

Ingredients of excess: A study of Vietnamese *quá*

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Abstract We describe the various uses of the Vietnamese morpheme *quá* which appears in excessive constructions. Unlike most other degree morphemes in Vietnamese, *quá* can precede or follow its gradable predicate, and we argue that these two different uses convey excess in very different ways: pre-predicate *quá* encodes purpose-oriented excessive truth conditions, whereas post-predicate *quá* is a comparative which projects a not-at-issue malefactive inference. We propose that the two constructions trace back to pre- and post-predicate 過 *kua* in Middle Chinese, motivated by comparisons with cognate constructions in contemporary Chinese languages. We also describe two other uses of *quá*, as an intensifier with speaker commitment and as an exclamative marker, and explain how they developed from the excessives. This study thus offers an explanatory account of the various uses of this multifunctional expression and the relationships between them, grounded in the history of the language and in principles of semantic change.

Keywords degree constructions, excessive, comparative, malefactive, not-at-issue meaning, exclamative, mirative, multifunctionality, language contact, constructional borrowing, semantic change, grammaticalization, diachronic semantics, Vietnamese, Sino-Vietnamese, Middle Chinese

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1 Introduction

This paper investigates and documents the various uses of the Vietnamese degree morpheme *quá*, which is commonly involved in *excessive constructions*, as in (1). Excessive constructions convey that the degree measured by the gradable predicate — the *target* degree, e.g. the size of the ball — exceeds some admissible value.

(1) Two excessive constructions with *quá*:¹

Quả bóng này {**quá** to / to **quá**}. (Tôi muốn một quả nhỏ hơn. / Nó không vừa cái túi đâu.)
 CL ball this **QUÁ** big big **QUÁ** 1sg want one CL small more 3sg NEG fit CL bag PRT
 ‘This ball is too big. (I want a smaller one. / It won’t fit in the bag.)’

Degree morphemes in Vietnamese may precede or follow their gradable predicate. We present an inventory of such degree morphemes, modulo degree modifiers,² in (2) below, noting their availability preceding and following a gradable predicate *A*. We observe that, setting aside degree modifiers, *quá* stands alone in allowing both pre- and post-predicate positions.

(2) Degree morphemes in Vietnamese:

‘enough’	‘too’	‘more’	‘as’	‘most’	‘to the extent’
<i>đủ</i> A purpose-oriented sufficiency	<i>quá</i> A purpose-oriented excessive	* <i>hơn</i> A	* <i>như/bằng</i> A	* <i>nhất</i> A	* <i>đến nỗi</i> A
*A <i>đủ</i>	A <i>quá</i> ... comparative w/malefactive	A <i>hơn</i> ... comparative	A <i>như/bằng</i> ... equative	A <i>nhất</i> ... superlative	A <i>đến nỗi</i> ... result

Taking this unusual distribution of *quá* as the starting point for our inquiry, in this paper, we address the following questions: Do pre- and post-predicate *quá* differ simply in their word order, or are there additional differences as well? Why can *quá* appear in both pre- and post-predicate positions, unlike other degree morphemes?

We will first show in section 2 that, although pre- and post-predicate *quá* appear at first glance to be equivalent in many situations as in (1), they are in fact not semantically equivalent. We will argue that pre-predicate *quá* expresses purpose-oriented excessive truth conditions (akin to English ‘too’, as described in Meier 2003; von Stechow et al. 2004; Schwarzschild 2008), whereas post-predicate *quá* is instead a

¹ We italicize (the heads of) gradable predicates and bold degree morphemes throughout, and use English ‘they’ to translate animate uses of the third-singular pronoun *nó*. Glosses follow the Leipzig glossing conventions, with CL for classifier. Gradable predicates are not limited to adjectives, but we concentrate on examples with adjectival predicates.

² Degree modifiers describe the measured degree in relation to its scale and contextual expectations thereof. These include items such as *rất* ‘very’ which must precede its predicate, *lắm* ‘very’ which must follow its predicate, and *thật* ‘really’ which may precede or follow. We provide a full inventory of such items in Erlewine and Nguyen 2023.

comparative construction that projects a not-at-issue malefactive inference. We also highlight syntactic and semantic parallels between pre-predicate *quá* and the *đủ* sufficiency construction and between post-predicate *quá* and the *hơn* comparative construction, reflected by the gray boxes in (2) above.

We then turn to a discussion of the historical development of these two excessive *quá* constructions, as well as other uses of the two *quá*. We hypothesize that these two uses of *quá* are the result of constructional borrowing from two different degree constructions in Middle Chinese, thereby explaining its unique word order possibilities. We discuss this history as well as cognate constructions in contemporary Chinese languages in section 3. Then in section 4, we discuss additional, non-excessive uses of *quá* — as a restricted intensifier and exclamative marker — and propose that they developed from their corresponding excessives through processes of semantic change and grammaticalization.

2 Comparing the two excessive *quá*

We begin by investigating the two different *quá* excessive constructions, based on the judgments of the second author and other native speakers we have consulted. We will argue that the two convey the meaning of excess in two very different ways, described informally in (3):

(3) Two roads to the expression of excess:

- a. By purpose-oriented threshold: The target degree exceeds *an upper bound of admissibility, determined by a particular purpose*.
- b. By malefactive inference: The target degree exceeds some standard *and doing so has a negative effect*.

The pre-predicate excessive *quá* is a purpose-oriented excessive construction (3a), akin to excessive constructions such as English *too* which have been well studied in the formal semantics literature. It can occur with a purpose clause, but not with a comparative standard or comparison class, and closely parallels the *đủ* sufficiency construction. In contrast, post-predicate excessive *quá* is a comparative that takes an implicit or explicit degree-denoting standard and introduces an additional malefactive inference (3b).

2.1 Pre-predicate excessive *quá*

Pre-predicate *quá* claims that the target degree exceeds a particular threshold, determined by reference to a particular consequence or purpose. The relevant consequence can be expressed overtly with a purpose clause introduced by *để*, glossed as ‘for.’ The purpose clause has a modal interpretation, which can be made explicit with a modal such as *có thể* in (4).

(4) **Pre-predicate *quá* with overt purpose clause:**

Cái bàn này **quá to** ([_{purpose} để (có thể) đặt (nó) ở phòng khách]).
CL table this QUÁ big for able put 3sg LOC living-room
'This table is too big (to be able to put in the living room).'

Example (4) expresses that the table's size is so large that the consequence cannot obtain, i.e. that we cannot put it in the living room.

The relevant consequence may also be introduced by other devices that introduce goals such as an anankastic conditional as in (5). It may also be inferred via context: for instance, in example (6), pragmatic reasoning based on the assumed relevance of the preceding sentence leads us to infer that the speaker is interested in lifting the box.

(5) **Describing consequence of excessive *quá* with a conditional clause:**

Cái túi này **quá nhỏ** [nếu chúng ta dùng nó để đựng cái máy tính kia].
CL bag this too small if 1pl.incl use 3sg for carry CL laptop that
'This bag is too small if we use it to carry that laptop.'

(6) **Indirectly describing the consequence and threshold for excessive *quá*:**

Tớ chỉ có thể nhấc 15kg. Cái hộp này **quá nặng**.
1sg only able lift 15kg CL box this too heavy
'I can only lift 15kg. This box is too heavy.'

In all of these uses of pre-predicate *quá*, the measured degree is not related to any particular standard or to corresponding measures of other objects. This is reflected by the fact that pre-predicate *quá* cannot take a measure phrase standard (7b), unlike comparatives (7a). It also cannot take a comparison class, as we show later in section 4.1.

(7) **Pre-predicate *quá* cannot take a measure phrase standard:**

- a. Sợi dây này **dài hơn** [_{standard} 2m].
CL string this long more 2m
'This string is longer than 2m.'
- b. Sợi dây này **quá dài** (*[_{standard} 2m]). Tìm sợi ngắn hơn đi.
CL string this QUÁ long 2m find CL short more PRT
'This string is too long (*than 2m). Find a shorter one.'

Many previous works have noted both semantic and syntactic parallels between expressions of excess and sufficiency, such as English *too* and *enough*. In Vietnamese, sufficiency is expressed using the degree morpheme *đủ*, which necessarily precedes its gradable predicate. See example (8). The semantics of the sufficiency construction expresses that the measured degree (here, the table's size) is so great that the consequence *does* obtain: in this case, that we are able to put the table in the living room.

(8) **The *đủ* sufficiency construction:**

Cái bàn này **đủ** to ([purpose để (có thể) đặt (nó) ở phòng khách]).
CL table this enough big for able put 3sg LOC living-room
'This table is big enough (to be able to put in the living room).'

The *đủ* sufficiency construction parallels the behaviors of pre-predicate excessive *quá* that we have surveyed above: in particular, its relevant consequence may be introduced by a *để* clause or another strategy as in (5–6) above, and it is unable to take a comparative standard or comparison class.

