that would bear a natural connection (*svabhāvapratibandha*) in reality. A pervasion also needs examples (*drṣṭānta*), on the basis of which it could be *understood* to hold through a source of knowledge—the metaphysical and epistemological orientation is preponderant. In Tibetan debate logic texts, by contrast, talk of *ex falso sequitur quodlibet* occurs quite frequently, probably because these Tibetans dealt essentially with the logical features of material implication and left the rest of the Dharmakīrtian baggage aside.

### 10. Modal logic? No thank you

A question naturally comes up when someone is first confronted with statements like (12) and (13), viz., is there any awareness of modal distinctions in *bsdus grwa*, or, for that matter, in Tshad ma or Indian Buddhist Pramāṇa? The confusion is probably exacerbated by the fact that it is very frequent, in modern Buddhist Studies discussions of Indian and Tibetan thinkers, to speak of "necessity," "necessary connections," etc., especially when discussing the natural connections (*svabhāvapratibandha*) underlying pervasion in Dharmakīrti's logic. The temptation is, thus, great to think that pervasion between *C* and *B* would unpack in terms of modal logic's necessity operator, i.e.,  $N(x)(Cx \rightarrow Bx)$  "Necessarily, for all *x*, if *x* is *C* then *x* is *B*."

*Ex falso sequitur quodlibet* is differentiated, in Medieval logic, between cases of contingent and necessary falsity. And indeed, the falsity of the antecedent in (12) and (13) is not a necessary falsity (i.e., in all possible worlds)—a modal logician would be quick to point out that many exotic

possible worlds are populated by horned rabbits, hairy turtles, and the like. Here then is a more precise formulation of the issue at hand: would a modal logician's differentiation between possibility and necessity explain any distinctions that Indo-Tibetan logicians themselves make? I think that the answer is "No."

Let us look at how contingent nonexistence and necessary nonexistence are handled. First, of course, nothing stops a Tibetan from changing a statement like (12) about horned rabbits to a statement in which the pervaded term (*khyab bya*) is not just instanceless but contradictory:

(14) *mo gsham gyi bu yin na gang dren dren yin pas khyab /.*

"If someone were a barren woman's son, he would be pervaded by being anything one can think of."

Indeed, there are several Indo-Tibetan stock examples of nonexistent things, of which we would say that some happen to be nonexistent and others must necessarily be nonexistent—we would say that the rabbit's horn (*śaśaviṣāṇa* = *ri bong rwa*) is a case of the former and that the barren woman's son (*vandhyāputra* = *mo gsham gyi bu*) is a case of the latter. Strikingly, however, that difference between contingent and necessary nonexistence, so important to a modal logician, does not seem to have been considered significant at all and, in any case, is not explicitly discussed in *Collected Topics* and Tshad ma generally. There simply seems to be no interest in, or even awareness of, modal logical distinctions in Tibetan *Collected Topics*, or in other Tibetan Tshad ma literature. Also, to be slightly more provocative, it looks like there is no Indian Buddhist modal logic, either. While Indo-Tibetan Buddhists would, if pushed, I suppose, recognize that the rabbit's horn *could* somehow have existed, or could be a feature of a fantastic imaginary world, that possibility is hardly germane in their logic: truth and falsity, existence and nonexistence are of this world alone.

It might perhaps be thought that the rabbit's horn we imagine would nonetheless be said by Tibetans to be a rabbit's horn and that some of those horns might even be sharp in the appropriate possible worlds!<sup>42</sup> If that were so, then the modern writer on a quest for modal logic in Tshad

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<sup>42</sup> On reasoning about being gored by a rabbit's horn (*ri bong rwas phug pa*), see n. 32.

ma could claim that predication and truth are not just of this world for *bsdus grwa* adepts. But no: being a horn, whether of a rabbit or of a deer, and being sharp are existence implying properties, E-attributes. Thus, an imagined horn is not a horn at all, nor is it sharp, because it does not exist. The point, of course, is that it does not exist in this world, the only world with which *bsdus grwa* logicians have any truck.

Turning to Indian Pramāṇa, even when terms *C* and *B* have a so-called natural connection (*svabhāvavpratibandha*) of causality or “same nature,” that is best interpreted to mean that *C* and *B* are instantiated in this world, and that one can be *sure* that in this world there are no *C*’s that are not *B*’s. It does not seem to be the modal version that there are no *C*’s that are not *B*’s in any possible world.<sup>43</sup> As we saw earlier in discussing consequences and *āśrayāsiddha*, Tibetan *bsdus grwa* logicians certainly had very few problems in reasoning about nonexistent things—fewer problems than their Indian Buddhist counterparts—but that does not mean that they were at ease with modal notions or existence in possible worlds. On this both Indian and Tibetan Pramāṇa specialists would agree: when things are existent or nonexistent, they are so in the real world. The real world is certainly strange, with its trichiliocosms of universe systems, but existence or nonexistence anywhere “else” would be seen as incomprehensible.

### 11. *Semantic problems: count nouns, mass nouns, and translatability*

I close on a larger matter for reflection: what are the prospects for *engagement* with Tibetan thinking about logic? What are the prospects for engagement with Tibetans on philosophical issues of common interest when their discussions of the issues are couched in the concepts and formal structures of *bsdus grwa*? Formal structures in *bsdus grwa* logic are quite clear and can be readily explained; as we have tried to show, they can be translated into philosophical English and analyzed, sometimes with the aid of symbolic logic. There is, if one is careful, little risk that one is creating distortions or misunderstandings by using Western notions to explain them or by translating relevant passages into a Western language.

Semantical issues, by contrast, are often obscure. Discussions of them in Tibetan resist translation, and engagement with Tibetan philosophy is

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<sup>43</sup> See Tillemans 2020, section 1.4.

thus not easy when these semantical issues come to the fore. I would argue strongly that the problem is not due to an *inherent* incommensurability of Tibetan with English or European languages, or due to some sort of generalized thesis of linguistic relativism à la Benjamin Lee Whorf. It is, rather, a problem of the intelligibility of many Tibetan philosophical debates when sophisticated and clear-headed Tibetan thinkers exploit possibilities offered by their language that are hardly offered by most European languages. More precisely, the difficulty is in the *philosophical* uses of Tibetan count and mass nouns and the odd questions of interpretation that arise. Those difficulties are acute in indigenous Tibetan Buddhist texts on Tshad ma, especially those of the dGe lugs school, and in the many other sorts of Tibetan philosophical texts that in one way or another rely on them.<sup>44</sup>

We begin with some general considerations. The difference between count nouns and mass nouns is usually first approached as a difference in word classes recognizable in terms of syntax: the former are words like “table” that can take numerals, vary in singular and plural, be qualified by adjectives like “many,” and have other such morphosyntactic tags, while the latter are words like “water” that don’t take numerals, don’t vary in grammatical number, take adjectives like “much,” etc., etc. Some of us might like to think that there is a semantic and even corresponding ontological distinction. It might be thought that words that refer to things have clear boundaries of individuation while those that refer to stuffs don’t have such boundaries—this too is supposedly captured by count-mass noun distinctions.

