FOREIGN LANGUAGES AND VIETNAMESE

BEYOND THE CLAUSE: RESCALING THE EXPERIENTIAL UNIT IN ENGLISH AND VIETNAMESE ECOLOGICAL DISCOURSE ANALYSIS

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ABSTRACT: Ecological Discourse Analysis evaluates how discourse construes the relation between people and the natural world, and it has done so one clause at a time. This paper asks what that unit costs. Sixty-four renewable energy-related experiential units from sixteen English and Vietnamese news articles were classified by unit type and by logico-semantic relation. Clause complexes account for 62.5 per cent of them, and the relations that assign environmental responsibility, name what renewable energy is for, admit an ecological cost and then discount it, or hand a claim to a source lie between clauses, where an analysis at clause rank cannot record them. What is lost is direction rather than detail: a unit reporting an ecological commitment reads as beneficial clause by clause and as a response to financial collapse when read whole. Purpose is the most frequent enhancement, addition dominates the Vietnamese sub-sample, and conditional enhancement does not occur once. Applying the apparatus to Vietnamese needs a correspondence that translation inverts, *câu ghép* answering to the clause complex and *câu phức* to embedding. The paper contributes a unit of analysis, the five relations that carry ecological meaning above the clause, and the cross-linguistic correspondence such work has lacked.

KEY WORDS: Ecological discourse analysis; transitivity; clause complex; experiential unit; English and Vietnamese.

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1. Introduction

The claim that the grammars of industrial societies work against ecological thinking is Halliday's (1990). Nominalization converts processes into things, a grammar of quantity and growth runs through the lexicon, and the resources available for reporting environmental damage seldom oblige anyone to say who caused it. Ecolinguistics grew out of that argument. Ecological Discourse Analysis (EDA) grew out of ecolinguistics as the strand that asks not only how a text construes the natural world but whether the construal can be defended (He et al., 2021; Stibbe, 2021).

Transitivity has been the instrument of choice, and the fit is easy to see. A clause is described as a process, the participants in it and the circumstances around it, and those are the elements the ecological questions are about: who acts and who is acted upon, whether the natural world figures as a participant and in what role, whether the party responsible for an outcome is named or left out. Yahya and Roselani (2024) show what this buys. In the climate policy documents they analyze, protective commitments are phrased through configurations in which environmental entities are acted upon rather than acting. A drafter can revise the wording of a commitment; the configuration is much harder to manage deliberately.

What almost all of this work has in common is the rank at which it operates. Starting at the clause is reasonable, since that is where transitivity lives. Clauses do not occur one at a time, though, and the relations along which they combine carry meaning that belongs to no clause in particular. One sentence from our data will make the point:

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(1) Many developing countries lack access to the cheap financing they need to make the switch to clean power, so they continue to burn fossil fuels, even though this is more expensive over the long term and hurts efforts to slow rising temperatures. (Aminath, 2023)

Clause by clause, the coder records a relational clause of lacking, a material clause of burning, a relational clause of cost and a material clause of harm, and the aggregate looks mixed. Yet the sentence does not make four statements. It makes one. ***So*** turns the burning into a consequence of the missing finance; *even though* names the ecological cost and then rules it out as decisive. Responsibility, which is what an ecological reading of the sentence has to settle, is carried by those two conjunctions, and neither belongs to any clause.

The paper pursues three objectives. The first is to identify which relations between clauses carry ecological meaning that an analysis at clause rank cannot record. The second is to establish how much of a renewable energy corpus is affected, that is, what proportion of units a clause-bound procedure would describe incompletely, and which relations actually occur when one looks. The third is to make the apparatus usable on Vietnamese, which requires a correspondence that neither descriptive tradition supplies ready-made. Three questions follow:

RQ1. Which relations between clauses carry ecological meaning that an analysis conducted at the rank of the clause cannot record?

RQ2. How frequent are clause complexes among renewable energy-related experiential units in English and Vietnamese news, and which logico-semantic relations do those complexes realize?

RQ3. What correspondence between Halliday's account of the clause complex and the Vietnamese descriptive tradition allows a single analytical grid to run over both languages?