For concreteness, we describe the conventional semantics of pre-predicate *quá* excessives and *đủ* sufficiency constructions as in (9–10) below, underlining the small portions where they contrast. Here we adopt a standard framework for degree semantics in the tradition of Cresswell 1976 and von Stechow 1984, with gradable predicates such as 'tall' denoting relations between degrees and individuals, of type $\langle d, et \rangle$.

(9) **Semantics for pre-predicate *quá* excessive construction:**

For gradable predicate A of type $\langle d, et \rangle$ and contextually determined consequence proposition Q_c , " x quá A ":

- a. presupposes there is a threshold degree θ such that x being A to degree θ is a reason for the consequence Q_c to not obtain; and
- b. asserts (at-issue) that x is A to degree θ and so Q_c indeed does not obtain in w^*

(10) **Semantics for *đủ* sufficiency construction:**

For gradable predicate A of type $\langle d, et \rangle$ and contextually determined consequence proposition Q_c , " x đủ A ":

- a. presupposes there is a threshold degree θ such that x being A to degree θ is a reason for the consequence Q_c to obtain; and
- b. asserts (at-issue) that x is A to degree θ and so Q_c indeed obtains in w^*

These semantic descriptions echo that given in prior work on the semantics of excessive and sufficiency constructions in other languages, drawing especially on Schwarzschild 2008. See also Meier 2003; von Stechow et al. 2004; Zhang 2018; Nadathur 2019; Grano 2022. We discuss the syntax and compositional semantics of these structures in Erlewine and Nguyen 2023.

2.2 Post-predicate excessive *quá*

Next we turn to the construction with *quá* in post-predicate position, beginning with some basic distributional properties that show that it differs from pre-predicate *quá* described above. Example (11) shows that post-predicate *quá* is incompatible with a *để* purpose clause, in contrast to pre-predicate *quá* in (4).

(11) **Post-predicate *quá* resists a *để* purpose clause:**

Sợi dây này dài quá (*[purpose để buộc (nó) cách này]).
CL string this long QUÁ for tie 3sg way this
'This string is too long (to tie this way).'

Example (11) is grammatical without the *để* purpose clause, and expresses that the measured degree exceeds a particular standard and that this negatively affects the speaker or others. The standard may be contextually related to a particular outcome such as tying the string in a particular way, but it cannot be specified by adding a *để* purpose clause.

The standard of comparison for post-predicate excessive *quá* can instead be made explicit through the addition of a comparative standard, such as the measure phrase '2 meters' in (12). Recall from (7) above that pre-predicate excessive *quá* cannot take a comparative standard.

(12) **Post-predicate *quá* takes a measure phrase standard:**

Sợi dây này dài quá [standard 2m].
CL string this long QUÁ 2m
≈ 'This string is longer than 2m, and this negatively affects me.'

In its ability to take a following measure phrase standard, post-predicate *quá* mirrors the syntax of the comparative morpheme *hơn*, which also follows its gradable predicate:

(13) **Comparative *hơn* also optionally takes a measure phrase standard:**

Sợi dây này dài hơn ([standard 2m]).
CL string this long more 2m
'This string is longer (than 2m).'

Given this analogy between post-predicate *quá* and comparative *hơn*, we propose that post-predicate *quá* has the syntax and semantics of a comparative, with the addition of a conventionalized malefactive inference, which we describe as follows:

(14) **Malefactive inference of post-predicate *quá*:**

Not-at-issue requirement: If the target degree exceeds the (possibly implicit) standard, someone (often the speaker) will be negatively affected.

In what follows, we present a series of judgments of felicity and truth in different situations to motivate our description of the inference in (14) and highlight two important properties. First, the malefactive inference is not-at-issue and projects through negation. (See e.g. Simons, Tonhauser, Beaver, and Roberts 2010 on projective content.) Second, the malefactive inference is conditional; that is, it signals that *if* the target degree exceeds the standard, then the speaker or others will be negatively affected. It does not require that anyone actually has been or will be negatively affected.

First, consider the examples in (15–16) below, where we need to find a string that is less than 2m long. In the context in (15), the string has a length of 2.5m and is thus inappropriate for our purpose. The variants of (15) with post-predicate *quá* and *hơn* are both judged as felicitous and true: the string we found exceeds the explicit standard of 2m, and this is problematic, supporting the use of post-predicate *quá*, although the situation also supports the use of *hơn*.

(15) **Need: < 2m; target: 2.5m**

Context: We need a string *less than 2m long*. We find a string in the drawer and measure it. It is 2.5m long.

Sợi dây này dài {✓**quá** / ✓**hơn**} 2m.
 CL string this long QUÁ more 2m
 ‘This string is longer than 2m.’

true

In (16), the measured length of the string is 1.5m. This fails to exceed the standard degree of 2m, so the comparatives with post-predicate *quá* and *hơn* are both judged as false and hence inappropriate in this context.

(16) **Need: < 2m; target: 1.5m**

Context: We need a string *less than 2m long*. We find a string in the drawer and measure it. It is 1.5m long.

Sợi dây này dài {#**quá** / #**hơn**} 2m.
 CL string this long QUÁ more 2m
 ‘This string is longer than 2m.’

false

This uniform behavior of post-predicate *quá* and *hơn* in (15–16) is explained by their shared comparative truth conditions: both assert that the target degree exceeds the standard degree.

The malefactive inference of post-predicate *quá* (14) however gives it a more restricted distribution than *hơn*. This is evident in the contrast in (17) below, where we now need a string that is *at least* 2m long. The *hơn* comparative is felicitous and true, but the variant with post-predicate *quá* is now judged as infelicitous.

(17) **Need: ≥ 2m; target: 2.5m**

Context: We need a string *at least 2m long*. We find a string in the drawer and measure it. It is 2.5m long.

Sợi dây này dài {#**quá** / ✓**hơn**} 2m.
 CL string this long QUÁ more 2m
 ‘This string is longer than 2m.’

true

quá ⇨ being longer than 2m would be a problem

false

Despite expressing the same at-issue content — that the target degree (2.5m) exceeds the standard degree (2m) — post-predicate *quá* is judged as inappropriate in (17) because the extent of the target degree — the fact that it is greater than 2m — is not problematic for anyone. The malefactive inference is not supported in this context.

Next, we turn to the behavior of post-predicate *quá* under negation. In example (18), we return to a context where a string shorter than 2m in length is needed, and we find a string that is 1.5m in length. Both post-predicate *quá* and *hơn* variants with negation are felicitous in this context:

(18) **Need: < 2m; target: 1.5m; with negation**

Context: We need a string *less than 2m long*. We find a string in the drawer and measure it. It is 1.5m long.

Sợi dây này **không** dài {[✓]*quá* / [✓]*hơn*} 2m.
 CL string this NEG long QUÁ more 2m
 ‘This string is not longer than 2m.’ *true*
quá \rightsquigarrow being longer than 2m would be a problem *true*

In this context, the string’s length is not an actual problem for the people who want to use it. The felicitous use of post-predicate *quá* signals that *if* the string’s length exceeded the standard 2m, we would be negatively affected. The malefactive inference must be conditional, not necessarily realized. In this example, the comparative truth conditions are negated but the conditional malefactive inference survives, unaffected. This can be accounted for if the malefactive inference is not-at-issue and therefore projects through negation (Simons et al., 2010).

Further support for this conception of the malefactive inference comes from example (19), which differs from (18) above only in the needs of the discourse participants: we need a string that is *at least 2m* in length, rather than *less than 2m*. The material facts remain unchanged: the string in question is 1.5m long, which does not exceed the standard of 2m. In this case, the use of post-predicate *quá* with negation is infelicitous.

(19) **Need: \geq 2m; target: 1.5m; with negation**

Context: We need a string *at least 2m long*. We find a string in the drawer and measure it. It is 1.5m long.

Sợi dây này **không** dài {#*quá* / [✓]*hơn*} 2m.
 CL string this NEG long QUÁ more 2m
 ‘This string is not longer than 2m.’ *true*
quá \rightsquigarrow being longer than 2m would be a problem *false*

The infelicity of post-predicate *quá* in (19) is predicted by our account: the requirement that exceeding the standard (2m) would have a negative effect is not satisfied. Note in particular that, in this situation,

the length of the string *is* in fact problematic for our goals: the string is only 1.5m, but we need a string that is at least 2m in length. The malefactive inference does not track whether or not anyone is negatively affected by the extent of the target degree. Post-predicate *quá* is conditional, calculated below negation and projecting through.

We note that the *hơn* variants in (18) and (19) were felicitous throughout. Again, the use of *hơn* is insensitive to the discourse participants' goals and simply expresses that the target degree exceeds the standard degree, here under negation.

The table in (20) summarizes the judgments presented regarding the felicity and truth conditions of post-predicate *quá* and *hơn*.