None of these criteria, even in their more sophisticated elaborations, seem to be watertight across languages. Precision falters for many reasons. Some Asian languages, like Chinese and Tibetan, arguably, have count-mass distinctions but without many of the usual morphosyntactic tags. As for the thing-stuff distinction, it even becomes problematic with common English mass nouns like “furniture,” where obviously each piece of furniture is a thing and not an amorphous stuff like water. And crucially the idea of neat word classes in one language or across languages fails. In many languages there are uses of nouns as count or mass in different

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<sup>44</sup> What follows is a modified version of Tillemans 2015, a paper published in Arindam Chakrabarti and Ralph Weber (eds.), *Comparative Philosophy without Borders*.

contexts (“Waiter, three coffees please!” “Coffee spilt all over her new carpet.” “She heard several loud sounds.” “Sound is everywhere.”). In some languages, like Chinese, any noun can be used as a mass noun (see Robins 2000), while in other languages specific nouns may not exhibit that same variability of use at all. Finally, what is count in one language may be mass in another (the French count noun “bagage” has a corresponding English mass noun “luggage”), so that clear classes across languages prove to be impossible. Probably the most adequate approach for our purposes is a semantic one turning on uses and functions rather than word classes: nouns are used as count nouns in a specific language when they divide their reference into distinguishable and countable objects; they are used as mass nouns when they do not.

Are mass and count noun distinctions in source languages important when one translates Buddhist texts into English? Let me begin with a commonly cited position that I think is *not* an answer to that question for translators of Sino-Tibetan languages. This is the view that there simply is no distinction at all between mass and count nouns in these Asian languages and that there are hence only the “impositions” of translators—the formulation is that of the philosopher W.V. Quine 1968 in his work on indeterminacy of translation and ontological relativity.<sup>45</sup> Indeed, Quine had famously suggested that Chinese and Japanese were arbitrary in precisely this way. He made much of the fact that classifiers (= Chinese *liang ci* 量詞) are used with all common nouns and that it is therefor impossible to decide whether a phrase like *yi tou niu* 一頭牛 should be translated as “one cow” or “one head of cattle” (cf. Quine 1968, 191-193). As he said bluntly: “Between the two accounts of Japanese [*scilicet* Chinese] classifiers there is no question of right and wrong” (Quine 1968, 193).

*This* is hard to defend as a description of actual language usage. Sinologists muster ample textual data that show that there are mass and count nouns in Chinese. They may have differences on how that mass-count distinction unpacks in particular periods, whether it needs to be

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<sup>45</sup> Quine 1960 is the classic source for the thesis of indeterminacy of translation—viz., that there could be mutually incompatible, but equally adequate, translations of nouns in a source language—which has probably made more of a splash in sinological circles than in Tibetan studies. Hansen 1983, 140-141, 188, for example, mentions it approvingly in connection with his mass-noun hypothesis for Chinese. Cf. also Harbsmeier 1998, 311.

supplemented, whether mass nouns predominate, etc., but the very applicability of a mass versus count noun distinction to Chinese or Japanese is hardly in question.<sup>46</sup> The obscurity of some classifiers is not generalizable to all uses of nouns. First, in modern Chinese, as Lisa Lai-Shen Cheng and Rint Sybesma 1998 have carefully shown relying on data of grammatical and ungrammatical sentences, we *can* make a difference between count-classifiers and mass-classifiers, or massifiers. For example, *ge* (unit) works differently from *wan* (bowl) in that it names a unit of measure, whereas *wan* creates one; this in turn is reflected in data concerning the grammatical acceptability of the uses of *de* (of), adjectival phrases, demonstratives, and other phenomena. Quine and others made the mistake of seeing the absence of marking such as singularity and plurality in the nouns as particularly important and treated classifiers as equal in deciding count-mass status. Well, they aren't equal. It is with the types of classifiers-massifiers and related syntactic and grammatical data that we can empirically distinguish between noun phrases that refer, or are used to refer, to discrete, countable units and those that don't. Moreover, in modern Chinese, there is evidence that children learn the difference between sortal and mensural classifiers and that this difference in types of classifiers more or less mirrors the count-mass distinction.<sup>47</sup>

Classifiers are often not used in classical Chinese. But *yi niu* 一牛 (one cow) seems, rather uncontroversially, a count noun usage. In short, taking a straightforward linguistic perspective, one could say that *you niu* 有牛 (literally, "There exists *cow*") is a mass noun usage of "cow" and *yi niu* 一牛 (one cow) is a count noun. Such a version of mass and count noun usage is not just restricted to Chinese. It is largely mirrored in Tibetan. Although Tibetan does not use classifiers, neither in the modern nor in the classical language, it is fair to say that *ba lang yod* ("Cow exists." "There

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<sup>46</sup> See, for example, Robins 2000 and Fraser 2007. Harbsmeier 1998, 313-321 divides Chinese nouns into count, mass, and generic and gives rules for when they are to be taken in one or in another fashion. Note too that the strong mass-noun hypothesis for Chinese in Hansen 1983, if right, would have to be taken as opposed to Quine 1968, as it would maintain that Chinese *is* a mass-noun language that does talk of mass stuffs, i.e., horsey stuffs, rabbit stuffs, and the like. In fact, I think, Cheng and Sybesma 1998 would also show that it is not right either. For the data on classifiers in four varieties of Chinese, see Cheng and Sybesma 2005.

<sup>47</sup> See Li and Cheung (2016).

exists *cow*.”) is a mass noun usage and *ba lang gcig* (one cow) is a count noun usage, and so on in general for common nouns in Tibetan, be it *rta* (horse), *khang pa* (house), *mi* (people), *mo ta* (car), and so forth. We will return to parallels between Tibetan and Chinese in more detail later.

Interestingly enough, however, Quine didn't adopt a straightforward linguistic perspective about speakers' usage of nouns in Asian languages. Instead, he seductively combined the linguistic/philological problems in describing usage of nouns in particular languages with the philosophical issues that arise in interpreting a type of deep reference in *any* language. His philosophical point was that we cannot *really* determine the *sorts of entities people talk about* (in Chinese or any other language) among equivalent possibilities, be it individual oxen versus heads of cattle, particular instances of properties versus distributions of a stuff or fusion (horses versus discontinuous distributions of horsey stuff or the fusion of all horses) or even mathematical expressions versus their corresponding Gödel numbers. The type of entities really referred to, or in other terms “the inherent ontology of the language,” is inscrutable. Now, this is a different issue from the question as to whether a given language just simply has count and mass noun usage that pick out discrete individuals or not. One could very well say that there are determinate answers about the existence of mass and count nouns in many languages and that *yi niu*, *ba lang gcig*, and the like are naturally and rightly translated as “one cow,” but also say that the sort of entities the mass or count nouns *really* refer to remains indeterminate and inscrutable. In other words, it is the *ontology* of the language, the real reference, that remains inscrutable. Indeed, *that*, as we shall see, is a point of view one can defend using an argument from Donald Davidson, not just with regard to Asian languages like Chinese and Tibetan, but across the board.

Let us grant that there are count nouns and mass nouns in Sino-Tibetan languages and that reading a Tibetan or Chinese sentence as having mass or count nouns is not just an arbitrary imposition of the European translator. Let us also grant that Sino-Tibetan languages use mass nouns much much more frequently than European languages do, but that European translators are generally unfazed and adopt strategies of reformulation. (We'll see the details of these strategies below.) That much should be a non-issue. What *is*, however, a genuine issue for translators and philosophers is whether there are, at least sometimes, uses of mass nouns in the Asian source languages that *preclude* any adequate translation or reformulation in a



European language. Are there such uses that are more than quirks and that a translator of Buddhist texts fundamentally cannot translate, reformulate, nor perhaps even satisfactorily paraphrase? In what follows, I'll frame the problems largely in terms of translation into English, but one can, no doubt, make the same arguments for other European languages.