Four contributions follow. The paper rescales the experiential unit of ecological analysis from the clause to the clause complex and names the five relations that do the ecological work at that rank, treating experiential unit type as a variable rather than as descriptive background. It shows through worked analyses that the ecological orientation of a unit can invert when the complex is taken apart, so that what a clause-bound procedure loses is direction rather than detail. It reports the distribution of logico-semantic relations across the sample, which answers the first question empirically and turns up an absence as telling as any of the frequencies. And it supplies the cross-linguistic correspondence this kind of contrastive work has lacked, together with the specific analytical error that a mapping made by translation produces.

What is new here is the rank rather than the apparatus. Taxis and logico-semantic relation are Halliday's, and ecological discourse analysis has had them available throughout; what it has not done is code with them. Of the studies reviewed below, not one treats experiential unit type as a variable, and the single study that scales beyond the clause does so by aggregating clause-level verdicts arithmetically, which reproduces at sentence rank the loss it was meant to repair. Renewable energy journalism in English and Vietnamese supplies the illustrations, a register in which ecological and economic construals compete inside single sentences.

2. Theoretical background

2.1. The transitivity system in ecological discourse analysis

In Halliday's account (Halliday, 2014) the clause construes a figure: a process realized by a verbal group, participants realized by nominal groups, circumstances realized by adverbial groups and prepositional phrases. Halliday distinguishes six process types, each with its own configuration of participant roles, and nine categories of circumstance. For Vietnamese the counterpart description is Hoang (2002), which shows how the same six types are realized in an isolating, analytic language. That description is what makes a comparison between the two languages possible on functional rather than formal grounds.

EDA adds an evaluative dimension to this description. The literature can be sorted along several axes; for the argument here, the useful one is the size of the unit to which an ecological verdict is attached. At one extreme the verdict attaches to a unit larger than any grammatical structure, the story

or the metaphor in Stibbe's sense (Ghorbanpour, 2016; Norton & Hulme, 2019), sometimes located in a corpus through lexical items, modality and reported speech (Xu, 2023). A unit of that size can register patterns that no single construction realizes, erasure among them, but its boundaries are set by interpretation rather than by grammatical criteria, and the grammar through which the story is told goes largely undescribed.

At the other extreme, and far more often, the verdict attaches to the clause. Much of this work measures systemic functional categories against the ecosophy of the Chinese school, stated most recently as diversity and harmony, interaction and co-existence (He et al., 2021). That volume is published in Chinese, and the English renderings of its categories used here follow Cheng's (2022) English-language summary of it. Zuo (2019) and Wei (2021) go furthest in this direction, writing ecological distinctions into the experiential and interpersonal system networks themselves. Because the networks they extend are clause networks, the ecological categories they add are clause categories too.

Studies that leave Halliday's systems unmodified work at the same rank. Gong and Liu (2018) classify the forty-six clauses of a United Nations environmental story by process type and then group the Actors of its material clauses by kind of entity. Li (2022), applying five Hallidayan systems to a novel, reports animals in the Goal position of material clauses whose Actors are human, human agents concealed by passive and ergative structures, and processes of killing frozen into nouns. Zhang and Xie (2024) take the same unmodified apparatus to a Wordsworth poem, and Zhou (2025) combines transitivity with mood and modality in TED talks.

The rank is the constant. Wherever grammatical coding is done at all, it is done clause by clause. The one study we have found that pushes past the clause is worth attention for what it reveals about pushing past it arithmetically. Luan and Zhang (2024) work on foreign-language textbooks, aggregate clause-level verdicts into sentence-level ones by an explicit composition rule, and report sentence type beside clause type, which their own observation that most sentences in the corpus are compound makes necessary. The aggregation is arithmetic rather than interpretive, and three consequences follow. Unit type is not a variable, so a simple clause and a complex go through the same procedure. The logico-semantic relations are not consulted, so a concessive complex and a causal complex with identical clause-level labels come out the same. And the rule that returns a neutral verdict whenever beneficial and destructive clauses are mixed disposes of exactly those configurations in which responsibility is qualified or passed along. The study is evidence that scaling beyond the clause is worth doing, and evidence of what aggregation on its own cannot do.

2.2.The clause complex: taxis and logico-semantic relations

Clauses linked by a logico-semantic relation form a clause complex, and the complex presents a sequence of figures as messages that belong together (Halliday, 2014, p.428). Its realization in the writing system is the sentence (Halliday, 2014, p.436). For a written text, then, each sentence can be handled as one clause complex, with the single-clause sentence as the limiting case, and Martin et al. (1997, p. 4) treat a sentence so delimited as a manageable unit for experiential analysis.