(20) **Summary of data on post-predicate *quá* vs *hơn* comparatives:**

desired length	target length	standard length	<i>quá</i>	<i>hơn</i>	
< 2m	2.5m	2m	✓	✓	(15)
< 2m	1.5m	2m	#	#	(16)
≥ 2m	2.5m	2m	#	✓	(17)
< 2m	1.5m	2m	✓	✓	with negation (18)
≥ 2m	1.5m	2m	#	✓	with negation (19)

These patterns motivate our proposal for post-predicate *quá*: post-predicate *quá* and *hơn* are both comparatives, with a shared basic syntax and at-issue comparative semantics, but with post-predicate *quá* introducing a not-at-issue conditional malefactive inference, giving it a more restricted distribution. For discussion of the syntax and compositional semantics of comparative constructions in Vietnamese, we refer readers to Lemon 2020 and Erlewine and Nguyen 2023.

2.3 Summary

In this section we showed that pre- and post-predicate excessive *quá* differ substantially in their conventional semantics and associated syntax. In particular, as noted above, the two excessive constructions exemplify two different approaches to the semantic expression of excess, repeated here in (21) below. We have argued that pre-predicate *quá* is a purpose-oriented excessive (21a), akin to the English *too* construction, whereas post-predicate *quá* is at its core a comparative which also introduces a not-at-issue malefactive inference (21b).

(21) **Two roads to the expression of excess: =(3)**

- a. By purpose-oriented threshold: The target degree exceeds *an upper bound of admissibility, determined by a particular purpose*.

- b. By malefactive inference: The target degree exceeds some standard *and doing so has a negative effect*.

Recall that in basic examples such as (1), repeated here as (22), speakers report that these two different *quá* constructions express the same excessive meaning.

(22) **Two excessive constructions with *quá***: =(1)

Quả bóng này {**quá to / to quá**}. (Tôi muốn một quả nhỏ hơn. / Nó không vừa cái túi đâu.)
 CL ball this QUÁ big big QUÁ 1sg want one CL small more 3sg NEG fit CL bag PRT
 ‘This ball is too big. (I want a smaller one. / It won’t fit in the bag.)’

Our description here allows us to understand such intuitions. The purpose-oriented excessive semantics (21a) entails that the relevant goal expressed by the purpose cannot obtain. In a case where the realization of such goals inherently bear a positive association, their failure to obtain will have a negative effect.³ On the other hand, claiming that the degree exceeds a certain standard and that this negative affects someone (21b) could suggest that some desired goal has become unobtainable, where one is contextually salient. Both approaches in (21) will thus often systematically result in the the same overall message of excess.

At the same time, we have also shown that the two *quá* constructions differ substantially from each other in their syntax. In (23), we summarize the availability of different grammatical devices for specifying the relevant threshold or standard degree for pre- versus post-predicate *quá*. We also include the *đủ* sufficiency and *hơn* comparative constructions in (23) for comparison, which highlights their respective syntactic parallels with pre- and post-predicate *quá*, as per our analysis.

(23) **Modification possibilities for pre- versus post-predicate *quá* and related constructions:**

	<i>quá</i> A	A <i>quá</i>	<i>đủ</i> A	A <i>hơn</i>
<i>để</i> purpose clause	✓ (4)	* (11)	✓ (8)	
measure phrase standard	* (7b)	✓ (12)		✓ (7a/13)

The distinction that we draw between the two approaches to the expression of excess in (21) above is echoed in Fortuin’s (2013) broad description of the function of excessives, which we quote from here:

³ This is not uncontroversial and may not always be true. For instance, Meier (2003: 70) opens her paper with *The food is too good to throw (it) away*. It seems difficult to empirically determine how strongly the inability to throw away such food negatively affects anyone, if at all.

Relatedly, we have been unable to determine whether or not pre-predicate excessive *quá* also projects the malefactive inference associated with post-predicate excessive *quá*. Pre-predicate excessive *quá* makes conventional reference to an implicit or explicit purpose; if we generally think of the non-realization of such goals as being problematic, then a malefactive inference of the form “exceeding the threshold determined by this purpose is a problem” will always be supported. The behavior of pre-predicate excessive *quá* is thus compatible with it projecting the same malefactive inference of the form in (14), but we have not been able to construct positive evidence showing that this must be the case.

(24) **Fortuin’s description for excessive meanings:** (Fortuin, 2013: 35; emphasis ours)

Excessives express that the target degree “exceeds (is more than) the contextually given maximum (maximal appropriate degree),” which may be determined in one of two ways:

- a. “in terms of a situation *Z* — in which case, exceeding the maximum implies *Z cannot/may not/does not have to be realized*”; or
- b. “in terms of an intersubjectively construed or contextually given norm ... — in which case, exceeding the maximum implies that *there are negative consequences associated with exceeding the maximum*”.

Fortuin appears to intend for (24) to describe two different uses of a shared core meaning of excess, one involving non-attainment of a particular purpose (24a) and the other involving malefactivity (24b). The link between the two is also made by Nouwen (2018), who notes that “at some indeterminate level of analysis, excess is bad and sufficiency is good... Excessives are negative because they do not reach goals.” (But see also note 3.) The shared intuition here is that there is a deep conceptual link between non-attainment of a particular purpose or goal and expressing negative affect (malefactivity), making many individual instances of excessives potentially compatible with either type of description.

Against this backdrop, one key contribution of this paper is to show that human language can indeed conventionally encode each of these two different approaches to the description of excess. This is evident in Vietnamese, where the two are expressed by two morphosyntactically distinct constructions involving the form *quá*, preceding or following its predicate.

3 A historical explanation for the dual placement of *quá*⁴

Having established the semantic distinction between the excessive constructions with pre- and post-predicate *quá*, we now return to the unusual property of *quá* in being able to appear in these two positions. Recall that *quá* is unique within the inventory of degree morphemes in the language (modulo degree modifiers) in having both pre- and post-predicate uses; see (2). This naturally raises questions regarding the synchronic and diachronic relationship between these two constructions.

In this section, we present historical evidence that suggests that versions of both pre- and post-predicate uses of *quá* can be traced back to Middle Chinese. This serves to help explain this unique property of *quá* within the inventory of degree morphemes in the language and also indirectly supports our proposal to treat pre- and post-predicate *quá* as synchronically homophonous but distinct items. In

⁴ For discussion of excessive and comparative constructions in various contemporary Chinese languages, we thank Henrison Hsieh, Nick Huang, Elaine Lau, Zheng Shen, Wenkai Tay, and Jianrong Yu. We also thank Barbara Meisterernst for discussion of Middle Chinese facts.

particular, these facts argue against there being a relatively recent, Vietnamese-internal innovative development of one construction from the other.

The modern Vietnamese lexicon includes substantial Sino-Vietnamese vocabulary from centuries of language contact with Chinese languages, in both written and spoken forms; see e.g. Alves 2001 et seq, Phan 2013, and references there. The morpheme *quá* derives from the Chinese 過 (Alves, 2005: 319). Phan (2013) further identifies *quá* as part of the Late Sino-Vietnamese lexical stratum (p. 299), thereby suggesting that it entered the language (then, Proto-Viet-Mường) from a form of Middle Chinese between the 10th to 12th centuries CE (p. 9). We will refer to the Middle Chinese morpheme 過 in what follows by its Pulleyblank 1991 reconstruction, *kuà*.

We suggest that both pre- and post-predicate *quá* reflect constructional borrowings from corresponding pre- and post-predicate uses of *kuà* as a degree morpheme in Middle Chinese, as an excessive and comparative, respectively. We use the term “borrowing” as we hypothesize that speakers who natively or dominantly spoke an Austroasiatic ancestral language of Vietnamese (Proto-Viet-Mường; see footnote 7 below) with additional knowledge of Middle Chinese in their linguistic repertoire first innovated the use of pre- and post-predicate *quá*.⁵ Over time, these features became part of the linguistic input of its learners, including those without substantial exposure to Chinese languages proper (see also Lucas, 2012). We first discuss the possible source constructions in Middle Chinese, and then return to our proposal for their borrowings into Proto-Viet-Mường later in the section.

To our knowledge, there has not been significant work exploring the uses of *kuà* as a degree morpheme in Middle Chinese.⁶ However, evidence for the existence of these two constructions in Middle Chinese comes from the range of uses of reflexes of *kuà* (written 過) in contemporary Chinese languages, which all derive from Middle Chinese.

In Cantonese (Yue), a structure of the form “A *gwo* standard” as in (25) is the canonical means of forming a comparative with an explicit standard. The same or similar comparative construction also exists in Mandarin, as in (26), although another comparative construction with distinct morphosyntax (with a pre-predicate standard phrase introduced by *bǐ*) is more common.

⁵ This is in contrast to the possibility of describing the constructions as the result of “interference” (Thomason and Kaufman, 1988) or “imposition” (Van Coetsem, 1988) by Chinese language dominant speakers of Proto-Viet-Mường. We also distinguish “borrowing” from “pattern replication” or “calquing,” as the surface phonological form of Middle Chinese *kuà* was itself adopted, not simply a particular structural pattern.

⁶ Wei Pei-Chuan 2013 briefly mentions both pre- and post-predicate degree uses of *kuà* (過) in his discussion of Old Chinese, but does not present specific examples of these uses there. We thank Barbara Meisterernst (p.c.) for bringing this work to our attention.

