

Turn design, resonance and epistemic stance in the *Diamond Sutra*: A dialogic constructionist approach

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Abstract

Combining cognitive and interactional linguistics with computer-aided corpus methods, we explore the interlocked topics of turn construction, epistemic stance, dialogic syntax and *ad hoc* construction formation in question-answer sequences from the Chinese translation of the *Diamond Sūtra* (*DS*). We argue that in the *DS*, the Buddha and Subhūti engage in ritualised displays of epistemic stance through turn design and dialogic resonance, and propose several theoretical points: a) highly elliptical answers may pattern with interjection-type answers in their discourse effects, and b) horizontal relations between *ad hoc* constructions, including regularities in resonance relationships between them, can emerge dialogically.

1 Introduction

Amidst rising interest in the poetic nature of talk (Bauman & Briggs 1990, Jefferson 1996), scholars of linguistic discourse have closely examined language use in culturally significant performed genres (Lempert 2008, Person et al. 2022). As religious and philosophical discourse play central roles in the lives of many people, discourse- and conversation-analytic techniques have been applied to philosophical dialectics and religious discourse (e.g. Lehtinen 2009, Verano 2021, Huang & Qu 2022), but studies of conversations in scripture are limited beyond Abrahamic religions (e.g. Kazemi & Nodoushan 2018, Arnold 2015).

Meanwhile, construction grammar (CxG) frameworks in cognitive linguistics have recently been synthesized with studies of interactive discourse (Pöldvere 2019, Zima & Brône 2015), in particular the development of dialogic construction grammar (Brône & Zima 2014, Zeng 2016) from

DuBois' (2014) dialogic syntax, revealing how syntactic constructions emerge in interaction (Tantucci & Wang 2021). Nevertheless, cognitive-linguistic analyses of Buddhism remain focused on conceptual metaphor (e.g. Gao & Lan 2018, Xiong 2018) with little on syntax and discourse.

Given the prevalence of conversation in Buddhist scripture, and the centrality of scripture for many Buddhists, we extend these lines of research by examining conversational dynamics in a Chinese edition of the *Diamond Sūtra*, a central piece of the Mahāyāna Buddhist canon. We explore how the Buddha and the arhat Subhūti teach and learn the dharma using linguistic resources. In particular, we explore the following questions: How are different types of question-answering (Q-A) formats and constructions selected and deployed alongside other linguistic resources? How do such choices reveal the speakers' epistemic stance? How are these patterns reproduced within the text, and entrenched and organised into *ad hoc* constructional networks? We explore these questions by taking a computational corpus-based approach: we annotate the different conversational actions taken by the Buddha and Subhūti, alongside dialogic resonance (DuBois 2014) within and across Q-A sequences.

Patterns in the *DS* data motivate several extensions of existing theories of discourse and language. Firstly, highly elliptical repetition-type answers do similar work as interjection-type answers, in contrast with the traditional threefold division of answers into interjection, repetition and transformation (e.g. Stivers 2022). Secondly, speakers may entrench not just *ad hoc* constructional schemas within a conversation, but also horizontally-linked pairs of dialogic constructions along with information on the resonance patterns between the two component constructions. Our results demonstrate the value of

examining highly structured and entextualised conversations in scripture for generating hypotheses about theories of discourse and grammar, and of applying computational corpus-based methods to syntactic and discourse analysis.

2 Materials and methodology

Like most Buddhist sūtras, the *DS* was passed down in India orally for centuries before being written in Sanskrit and translated into Chinese. We examine the most widely-read translation by Kumārajīva’s team, known for its relatively free-flowing style, compared to more literal styles of later translators (Mi 2020).

We mainly study the dialogue between the Buddha and Subhūti as constructed in this edition of the *DS* – in Jakobson’s (1995) terminology, the conversation in the *narrated event* described in the text. We do not discuss participants of the *speech event* involved in reading the sūtra, whether the modern practitioner as they chant it as the *animator* (in Goffman’s 1979 sense), the translators as the *authors* of the current edition, nor Ānanda, who first recorded the sūtra as the *principal*.

We focus in particular on question-answer (Q-A) pairs in the *DS*. A type of *adjacency pair* (Schegloff 2007), questions place the addressee under the social obligation to produce an answer. The *DS* consists primarily of sequences of *known-answer questions* (Heritage 2013) and their answers, where the Buddha asks Subhūti questions to encourage thinking and probe his knowledge, sometimes followed by a feedback or follow-up move (Tsui 1989), producing an initiation-response-feedback (Sinclair & Coulthard 1975) pattern. It also includes information-seeking questions from Subhūti to the Buddha, whose differences from Buddha-to-Subhūti questions will be discussed.