Two systems are in play at every nexus, and they vary independently of each other. Taxis fixes relative status: parataxis joins elements of equal standing, hypotaxis binds a dependent element to the one it depends on. The logico-semantic relation fixes the kind of meaning: expansion, where the secondary clause elaborates, extends or enhances the primary one, or projection, where it is put forward as a locution or as an idea. Halliday (2014, p.446) is explicit that the two systems are simultaneous and independently variable and that every intersection of their terms occurs. Parataxis, hypotaxis, expansion and projection are therefore not four terms of one system, which is worth saying because secondary accounts list them that way often enough.

Most of the ecological load falls on enhancement, whose subtypes are the circumstantial categories reappearing a rank higher: time, place, manner, and the cause-condition group with its distinctions of reason, purpose, result, condition and concession (Halliday, 2014, pp.481-485). Four

of these relations, together with adversative extension and projection, do work that no clause-bound analysis can register. Each is glossed below first by its grammatical function and then by the ecological work we propose it does; the second half of each gloss is our claim rather than Halliday's, and it is the claim the analysis puts to the test:

- Cause traces an outcome to a source. It is the relation through which environmental responsibility is assigned, and equally the relation through which it can be assigned to something that is not an agent.
- Purpose names the end that the primary process serves, and thereby what renewable energy is taken to be for. Whether that end is ecological, economic or administrative is not recorded anywhere else.
- Concession admits a consideration that cuts the other way and then demotes it. What a discourse routinely admits and demotes is ecologically informative on its own.
- Condition leaves the primary content unsecured, so that an ecological benefit is offered on terms rather than asserted.
- Adversative extension sets two construals against each other and leaves the opposition standing, which is how a trade-off is built.
- Projection hands a proposition to a Sayer or a Senser instead of asserting it, so that the text keeps its distance from what it reports.

One distinction decides how many clauses a unit has. Only ranking clauses form a complex. A rankshifted clause inside a nominal group, a defining relative clause for instance, is part of the participant it helps realize and enters no nexus at all (Halliday, 2014, p.491). The practical stake is considerable, because defining relative clauses are common in descriptions of technology, and counting them as dependent clauses inflates the number of hypotactic complexes.

Halliday (2014, p. 490) also describes a cline that bears on this directly. From a free finite clause, through a bound finite and then a bound non-finite clause, to a prepositional phrase, information is progressively lost: the free clause shows Process and Medium, the bound non-finite clause keeps a Process but no Medium, and the prepositional phrase shows no transitivity at all. Grammatical metaphor carries the loss further still. Erasure of agency, which EDA treats as one of its central mechanisms, is movement along this cline. Analysis at clause rank can see where the movement ends but not the movement.

2.3. The clause complex in Vietnamese

Hoang (2002) provides the systemic functional description of the Vietnamese clause and stops there; the clause complex lies outside its scope. For relations between clauses the available account is Diep (2008), a functionally oriented description of the Vietnamese sentence.

Lining his categories up with Halliday's is not a matter of translating the labels. In the Vietnamese tradition *câu ghép* corresponds to the clause complex, while *câu phức*, which renders into English as complex sentence and therefore sounds like the same thing, corresponds to a clause with an embedded clause inside it. Diep (2008, p.50) defines *câu phức* as a sentence with two or more subject-predicate groups in which the outermost embeds the rest, and *câu ghép* (2008, p.52) as one in which no group embeds another. Between them the two terms draw exactly the line Halliday draws between rankshift and clause complexing. Translate rather than analyze and the line is drawn backwards.

Three types of *câu ghép* are distinguished (Diep, 2008, pp.55-56). In *câu ghép đẳng lập* the members stand in a relation of equality. In *câu ghép chính phụ* they do not, a main and a dependent member being distinguished and the dependent one marked by a conjunction such as *vì*, *nếu*, *tuy* or *để*. In *câu ghép chứa lời dẫn* one part reports what another party said, which Diep (2008, p.76) himself calls *phóng chiếu*, projection.

The third type is not a third dimension. Sentences with direct reported speech go to the equal-status type and those with indirect reported speech to the hypotactic one (Diep, 2008, p.56).

Projection in Vietnamese is therefore cross-classified by taxis, and the result matches Halliday's own cross-classification, where paratactic locution answers to what traditional grammar calls direct speech and hypotactic locution to indirect speech (Halliday, 2014, p.447). The convergence holds not only in the inventory of categories but in the way they cross-classify, and it is arrived at from inside a Vietnamese description whose primitive is the subject-predicate group. That is reasonable warrant for putting the two systems to work on both languages.