- (25) **Cantonese post-predicate *gwo* comparative:** (adapted from Matthews and Yip, 2011: 189)

今日 熱 過 尋日 (兩 度)。
Gāmyaht *yih* **gwo** kàhmyaht (léuhng douh).
today hot *gwo* yesterday two degrees
'Today is (two degrees) hotter than yesterday.'

- (26) **Mandarin post-predicate *guò* comparative:** (Liu, 2014: 144)

約翰 高 過 瑪麗 (五 公分)。
Yuēhàn *gāo* **guò** Mǎlì (wǔ gōngfēn).
John tall *guò* Mary five centimeter
'John is (five cm) taller than Mary.'

These productive degree morpheme uses of *gwo/guò* in Cantonese and Mandarin necessarily follow their predicates and are limited to forming comparatives, not excessives.

For pre-predicate *kua`*, *Gǔdài Hànyǔ xūcí cídiǎn* [Dictionary of Ancient Chinese function words] (1999) recognizes its use as an excessive, going back to the 3rd-4th century CE (Barbara Meisterernst, p.c.). Reflexes of *kua`* as a pre-predicate excessive marker are also seen in contemporary Chinese languages. In Mandarin, this use appears to be limited to combinations with monosyllabic adjectives, as in the naturally occurring example in (27). A similar use is seen in (28), in the Hui'an dialect of Southern Min.

- (27) **Mandarin pre-predicate *guò* excessive:** (<https://youtu.be/NRbcgVyb15Q> at 2'28")

溫度 不能 過 高 或者 過 低。
Wēndù bù-néng **guò** *gāo* huòzhe **guò** *dī*.
temperature not-may *guò* high or *guò* low
'The temperature cannot be too high or too low.'

- (28) **Hui'an Min pre-predicate *kə*⁵⁻³ excessive:** (Chen, 2020: 455)

過 早 落去, 過 布。
Kə⁵⁻³ *tsa*³ lo⁸khui⁰ **kə**⁵⁻³ *pɔ*⁵.
kə early go.down kə tough
'[The meat] was put in too early, so it is too tough.'

The behaviors of contemporary Chinese languages that we highlight here show that cognates of *quá* have both pre- and post-predicate degree morpheme uses in Chinese languages — in Mandarin as well as in the Yue (e.g. Cantonese) and Min (e.g. Hui'an) groups spoken in the south — and notably with pre-predicate uses forming excessives and post-predicate uses forming comparatives. The attestation of these two different degree constructions using reflexes of *kua`* (過) across divergent contemporary Chinese languages suggest that both constructions existed in their shared ancestor, Middle Chinese, approximately a thousand years ago.

As Alves notes in a series of works (2005, 2007, et seq), functional morphology of Sino-Vietnamese origin may reflect the more direct borrowing of Chinese grammatical constructions or the borrowing of content words followed by subsequent, independent processes of grammaticalization in the development of Vietnamese. Here we note that Vietnamese also has a related verb *qua* meaning ‘to pass (by),’ which differs only in tone from *quá*, and which Alves (2005: 319) notes as also derived from Chinese 過. Fortuin (2013: 38–39) has observed that, cross-linguistically, excessive markers often historically derive from verbs of motion such as ‘pass.’ This suggests an initially plausible possibility that the degree morpheme *quá* developed Vietnamese-internally from the verb *qua*.

However, this distinction in both form and meaning — between *qua* and *quá* — can also in fact be traced all the way back to Middle Chinese. As Barbara Meisterernst (p.c.) points out, Middle Chinese 過 had two tonal variants, referred to as “level” vs “departing” in traditional Chinese grammars (see e.g. Downer, 1959: 272). The level tone form is a verb meaning ‘to pass by’ whereas the departing tone form can be a verb ‘to exceed’ or the degree morphemes at issue here, as well as a nominal meaning ‘mistake.’ Pulleyblank (1991: 116–117) reconstructs these forms in Late Middle Chinese as *kua* and *kuà*, respectively. The Vietnamese forms *qua* and *quá* are as predicted from these two Middle Chinese forms, based on the regular tone correspondences from Middle Chinese to Sino-Vietnamese due to Maspero 1920 and Wang Li 1948, as discussed in Phan 2013: 87ff.⁷ This further supports our claim that uses of *quá* as degree morphemes have their roots in constructional borrowing from Middle Chinese, rather than being the results of more recent, Viet-Mường-internal innovations based on the verb *qua*.

We summarize the proposed lexical and constructional borrowings from Middle Chinese to Vietnamese (or Viet-Mường; see footnote 7) in (29) below. The first row of the table reflects Vietnamese *qua* being a straightforward lexical borrowing (loanword) from Middle Chinese *kua*. In the second and third rows, we hypothesize the constructional borrowing of Middle Chinese pre- and post-predicate *kuà* to the corresponding *quá* constructions in Vietnamese. Although these borrowings could also be narrowly described as the lexical borrowing of degree morphemes from Middle Chinese (thinking of their pre- versus post-predicate word order as part of their lexical specifications), we instead describe these as borrowings of the entire corresponding constructions, as pairs of surface-structural patterns and corresponding meanings, following discussion in Ross 2020.

⁷ Phan (2013: 320) also shows that cognates of *qua* and *quá* are also attested in the closely related Mường languages of Muốt, Chối, and Khễn, again with their tonal distinction and basic corresponding meaning distinction intact. The proposed borrowings are therefore from Middle Chinese to Proto-Viet-Mường.

(29) **Lexical and constructional borrowings from Middle Chinese to Vietnamese:**

Middle Chinese		Vietnamese
<i>kua</i> 'to pass (by)'	>	<i>qua</i> 'to pass (by)'
<i>kua` A</i> excessive	>	<i>quá A</i> purpose-oriented excessive
<i>A kua` ...</i> comparative	>	<i>A quá ...</i> comparative w/malefactive

As emphasized by Johanson (2002), the results of borrowing are never entirely identical to their source constructions. We note two deviations between the Vietnamese constructions and their corresponding Middle Chinese constructions here. The first is that the post-predicate degree construction in Middle Chinese — as hypothesized based on attested constructions in contemporary Chinese languages, above — is simply a comparative, without any malefactive flavor; see examples (25) and (26) above. One possibility is that post-predicate *quá* conventionalized this specifically malefactive use due to competition with the other comparative morpheme *hơn*, which Alves (2001: 232) notes is of native Vietnamese origin, not Sino-Vietnamese. At this point, we cannot determine specifically when this change in the interpretation of post-predicate *quá* took place. The second is that comparison of the morphosyntax of Vietnamese comparatives with *hơn* and post-predicate *quá* (as described in Lemon 2020 and Erlewine and Nguyen 2023) with that of contemporary Mandarin post-predicate *gùo* comparatives (see e.g. Liu, 2014) suggests substantial differences in their synchronic syntax. This is unsurprising based on our hypothesis that the surface-constructural pattern of Middle Chinese post-predicate *kua`* was borrowed with its associated semantics, rather than its specific syntax itself, as well as the fact that the reflexes of post-predicate *kua`* in Chinese languages may themselves have evolved over time.

4 Other uses derived from excessive *quá*

The study of *quá* as an excessive degree morpheme in Vietnamese is further complicated by other uses of *quá* which do not invite descriptions as excessives. We turn to these other uses of *quá* in this section: pre-predicate *quá* as an intensifier with limited distribution (section 4.1) and post-predicate *quá* as a marker of degree exclamatives (section 4.2). We argue that both of these uses should be distinguished from their corresponding excessive *quá* constructions in synchronic grammar but that they derive historically from them, and offer explanations for their semantic extension that predict their patterns of use.

4.1 Pre-predicate *quá* as an intensifier with speaker commitment

We will first show that pre-predicate *quá* has a second sense, as an intensifier with limited distribution, and that it derived predictably from pre-predicate excessive *quá* described above.

Recall that the truth conditions for excessive pre-predicate *quá* (9) make reference to a particular consequence, which may be specified using a variety of strategies, none of which are obligatory. Consider a situation where a speaker uses a pre-predicate *quá* excessive without an overly specified consequence. Through pragmatic reasoning, we as listeners can conclude that the speaker has a particular consequence in mind and has an epistemic basis to assert that the target degree is so high as to make that consequence not obtain. The speaker is thus going on record with their own attestation that the target degree is high, to a particular degree that only they may know for certain.

We suggest that, over time, such uses of pre-predicate *quá* without an explicit purpose or consequence have led to a secondary use of pre-predicate *quá*, as one which indicates a high target degree that the speaker publicly commits to, *without* having a particular non-realizing consequence in mind.⁸⁹ We schematize this pathway of historical development in (30), which constitutes an instance of semantic change via *context-induced reinterpretation* (Heine, Claudi, and Hünnemeyer, 1991). We note that, although we have identified the source construction in (30) as a borrowing from Middle Chinese, the semantic extension described in (30) is a language-internal innovation.