To study these questions, we first processed the *DS* into a format suitable for corpus annotation. The manually tokenised and parsed version of the *DS* from Wong & Lee (2016) was converted into a .csv file for import into the discourse visualisation and annotation program Rezonator (DuBois 2019, DuBois et al. 2020) after a series of preprocessing

steps: The text was split at punctuation marks to create lines in Rezonator, then chapter numbers (from Prince Zhāomíng’s chapter divisions) and participant labels were added to each line. Language outside of quotations was marked as coming from ‘person who told the sūtra’ (說經人). Minor tokenisation errors were fixed in Rezonator. The final text had 4447 tokens and 905 lines.

77	佛	須菩提，
78	佛	於意云何？
79	佛	東方虛空可思量不？
80	須菩提	不也，
81	須菩提	世尊。

Figure 1 A fragment of the *Diamond Sūtra* imported into Rezonator. The first three lines from the Buddha translate as *Subhūti, what do you say? Can the size of the void from the east be entertained?*, and the next two from Subhūti as *No, Bhagavān*. Background colours represent sentences.

We then used Rezonator to annotate conversational structures in the sūtra. We first identified all Q-A pairs in the text as stacks (DuBois 2019) in Rezonator. Matrix clauses introducing the Q-A pairs themselves, like 佛說 ‘said the Buddha’, were excluded; in sequences of Q-A pairs, each pair had its own individual stack. In total, 39 Q-A pairs were identified.

Within each stack, each line was tagged as *question*, *answer*, *post_expansion* or *base* in the Q-A sequence. The *post_expansion* tag applied to turns that appear after the answer and provide feedback on it, without initiating a new Q-A pair. The *base* tag was assigned to tellings from the Buddha to Subhūti before or after the main Q-A sequence, which served as an analogy to or clarification of the telling. For example, in Chapter 8, the Buddha asked Subhūti if there were many sands in the Ganges; after Subhūti’s answer, the Buddha brought out his main point that those who could understand, practice and promote the *DS* had even more merit than sands in the Ganges. This last move was tagged *base*.



Figure 2 All question-answer sequences identified. Numbers on the *x*-axis represent chapters, and distances along the *x*-axis represent the number of lines. The Buddha (B.) asks most of the questions to Subhūti (S.).

The internal structures of turns were then classified more finely. Lines belonging to the question or answer proper were tagged according to their format (e.g. content question, repetition-type answers). Other elements that support the question or answer (e.g. vocatives, answer explanations) were also tagged accordingly. Lines were also tagged for epistemic upgrade where applicable. Section 3 has details.

77	佛	須菩提，	question	vocative
78	佛	於意云何	question	Qproj
79	佛	東方虛空	question	polarQ
80	須菩提	不也，	answer	ellipsisA
81	須菩提	世尊。	answer	vocative

Figure 3 The lines in Figure 1, tagged according to our classification scheme.

Finally, dialogic resonance (DuBois 2014) between different lines was tagged using Rezonator’s resonance tool, which links together syntactically and semantically proximate elements between different lines. Resonance was tagged in detail within Q-A sequences and across Q-A sequences in chapters where multiple similar Q-A sequences appear.

345	佛	可	以	三十二	相	見	如來	不	？
346	須菩提							不	也
347	須菩提	世尊。							
348	須菩提	不	可	以	三十二	相	見	如來。	

Figure 4 A fragment of the *Diamond Sūtra* annotated for resonance. *Buddha*: ‘Can the *Tathāgata* be seen through the 32 marks?’ *Subhūti*: ‘No, *Bhagavān*. The *Tathāgata* cannot be seen through the 32 marks’.

The resulting annotations were imported into R (R core team 2023) through *rezonateR* (Lai 2023). Each Q&A stack was assigned an index consisting of its chapter number plus a letter representing its position (e.g. 9c means the third Q-A pair of Ch. 9). Information from different parts of the annotated files were merged with *rezonateR*’s data wrangling features and visually represented as graphs, as explored below.