Nowhere, in my opinion, is *that* issue of translatability more urgent than in the indigenous Tibetan Buddhist literature of *bsdus grwa* (Collected Topics). In what follows, we will look at the details and the antecedents in Tsong kha pa and rGyal tshab rje for the translational problems found in *bsdus grwa*.<sup>48</sup> And *bsdus grwa* semantic problems don't just remain in *bsdus grwa* texts: as argued in Tillemans 1999, they spread to indigenous commentaries on Pramāṇa, Abhidharma, and Madhyamaka that use *bsdus grwa* notions; they make various philosophical debates notoriously hard to translate into acceptable English. The issue of intelligibility is thus a larger one: it is *not* just the issue of understanding and engaging with the corpus of books that bear the title *bsdus grwa*.

What are these seemingly intractable semantic issues? Puns and equivocations in Tibetan—and *Collected Topics* is certainly rich with them—are *not* intractable issues, nor are the many syntactic tricks in *Collected Topics* that involve plays on Tibetan grammatical cases, such as the genitive used in relative clauses. Unpacking puns and exposing syntactic sleight of hand may be more or less laborious, but in the end, there is nothing that cannot be rendered adequately. The problems that interest us turn on a peculiar use of mass nouns. These semantic issues will be my focus here as they pose problems for which we have no solution now nor in the easily foreseeable future. They are very different from the many *bsdus grwa* brainteasers that turn on double meanings and devious syntax.

The problem is the following. Subject terms (*chos can*) in Tibetan *Collected Topics* arguments, like *vase (bum pa)*, *tree (shing)*, *knowable thing (shes bya)*, *non-red (dmar po ma yin pa)*, *good reason (rtags yang dag)*, and many others are often not translatable by the count nouns they would seem to require in a Western target language—"a vase," "some/

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<sup>48</sup> Note that our discussion builds upon and to some degree presupposes Tillemans 1999, chapter X, "On the so-called Difficult Point of the Apoha Theory." Many of the supporting explanations and detailed translations from Tibetan works can be found there and will not be repeated here.



all vases,” “this vase,” “some/all/a/the good reason,” “some/all/a/one/the knowable thing,” “some/all/a/one non-red thing,” and so on. Such count noun translations would not preserve truth. Two examples will have to suffice. Here and in what follows I’ve put the grammatically problematic English terms in italics:

(15) “*Non-red (dmar po ma yin pa)* is permanent, because there are common bases between *permanent* and it (*khyod dang rtag pa’i gzhi mthun yod pa’i phyir*).”

Comment: The same example can be constructed with *knowable thing*, *good reason*, and many other entities; the reason is a usual one in *bsdus grwa* to prove that something is permanent. The point of “*Y* having a common basis with *X*” is that there are cases of *Y* which are also cases of *X*. There are non-red things that are permanent, such as, for example, space (*nam mkha’ = ākāśa*).<sup>49</sup>

(16) “*Defining characteristic (mtshan nyid = lakṣaṇa)* [of anything] is not a defining characteristic (*mtshan nyid mtshan nyid ma yin*), because it has a defining characteristic and is thus a definiendum (*mtshon bya = lakṣya*).”<sup>50</sup>

Comment: *Defining characteristic* itself is defined as *what satisfies the three criteria for a substantial property (rdzas yod chos gsum tshang ba)* and is thus itself something that can be defined, i.e., a *mtshon bya*.

Here, in more detail, is the problem in translating (15) and (16) if we use available English renderings involving “all,” “some,” “a,” and “the/this.”

<sup>49</sup> See e.g., *bsDus grwa brjed tho*, p. 5: *dmar po ma yin pa chos can / rtag pa yin par thal / khyod dang rtag pa’i gzhi mthun yod pa’i phyir /*. “Take *non-red* as the subject; it follows that it is permanent, because there is a common basis between *permanent* and it.” Cf. *Rwa stod bsdus grwa* p. 116: *ma byas pa chos can / der thal / rtag pa yin na / khyod dang rtag pa’i gzhi mthun yod pa’i phyir /*. “Take *non-produced* as the subject; it follows that there is a common basis between permanent and it, because if anything is permanent, then there is a common basis between it and *permanent*.”

<sup>50</sup> See e.g., *Yongs ‘dzin bsdus grwa (chung)* f. 9b: *ngos po’i mtshan nyid chos can / mtshan nyid ma yin par thal / mtshon bya yin pa’i phyir /*. “Take *defining characteristic of entity* as the subject; it follows that it is not a defining characteristic, because it is a definiendum [i.e., something to be defined].”

Sentences like (15) will be false in the philosophy of *Collected Topics* when *dmār po ma yin pa* or *shes bya* are rendered as “all non-red things” or “all knowable things,” just as (16) is also false if one renders *mtshan nyid* as “all defining characteristics.” A sentence like (15) becomes trivially true if we render *dmār po ma yin pa* or *shes bya* as “some non-red things,” “some knowable things,” “a non-red/knowable thing,” and it is perhaps true when rendered as “the or this non-red/knowable thing.” In fact, in *Collected Topics*, (15) is *not* a trivial truth or just a possible truth: it is held *to be* true, but non-obvious and needing justification—hence the reason about common bases.

What is more dramatic for translation than (15) is (16): it becomes false if *mtshan nyid* is taken as “some” or “all” defining characteristics or even “a/the/this defining characteristic.” These renderings would all be false, because *Collected Topics* holds that every defining characteristic is indeed a defining characteristic: to say that some, all, or the/a, defining characteristics are not defining characteristics would lead to howls of derision—it would be said to be absurd (*ha cang thal = atiprasaṅga*) because of being a flat-out contradiction.<sup>51</sup> If we use a generic “the” we get no further, as “the defining characteristic is not a defining characteristic” remains false, and indeed it is not at all clear that the generic knowable thing would be permanent for an adept of *bsdus grwa*.

Finally, one cannot say that subject terms in Tibetan are actually veiled uses of an abstract term, as if we should simply translate *bum pa* by “vaseness” and *shes bya* by “knowable thingness,” much as if it were the Tibetan *bum pa nyid* and *shes bya nyid* (= the Sanskrit *ghaṭatva* and *jñeyatva*). It is a cliché in Tibetan philosophical texts to say “Vase is bulbous, splay-bottomed, and able to perform the function of carrying water” (*bum pa lto ldir zhabs zhum chu skyor kyi don byed nus pa yin*): vaseness, as an abstract entity or a property, is obviously not able to carry water, and is thus *not* what is being talked about. One can come up with many other such examples to show that terms do not designate such abstract entities.<sup>52</sup>

<sup>51</sup> Let there be no mistake: *Collected Topics*, and Tibetan Tshad ma texts in general, do not accept true contradictions. The “difficult point” cases that we are discussing are not suggestive of dialetheism.