(30) **Semantic extension of pre-predicate *quá*:**

<i>quá</i> A	>	<i>quá</i> A
purpose-oriented excessive		intensifier with speaker commitment

In this section, we show that pre-predicate *quá* indeed has such a use as an intensifier, which should be distinguished synchronically from pre-predicate excessive *quá*, and which has a more restricted distribution than other intensifiers in the language due to its expression of speaker commitment. We begin by observing that many simple pre-predicate *quá* sentences invite translations as both ‘too’ or ‘very,’

⁸ The extended use of a dedicated excessive marker as an intensifier is well attested cross-linguistically, for example with English *too* (see OED sense 3, “as a mere intensive”; Quirk et al. 1985: 447–448), French *trop*, Dutch *te* (Fortuin, 2013: 44), and Mandarin *tài* (Lü, 1980: 398). Note too that degree modifiers derived from expressions of excess such as colloquial English *super* and *uber* have been argued to signal subjective evaluations (Waksler, 2012). See also Luo and Liu 2018, which shows that the use of Mandarin *tài* is frequently associated with negative speaker evaluations. We hesitate to suggest that all intensifiers derived from excessives signal subjectivity or speaker commitment, although we will show that this indeed is the case with Vietnamese intensifier *quá*.

A reviewer notes that in the frequent use of Mandarin *tài* without negative affect, as in expressions such as *tài hǎo le!* (literally “too good LE”; approximately ‘wonderful!’), it is not immediately clear if *tài* is more similar to the use of *quá* as an intensifier or as an exclamative marker. As our focus here is on the uses of Vietnamese *quá*, we leave this question regarding Mandarin *tài* open for future research.

⁹ Fortuin (2013: 41ff) notes that intensifiers are used in a number of languages in order to express excess, thereby suggesting a possible pathway of semantic extension from intensifier to excessive, which is the opposite of what we propose here. In the case of pre-predicate *quá*, however, we can be certain that the excessive use is its original, due to cognate pre-predicate constructions in Chinese languages being consistently excessive rather than intensifying, as we saw in section 3.

depending on their context of use. Consider the pair in (31). Here, the two continuations in (31B1,B2) reflect different attitudes by the speaker towards the size of the room.

(31) **Two translations and continuations for pre-predicate *quá*:**

A: Should we rent this room?

B1: Căn phòng này **quá rộng**. Căn phòng kia tốt hơn.
CL room this QUÁ large CL room that good more
'This room is too large. That room is better.'

B2: Căn phòng này **quá rộng**. Tôi rất thích (nó).
CL room this QUÁ large 1sg very like 3sg
'This room is very large. I like it very much.'

The continuation in example (31B1) suggests an interpretation of the pre-predicate *quá* as an excessive with an implicit purpose that cannot be achieved: for example, it is too big for the interlocutors to rent. In contrast, there is not obviously a relevant consequence that cannot be achieved by the room's size in (31B2), where the speaker goes on to say that they like the room very much, making it suitable for the salient contextual goal of renting a room. Intuitively, the example in (31B1) invites a translation using an exceptive, e.g. 'too large,' whereas (31B2) does not.

We argue that these two uses of pre-predicate *quá* synchronically involve two homophonous but distinct lexical items. The first way to distinguish excessive and intensifier pre-predicate *quá* is that the intensifier can take an expression introducing a comparison class, but the excessive cannot. Comparison classes are typically introduced by the phrase *so với* and inform the determination of the threshold for positive form evaluations, as in (32) with *rất*, the most common pre-predicate 'very.'

(32) **Introducing a comparison class with *so với* 'compared with':**

So với các bức tranh khác, bức tranh này **rất đắt**.
compare with PL CL picture other CL picture this very expensive
'Compared to other pictures, this picture is very expensive.'

A *so với* comparison class can co-occur with pre-predicate *quá*, and in such cases, *quá* can only be interpreted as an intensifier, not as an excessive. See the contrast in (33). We note that the contrast we report here is based on speaker intuitions for appropriate translations into English — using an intensifier or an excessive — but we present further evidence for this effect using an acceptability judgment contrast in (35) below.

(33) **Intensifier pre-predicate *quá* can take a comparison class, but the excessive cannot:**

So **với** các bạn, Kim **quá** *cao*.
compare with PL friend Kim QUÁ tall

- a. ‘Compared to her friends, Kim is very tall.’
b. * ‘Compared to her friends, Kim is too tall [for an implicit purpose].’

Our discussion here predicts that pre-predicate *quá* cannot simultaneously take a comparison class introduced by *so với*, which is available only for the intensifier *quá* (33), together with a salient consequence that is used to calculate excessive truth conditions. This prediction is borne out. As a baseline, example (34) below is interpreted as unambiguously an excessive *quá*, as the purpose clause highlights a salient consequence — (the possibility of) fitting the ball into the box — that a large target degree makes impossible. Adding a *so với* comparison class to this example, as in (35) below, results in ungrammaticality.

(34) **Unambiguous excessive pre-predicate *quá*:**

Quả bóng kia **quá** *to* [purpose để đặt vừa cái hộp].
CL ball that QUÁ big for put fit CL box

- a. * ‘That ball is very big, for fitting in the box.’
b. ‘That ball is too big to fit in the box.’

(35) **Incompatibility of comparison class with unambiguous excessive pre-predicate *quá*:**

(***So** **với** quả bóng này,) quả bóng kia **quá** *to* [purpose để đặt vừa cái hộp].
compare with CL ball this CL ball that QUÁ big for put fit CL box
‘That ball is too big to fit in the box (*compared to this ball).’

The evidence that we have presented suggests that pre-predicate *quá* has a use as an intensifier, distinct from the excessive pre-predicate *quá*. The intensifier use is a kind of positive form, claiming that the target degree noticeably exceeds the threshold for the predicate’s positive evaluation, which in turn may be determined with reference to a comparison class but without conventional reference to a purpose. The intensifier pre-predicate *quá* is thus interchangeable in many contexts with the canonical intensifiers in Vietnamese, pre-predicate *rất* and post-predicate *lắm*, as in (36). However, the use of *quá* as an intensifier is more restricted than the use of *rất* and *lắm*. Here we set aside the post-predicate intensifier *lắm* and compare the distribution of intensifier *quá* to that of *rất*.

(36) **Three intensifiers in Vietnamese:**

Món cá này { **quá** ngon / **rất** ngon / ngon **lắm** }.
dish fish this QUÁ delicious very delicious delicious very
‘The fish is very delicious.’

We observe that intensifier *quá* can only be used in contexts where the speaker asserts and publicly commits to the intensified evaluation. Evidence that supports this description comes from the limited ability of intensifier *quá* to be embedded and questioned. We first show that intensifier *quá* can be embedded in the content of a ‘because’ clause, but not of a conditional clause. The contexts and examples here are designed to be incompatible with excessive readings of *quá*. We see that the intensifier *rất* is available in both embeddings.

(37) **Reason clause allows intensifiers *rất* and *quá*:**

A: Do you think that actress could play the role of the princess?

B: Bởi vì cô ấy { **rất** / **quá** } *xinh*, nên cô ấy chắc chắn có thể diễn vai đó.
 because she very QUÁ beautiful so she certainly able play role that
 ‘Because she is very beautiful, she certainly can play that role.’

(38) **Conditional clause allows intensifier *rất* but not intensifier *quá*:**

A: We need a large table. Do you think that table is big enough?

B: Để tớ đi xem. Nếu cái bàn **đấy** { **rất** / **#quá** } *to* thì chúng ta sẽ mua nó.
 let 1sg go see if CL table that very QUÁ big then 1pl.INCL FUT buy 3sg
 ‘Let me go see it. If that table is very big, we will buy it.’

Note that excessive pre-predicate *quá* is generally unrestricted in its embedding. Examples (39–40) are minimally modified from (37–38) above (with differences underlined) to support the excessive reading of *quá*, and show that excessive pre-predicate *quá* is available in both reason and conditional clauses, unlike intensifier pre-predicate *quá*.

(39) **Reason clause allows excessive pre-predicate *quá*:**

A: Do you think that actress could play the role of the beggar?

B: Bởi vì cô ấy **quá** *xinh*, nên cô ấy chắc chắn không thể diễn vai đó.
 because she QUÁ beautiful so she certainly NEG able play role that
 ‘Because she is too beautiful, she certainly cannot play that role.’

(40) **Conditional clause allows excessive pre-predicate *quá*:**

A: We need a small table. Do you think that table is small enough?

B: Để tớ đi xem. Nếu cái bàn **đấy** **quá** *to* thì chúng ta phải tìm cái bàn khác.
 let 1sg go see if CL table that QUÁ big then 1pl.INCL must find CL table another
 ‘Let me go see it. If that table is too big, we have to find another one.’

We propose that the unavailability of intensifier *quá* within a conditional clause is due to the fact that the speaker is not committed to the truth of the conditional clause, i.e. that the table is very big in (38). The conditional is a supposition that would lead to the truth of its consequent. In contrast, the speaker is

committed to the truth of the actress being very beautiful in (37), which then allows for the felicitous use of intensifier *quá*. As we see, the other pre-predicate intensifier *rất* ‘very’ as well as the excessive use of pre-predicate *quá* are not subject to this restriction.