3 Macro-patterns in turn construction

This section explores the composition of turns involved in Q-A sequences. Questions are classified as content (~ English *wh*-word) vs polar (~ *yes-no*) questions. Polar answers were classified with the three-way typology (Enfield et al. 2018, Stivers 2022): To use an English example, *Are whales fish?* may be answered by an interjection

(*no*), repetition (*They are fish.*) or transformation (*Not all marine animals are fish*) type answer. Other tags are discussed below.

3.1 The Buddha to Subhūti

Q-A pairs from the Buddha to Subhūti ($n = 32$) follow a highly regular pattern. All of them are polar questions, mostly A-not-A questions, with the ‘not-A’ part represented by a final 不 *fǒu* ‘is not’. This question follows a vocative addressing Subhūti and the phrase 於意云何 *yú yì yún hé* ‘What do you think?’ serving as a discourse marker that projects (i.e. hints at) the following question. Some of them additionally start with a topic or conditional clause that introduces a prominent entity or scenario, usually starting with a hypothetical conditional marker like 若 *ruò* ‘if’, before proceeding to the clause that asks the main question. These will be referred to as *topic phrases* (cf. Haiman’s (1978) observation that ‘conditionals are topics’). Table 1 illustrates this for 10c.

須菩提，	Subhūti,	voc
譬如有人身如須彌山王，	If there is a person with a body like Mount Meru,	top
於意云何？	What do you think?	Qproj
是身為大不？	Is that body large?	polQ

Table 1: Breakdown of question 10c. ‘voc’ = ‘vocative’, ‘top’ = ‘topic’, ‘Qproj’ = ‘discourse marker that projects questions’, ‘polQ’ = ‘polar question’.

Answers are also highly regular. They generally start with a brief answer falling into two types: (a) the interjection type using the similitive demonstrative *rú shì* 如是 ‘like this’ (which frequently develops into ‘yes’-type answers cross-linguistically – see König & Umbach (2018)), or (b) the repetition type but eliding most linguistic material in the question, repeating either just the negator 不 *bù* and adding the declarative particle 也 *yě*, or repeating the verb and adding the intensifier 甚 *shèn* ‘very’ (close to Thompson et al.’s (2015) ‘minimal clausal’ answers in English, but with no pronoun). This answer is followed by a vocative, 世尊 *shìzūn* ‘Bhagavān’, an honorific title for Indic deities.

After this initial element, there are two optional elements to the answers. The answer may be restated as a repetition-type answer with minimal ellipsis, and/or followed by an explanation projected by the phrase 何以故 *hé yǐ gù* or 所以者

何 *suǒ yǐ zhě hé* ‘why’. The two elements are exemplified in the answers to 18a (Table 2) and 10c (Table 3).

如是，	It is thus,	itjA
世尊。	<i>Bhagavān</i> .	voc
如來有肉眼。	The Tathāgata has eyes of flesh.	repA

Table 2: Breakdown of answer 18a, which answers the question ‘Does the Tathāgata have eyes of flesh?’. ‘itjA’ = ‘interjection-type answer’, ‘repA’ = ‘low-ellipsis repetition-type answer’.

甚大，	Very big,	elpA
世尊。	<i>Bhagavān</i> .	voc
何以故？	Why?	Eproj
佛說非身， 是名大身。	That which the Buddha says is not a body, is merely named a large body.	expl

Table 3: Breakdown of answer 10c. ‘elpA’ = ‘highly elliptical repetition-type answer’, ‘Eproj’ = ‘discourse marker projecting the explanation’, and ‘expl’ = ‘explanation’.

Less common elements include the phrase 如我解佛所說義 *rú wǒ jiě Fó suǒ shuō yì* ‘As I understand the Buddha’s meaning’ which projects the answer and expresses lower epistemic status by disaligning with the principal of the following statement (Kiesling 2022), and post-expansions where the Buddha expands on or rejects the answer.

To examine overall trends in the composition of Q-A sequences in the *DS*, we used the multiple sequence alignment algorithm in LingPy (List et al. 2018) ver. 2.6.9 to align the components of the different Q-A pairs together, then manually edited the results for visually clearer patterns. The results are shown in Figure 5, displaying the great systematicity in the composition of questions and answers across the *sūtra*, and only occasional deviations from the patterns mentioned above. The systematicity is such that in one case (17c), the question itself is absent and inferred from context.