<sup>52</sup> For example, when it is repeatedly said in *bsdus grwa* that *entity itself* (*dnegos po*) is a non-associated conditioned thing (*ldan min ‘du byed = viprayuktasamkāra*), one is *not*

What is left as a plausible English translation? The problem in (15) and (16) and in other such cases is that they seem to need some sort of a mass noun rendering, along the lines of “knowable thing,” “defining characteristic,” “vase,” “good reason,” etc., if our translation of the Tibetan argument is both to preserve truth and not fall into triviality. But, of course, “vase,” “good reason,” “knowable thing” and the like are not used as mass nouns in English, French, Dutch, etc., i.e., they don’t behave like “snow,” “water,” and the like. “Vase” does divide its reference into readily distinguishable and countable objects. It would usually be considered a solecism in English to speak of *vase* (or French *cruche*, Dutch *vaas*, etc.) or *knowable thing* as being found here, here and here—one naturally understands the sentence “Vases are found in the museum,” but not “*Vase* is found in the museum”—and it makes no sense to speak of a collection of *vase* or a set of *knowable thing*, although a collection of vases and a set of knowable things are, of course, perfectly fine. The result: we are, so it seems, forced to translate many philosophical passages in a way we fundamentally don’t understand in our own languages, and there is no easy unpacking in English that would preserve the rationality, and hence comprehensibility, of the Tibetan philosophical discussion.

Tibetans themselves were aware that the meaning of *bum pa* (vase) was not the same as the meaning of *bum pa 'ga' zhig* (some vases), *bum pa thams cad* (all vases), *bum pa 'di* (this vase), *bum pa zhig* (a vase), etc. They saw that difference as applying *mutatis mutandis* to “good reason” (*rtags yang dag*) versus “a/some/all good reasons” and numerous other terms, and they thought that it was an important difference with philosophical consequences. Indeed, it was emphasized by a figure no less than Tsong kha pa (1357-1419) himself, in his *Tshad ma'i brjed byang chen mo*, that although something may be true of *X* itself, e.g., *reason*, *positive phenomenon*, *universal*, etc., it need not be true of all *x*'s (all reasons, universals, etc.). Tsong kha pa says that when we get

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asserting that a quasi-Platonic entityness (*dngos po nyid*) is a conditioned thing, as *that* would be permanent, while any conditioned thing is impermanent. Note that the term *viprayuktasamkāra* is in the *Abhidharmakośa* of Vasubandhu but what the dGe lugs pa do with it is not. The dGe lugs pa are asserting that *entity itself* is neither a material nor a conscious thing but is nonetheless a real entity (*dngos po*). Hence, it belongs to the third category, *viprayuktasamkāra*.

this subtlety wrong, it is a major obstacle (*gegs*) due to which the rest of our thinking goes astray—he applies his diagnosis across the board to metaphysics, philosophy of logic, and philosophy of language.<sup>53</sup> The problem supposedly arises when we fail to reconcile two key propositions in Buddhist nominalism:

“[The obstacle] is precisely to grasp as contradictory the pair [of propositions] that *object of thought* (*rtog pa’i yul*) is not a particular and that particulars are [nonetheless] objects of thought.”<sup>54</sup>

ICang skya Rol pa’i rdo rje (1717-1786) elaborates upon Tsong kha pa’s solution:

“Now, the reason behind this is that there would be no contradiction [in the fact] that the property *per se* (*rang ldog*, Skt. *\*svavyāvṛtti*), *actual object of thought*, is not a particular, but that particulars are actual objects of thought.”<sup>55</sup>

On Tsong kha pa’s diagnosis, then, people supposedly fail to understand the nominalist perspective because they cannot see the compatibility

<sup>53</sup> See Tillemans 1999, 214-215.

<sup>54</sup> *Tshad ma’i brjed byang chen mo* (Tashilhunpo edition of *Collected Works*, Vol. *pha*) f. 19a = p. 188: *rtog pa’i yul rang mtshan ma yin pa dang rang mtshan rtog pa’i yul yin pa gnyis ‘gal bar ‘dzin pa nyid yin no /*. For the full passage, see Tillemans 1999, 231, n. 12. An astute reader will notice that I have translated *rang mtshan rtog pa’i yul yin pa* as “particulars are [nonetheless] objects of thought,” and might well claim that to be consistent my translation should be “*particular* is [nonetheless] an object of thought.” Fair enough, one could have that, strictly speaking. But the reason I have translated *rang mtshan* here as “particulars” rather than *particular* is that it is one of those many occurrences that lend themselves to easy reformulation. See the discussion below about reformulating Chinese and Tibetan mass nouns. The sentence *rtog pa’i yul rang mtshan ma yin pa*, “*object of thought* is not a particular,” however, does not lend itself to that kind of reformulation at all. As the passage from ICang skya Rol pa’i rdo rje brings out, *rtog pa’i yul* here has to be understood in the sense of *rtog pa’i yul gyi rang ldog* “the property *per se*, *object of thought*.”

<sup>55</sup> *ICang skya grub mtha’* p. 71 ed. rDo rje rgyal po: *de’i rgyu mtshan yang rtog pa’i dngos yul gyi rang ldog rang mtshan ma yin kyang rang mtshan rtog pa’i dngos yul du ‘gyur ba mi ‘gal bas ... /*.

between the fact that *object of thought* itself is a fictional creation, and hence not a real particular (*rang mtshan = svalakṣaṇa*), and the fact that there are objects of thought that are particulars (e.g., vases, tables, chairs, etc. are real particulars and also objects of thought simply in that we do think about them). His solution is that we need to be able to properly differentiate *object of thought per se* (i.e., *X* itself) and objects of thought (i.e., the individual *x*'s)—while the former is a fictional universal, the latter need not be fictions at all.

His disciple rGyal tshab rje (1364-1432), in one of the most commonly used dGe lugs pa *Pramāṇavārttika* commentaries, *rNam 'grel thar lam gsal byed*, called this *X* versus *x*'s differentiation, somewhat bombastically, the “supreme main point that is difficult to understand in this philosophical tradition [i.e., Buddhist logic]” (*gzhung lugs 'di'i rtogs dka' ba'i gnad gyi gtso bo dam pa*), in short, the hard point in the Buddhist's philosophy of language and logic.<sup>56</sup> It becomes a recurring dGe lugs pa position, one which is regularly invoked in key arguments by textbook writers such as Paṅ chen bSod nams grags pa (1478-1554), Se ra rje bstun Chos kyi rgyal mtshan (1469-1546), lCang skya Rol pa'i rdo rje, and others, and is known as the “main point that is difficult to understand in the *anyāpoha* [theory of language]” (*gzhan sel gyi rtogs dka' ba'i gnad kyi gtso bo*).<sup>57</sup> It is also what lies behind the *bsdus grwa* arguments that we see represented by (15) and (16). In other terms, (15) and (16) are the tip of an iceberg. Underneath the surface of *bsdus grwa* eristics lies a great deal of Tibetan philosophy of language.

Where does this “difficult point” leave us as translators? The supposed difference between talking of *X* itself (*vase, reason, object of thought*, etc.) and talk of *x*'s (*vases, reasons, objects of thought*, etc.) was no minor matter for these thinkers. *Like it or not, it is, for dGe lugs pas, essential to understanding their philosophy.* If Tsong kha pa and rGyal tshab rje are right and we do have to talk of *X* itself as opposed to *x*'s, or if we simply want to translate their theories, we would have to translate solecistically to render their philosophical thinking in English.

<sup>56</sup> *rNam 'gel thar lam gsal byed* vol 1., p. 76 translated in Tillemans 1999, 232-234, n. 4.

<sup>57</sup> See Tillemans 1999, 230, n. 10 for the use of this phrase by Paṅ chen bSod nams grags pa and Se ra rje bstun Chos kyi rgyal mtshan. On *apoha*, see Siderits, Tillemans, Chakrabarti (eds.), 2011.