Further support for this characterization comes from the limited compatibility of intensifier *quá* with polar question formation. Vietnamese has multiple strategies for polar question formation (see e.g. Trinh 2005, Duffield 2013, Nguyen 2021, Nguyen and Erlewine 2023). The unbiased question with final *không* and biased question with final *à* in (41a,b) only allow for pre-predicate *quá* to be interpreted as an excessive, whereas the confirmation-seeking tag question with final *phải không* allows both excessive and intensifier readings of pre-predicate *quá*. Empirically, the (un)availability of the intensifier readings for these questions can be verified by judging the felicity of the reply in (42) below.

(41) **Polar questions with pre-predicate *quá*:**

- a. Cái bàn đó có quá to **không**?
CL table that PRT QUÁ big NEG
‘Is that table too big?’ / * ‘Is that table very big?’
- b. Cái bàn đó quá to **à**?
CL table that QUÁ big Q
‘Is that table too big?’ / * ‘Is that table very big?’ (biased)
- c. Cái bàn đó quá to **phải không**?
CL table that QUÁ big CORRECT NEG
‘That table is too big; is that right?’ / ‘That table is very big; is that right?’

(42) **Reply to (41) which requires intensifier construal:**¹⁰

{ Có / Ừ }. Chúng ta cần một cái bàn thật to nên chúng ta sẽ mua nó.
PRT right 1pl.INCL need one CL table really big so 1pl.INCL FUT buy 3sg
‘Yes. We need a very big table so we will buy it.’

Felicitous reply to (41c) but infelicitous for (41a,b)

The intensifier reading of *quá* is incompatible with *không* and *à* questions, which are pure interrogatives with no speaker commitment to the truth of the proposition at issue. In contrast, *phải không* questions involve the speaker first asserting and committing to a proposition and then seeking confirmation with the question *phải không* ‘Is that right?’.¹¹ The restricted availability of question formation with intensifier *quá* is thus explained by, and further supports, our description of its felicity conditions.

¹⁰ The question in (41a) which involves the particle *có* is answered in the affirmative most naturally by repeating the particle *có*. *Ừ* is a felicitous affirmative short answer for (41b,c).

¹¹ This analysis accords with the fact that *phải không* cannot form embedded questions (Duffield, 2013: 141–142).

4.2 Post-predicate *quá* as an exclamative marker

Next we turn to another use of post-predicate *quá*, which serves to form degree exclamatives. Degree exclamatives express the speaker's evaluation of a target degree as unusually or surprisingly high; see e.g. Michaelis 2001; Zanuttini and Portner 2003; Rett 2011 for overviews and discussion. We first describe how excessive post-predicate *quá* could be used in situations that make it compatible with an exclamative interpretation. We then show that post-predicate *quá* has indeed grammaticalized into an exclamative marker which must be distinguished from excessive post-predicate *quá* in the contemporary grammar.

One universal human experience is that facts of the world sometimes run counter to our prior beliefs or expectations, whether due to errors of perception, memory, or reasoning. For instance, we may expect tables in a particular context to have a particular maximal size. If we encounter a new table and its size is in fact greater than we expected, one way of conveying this surprising fact would be to use a post-predicate *quá* excessive, with no overt standard, resulting in an expression as in (43).

(43) **Post-predicate excessive *quá* expressing surprise at an unexpectedly high degree:**

Cái bàn này to **quá**.

CL table this big QUÁ

≈ 'This table is bigger (than I expected), and that's a problem (as I have to revise my beliefs).'

Recall from section 2.2 above that excessive post-predicate *quá* is a comparative, like *hơn*, with an additional not-at-issue malefactive inference. Hearing excessive *quá* used in a situation as in (43), we take the speaker to have a particular standard degree in mind and assert that the target degree is greater than it. Furthermore, the use of *quá* as opposed to *hơn* indicates that exceeding the standard leads to a problem; in such cases where an expectation is violated, the problem may simply be that the speaker's prior beliefs and expectations must be revised.

The communicative function of an utterance as in (43), then, lines up with that of exclamatives. As Rett (2011) summarizes in her study of English exclamative constructions, "exclamatives express what I've called a scalar expectation: that the speaker expected a gradable property to be instantiated only up to a particular degree, and the actual value exceeded that expectation" (p. 422). Grammaticalized exclamatives, however, are not assertions but instead are a variety of expressive speech act (Kaplan, 1999; see also discussion in Rett 2011: 412–414, 435–436), whose content cannot be denied or questioned.

We propose that the repeated use over time of post-predicate excessive *quá* to express surprise at an unexpectedly high degree, as in (43) above, has led to the grammaticalization of post-predicate *quá* as a marker of exclamative speech acts (see e.g. Sadock and Zwicky, 1985; Zanuttini and Portner, 2003), as in (44) below.¹² Notice that the continuation in (44) indicates that the large size of the table is not a problem

¹² We give exclamations using intensifier *so* (see e.g. Bolinger, 1972: ch. 10) in our English translations for *quá* exclamatives. However, following discussion in Rett 2011, *wh*-exclamatives such as *How big this table is!* may better convey the expressive nature of *quá* exclamatives.

for the speaker, only that it was unexpected. We schematize this hypothesized pattern of development in (45), which can also be described as an instance of language-internal, context-induced reinterpretation (Heine et al., 1991).

(44) **Exclamative *quá*, with no negative affect:**

(Ồ/Oa,) cái bàn này to **quá!** Tôi sẽ mua nó.
 wow CL table this big QUÁ 1sg FUT buy 3sg
 ‘(Wow,) this table is so big! I’ll buy it.’

(45) **Semantic extension of post-predicate *quá*:**

A <i>quá</i> ...	>	A <i>quá</i> !
comparative		exclamative
w/malefactive		

In the remainder of this section, we show that exclamative *quá* is indeed synchronically distinct from excessive post-predicate *quá*, over and above the lack of a malefactive inference as in (44) above.

First we observe that exclamatives that express surprise such as (44) are subject to a recency effect, which Rett and Murray (2013) observe to be a cross-linguistically common property of mirative expressions: “These mirative interpretations are only available relatively recently after the speaker’s learning that *p*” (p. 464). Evidence for the recency effect in mirative uses of exclamative *quá* comes from the contrast between (46) and (47):

(46) **Stimulus satisfying the recency requirement for a mirative use of exclamative *quá*:**

Context: I’ve been looking for a very big table. When I come home, I see a table which is extremely big. I say:

Cái bàn này to **quá!**
 CL table this big QUÁ
 ‘This table is so big!’

(47) **Stimulus not satisfying the recency requirement:**

Context: I’ve been looking for a very big table. A day ago, I saw a table which I thought was extremely big. Now I am telling you about the table.

Cái bàn **đấy** to **quá!**
 CL table that big QUÁ
 ‘That table is so big!’

The two contexts above are constructed so that the excessive reading is not available; the salient purpose in the context makes large tables acceptable. We can see that exclamative *quá* is available in (46) where

the speaker immediately reacts to seeing the table, in contrast to (47) where the stimulus is not recent for the speaker and the utterance is judged as infelicitous.

Excessive post-predicate *quá*, on the other hand, is not subject to this constraint. This serves to force an excessive interpretation in (48), where the context supports its malefactive inference.

(48) **Stimulus not recent, but supporting the excessive reading:**

Context: Kim wants to join her school’s dance club. After she and the speaker come back from the club, their roommate asks if she is successful. The speaker says:

Kim *cao quá*. Họ không nhận.

Kim tall QUÁ 3pl NEG accept

a. # ‘Kim is so tall! They did not accept her.’

b. ‘Kim is too tall. They did not accept her.’

We also note that not all exclamative *quá* utterances are expressions of speaker surprise. We have also identified uses where the degree in question is not strictly speaking surprising to the speaker, but rather simply noteworthy in its extent. Such uses are particularly common as expressions of the speaker’s own mental or physical state, as in (49). These uses appear to not be subject to the recency requirement: for instance, the felicitous use of (49) with ‘hungry’ need not involve the speaker recently becoming hungry or recently realizing that they are hungry. Note too that the attitude expressed need not be at all negative, as illustrated with *vui quá* ‘so happy.’

(49) **Exclamative *quá* expressing speaker’s own extreme physical state:**

Ôi, tớ { *đói / lạnh / vui / nhớ bà* } **quá!**

gosh 1sg hungry cold happy miss grandma QUÁ

‘Gosh, I {am so hungry / am so cold / am so happy / miss grandma so much}!’

Second, we observe that exclamative *quá* is evaluative, reflecting the speaker’s evaluation that the target degree is high with respect to the contextually-determined threshold for the predicate’s positive extension. This leads to a contradiction with the continuation in (50). This contrasts from excessive post-predicate *quá*, which as we argued in section 2.2 is a comparative with truth-conditions that require only that the target degree exceed the (potentially implicit) standard degree, thus resulting in no contradiction in (51B).