Two gaps should be on the record. Projection is developed for reported speech, which is to say for locution; the idea type is not treated separately. And neither source subclassifies expansion into elaborating, extending and enhancing relations. Halliday's categories are applied directly for both, with relations identified on functional grounds. That is necessary in any case, since Vietnamese builds paratactic nexuses by juxtaposition with no overt linker and marks hypotactic ones with paired correlatives such as *tuy ... nhưng* and *vì ... nên*, where the marker of dependency is spread across both members rather than attached to the dependent one.

3. Research methods

The corpus for this paper consists of sixteen articles, four taken from each of four online newspapers: The New York Times and The Wall Street Journal for English, Tuổi Trẻ and Kinh tế Việt Nam for Vietnamese. Two outlets per language means a general-interest and an economically oriented title on each side, so that a difference between the languages cannot be put down to one of them being represented by business journalism and the other by general reporting. The articles fall within a thirty-six-month window running from September 2023 to August 2026, and were sampled so that each of four thematic areas is represented: policy and regulation, technology and infrastructure, economics and investment, and environmental and social impact. Only the articles from which examples are quoted are listed under Sources of data.

Sixty-four renewable energy-related experiential units were extracted, thirty-two per language. A unit qualifies when renewable energy occupies a place in the experiential structure of the figure, as the process, as a participant or as a circumstance, rather than turning up somewhere in the topical neighbourhood. A sentence that names renewable energy without giving it a function in the figure it construes offers a transitivity analysis nothing to describe.

Each unit was classified as a simple clause, a hypotactic complex or a paratactic complex, and, where a complex, by the logico-semantic relation holding at the highest level. Every ranking clause was then analyzed for process type, participant roles and circumstances. Candidate units were located with AntConc 4.2.2 (Anthony, 2023) and annotated in UAM CorpusTool 3.3 (O'Donnell, 2008). The coding was also checked independently by a second analyst working in both languages. Two typographic conventions are used throughout. A conjunction or other relational marker under discussion is given in bold italic, and any other stretch of cited wording, including Vietnamese grammatical terms, in italic. Where the analysis below depends on a particular coding decision, the reading adopted is stated with the unit; the coded units serve here as illustrations of how the choice of unit bears on ecological interpretation, not as measurements.

The figures below are there to show that the phenomenon at issue is common enough to matter and to supply worked examples. They are not a description of renewable energy journalism in either language, and nothing statistical is claimed from them. The argument of this paper concerns the unit of analysis, and for an argument of that kind a small set of closely analyzed examples is the evidence that fits.

4. Findings and Discussion

4.1. How often the question arises, and in what form

Table 1 gives the distribution of unit types.

Table 1. *Distribution of Experiential Unit Types in the Pilot Sample*

Unit type	All	English	Vietnamese	% of all

Unit type	All	English	Vietnamese	% of all
Simple clause	24	14	10	37.5
Paratactic complex	19	8	11	29.7
Hypotactic complex	21	10	11	32.8
Total	64	32	32	100.0

Forty of the sixty-four units are clause complexes, 62.5 per cent. Something like two units in three would come out of a clause-bound procedure incompletely described. The Vietnamese sub-sample runs a little higher, twenty-two against eighteen, but on thirty-two units a side no cross-linguistic claim can rest on that, and none is made.

Unit type answers the second question only by half. What the forty complexes are doing depends on which relations they realize, and Table 2 sets those out.

Table 2. *Logico-Semantic Relations in the Forty Clause Complexes*

Logico-semantic relation	All	English	Vietnamese
Addition (pos./neg.)	12	2	10
Purpose	7	3	4
Addition (adversative)	5	3	2
Elaboration	4	2	2
Locution	4	1	3
Cause	3	3	0
Concession	2	1	1
Idea	2	2	0
Time	1	1	0
Condition	0	0	0
Manner	0	0	0
Place	0	0	0
Variation	0	0	0
Alternation	0	0	0
Total	40	18	22

Note. Relations are those holding at the highest level of the complex. Variation, alternation, manner and place are listed because they belong to the declared value set; none is attested in this sample.