Now, at this point, it might well be replied that this philosophical thinking and writing in Tibetan about *X* itself versus *x*'s is indeed unintelligible to us; the conclusion to draw is not that it is interesting, but that it is just better confined to the scrap-heap of bad philosophy. Tibetan writers' uses of terms in the sense of *X* itself, so it might be argued, are confused and would regularly need disambiguation to be explained away. If we are to avoid unintelligibility in English, a term like *bum pa* (vase) or *shes bya* (knowable thing) would sometimes have to be interpreted to refer to some or all individual things, sometimes to an abstract universal property, like vaseness, or knowable thinghood, or perhaps even the generic vase, but never to the mysterious *vase itself* or *knowable thing itself*.

However, that proposed disambiguation of troublesome contexts would be extremely inelegant and complex, necessitating *ad hoc* decisions for many arguments: it is generally simpler, and hence desirable, to find a univocal semantics where possible, even if that is not a ready semantics of a Western language. Worse, it is a type of uncharity to maintain that because such and such a semantics in a language leads to problems when "translating up" into a prestigious language, it *must* be wrong and hence demand complex disambiguation, as if it were simply a muddle. In any case, many very intelligent Tibetan traditional scholars do not feel that talk of *X* itself is problematic at all. In explaining *Collected Topics*, they will often insist that the subject terms (*chos can*) in most debates refer to "vase itself" (*bum pa kho rang*), "knowable thing itself" (*shes bya kho rang*), or "defining characteristic itself" (*mtshan nyid kho rang*), or equivalently they will use the terms *bum pa rang ldog*, *shes bya rang ldog*, *mtshan nyid rang ldog* ("vase, the property *per se*," etc.).<sup>58</sup> What is striking is that *bum pa kho rang/rang ldog*, etc. are felt to be univocal and perfectly clear, needing no disambiguation in terms of vaseness and vases. In my vivid personal experience of learning *Collected Topics*, my teachers

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<sup>58</sup> See Hugon 2008, 45, 326-329 *et seq.* on the Phya pa school's development of the notion of *rang ldog*, a property *per se*. Often it doesn't matter much that one refers to *X* itself, as there is no significant contrast with *x*'s: the predicate will unproblematically apply to both the property *per se* and its loci (*gzhi ldog*). Thus, for example, in *bum pa mi rtag pa yin* "vase is impermanent," impermanence does apply to *vase* itself and the various vases. dGe lugs pa do recognize that in certain debates a subject term may refer only to the individual loci or bases, but these are relatively rare.

felt frequent puzzlement and even exasperation that something so obvious would be so inexplicably difficult to their (seemingly intelligent) foreign student. It may well be their linguistic intuitions deserved greater weight than my nagging feeling that something was going wrong in Tibetan and needed the disambiguation that a European could supposedly provide.<sup>59</sup>

Would a parallel with Chinese be of help in understanding the problematic Tibetan uses of mass nouns? The specific Tibetan debates in *Collected Topics* are not, as far as I can see, of Chinese ancestry, with the quite possible exception of a Tibetan version of the white horse argument (see Appendix). Could one perhaps get some support from common syntactic and semantic features of the Sino-Tibetan family of languages? In Tibetan, as in Chinese, mass and count are not rigid word classes but more like functions of words. There is no clear *inherent or essential feature* of the Tibetan language that fixes nouns as mass nouns by word class; there are uses of nouns as mass nouns and uses as count nouns—one says *sgra mi rtag pa yin pa* (“Sound is impermanent”), but also *sgra gnyis thos pa* (“She heard two sounds”). Moreover, Tibetan is like Chinese in that all nouns, including “horse” (Tib. *rta*, Chin. *ma* 馬), “person” (Tib. *mi*, Chin. *ren* 人), and the like, can be used as mass nouns and even are so used frequently. To take an unphilosophical and very simple example, just as in modern Chinese, it is normal in colloquial Tibetan to say, literally, “In Lhasa, *car* exists. In Lhasa *car* is many’ (*lha sa la mo ta yod; lha sa la mo ta mang po* (‘*dug/yod*) = Chin. *zai la sa you che* 在拉薩有車; *zai la sa che duo* 在拉薩車多). It is thus not surprising that the possibilities of using Tibetan nouns as mass nouns are much greater than in English, French, and other European languages and that nouns like *bum pa* can easily be mass nouns while the English noun *vase*, French *cruche*, or Dutch *vaas* can not.

Is *that* all there is to the translational issues in Tibetan philosophical writing turning on uses of mass nouns, i.e., the so-called “difficult point”? No. The translational problems in the “difficult point” go beyond the fact

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<sup>59</sup> Cf. Bellos 2011, 212-213: “[T]he feeling that a difficult foreign text makes real and proper sense only when it’s been put into the language we prefer to use for thinking hard thoughts can easily ambush an otherwise sensible mind. ... [W]e should always resist the false conclusion that the target language—whatever language it is—is “better” at expressing this or that kind of thought.”



that Tibetan, like Chinese, regularly uses mass nouns that we would not countenance as mass nouns in an English translation. Reformulation of those Tibetan or Chinese mass nouns as English count nouns is usually banal and yields English sentences *salva veritate*, i.e., with no change in truth value—Tibetan *mo ta mang po* and Chinese *che duo* 車多 (Car [is] many) are rendered as “There are many cars” routinely and unproblematically.<sup>60</sup> I would see this as support for a position with regard to Tibetan like that of Chris Fraser 2007 with regard to Chinese, viz., that usage of mass nouns or count nouns has no implications about what kind of entities people are *really* speaking about. Indeed, one could well deflate much Tibetan similarly. Most uses of mass nouns—e.g., in colloquial speech, in history texts, in opera and epics, in Marxist or Buddhist tracts, cookbooks, or what have you—would not have *any* implications for whether one is speaking of particulars, manifestations of universals, distributions of fusions, and other such ontologies. There would be no semantic and metaphysical issues at stake in such cases, only verbal usage.<sup>61</sup> To supplement Fraser a bit, we could say that there certainly are mass and count nouns, but that their reference to metaphysical types of entities like particulars, instantiations of universals, distributions of fusion entities, etc. remains inscrutable. The would-be *inherent ontology* of the language in question is not only unknowable but immaterial to its statements being true or false.

The argument is that of Donald Davidson. Here is how it goes.<sup>62</sup> Inscrutability of reference comes down to an important point in formal semantics that there is always a permutation function  $\Phi$  that maps one reference scheme for a language onto another scheme, so that when, on the first scheme, a name refers to an object  $x$ , then on the second it refers

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<sup>60</sup> The same points naturally hold for translating Japanese into English, e.g., *Lhasa ni jidōsha wa aru*, *Lhasa ni jidōsha wa ōi*.

<sup>61</sup> This line of thought should also be applied to demystify claims about other languages too. Whorf, for example, focused on phenomena from North American Indigenous languages, such as interestingly different aspects, different tense systems, specialized vocabulary, and uses of verbs where European languages would use nouns. The linguistic data was supposedly evidence of a deeper (and murkier) fact that a language and culture “conceals a metaphysics,” or a distinct “structure of the universe” (Whorf 1956, 58). See also n. 68 below for Sapir and Whorf’s ideas on linguistic incommensurability and relativity.