Several observations can be drawn from these results. Firstly, repetition-type answers are extremely prevalent; the preference for repetition over interjections places the *DS* data at the far end of the typological range found in Enfield et al. (2018), who find a general crosslinguistic preference for interjections. At the same time, highly elliptical repetition-type answers fall into the same ‘paradigmatic slot’ as interjection-type answers. For negative answers, this is because the A-not-A question format in the *DS* uses a negator as the ‘not-A’ portion; similar answers would be

interjection-type in other languages. For affirmative answers, it seems that the repeated verb in highly elliptical answers serves as a host for the adverb 甚 *shèn* ‘very’ to create an *upgraded* answer (Stivers 2022: 133-138). While upgraded interjections exist in other languages, they are absent in the *DS*, and perhaps in Buddhist Chinese of the period more generally; thus elliptical upgraded repetitions take their place. Note that non-elliptical repetition-type answers may also be upgraded with *shèn*.

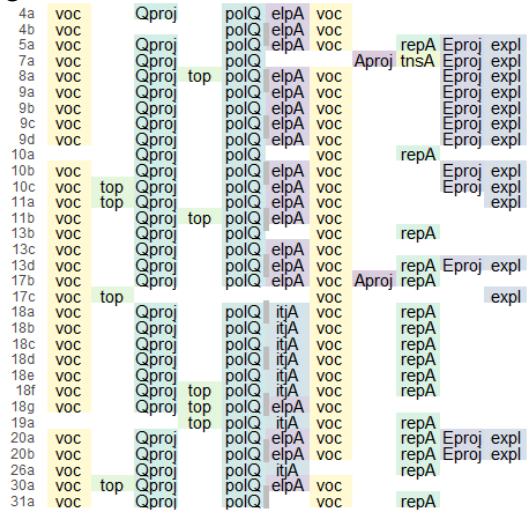


Figure 5 The composition of Buddha-to-Subhūti Q-A pairs. ‘Aprj’ = ‘discourse marker projecting the answer’, ‘tnsA’ = ‘transformative answer’; other abbreviations are as above.

Secondly, non-elliptical repetition-type answers almost always follow an initial brief answer, and are far more prevalent in the text’s second half. These patterns may be attributable to different interactional work done by brief answers and non-elliptical repetitions. Interjection-type answers do not encode the proposition in question, so the proposition must be contextually inferred from the questioner’s utterance, leaving more sequential and thematic agency to the questioner (Enfield et al. 2018). Highly elliptical repetition-type answers encode only a small part of the proposition, and thus may have a similar effect. These brief answers also encode the proposition directly (interjections) or allow it to be inferred quickly (elliptical), enabling earlier *action ascription* (Levinson 2012). These features allow Subhūti to show deference to the Buddha’s control of the conversation and to allow him to evaluate his answers sooner. By contrast, repetitions are widely regarded as claiming more privileged epistemic access (Heritage & Raymond 2012). Subhūti may thus be using non-elliptical repetitions to show his full

understanding of the answer, by animating the proposition on his own, especially as he gains higher epistemic status in the second half of the text.

3.2 Subhūti to the Buddha

Questions from Subhūti to the Buddha ($n = 7$) are not as consistent as the Buddha's questions, but still follow several patterns: questions and answers always contain vocatives; some questions were preceded by a topic phrase; all but one were followed by lengthy explanations following a discourse marker that projected it. In contrast to Buddha-to-Subhūti questions, four of the Subhūti-to-Buddha questions were content questions, consistent with observations that content questions encode lower epistemic status and reduced thematic and sequential agency compared to polar questions (Enfield et al. 2018), reflecting the participants' master-apprentice relationship. One example of 28a is given below.

S.	世尊				
	shizūn				
	Bhagavān,				
	云何 菩薩	不	受	福德	
	yúnhé púsà	bú	shòu	fúdé	
	why Bodhisattva	NEG	accept	merit	
	'Bhagavān, why do Bodhisattvas accept no merit?'				
B.	須菩提，	菩薩	所	作	福德
	Xūpútí	púsà	suǒ	zuò	fúdé
	Subhūti,	Bodhisattva	REL	do	merit
	不	應	貪著		
	bù	yīng	tānzhuó		
	NEG	should	attach		
	是故	說	不	受	福德
	shìgù	shuō	bú	shòu	fúdé
	thus	say	NEG	accept	merit
	'Subhūti, Bodhisattvas' merit should not be attached to. Thus it is said, they accept no merit.'				

Table 4: Interlinear gloss of 28a.