Three features of Table 2 bear on the argument. Addition is the commonest relation, and overwhelmingly so in Vietnamese, where ten of the twenty-two complexes accumulate figures without ranking them; the Vietnamese sub-sample builds its ecological claims by listing where the English sub-sample subordinates. Purpose is the most frequent enhancement in the sample as a whole, seven units against three of cause and two of concession, which means that the commonest thing these texts do above the clause is name an end that renewable energy serves. And conditional enhancement does not occur once in sixty-four units.

That absence is worth as much as any of the frequencies. A conditional would offer an ecological benefit on terms, and terms can be inspected and held to. What this register does instead is attach the

benefit to a purpose already adopted or hand it to a named source, both of which assert more and commit less. The inventory of relations set out above was drawn up on grammatical grounds before the data were coded; the data return four of its six terms in quantity, one in a single instance, and one not at all. The sections that follow take the attested relations in the order of their ecological interest rather than their frequency.

4.2. Cause: where responsibility goes

Causal enhancement traces an outcome back to a source, which is what makes it the relation through which environmental responsibility gets assigned. It is also the relation that allows responsibility to be assigned to something other than a person.

(2) Diesel prices have more than doubled since the war broke out, so Nigerian households have an incentive to scrap their diesel generators. (Ryan, 2026)

The unit is a paratactic complex whose links both work causally. *Since* dates the rise in diesel prices to the outbreak of war, a temporal relation read here, as it usually is, with a causal sense; ***so*** then makes the households' incentive follow from the price. No human agent stands at the source of either link. The war breaks out with nobody fighting it, and the prices double with nobody raising them. The only human participants, the households, enter at the end of the chain as Carriers of an incentive, and the scrapping of the generators is not even a process of the clause, since *to scrap their diesel generators* is embedded in the nominal group headed by *incentive*. What the article goes on to present as a solar-power revolution is thereby construed as a market reflex rather than a choice made on ecological or any other grounds. Clause by clause, the coder records two material processes with inanimate participants and a relational process of possession. The attribution of an energy transition to the price of diesel is made nowhere but in the relations between them.

A unit whose causal chain is fully peopled makes the contrast sharp:

(3) Mr. Woods resisted, reasoning that Exxon did not have expertise in those areas. (Elliott, 2024)

Here the agent is named, and so is his reason. Mr. Woods is the sole participant of *resisted*; what he resisted is recoverable only from the preceding text, and the clause stands on the page without a Goal. The non-finite clause *reasoning that Exxon did not have expertise in those areas* does two jobs at once. It enhances the first clause by supplying the ground of the resistance, and it projects an idea, so that the ground is offered as Mr. Woods's own reasoning rather than as a fact the reporter vouches for. The unit holds one named person responsible for turning away from renewable energy and, in the same move, leaves the justification with him. A clause-level coding records a material process and a mental one sharing a human participant, and nothing of the fact that the second is presented as the reason for the first.

The Vietnamese data put the same relation to the same use:

(4) Khoảng 12.400 tấm pin mặt trời áp mái được lắp đặt trên các tòa nhà của nhà máy, đáp ứng khoảng 75% nhu cầu năng lượng trong 5 năm đầu tiên. (Bá Sơn, 2025)

(About 12,400 rooftop solar panels were installed on the factory buildings, meeting about 75 per cent of energy demand in the first five years.)

Được marks the panels as Goal in a passive dominant clause from which no Actor can be recovered: the unit does not say who installed them. The dependent clause gives the result. What the complex construes, then, is an outcome produced by an installation that nobody performed, and the panels take over as Actor of the second process by default. The ecological observation, that agency has dropped out of a positive environmental achievement, is once again a property of the relation rather than of either clause.

4.3. Concession: what gets acknowledged and set aside

Concessive enhancement admits a consideration that runs the other way and then subordinates it. For ecological purposes this makes it the most revealing relation of all, since what a discourse habitually concedes shows what it treats as a genuine cost, and what it puts in the dominant clause shows what it treats as decisive. It is also, on the figures above, rare: two units in sixty-four.

Example (1) is the case in point. The clause *even though this is more expensive over the long term and hurts efforts to slow rising temperatures* carries all of the sentence's ecological content; it is where climate harm is named. It is also grammatically subordinate to the statement that developing countries go on burning fossil fuels, which is itself the result of a causal relation with the missing finance. The sentence admits the harm, accounts for why it continues, and lets the account stand as sufficient. Coding at clause rank returns a material process of hurting with *efforts to slow rising temperatures* as Goal, which looks ecologically salient, and misses that this clause is where the sentence files what it is willing to write off.