(50) **Exclamative *quá* is evaluative:**

{Ồ/Oa,} Kim *cao quá*! (# Mặc dù cô ấy cũng không cao lắm.)

wow Kim tall QUÁ although she also NEG tall very

‘Wow, Kim is so tall! (# Although she is not very tall.)’

(51) **Excessive post-predicate *quá* is not evaluative:**

Context: A knows B is looking for an actor. B needs an actor under 1.5m.

A: Kim thế nào? Cô ấy cao 1.53m.

Kim how She tall 1.53m

'How about Kim? She is 1.53m'

B: Kim *cao quá*, mặc dù cô ấy cũng không cao lắm.

Kim tall QUÁ although she also NEG tall very

'Kim is too tall, although she is not very tall.'

Third, we observe that exclamative *quá* cannot be embedded, as expected due to these utterances being expressive speech acts rather than assertions. Consider examples (52–53) below. Here the conditional and reason clauses include post-predicate *quá*. Example (52) has a consequent that is compatible with an exclamative or otherwise intensified reading of *quá* but not an excessive, whereas example (53) is compatible with excessive post-predicate *quá*. Speakers judge (52) to be unnatural but (53) to be natural, which is explained by exclamative *quá* being unembeddable, in contrast to excessive post-predicate *quá*.

(52) **Exclamative *quá* cannot be embedded in conditional clause or reason clause:**

{ Nếu / Bởi vì } cái bàn *đấy to quá* thì chúng ta sẽ mua nó.

if because CL table that big QUÁ then 1pl.INCL FUT buy 3sg

a. * 'If/because that table is so big, we will buy it.'

b. # 'If/because that table is too big, we will buy it.'

(53) **Excessive post-predicate *quá* can be embedded:**

{ Nếu / Bởi vì } cái bàn *đấy to quá* thì chúng ta phải tìm cái bàn khác.

if because CL table that big QUÁ then 1pl.INCL must find CL table another

a. * 'If/because that table is so big, we will need to find another.'

b. 'If/because that table is too big, we will need to find another.'

We similarly note that exclamative *quá* cannot be negated or questioned:

(54) **Exclamative *quá* is incompatible with negation:**

* Ồ, cái bàn này *không to quá*!

wow CL table this NEG big QUÁ

Intended: 'Wow, this table is not big!'

(55) **Questioned post-predicate *quá* must be excessive:**

(#Ồ/Oa,) cái bàn *đó to quá* { *không? / à? / phải không?* }

wow CL table that big QUÁ NEG Q correct NEG

a. 'Is this table too big? / 'Isn't the table too big? / 'The table's too big; is that correct?'

b. * 'Is this table so big!?' / 'Isn't the table so big!?' / 'The table's so big! Is that correct?'

The inability of exclamative *quá* to be embedded or questioned is reminiscent of the behavior of pre-predicate intensifier *quá* in section 4.1. However, we saw there that intensifier *quá* can be embedded in limited environments which are compatible with speaker commitment, such as in reason clauses (38) and confirmation-seeking tag questions with final *phải không* (41c). In contrast, exclamative *quá* cannot be embedded or questioned even in these environments, in line with the cross-linguistically limited ability of exclamatives to be embedded (see e.g. Zanuttini and Portner, 2003).

The final difference between exclamative and excessive post-predicate *quá* is related to the ability to take a comparative standard. Recall that excessive post-predicate *quá* is able to take a degree-denoting standard, which motivated our proposal in section 2.2 that it is a comparative construction at its core. Exclamative *quá*, however, is in general incompatible with comparative standards. For instance, example (56a) is ungrammatical if it is understood as an exclamative. There is however a very limited class of exceptions to this restriction, which are expressions akin to “the imagined level,” as in (56b).

(56) **Exclamative *quá* allows only certain idiomatic standards:**

- a. * {Ồ/Oa}, cái bàn này to **quá** 2m!
 wow CL table this big QUÁ 2m
 ‘Wow, this table is so big, more than 2m!’
- b. {Ồ/Oa}, món này ngon **quá** {sức / mức} (tưởng tượng)!
 wow CL this delicious QUÁ capacity level imagine
 ≈ ‘Wow, this dish is so delicious, much more than I imagined!’

The availability of such restricted standard phrases supports our proposal that exclamative *quá* historically originated as an extension of excessive post-predicate *quá*, retaining certain fixed collocations that reflect the construction’s origins as a comparative construction.

Finally, we note that prior work on grammaticalization, especially those grounded in syntactic cartography (see e.g. Roberts and Roussou, 2003; Roberts, 2012), may lead us to expect exclamative *quá* (as a marker of exclamative speech acts or corresponding clause typing marker) to have a different, higher structural position than that of post-predicate excessive *quá*. Although we model post-predicate *quá* and *hơn* in a clause-medial position in Erlewine and Nguyen 2023, its linear position is also compatible with exclamative *quá* being in a much higher, clause-peripheral position.¹³ In particular, its unembeddability (52) and lack of standards (modulo very limited exceptions, in (56b)) makes it consistently utterance-final and also invites its description as one of the language’s many sentence-final particles (see e.g. Duffield, 2013; Le, 2015; Nguyen, 2021). We therefore leave the identification of the precise structural position of exclamative *quá* for further work.

¹³ See also Erlewine 2017, 2023 for discussion of the similar challenge of identifying the structural position of sentence-final particles in Chinese languages.

4.3 Summary

In this section we described two additional uses of *quá*: pre-predicate *quá* as an intensifier with restricted distribution, limited to expressions of evaluations with speaker commitment, and post-predicate *quá* as a degree exclamative marker. In both cases, we argue that they developed from certain conventionalized uses of their counterpart excessive *quá*, and must be distinguished from them in the synchronic grammar.

We summarize the inventory of *quá* degree morphemes in Vietnamese, together with the historical relationships between them and their Middle Chinese sources, in (57) below. These four *quá* degree morphemes together account for all uses of *quá* that we are aware of.

(57) **The landscape of *quá* degree morphemes and their historical sources:**

Middle Chinese		Vietnamese		Vietnamese
<i>kua`</i> A excessive	>	<i>quá</i> A purpose-oriented excessive	>	<i>quá</i> A intensifier with speaker commitment
A <i>kua`</i> ... comparative	>	A <i>quá</i> ... comparative w/malefactive	>	A <i>quá</i> ! exclamative

Within each pair of *quá* degree morphemes in a particular linear position (each row in (57)), we have proposed first that the excessive *quá* constructions (middle column) are results of constructional borrowing from their corresponding Middle Chinese *kua`* constructions (left column), as described in section 3. We then furthermore propose that the intensifier and exclamative uses of *quá* (right column) derive from their corresponding excessive *quá* constructions through context-induced reinterpretation (Heine et al., 1991). Comparison with cognate reflexes of Middle Chinese *kua`* in Chinese languages (see section 3) allows us to confidently identify the excessive *quá* as the original source construction which then led to the additional senses to their right, rather than the other way around. As a reviewer notes, we may think of these secondary semantic innovations as independent, language-internal innovations, not as contact-induced changes.

5 Conclusion

This paper has considered the multiple functions of the expression *quá* in Vietnamese. Starting with the puzzle posed by the unusual property of the degree morpheme *quá* in allowing both pre- and post-predicate positions, we showed that the excessive pre- and post-predicate are in fact two different constructions with distinct syntax and semantics: Excessive pre-predicate *quá* is a basic purpose-oriented

excessive, whereas excessive post-predicate *quá* is a comparative that conventionally encodes a not-at-issue malefactive inference. Although Fortuin (2013: 35) describes both of these approaches of the expression of excess as cross-linguistically plausible (see (24)), our work shows that natural language can distinctly conventionalize either meaning. From a cross-linguistic perspective, it appears that excessive post-predicate *quá* manifests a relatively rare approach to the expression of excess, encoding only the malefactive component of excessive meaning, offering the opportunity to study the expression of excess via malefactive inference, in isolation.

Our study also offers an explanatory account of the historical development of the various uses of *quá*. In particular, we argue that excessive pre- and post-predicate *quá* are the results of constructional borrowing from Middle Chinese pre- and post-predicate *kua`*, with cognate constructions with similar syntax and semantics in contemporary Chinese languages. The two excessive constructions in turn have led to two new senses for *quá* in Vietnamese, as a pre-predicate intensifier that indicates speaker commitment and a post-predicate exclamative marker. In each case, we describe how the secondary senses came about via context-induced reinterpretation (Heine et al., 1991), as a language-internal, further innovation building on the result of earlier contact-induced change. By combining detailed description of the syntax and semantics of the contemporary constructions together with comparative evidence and accounts for their historical change, we arrive at a rich and explanatory account of the range of uses of this highly multifunctional expression.