4 Micro-patterns in dialogic syntax

Having examined components of Q-A pairs, we zoom in to discuss recurring relations between the syntactic composition of different parts of Q-A

B.	如來		可	以	具足	色身	見	不
	Rúlái		kě	yǐ	jùzú	sèshēn	jiàn	fǒu
	Tathāgata		can	with	perfect	form.body	see	NEG
	'Can the Tathāgata be seen with his perfect physical body?'							
S.	如來	不	應	以	具足	色身	見	
	Rúlái	bù	yīng	yǐ	jùzú	sèshēn	jiàn	
	Tathāgata	NEG	should	with	perfect	form.body	see	
	'The Tathāgata should not be seen with his perfect physical body.'							

Table 6: Diagraph of two lines from 20a.

sequences. Adopting the theory of dialogic syntax (DuBois 2014), we examine how lexical and syntactic resources from previous utterances are selectively reproduced in new ones, and distinguish between *frame resonance* and *focal resonance*: The former provides backdrop that frames the new utterance in light of the old one, and the latter conveys prominent new information deviating from the old utterance. We first discuss resonance within Q-A pairs, then across them.

4.1 Resonance within Q-A pairs

Resonance within Q-A pairs is largely frame resonance, especially in repetition-type answers. Affirmative repetition-type answers, in fact, often consist entirely of frame resonance, e.g. in 18a, where the repetition-type answer consists simply of repeating the proposition in the question. Table 5 shows a *diagraph* (DuBois 2014) of 18a, which displays the resonating lines in grid form, with corresponding elements in the two lines placed in the same column. Frame resonance is also present to a lesser extent in explanations to answers, which frequently repeat part of the question to comment on it, as discussed in Section 4.2.

B.	如來	有	肉	眼	不
	Rúlái	yǒu	ròu	yǎn	fǒu
	Tathāgata	have	flesh	eye	NEG
	'Does the Tathāgata have eyes of flesh?'				
S.	如來	有	肉	眼	
	Rúlái	yǒu	ròu	yǎn	
	Tathāgata	have	flesh	eye	
	'The Tathāgata has eyes of flesh.'				

Table 5: Diagraph of 18a. Resonating elements are in the same column, e.g. Tathāgata – Tathāgata, flesh – flesh, NEG – NEG. The interjection and vocative before the answer are left out.

Four types of focal resonance were found in the DS's Q-A pairs. Firstly, the negator 不 *bù* in repetition-type answers, though resonating with its homograph 不 *fǒu* in the A-not-A question, does bring in new information, namely the speaker's stance on the correctness of the proposition in the question. Table 6 shows the example of 20a.

Secondly, the presence of 甚 *shèn* ‘very’ in upgraded repetitions (either ellipsis status) may also be considered focal. Though it does not resonate with an actual form in the question, its presence contrasts with the lack of a degree adverb in the question. This makes the degree adverb ‘relevantly missing’ in the question, and allows the answer to be interpreted as an upgrade. These instances were annotated as resonating with zeroes (denoted <0>) in Rezonator; these are as *dialogically activated* zeroes, rather than the paradigmatic zeros in traditional syntax. Table 7 gives an example.

B.	是	身	為	<0>	大	不
	shì	shēn	wéi	<0>	dà	fǒu
	DEM	body	COP	<0>	big	NEG
	‘Is that body large?’					
S.				甚	大	
				shèn	dà	
				very	big	

‘Very large.’

Table 7: Diagraph of two lines from 10c.

Thirdly, the answer may contain nuanced changes of modality. Subhūti’s answers in 20ab replace 可以 *kěyǐ* ‘can’ with 應 *yīng* ‘should’ (Table 6), upgrading from deontic permissibility to *desirability*, showing a slight stance differential (DuBois 2007) and perhaps epistemic upgrade on the proposition: It is not just impossible to see the Tathāgata through his body, but also undesirable.

Finally, answers to content questions may resonate with question words in the question. The Q-A pair 13a exemplifies both the third and fourth types of focal resonance (Table 8).

S.	我等	云何	<0>	奉	持
	wǒděng	yúnhé	<0>	fèng	chí
	1pl	how	<0>	respect	abide
	‘How do we deferentially abide (to it)?’				
B.	以是名字	汝	當	奉	持
	yǐ shì míngzì	rǔ	dāng	fèng	chí
	with this name	2	shall	respect	abide

‘With this name you shall deferentially abide (to it).’