<sup>62</sup> See Davidson 1984, 229-230.



to  $\Phi(x)$  and when a predicate  $F$  refers to the  $x$ 's of which it is true that  $x$  is  $F$ , then on the second scheme  $F$  will refer to the  $x$ 's of which it is true that  $\Phi(x)$  is  $F$ . If we grant, as I think we surely must, that every particular rabbit is an instance of rabbitness and is a distribution of the rabbit fusion entity, and that the converse implications all hold so that every distribution is an instance and an individual, etc., etc., then there is a permutation function allowing us to go unproblematically between the three interpretations of rabbit-talk. It is not only easily shown that “ $a$  is a rabbit” is true if and only if  $a$  is a rabbit, but that “ $a$  is a rabbit” is true if and only if  $a$  is an instance of rabbitness. And so on for rabbit fusions. The truth conditions become equivalent and there is only one fact of the matter needed for the sentences to be true. Whether that fact is  $a$ 's being an instance of rabbitness, a distribution of the rabbit fusion, or being a particular, individual rabbit, is inscrutable and immaterial to truth. The same holds, *mutatis mutandis*, for tables, people, buddhas, and so on.

Davidsonian arguments about inscrutability of reference, if right, put paid to a myriad of modern views about inherent metaphysics of languages and ways of thinking supposedly peculiar to their speakers alone.<sup>63</sup> That said, the specific problem of understanding *bsdus grwa* and the “difficult point” is very different from the usual grand scale discussion about inherent semantics. It is certainly not resolved by simply saying that statements about facts that we understand are interpretable indifferently, *salva veritate*, in terms of several sorts of entities, so that we could, for example, just as well be talking about distributions of the rabbit fusion (or instantiations of an abstract entity rabbithood) being furry instead of individual rabbits being furry. Rather, the point in bringing up (15) and (16), as we saw, is that we don't understand why these particular kinds of Tibetan statements and their English translations *are* supposedly true; we don't adequately understand the facts the Tibetan theoreticians are talking about *at all* when they talk about *vase* itself or *knowable thing* itself, nor the reasons why they assert what they do of them.

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<sup>63</sup> Not only does it put paid to such hypotheses famously formulated about North American Indigenous languages, it would also seem to undermine the strong versions of the mass-noun hypothesis for Chinese that we find in Hansen 1983, according to which the Chinese language itself is said to have a stuff-semantics, rather than a semantics of universals and instantiations.

Usual translational strategies to come up with reformulations in English *salva veritate* are thus simply not available here. More specifically, we are confronted with a dilemma. On the one hand, when the reformulations of (15) and (16) are in proper, clear English, they do not conserve truth value, but, on the other hand, if we seek to conserve truth value, we are forced into using a badly obscure English, so odd that certain terms are in italics and scare-quotes, suggesting unintelligibility. This is a problem of the philosophical implications of the Tibetan “difficult point.” They leave (15) and (16) with specific problems of intelligibility and translatability that more ordinary Tibetan does not have.

This dGe lugs theoretical position on Tibetan subject terms was important in Tibetan theorizing about language, but not surprisingly it was also contested by many non-dGe lugs thinkers. Sa skya pa thinkers like Kun dga’ rgyal mtshan (1182-1251), Go rams pa bSod nams seng ge (1429-1489), and gSer mdog Paṅ chen Śākya mchog ldan (1428-1507) were oriented more towards a more Indian Buddhist semantics where words either had to refer to real individual things, i.e., particulars (*rang mtshan* = *svalakṣaṇa*), or to fictional universals (*spyi mtshan* = *sāmānyalakṣaṇa*), with no middle ground of a universal that would also be a real thing (*spyi dngos po ba*). They were thus often very skeptical about interpretations of their own language in accordance with the “difficult point.” Talk of *X* itself along the lines of the “difficult point” theorists would, so they thought, lead to a kind of realism about universal properties. *Vase, tree*, and the like would be full-fledged universals present in several particulars, but also fully real as they would possess the ability to perform functions (*don byed nus pa* = *arthakriyāsāmarthya*). That intra-Tibetan debate took on major importance in contrasting dGe lugs pa/gSang phu versus Sa skya pa Tibetan approaches to the problem of universals and philosophy of language. Go rams pa polemically insisted that dGe lugs-gSang phu talk of “mere tree” (*shing tsam*) as being a real universal (*spyi dngos po ba*) present in particulars was just “verbal obfuscation” (*tshig gi sgrib g.yog*) and an invention of “the snowy Tibetans” (*bod gangs can pa*).<sup>64</sup> The main motivation of these Sa skya thinkers was not so much the mere usage of terms like *tree* (*shing*)— they used those ordinary Tibetan terms too—but

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<sup>64</sup> See Tillemans 1999, 212 et seq., and 229-230, n. 6.

the un-Indian aspect of accepting *tree* or *tree itself* as a real universal somehow to be contrasted with trees.

Were Go rams pa and others fair to the dGe lugs? They thought, probably rightly in many respects, that the dGe lugs-Phya pa semantic theories and especially the resultant metaphysics were out of step with mainstream Indian Buddhist nominalist positions such as those that one would find in Dignāga and Dharmakīrti, and they cited *Pramāṇavārttika* commentators like Śākyabuddhi to show that Buddhists should *never* accept universals. Georges Dreyfus and I, in a number of separate publications, have taken up the theories of *spyi dngos po ba* (real universals) in Tibetan thought and the slim Indian antecedents for this theory that might be found in tenth to twelfth century Kashmiri philosophers like Śaṅkaranandana and perhaps Bhavyarāja (= sKal ldan rgyal po).<sup>65</sup> It is certainly arguable that the *spyi dngos po ba* that the dGe lugs pa accepted was not *simply* the universal of non-Buddhist schools and that it would thus be unfair to accuse the dGe lugs pa of wholesale betrayal of Buddhist nominalism. Instead, *vase* is a concrete real entity able to perform functions like carrying water, and it is of the same substance (*rdzas gcig = ekadravya*) as the particulars; it is not a universal vaseness (*ghaṭatva*) that is separate from particulars and inherent (*samaveta*) in them, along the lines of the non-Buddhist Nyāya-Vaiśeṣika school or, for that matter, Platonism.

So far, perhaps, so good. Some might wish to say that although Tibetan in fact has no inherent semantics (for Davidsonian reasons), what these Tibetan dGe lugs pa writers are doing is reading their language *as if* it had a semantics of discontinuously distributed fusions—i.e., entities composed by adding all the world’s snow to make a sum and then (why not?) adding the world’s rabbits or horses, or what have you, to make their respective sums.<sup>66</sup> dGe lugs pa would, in sum, be theorizing about their own language as involving distributed stuff rather than individual things.<sup>67</sup>

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<sup>65</sup> See Dreyfus 1992 and 1997, chapter IX, 171 *et seq.*, Tillemans 1999, 212-220, Tillemans 1984, 64-65, n. 5.

<sup>66</sup> See Nicholas 2013, section 2, on mereological sums as reference for mass expressions.

<sup>67</sup> It might be thought that they are theorizing about their language much in the same way as some Western researchers have viewed Chinese. Cf. Hansen 1983, 35: “[T]he question, ‘Of what is *ma* “horse” the name?’ has a natural answer: the mereological set of horses. ‘Horse-stuff’ is thus an object (substance or thing-kind) scattered in space-time.”