References

1999. *Gǔdài Hànyǔ xūcí cídiǎn [Dictionary of Ancient Chinese function words]*. Shangwu yin.
- Alves, Mark J. 2001. What's so Chinese about Vietnamese? In *Proceedings of SEALS 9*, ed. Graham W. Thurgood, 221–242.
- Alves, Mark J. 2005. Sino-Vietnamese grammatical vocabulary and triggers for grammaticalization. In *The 6th Pan-Asiatic International Symposium on Linguistics*, 315–332.
- Alves, Mark J. 2007. Sino-Vietnamese grammatical borrowing: An overview. In *Grammatical borrowing in cross-linguistic perspective*, ed. Yaron Matras and Jeanette Sakel, 343–362. Mouton de Gruyter.
- Bolinger, Dwight. 1972. *Degree words*. Mouton.
- Chen, Weirong. 2020. *A grammar of Southern Min: The Hui'an dialect*. Walter de Gruyter.
- Cresswell, Max J. 1976. The semantics of degree. In *Montague Grammar*, ed. Barbara Hall Partee, 261–292. Academic Press.
- Downer, Gordon B. 1959. Derivation by tone-change in Classical Chinese. *Bulletin of the School of Oriental and African Studies* 22:258–290.
- Duffield, Nigel. 2013. Head-first: On the head-initiality of Vietnamese clauses. In *Linguistics of Vietnamese: an international survey*, ed. Daniel Hole and Elisabeth Löbel, 127–154. de Gruyter.
- Erlwine, Michael Yoshitaka. 2017. Low sentence-final particles in Mandarin Chinese and the Final-over-Final Constraint. *Journal of East Asian Linguistics* 26:37–75.
- Erlwine, Michael Yoshitaka. 2023. A syntactic universal in a contact language: The story of Singlish *already*. In *Discourse particles in Asian languages*, ed. Hiroki Nomoto and Elin McCready, volume 2: Southeast Asia, 91–120. Routledge.
- Erlwine, Michael Yoshitaka, and Anne Nguyen. 2023. Pre- and post-predicate degree morphemes in Vietnamese: Heads vs phrases. Manuscript, University of Helsinki and National University of Singapore.
- Fortuin, Egbert. 2013. The construction of excess and sufficiency from a crosslinguistic perspective. *Linguistic Typology* 17:31–88.
- Grano, Thomas. 2022. *Enough* clauses, (non)finiteness, and modality. *Natural Language Semantics* 30:115–153.
- Heine, Bernd, Ulrike Claudi, and Friederike Hünemeyer. 1991. *Grammaticalization: A conceptual framework*. University of Chicago Press.
- Johanson, Lars. 2002. Contact-induced change in a code-copying framework. In *Language change: The interplay of internal, external and extra-linguistic factors*, 285–313. Mouton de Gruyter.
- Kaplan, David. 1999. The meaning of ‘ouch’ and ‘oops’. Presented at the Cornell conference on context dependency.

- Le, Giang Ha. 2015. Vietnamese sentence-final particles. Master's thesis, University of Southern California.
- Lemon, Tyler. 2020. Vietnamese subcomparatives, the grammar of degrees, and comparative deletion. In *Proceedings of Sinn und Bedeutung 24*, ed. Michael Franke, Nikola Kompa, Mingya Liu, Jutta L. Mueller, and Juliane Schwab, volume 1, 497–514.
- Liu, Chi-Ming Louis. 2014. Mandarin comparative constructions. In *Peaches and plums*, ed. C.-T. James Huang and Feng-Hsi Liu, 135–152. Institute of Linguistics, Academia Sinica.
- Lucas, Christopher. 2012. Contact-induced grammatical change: Towards an explicit account. *Diachronica* 29:275–300.
- Luo, Qiongpeng, and Fan Liu. 2018. The expressive content of the ad-adjectival *tai* 'too' in Mandarin Chinese: Evidence from large online corpora. In *Proceedings of the 19th Chinese Lexical Semantics Workshop (CLSW 19)*, ed. Jia-Fei Hong, Qi Su, and Jiun-Shiung Wu, 311–320. Springer.
- Lü, Shuxiang. 1980. *Xiàndài Hànyǔ bābǎi cí [800 words in Modern Chinese]*. Shangwu yin.
- Maspero, Henri. 1920. Le dialecte de Tchang-ngan sous le T'ang. *Bulletin de l'Ecole française d'Extrême-Orient* 20:1–124.
- Matthews, Stephen, and Virginia Yip. 2011. *Cantonese: A comprehensive grammar*. Routledge, 2nd edition.
- Meier, Cécile. 2003. The meaning of *too*, *enough*, and *so...that*. *Natural Language Semantics* 11:68–107.
- Michaelis, Laura A. 2001. Exclamative constructions. In *Language typology and language universals*, ed. Martin Haspelmath, Ekkehard König, Wulf Oesterreicher, and Wolfgang Raible, volume 2, 1038–1050. Walter de Gruyter.
- Nadathur, Perna. 2019. Causality, aspect, and modality in actuality inferences. Doctoral Dissertation, Stanford University.
- Nguyen, Anne. 2021. Formal analysis of the Vietnamese sentence-final particle *cơ*. Doctoral Dissertation, National University of Singapore.
- Nguyen, Anne, and Michael Yoshitaka Erlewine. 2023. Biased polar questions in Vietnamese. Manuscript, University of Helsinki and National University of Singapore.
- Nouwen, Rick. 2018. Notes on moderate excess. In *A coat of many colours*, ed. Jan Ceuppens, Hans Smessaert, Jeroen van Craenenbroeck, and Guido Vanden Wyngaerd, volume 6.
- Phan, John Duong. 2013. Lacquered words: The evolution of Vietnamese under Sinitic influences from the 1st century BCE through the 17th century CE. Doctoral Dissertation, Cornell University.
- Pulleyblank, Edwin G. 1991. *Lexicon of reconstructed pronunciation: In Early Middle Chinese, Late Middle Chinese, and Early Mandarin*. University of British Columbia Press.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A comprehensive gram-*

- mar of the English language*. Longman.
- Rett, Jessica. 2011. Exclamatives, degrees, and speech acts. *Linguistics and Philosophy* 34:411–442.
- Rett, Jessica, and Sarah Murray. 2013. A semantic account of mirative evidentials. In *Proceedings of SALT 23*, ed. Todd Snider, 453–472.
- Roberts, Ian. 2012. Diachrony and cartography: Paths of grammaticalization and the clausal hierarchy. In *Functional heads*, ed. Laura Brugè, Anna Cardinaletti, Giuliana Giusti, Nicola Munaro, and Cecilia Poletto, 351–367. Oxford University Press.
- Roberts, Ian, and Anna Roussou. 2003. *Syntactic change: A Minimalist approach to grammaticalization*. Cambridge University Press.
- Ross, Malcolm. 2020. Syntax and contact-induced language change. In *The Oxford handbook of language contact*, ed. Anthony P. Grant, 123–154. Oxford University Press.
- Sadock, Jerrold M., and Arnold M. Zwicky. 1985. Speech act distinctions in syntax. In *Language typology and syntactic description*, ed. Timothy Shopen, volume 1, 155–196. Cambridge University Press.
- Schwarzschild, Roger. 2008. The semantics of comparatives and other degree constructions. *Language and Linguistics Compass* 2:308–331.
- Simons, Mandy, Judith Tonhauser, David Ian Beaver, and Craige Roberts. 2010. What projects and why. In *Proceedings of SALT 20*, ed. Nan Li and David Lutz, 309–327.
- von Stechow, Arnim. 1984. Comparing semantic theories of comparison. *Journal of Semantics* 3:1–77.
- von Stechow, Arnim, Sveta Krasikova, and Doris Penka. 2004. The meaning of German *um zu*: Necessary condition and *enough/too*. Presented at the Workshop on Modal Verbs and Modality, University of Tübingen.
- Thomason, Sarah G., and Terrence Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. University of California Press.
- Trinh, Tue. 2005. Aspects of clause structure in Vietnamese. Master's thesis, Humboldt University.
- van Coetsem, Frans. 1988. *Loan phonology and the two transfer types in language contact*. Foris.
- Waksler, Rachelle. 2012. *Super, uber, so, and totally: Over-the-top intensification to mark subjectivity in colloquial discourse*. In *Subjectivity in language and discourse*, ed. Nicole Baumgarten, Inke Du Bois, and Julianne House, 17–32. Emerald.
- Wang, Li. 1948. Hànyuèyǔ yánjiū [Sino-Vietnamese research]. *Lingnan Xuebao* 9:1–96.
- Wei, Pei-Chuan. 2013. “V-*guò-lái/qu*” de lìshǐ fāzhǎn [The historical development of “V-*guo-lai/qu*”]. *Bulletin of Chinese Linguistics* 7:1–34.
- Zanuttni, Raffaella, and Paul Portner. 2003. Exclamative clauses: At the syntax-semantics interface. *Language* 79:39–81.

Zhang, Linmin. 2018. *Enough, too*, and causal dependence. In *Proceedings of Sinn und Bedeutung 22*, ed. Uli Sauerland and Stephanie Solt, 481–498.