The Vietnamese data contain a close structural parallel, and it earns a full treatment because concession and projection are working together in it:

(5) Công điện nêu rõ, mặc dù đã có nhiều chỉ đạo các bộ, ngành, địa phương nghiêm túc thực hiện theo nghị quyết, song còn nhiều nhiệm vụ vẫn chưa hoàn thành. (Ngọc An, 2025)

(The official dispatch states clearly that although there have been many directives for ministries, sectors and localities to implement the resolution seriously, many tasks remain unfinished.)

Three things happen at once. A verbal process projects everything that follows, so the content is attributed to a document rather than asserted by the reporter. Inside the projection, *mặc dù ... song* marks a concessive relation in the paired-correlative pattern Vietnamese favours, the marker of dependency spread across both members instead of sitting on the dependent one. And the concessive structure admits that directives exist while making the incompleteness the dominant claim. Instruction given is conceded; work not done is asserted. A clause-level reading of the same sentence returns an existential process, a material process and a verbal process, and no account whatever of the argument the sentence is making.

4.4. Purpose: what renewable energy is for

Purpose enhancement names the end that the primary process serves. It is the relation through which a text says what renewable energy is for, and in this sample it is the most frequent enhancement by some margin. Because the end named is not recorded at clause rank in any form, a clause-bound analysis of these seven units registers the processes and misses the whole of what they are said to be in aid of.

(6) But recent solar and battery storage projects, financed with the help of the World Bank, offered a path around those high capital costs so we could deploy renewable energy projects across our archipelago. (Aminath, 2023)

The purpose clause names deployment as the end. The dominant clause names what made the end reachable, and it is not a policy and not an environmental argument but a line of credit: the World Bank enters as a circumstance of Accompaniment attached to a non-finite clause, not as the Actor of anything. Read at clause rank the unit yields material processes with institutional participants and an abstract Goal, *a path around those high capital costs*. Read whole, it makes access to capital the condition on which an energy transition becomes possible, which is the argument the article is making and which no clause in it states on its own.

The Vietnamese data name a different kind of end by the same relation:

(7) Việt Nam đã và đang nỗ lực thực hiện chuyển đổi năng lượng xanh nhằm hiện thực hóa mục tiêu hướng tới Net Zero vào năm 2050 thông qua việc ban hành khung chính sách, các chiến lược, quy hoạch. (Ngọc Lan, 2025)

(Vietnam has been making efforts to carry out the green energy transition in order to realize the target of moving towards Net Zero by 2050 through the promulgation of policy frameworks, strategies and plans.)

Here the end is ecological and the means administrative. *Nhằm* marks the purpose; *thông qua* names the instrument in a circumstance of Means whose head, *việc ban hành*, is a nominalization that packages an act of issuing and leaves the issuing body unnamed, although the Actor of the dominant clause is Việt Nam. The unit construes a national commitment whose content is the production of

documents. Purpose is what holds the ecological end and the administrative means together, and a procedure that takes the clauses one at a time records the end and the means as two unconnected figures. Across the seven purpose units the pattern is consistent: the ends named are ecological in three and economic or administrative in four, which is a finding about the register that only the relation makes visible.

4.5. Adversative extension: trade-offs left standing

Adversative extension adds a figure and sets it against the one before it, leaving the opposition unresolved. Where concession demotes what it admits, adversative extension does not: both construals stay in place, which is how a discourse builds a trade-off without having to adjudicate it.

(8) Đây là một trong những lĩnh vực then chốt nhưng đang bị mắc kẹt bởi hàng loạt nút thắt pháp lý, từ thủ tục đất đai, chuyển đổi mục đích sử dụng rừng, đến giá điện ưu đãi. (Nguyệt Hà, 2025)

(This is one of the key sectors, but it is stuck in a series of legal bottlenecks, from land procedures and the conversion of forest land to other uses to preferential electricity prices.)

At clause rank this is a relational clause that identifies renewable energy as a key sector and a passive material clause with legal bottlenecks as its Agent. An arithmetic aggregation of the sort Luan and Zhang (2024) perform would weigh the two and return some resultant. The relation does something no resultant can capture. *Nhưng* sets the second clause against the first and resolves nothing: the sector matters and the sector is stuck, and the text does not say which should weigh more. Two further features are ecologically telling. Responsibility for the obstruction is handed to the bottlenecks themselves, a nominal Agent behind which the authorities that set land procedures and tariffs disappear. And the one natural entity in the unit, *rừng*, forest, appears only inside a nominalized procedure, *chuyển đổi mục đích sử dụng rừng*, as land whose designated use stands in a project's way. The forest is construed not as something a project might cost but as paperwork. The trade-off the unit leaves standing is between an economic priority and administrative delay, and the ecological cost of converting forest does not enter it as a term.