Table 8: Diagraph of two lines from 13a: ‘Crossed resonance’ where the 1st and 3rd columns resonate is not shown. The answer replaces the question word with an instrumental, and adds the modal 當 *dāng* ‘shall’, conveying future and deontic necessity.

The frequency of different resonance links between major components of questions and answers are shown in Figure 6. Polar questions and repetition-type answers (either ellipsis status) take

up the lion’s share of these resonances, including almost all focal resonance in the text.

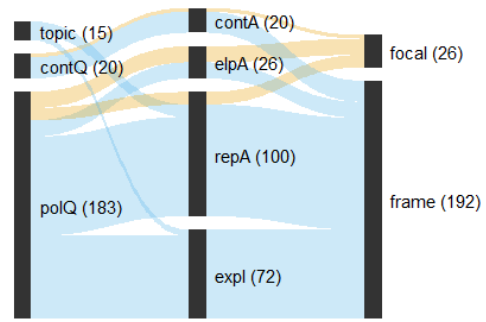


Figure 6 Sankey diagram of resonance links from questions to answers. ‘contQ’ and ‘contA’ stand for content questions and their answers; other abbreviations are as above.

4.2 Resonance across Q-A pairs

Resonance occurs not just between immediately co-present utterances, but can extend across longer distances (Sakita 2006, DuBois 2014). In this process, linguistic conventions begin to form. From the perspective of dialogic construction grammar, as similar patterns of usage are repeated more and more, they may begin to be *entrenched* as a linguistic routine, creating an *ad hoc* grammatical construction (Brône & Zima 2014, Tantucci & Wang 2021): a temporary pairing between linguistic form and function, developed collaboratively in discourse as part of the conceptual pact between conversational participants. Columns of the diagraph that can vary across utterances thus become open slots of the construction. This section examines three cases of resonance across sequences and their associated *ad hoc* constructions.

B.	如來	有	肉/天/慧/法/佛	眼	不
	Rúlái	yǒu	ròu/tiān/huì/fǎ/fó	yǎn	fǒu
	Tathāgata	have	flesh/deva/wisdom/dharma/Buddhahood	eye	NEG
	‘Does the Tathāgata have eyes of flesh / the deva path / wisdom / dharma / Buddhahood?’				
S.	如來	有	肉/天/慧/法/佛	眼	
	Rúlái	yǒu	ròu/tiān/huì/fǎ/fó	yǎn	
	Tathāgata	have	flesh/deva/wisdom/dharma/Buddhahood	eye	
	‘The Tathāgata has eyes of flesh / the deva path / wisdom / dharma / Buddhahood.’				

Table 9: Diagraph showing similarities between questions and repetition-type answers in 18a-e, skipping intervening vocatives and interjection-type answers.

Sequences of Q-A pairs. The DS has several clear *sequences of sequences* (Schegloff 2007) (9a-

d, 18a-e, 20a-b), where the Buddha asks Subhūti a series of similarly-phrased questions, to equally similarly-phrased responses from Subhūti. Thus 18a-e (Table 8) produces two *ad hoc* constructions: the question [*Tathāgata have* N_{eye type} *eye* NEG] and the response [*Tathāgata have* N_{eye type} *eye*].

Yet the constructions may not be entrenched separately. They are not randomly reused, but repeatedly occur together, leading to the question of how they are associated in the constructional network (Croft 2007, Diessel 2019). Even in classic CxG, they can be regarded as formally related, as the question construction can be formed by slotting the response construction into the A-not-A question template [statement NEG], so there is a *part-whole* relation (Croft 2007) between the response and question constructions. However, the connection appears to go beyond this part-whole relationship. Regular co-occurrence between these particular question and answer constructions may create stronger association between them than between other formally-related constructions (e.g. the same question construction with elliptical repetition-type answers). This may create a *horizontal* association link – non-hierarchical links between constructions. While horizontal links are traditionally based on formal or functional similarity (Diessel 2019, Lorenz 2020), we propose that they may also be based on co-occurrence in dialogue. Such links are even more apparent in the examples below.