Would such a stuff-semantics, after all, help explain and rationalize the “difficult point” distinctions that are promoted by dGe lugs pa philosophers? Let’s give it a run for the money. As we argued earlier, there is no reason to think that it is somehow inherent to Tibetan language generally or that the mere extensive use of mass nouns makes it necessary. But nor would reading the dGe lugs pa ideas about Tibetan in this way help much to rationalize what we find in the texts. While stuff-semantics may seem possible for horses, rabbits, and vases, it becomes increasingly weird for knowable things and good reasons. Even if we could learn to live with reason-stuffs or reason-fusions distributed here, here, and here, the big problem remains: we would still somehow have to learn to argue convincingly in English why the non-red fusion *itself* and knowable thing fusion *itself* and finally, the good reason fusion *itself*, would supposedly have properties that they do and that their distributions quite often don’t. It is hard to see that saying the dGe lugs pa (rightly or wrongly) apply a stuff-semantics to Tibetan would make that any clearer at all. The difficult point remains difficult.

Let me conclude on a nuanced note, taking some distance from the usual discussions about translation and translatability that one finds in analytic philosophy post W.V. Quine and Donald Davidson. As should be clear, I subscribe to much of the Quine-Davidson position on the inscrutability of reference. I am thus certainly *not* advocating a strong thesis—one usually attributed to Edward Sapir and Benjamin Lee Whorf—to the effect that a language has its own inherent ontology and is incommensurable with some or all other languages.<sup>68</sup> I do *not* think that Sino-Tibetan languages have an inherent ontology because of such languages’ extensive use of mass nouns.

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<sup>68</sup> Cf. Sapir 1949, 159: “It would be possible to go on indefinitely with such examples of incommensurable analyses of experience in different languages. The upshot of it all would be to make very real to us a kind of relativity that is generally hidden from us by our naive acceptance of fixed habits of speech as guides to an objective understanding of the nature of experience. This is the relativity of concepts or, as it might be called, the relativity of the form of thought.” Cf. Whorf 1956, 214: “[I]t means that no individual is free to describe nature with absolute impartiality but is constrained to certain modes of interpretation even while he thinks himself most free. The person most nearly free in such respects would be a linguist familiar with very many widely different linguistic systems. As yet no linguist is in any such position. We are thus introduced to a new principle of relativity, which holds that all observers are not led by the same physical

However, I *do* think that philosophical Tibetan as used and interpreted by many indigenous authors presents important problems of translatability because of *their* understandings of Tibetan mass nouns. The authors I am speaking of represent the school of Buddhism that has been dominant in Tibet since the fifteenth century. When they think the difficult point is key to understanding philosophy of language, that is, in a sense, the official Tibetan line. There is a significant problem in translating their writings and the Tshad ma-based philosophy of their school; there is hence a problem in translating a lot of quite influential Tibetan philosophy *tout court*.

Some might well say that large scale untranslatability is an incoherent notion. And indeed it is often repeated, since Donald Davidson's article "On the Very Idea of a Conceptual Scheme," that a culture that did not share with us a common endorsement of a very large number of truths would be thoroughly unintelligible to us—even its difference and foreignness, and for that matter, whether it has a language, would be obscure.<sup>69</sup> However, a Davidsonian *a priori* argument against untranslatability would be overkill in the case at hand. It is clear we do share a very great number of truths with Tibetans and that understanding Tibetan culture is not the type of (supposedly) radically foreign encounter Davidson criticizes as unintelligible. We may not understand all the whys and wherefores of utterances in difficult point debates, but we easily know that they are utterances and indeed know quite a lot about them, just as we do about Tibetan medical and pharmacological terms that are often untranslatable in the present state of our scientific terminology.

The Davidsonian arguments are best seen as directed against a strong thesis: untranslatability *in principle*, due to inherent features in languages that imply a conceptual scheme incommensurable with that of the translator.<sup>70</sup> It is this *necessary, essential, or inherent* untranslatability of languages, and the resultant relativity of truth to a language's inherent conceptual scheme, that inspired Whorf and thoroughly repelled Davidson. Indeed, essential untranslatability may well fall under the Davidsonian

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evidence to the same picture of the universe, unless their linguistic backgrounds are similar, or can in some way be calibrated." On the linguistic relativity hypothesis from Franz Boas, Sapir and Whorf, to psycholinguistics, see Lucy 1992.

<sup>69</sup> See Davidson 1984, chapter XIII, and Malpas 1989.

<sup>70</sup> See Malpas 1989, 248-249.

critique. It is, however, not the untranslatability I am claiming for the difficult point.

Nor is the untranslatability in philosophical Tibetan a purely practical matter, so that meaningfully translating the difficult point distinctions would be a problem cleared up with new discoveries and supplementary information. No doubt there is often *de facto*, or practical, untranslatability given a current state of knowledge—the language of the Indus Valley civilization, the Minoan Linear A, and Egyptian hieroglyphics before J.F. Champollion come to mind. We can well imagine what further information we would need to have to be able to translate. What we can say in the case at hand, however, is that we see no way out of the translational problems of the difficult point given the current requirements of English. I suspect that “Tibet hands” who study *bsdus grwa* and related dGe lugs pa thinking in depth will continue to develop a somewhat divided mind, learn how to reason about certain subjects in Tibetan persuasively to Tibetans, be able to explain that reasoning in a relatively sophisticated manner in Tibetan, but be unable to translate and explain it satisfactorily in English. One could, of course, fantasize that on the very odd chance that future analytic philosophers came to prize *Collected Topics*, legitimized English mass noun usage of *vase*, *knowable thing*, etc., and regularly argued about such things, the untranslatability that I have been discussing might even largely disappear. Ways of speaking and thinking do, of course, end up *de facto* supplanted with others due to facts of history or societal changes. Nonetheless, it is quite obscure to us how this particular evolution would happen *rationally* given the broad outlines of our ways of speaking in most Western languages, for it seems that we don’t have a clue as to what it would be like now, or in a foreseeable future, to pursue the Tibetan-style structured and predictable metaphysical debates on the properties of *vase itself*, *knowable thing*, or *good reason itself*. We simply can’t imagine why or in what circumstances statements like “*Knowable thing* is permanent” would be true. If at some point further down the road we came to feel we could participate in East-West debates about such things, the disruption in thinking would have had to be enormous; it would probably have been a type of rupture, not a reasoned evolution.

More generally, we seem to have to recognize that what is a typically debatable philosophical question in one language, with elaborate answers, and often commonly recognized rational decision procedures to determine whether those answers are good or bad, may be hardly discussable in the

other. That does not entail the grand scale thesis that truth differs between Tibetan and English, or varies between the Himalayas, Switzerland, and the West coast of Canada. More reasonable is the following sober, humble conclusion: the implications of “difficult point” philosophy are not evidence for the linguistic relativity of truth, they show rather that some promising, rigorous, philosophy is—and will remain—so obscure in translation that the issue of its truth will hardly arise outside its own broad linguistic sphere. In short, some highly developed Tibetan philosophy won’t translate well enough into major European languages for the truth or falsity of its statements to be meaningfully thought about in those languages. That is *enough* untranslatability to be significant.

To go one step further, if that is right, then there are consequences for comparative philosophy and logic, in that there are at least some important areas where, as far as I can see, we cannot cross borders of language and cultures with impunity and philosophize together with clear mutual understanding. In sum, a philosopher who wants to cross borders needs to know where they are and how serious they are. They probably aren’t as much like Whorf, Sapir, and some anthropologists or asianists imagined them, and don’t turn on the metaphysics of *whole* languages or grand scale views on the linguistic relativity of truth and structures of the universe; nor does the existence of these borders entail that *whole* cultures remain exotically inaccessible and alien. (Exaggerating the importance of borders is, unfortunately, the all too frequent stuff of professional asianists and popular conceptions alike). Indeed, these two chapters, if successful, should show that much of Tibetan philosophical culture is in fact quite accessible to cross-cultural philosophy and not exotic at all. But they should *also* show that we *can* legitimately talk about borders concerning a sizable chunk of the intellectual production of a specific culture. We need to look at borders with a well-informed, laser-like vision, and case by case. They can be serious indeed.