4.6. Projection: claims held at a distance

Conditional enhancement, which suspends the assertion in the dominant clause so that an ecological benefit arrives with terms attached, belongs in the inventory on grammatical grounds and is unattested here. Projection does the neighbouring job by other means and is well attested, six units in all: it attributes rather than asserts, and both the source and the reporting verb are recorded above the clause and nowhere else.

(9) Ông Phạm Anh Tuấn, Chủ tịch UBND tỉnh Gia Lai, cho hay tỉnh này có tiềm năng rất lớn về năng lượng tái tạo trên biển, trên bờ như năng lượng mặt trời, gió, thủy điện. (Tấn Lực, 2025)

(Mr Pham Anh Tuan, Chairman of the Gia Lai People's Committee, said that the province has very great potential in renewable energy at sea and on land, such as solar, wind and hydropower.)

The natural world appears in the projected clause: sea, land, sun, wind, water. It appears as *tiềm năng*, potential, an Attribute possessed by a province, and the whole is attributed to a named official rather than asserted. Two layers stand between the reader and the claim that a natural endowment exists. Neither is visible at clause rank, where the analysis records a verbal process and a relational process and stops.

In the English data the projecting clause does evaluative work of its own:

(10) "We saw the potential to turn the vast videogaming community into an engine for renewable energy," said Hilleman. (Hudson, 2026)

The projected clause construes renewable energy as something a community can be turned into an engine for, a framing worth recording in itself. The projecting clause names the source and, with a neutral reporting verb, neither endorses nor distances. Replace *said* with *claimed* and the ecological reading of the unit changes without a word inside the projected clause changing. Ecological meaning is residing in the relation, about as plainly as it can.

4.7. What a clause-bound reading gets wrong

The general claim can be put more sharply still with a unit whose clause-level and complex-level readings come apart:

(11) When oil and gas companies made ambitious commitments four years ago to curb emissions and transition to renewable energy, their businesses were in free fall. (Elliott, 2024)

The dominant clause is *their businesses were in free fall*, a relational clause; the temporal clause reports the commitments. An analysis that takes the first clause it meets records a material process of making commitments with an ecological purpose, and that reads as eco-beneficial. The complex says something else. It places the commitments in a period of financial collapse and thereby presents them as a response to circumstances rather than to ecological reasoning. The dominant clause reframes the dependent one. Separate them and the reframing is gone.

This is the substance of the argument, and it is worth being precise about what kind of loss it is. A clause-bound procedure does not misreport the processes; it reports them correctly. What it cannot report is the direction the complex gives them, and the direction is what an ecological verdict turns on. The description it yields is locally accurate and globally misleading, and on our figures it is the description that roughly two units in three would receive.

4.8. The Vietnamese mapping in use

The terminological point made earlier has consequences in the coding. Take:

(12) Các nguồn năng lượng tái tạo có đặc điểm phát điện không ổn định, phụ thuộc vào thời tiết và thời gian trong ngày. (Ngọc Lan, 2025)

(Renewable energy sources have the characteristic of unstable generation, depending on the weather and the time of day.)

This is a *câu ghép* with an elaborating relation, the second part respecifying the Attribute of the first. Renewable energy is Carrier and instability is the Attribute. The natural world enters as *thời tiết*, weather, in a circumstantial role and as the cause of a defect. Coded as two clauses in an elaborating relation, the unit shows a natural dependency being construed as a technical shortcoming. Coded as a single clause with a long Attribute, which is what happens if the elaborating relation is read as embedding, the second part disappears into the Attribute and the construal of weather goes with it.

That is the error the *câu phức* and *câu ghép* reversal produces. An analyst mapping by translation treats *câu phức* as the clause complex, then looks for the Vietnamese counterpart of embedding under *câu ghép*. Elaborating complexes come out as single clauses, embedded clauses come out as nexuses, the count of unit types is wrong, and so is every distribution reported by unit type. On this sample that would misplace four units directly and alter the denominator against which all of Table 2 is read.