The nondual explanation construction. This construction appears in most answer explanations as well as some other parts of the text, and is used extensively by both participants in the conversation. Expressing the idea that names for things are mere conventional devices for temporary phenomena

and not objective reality (as frequently discussed in philosophy, e.g. Nagatomo (2002)), it has three parts, roughly translated as: (1) *That which we call X* (2) *is not X*, (3) *hence it is named X*. It takes on numerous forms in the 28 times it appears in the text, summarised as a constructional schema in Table 10. Each part can take the Buddha as a sayer, most commonly (1). The ‘X’ can also differ in form across the three slots: in 10b (Table 11), (1) had 莊嚴佛土 *zhuāngyán fó tǔ* ‘decorate the Buddha-kṣetra’ as X, but in (2) and (3), the 莊嚴 ‘decorate’ part was singled out as the item which was ultimately illusory. There is also considerable variation in which function words are used.

The nondual construction in explanations to answers is used ubiquitously in the *DS* to assert the illusory nature of something in the question. This suggests that following up a polar question with the nondual explanation construction has been established as a conversational routine between the Buddha and Subhūti. Thus a *horizontal link* may have been created between the polar questions and answers and the nondual construction, as part of the Buddha and Subhūti’s conceptual pact.

The conversational routine should also include information on which part of the question should resonate with the nondual explanation. X can come from and resonate with the subject or object of the question, an instrumental oblique, the subject or object plus the verb, the subject’s modifier, or even part of the clause introducing the topic before the main question. Any semantically heavy element from the question naming a category can be X; there are instances (30a, 13c) where multiple parts of the question are targeted, and the nondual explanation construction appears twice.

(Buddha)	(REL)	(say)	(X)	(TOP)	
佛 <i>fó</i> ‘Buddha’ 如來 <i>rúlái</i> ‘Tathāgata’ 世尊 <i>shìzūn</i> ‘Bhagavān’	所 <i>suo</i> ‘REL’	說 <i>shuō</i> ‘say’ 言 <i>yán</i> ‘say’	X	者 <i>zhě</i> ‘TOP’	
(Buddha)	(say)	(ADV)	COP	NEG	X’
如來 <i>rúlái</i> ‘Tathāgata’ 佛 <i>fó</i> ‘Buddha’	說 <i>shuō</i> ‘say’	即 <i>jí</i> ‘namely’ 則 <i>zé</i> ‘TOP’	是 <i>shì</i> 為 <i>wéi</i>	非 <i>fēi</i> 無 <i>wú</i>	X’
(DEM)	(Buddha)	(name)	(X’)		
是 <i>shì</i> ‘this’ 是故 <i>shìgù</i> ‘thus’	如來 <i>rúlái</i> ‘Tathāgata’	名 <i>míng</i> ‘name’ 說 <i>shuō</i> ‘say’	X’’		

Table 10: Schema for the nondual explanation construction with possible lexical items in each slot. Parentheses indicate parts omitted at least once. The template does not fully capture the relatively divergent 9a-d and 22a.

菩薩 莊嚴 佛土 不
 púsà zhuāngyán fótǔ fǒu
 Bodhisattva decorate Buddha-kṣetra NEG
 ‘Do bodhisattvas decorate the Buddha-kṣetra?’

莊嚴 佛土 者 則 非 莊嚴 是 名 莊嚴
 zhuāngyán fótǔ zhě zé fēi zhuāngyán shì míng zhuāngyán
 decorate Buddha-kṣetra TOP TOP NEG decorate DEM name decorate
 ‘What is called decorating the Buddha-kṣetra is not decorating, hence it is named decorating.’

Table 11: Interlinear gloss of the polar question and explanation portions of 10b. X is the verb and object of the question, while X' and X'' are reduced to just the verb, which is the concept being asserted as illusory.

(voc)	(Qproj)	(top)	polQ		
Subhūti,	What do you think?	IF/LIKE	Clause _{topic/cond.}	Clause _{questioned}	Q
須菩提 Xūpútí ‘Subhūti’	於意云何 yú yì yún hé ‘what do you think?’	若 ruò ‘if, like’ 譬如 pìrú ‘like’ 如 rú ‘if, like’	Free format	Possibly containing question marker 寧 nìng	不 bù ‘NEG’ 耶 yé ‘Q’

Table 12: Constructional schema of polar questions from the Buddha to Subhūti, with the form [(Subhūti, what do you think? + If + Clause_{topic/condition}) + Clause_{questioned} + Q]. The ‘Qproj’ and ‘top’ components can be reversed. ‘cond.’ stands for ‘condition’. 耶 yé is occasionally used instead of the A-not-A structure to mark questions.