### Appendix: Chinese influence?

Might the debates in *Collected Topics* have Chinese origins? While at least one Indian Pramāṇa text was translated into Tibetan from Chinese—the *Nyāyapraveśa* from the translation of Xuanzang<sup>71</sup>—there are no logic commentaries that I know of by Chinese authors that made their way into Tibetan and influenced Tshad ma. We do find an important commentary on the *Samdhinirmocanasūtra* by a student of Xuanzang, Yuan ce 圓測. It was translated into Tibetan and had a significant influence in Tibet, often being discussed by writers like Tsong kha pa.<sup>72</sup> However, this is not a work on logic and Tshad ma: it is a work on hermeneutics and the interpretation of the three cycles of Buddhist teaching.

There is, however, a “white horse” argument found in the Tibetan *Collected Topics* literature that seems like the strongest candidate for Chinese influence and origins. The debate is very well known amongst people educated in the dGe lugs pa curriculum, for whom it is typically taken as showing an important Buddhist point, the unfindability of entities under analysis, the impossibility that any macroscopic entity can be localized or identified with one or more of its constituent *dharmas*/tropes. Here is a representative version as found in *Yongs ‘dzin bsdu grwa*:

“A certain [debater] might say: A white conch, the subject; it follows that it would be a color, because it is white. If [his opponent says that the reason] is not established [i.e., that a white conch is not white], [then the debater could argue to him as follows:] Take that [white conch as] subject; it follows that it would be [white], because it is a white conch. If [this debater] says that, then [one should force upon him the opposing pervasion (*‘gal khyab*) [i.e., that if something is a white conch, it is pervaded by not being white] as follows: Well then, for him, take a white horse, the subject; it follows that it would be white, because it is a white horse. The pervasion would be the same [i.e., in the first case the debater had argued that all white conches are pervaded by being white and in the second case he similarly should argue that all white horses are pervaded by being white]. But [actually] he cannot agree [that a white horse is white], because it is [in fact] not

<sup>71</sup> Tōhoku Catalogue 4208.

<sup>72</sup> See Steinkellner 1989, 233-235.



matter (*bem po = jaḍa*). Why? Because it is a living personality (*gang zag = pudgala*). Why? Because it is a horse.”<sup>73</sup>

How would this compare with famous debate of Gong Sun long 公孫龍 (325-250 B.C.E.) that concludes *bai ma fei ma ke* 白馬非馬可 (One can say that *white horse* is not [a] horse)?<sup>74</sup> The differences are considerable. The first and most obvious thing to note is that the conclusions are not the same: *Collected Topics* seeks to show that *white horse* is not white and not that *white horse* is not a horse! Second, while the debate does not figure in Indian Buddhist sources, as far as I can see, the underlying reasoning relies on Abhidharma metaphysics rather than indigenous non-Buddhist Chinese ideas. The point of the white horse not being white is that the white horse cannot be identified with one of the many tropes that constitute it. Indo-Tibetan Abhidharma maintains that a macroscopic entity is always a composite of *dharmas*, i.e., what would nowadays be termed quality-particulars or tropes.<sup>75</sup> In short, a horse, or any other living being, cannot be identified with its shape, its colour, its weight, its mental features, or any other material or mental trope. On the other hand, the debate in the *Gong sun long zi* 公孫龍子, if I understand it, does not turn on Abhidharmic trope metaphysics and the resultant impossibility to identify an entity with one of its constituent tropes, but rather, to take

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<sup>73</sup> *kha cig na re / chos dung dkar po chos can / kha dog yin par thal / dkar po yin pa'i phyir / ma grub na / de chos can / der thal / chos dung dkar po yin pa'i phyir na / 'gal khyab la 'bud / 'o na kho rang la / rta dkar po chos can / dkar po yin par thal / rta dkar po yin pa'i phyir / khyab pa 'grig / 'dod mi nus te / bem po ma yin pa'i phyir te / gang zag yin pa'i phyir te / rta yin pa'i phyir /*. (*Yongs 'dzin bsdu grwa chung* ed. Kelsang and Onoda, f. 4a).

<sup>74</sup> On this debate, see Harbsmeier 1998, 298 *et seq.*

<sup>75</sup> Tropes are particular occurrences of being brown, being heavy, being square, etc. Charles Goodman and others have made a persuasive case that the elements of reality—the *dharmas*, for Ābhidharmika Buddhists—are indeed tropes, i.e., properties that are abstract simples but are particulars rather than universals—a blueness, a heat, or a hardness specific to one place-time and not common to several. On tropes and the varieties of trope theories, see the entry by Anna-Sofia Maurin in the *Stanford Encyclopedia of Philosophy*—<http://plato.stanford.edu/entries/tropes/>. Goodman 2004 develops a trope theory of the *dharma* in the *Abhidharmakośa*. See also Ganeri 2001, 101–2. Trope theories seem applicable in the case of Dharmakīrti and Dignāga, too; see Tillemans 2020, section 1.4.

Chad Hansen’s analysis, on issues of interpretation of Chinese compound terms like “white horse” (*bai ma* 白馬), i.e., either as a sum of all white and horse entities, or as a product, the entity that is both a horse and white. The white horse not being a horse is assertable if (for philosophical reasons about language) we say that “white horse” is to be taken along the lines of “ox horse” (*niu ma* 牛馬), i.e., as a sum, rather than along the lines of a product like “hard white” (*jian bai* 堅白). However, the Confucian semantical principle, the Rectification of Names, precludes that one and the same thing should be referred to by two different words and hence rules out the product reading of “white horse.”<sup>76</sup>

The white horse argument is not findable, as far as I can see, in Indian discussions—it is not an Abhidharma debate in India. I would tentatively submit that what may have happened is that the white horse debate in *Collected Topics* is derived from the Chinese, but that in any case, if it is so derived, it changed significantly, philosophically speaking, in its use in Tibet. Note that there are other discussions in *Collected Topics* that are thoroughly un-Indian and somewhat suggestive of Chinese views on language. For example, *Collected Topics* has a whole “lesson” (*rnam bzhag*) concerning *X* being or not being an instance of *X*,<sup>77</sup> and there are also discussions about products (impermanent sound) and sums (pillar vase) that do and don’t, respectively, admit “instances” (*yin pa srid pa/ yin pa mi srid pa*).<sup>78</sup> The contents of these discussions do not seem to be due to Indian sources (although some terms have Indian antecedents), so that one might look to Chinese sources for their origins, or one might well say that these are original Tibetan developments. A minimalist hypothesis: there is no “smoking gun” clearly establishing *specific* Chinese origins of debates in *Collected Topics*.

<sup>76</sup> Hansen 1983.

<sup>77</sup> This is the *rdzas ldog gi rnam bzhag* “The lesson on substances and properties (lit. ‘exclusions’; *ldog pa* = Skt. *vyāvṛtti*).” See Goldberg 1985a, 1985b.

<sup>78</sup> *Yongs ‘dzin bsdus grwa chung* f. 4b *et seq.*, *gzhi grub kyi rnam bzhag* “the lesson on real bases [i.e., ontology].”