5. Conclusion

EDA has good reasons for working with the transitivity system and this paper does not dispute them. The rank at which the system has been applied is another matter. Assigning responsibility for environmental damage, naming the end renewable energy serves, admitting an ecological cost and demoting it, setting two construals against each other, and handing a proposition to someone else to assert are all things a text does between its clauses rather than inside them. Causal enhancement attributes; purpose names an end; concessive enhancement admits and demotes; adversative extension leaves an opposition standing; projection passes the claim to a source. None of these has anywhere to be recorded in an analysis confined to the clause, and in a register where ecological and economic construals compete inside single sentences that is a real loss.

The three questions can now be answered. Five relations carry ecological meaning above the clause, and the sample attests four of them in quantity: purpose, addition in its adversative form, cause and projection, with concession rare and condition absent altogether. Clause complexes account for 62.5 per cent of the units, so the proportion of the corpus affected is roughly two in three. And the correspondence that allows one grid to run over both languages is available, but it has to be argued from function rather than looked up: *câu ghép* answers to the clause complex and *câu phức* to

embedding, the reverse of what the English renderings suggest. Diep's assignment of direct reported speech to the equal-status type and indirect reported speech to the hypotactic type matches Halliday's cross-classification of projection by taxis, which is the warrant for treating the two descriptions as commensurable.

Our illustrative data are limited and we have said so. Sixty-four units from sixteen articles show that clause complexes are frequent in this register and that a number of them are misdescribed when taken apart. They cannot show how renewable energy is construed in English and Vietnamese journalism at large. That requires the full corpus, and that work is under way. The absence of conditional enhancement, in particular, is a finding about sixty-four units and not yet about a register.

Two implications are worth stating. For method: studies reporting distributions of process types should report them by experiential unit type as well, since the two are not independent and reporting the first alone conceals the second. For the contrastive study of ecological discourse more widely: where a language has its own grammatical tradition and its own terminology, as Vietnamese does, the correspondence with the systemic functional categories has to be argued rather than looked up. An error there does not yield a slightly inaccurate analysis. It yields a systematically inverted one.

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Trên cú: Tái xác lập đơn vị kinh nghiệm trong phân tích diễn ngôn sinh thái tiếng Anh và tiếng Việt

Tóm tắt: Phân tích diễn ngôn sinh thái đánh giá cách diễn ngôn kiến giải mối quan hệ giữa con người và thế giới tự nhiên, và được tiến hành theo từng cú một. Bài báo đặt câu hỏi về cái giá của việc lấy cú làm đơn vị phân tích. Sáu mươi tư đơn vị kinh nghiệm liên quan đến năng lượng tái tạo, rút từ mười sáu bản tin tiếng Anh và tiếng Việt, được phân loại theo kiểu đơn vị và theo quan hệ logic-ngữ nghĩa. Phức hợp cú chiếm 62,5% số đơn vị; các quan hệ quy trách nhiệm môi trường, nêu rõ năng lượng tái tạo nhằm mục đích gì, thừa nhận tổn hại sinh thái nhưng rồi lại gạt đi, hoặc chuyển một nhận định sang cho một nguồn tin đều nằm giữa các cú, nơi phân tích ở bậc cú không thể ghi nhận. Điều bị mất đi là định hướng chứ không phải chi tiết: một đơn vị tường thuật cam kết sinh thái mang vẻ tích cực khi xét từng cú, nhưng khi đọc như một chỉnh thể lại là phản ứng trước sự sụp đổ tài chính. Mục đích là quan hệ tăng cường xuất hiện nhiều nhất, quan hệ bổ sung chiếm ưu thế trong tiểu mẫu tiếng Việt, còn quan hệ tăng cường điều kiện không xuất hiện lần nào. Việc áp dụng bộ công cụ này cho tiếng Việt đòi hỏi một sự tương ứng ngược với kết quả của phép dịch thuật ngữ: *câu ghép* ứng với phức hợp cú, còn *câu phức* ứng với hiện tượng lồng. Bài báo đóng góp một đơn vị phân tích, năm quan hệ mang ý nghĩa sinh thái ở bậc trên cú, và sự tương ứng liên ngôn ngữ mà các nghiên cứu đối chiếu chưa thỏa đáng.

Từ khóa: Phân tích diễn ngôn sinh thái; chuyển tác; phức hợp cú; đơn vị kinh nghiệm; tiếng Anh và tiếng Việt.