(itjA/elpA)	(voc)	(repA)	(Eproj)	(expl)
Brief response	Buddha	Clause _{questioned} '	why?	Explanation
不也 bù yě ‘NEG DECL’ 如是 rúshì ‘thus’ 甚 shèn ‘very’ + verb of Clause _{questioned}	世尊 shìzūn 'Bhagavān'	Possibly negated with 不 bù ‘NEG’ or upgraded with 甚	何以故 hé yǐ gù ‘why’ 所以者何 suǒ yǐ zhě hé ‘why’	Free explanation, often the nondual construction with X coming from the Clause _{topic/cond.or} Clause _{questioned} .

Table 13: Constructional schema of polar responses from Subhūti, with the form [(Brief response + Buddha + Clause_{questioned}' + why? + Explanation)].

Polar Q-A syntax as a series of ad hoc constructions. Finally, synthesising all the systematicities observed in the DS discussed in this paper, Buddha-to-Subhūti polar Q-A pairs can also be seen as belonging to a pair of dialogic constructions (Table 12-Table 13). Again, the prevalence of this pair of constructions co-occurring in the text suggests that it is not just the constructions themselves, but also their interrelationship – including the regularities in resonance described above – that have been entrenched as a conversational routine, and should be represented in the *ad hoc* construction network. Almost none of the components of these constructions occur in every single example, but their regular co-occurrence and highly regular order of appearance (with Qproj and topic being the only reversible components) strongly suggests that each component is strongly entrenched.

The construction’s level of entrenchment is such that major parts can be left to inference, even the question itself. In 17c the Buddha had only produced the topic phrase with no explicit polar question at all. Yet Subhūti could still answer, suggesting the topic alone creates strong

expectations about the question. Subhūti, on his part, jumps straight to the nondual explanation construction in response.

5 Conclusion

In this paper, we studied the composition of Q-A pairs in conversation. We find the format of answers in the DS reflect the relative epistemic and social status of the Buddha and Subhūti: Subhūti generally structures his questions and answers to express deference to the Buddha but also asserts his thorough understanding through non-elliptical repetition-type answers. Additionally, we suggest that in the language of the DS, highly elliptical resonance-type answers do similar work as interjection-type answers.

Through the lens of resonance, we also examined poetic/text-metrical alignment in the DS at various levels. At a micro-level, we examined alignments between questions and their answers, and discussed how such alignments can be used not just to respond to questions, but also to express nuanced stance differentials (DuBois 2007, Lempert 2008). We have examined and revealed

how this text-metrical consistency can transcend the boundaries of a single Q-A pair, spanning across sequences of Q-A pairs or even repeated throughout the text (cf. [Rasenberg et al.'s \(2020\)](#) within-sequence vs. cross-sequence alignment). Finally, we have seen how the composition of questions and answers is also remarkably systematic across the text. All these levels of alignment have been observed in natural conversation, e.g. [Lempert's \(2008\)](#) study of Tibetan Buddhist monastic debate, but most corpus-based quantitative studies of resonance and text-metrical alignment in dialogue have focused on individual sequences (e.g. [Pöldvere 2019](#), [Tantucci & Wang 2021](#)). Even descriptions across longer stretches of discourse ([Brône & Zima 2014](#)) have focused on how single *ad hoc* constructions emerge. We show that a dialogic construction ([Zeng 2016](#)), consisting of two horizontally-linked constructions in an adjacency pair and resonance patterns between them, may become an entrenched conversation routine over the course of a dialogue.

It is true that the *DS*, even in the original Sanskrit, is unlikely to be a faithful transcription of the original conversation between the Buddha and Subhūti, and sceptics may point to the well-known instrumental value of features like repetition for the oral transmission of Buddhist texts (e.g. [Bikkhu Anālayo 2022](#)). Yet oral traditions take their rhetorical devices from the poetics of everyday talk, only using them more extensively to suit the needs of oral transmission ([Person 2015](#)). Orally transmitted texts can therefore be expected to resemble conversation, especially in more dialogic ones like the *DS*. The systematicity and exaggeration of conversational practices provides a rich resource for examining such practices, which may be relatively difficult to detect in naturally occurring dialogue. We hope future research on natural conversation will further test and refine our theoretical proposals, and examine the degree to which they apply to natural conversation.

Finally, our study shows the value for grammatical and discourse analysis of corpus-based computer-aided methods, which have allowed us to summarise and visualise general patterns across the text much more efficiently, even in a largely qualitative study like ours.

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