Ingredients of excess: A study of Vietnamese quá

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Abstract We describe the various uses of the Vietnamese morpheme $qu\acute{a}$ which appears in excessive constructions. Unlike other degree morphemes in Vietnamese, $qu\acute{a}$ can precede or follow its gradable predicate, and we argue that these two different uses convey excess in very different ways: pre-predicate $qu\acute{a}$ encodes purpose-oriented excessive truth conditions, whereas post-predicate $qu\acute{a}$ is a comparative which projects a not-at-issue malefactive inference. We also describe two additional, non-excessive uses of $qu\acute{a}$ — as an intensifier with speaker commitment and in the formation of exclamatives — and argue that these uses must be distinguished from the core excessive uses. This paper thus offers a case study of a highly multifunctional morpheme, with discussion of the syntactic and semantic relationships between these different uses.

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1 Introduction

Excessive constructions such as the English *This ball is too big* are degree constructions that express that a measured degree exceeds some admissible value. Such a meaning might be expressed in at least one of two ways. One is to express that the degree measured by the gradable predicate — the *target* degree, e.g. the size of the ball — exceeds an "upper bound of admissibility" (Meier, 2003) for a particular purpose (1a). Another approach is to measure and comment on the target degree, but not in reference to any purpose-oriented threshold, and then also express that this situation negatively affects the speaker or other participants (1b).

(1) Two roads to the expression of excess:

- a. <u>By purpose-oriented threshold:</u> 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*.

Many previous studies have focused on excessive meanings of the form in (1a), including Meier 2003, Schwarzschild 2008, and Bylinina 2014. Much less has been said about the approach in (1b), although such intuitions are present in prior literature: for instance, Nouwen 2018 comments that "at some indeterminate level of analysis, excess is bad and sufficiency is good... Excessives are negative because they do not reach goals."

In this paper we argue that natural language can conventionally encode either of these paths to the expression of excess in (1). Evidence for this claim will come from the study of the Vietnamese excessive morpheme $qu\acute{a}$, exemplified in (2). Unlike other degree morphemes in Vietnamese, $qu\acute{a}$ can precede or follow its gradable predicate, as we see in (2).

(2) Two excessive constructions with quá:

Quả bóng này {**quá** to / to **quá**}. (Tớ muốn một quả nhỏ hơn. / Nó không vừa cái túi đâu.) CL ball this Quá big duá I want one CL small more it not fit CL bag PRT 'This ball is too big. (I want a smaller one. / It won't fit in the bag.)'

Although we will concentrate on examples with adjectival predicates as in (2), $qu\acute{a}$ can also take verbal gradable predicates, for example with a verb such as $gi\acute{o}ng$ 'resemble,' thuong 'feel sorry for,' or $nh\acute{o}$ 'miss.' In such cases, $qu\acute{a}$ precedes or follows the entire verb phrase; it cannot appear between the verb and its object. All of the pre- and post-predicate uses of $qu\acute{a}$ which we describe in detail here also extend to examples with verbal predicates.

(3) Pre- and post-predicate quá with a gradable verb phrase predicate:

```
Nó {quá} nhớ {*quá} bà {quá}.
he Quá miss Quá grandma Quá
'He misses grandma too much.'
```

We will argue that pre-predicate $qu\acute{a}$ expresses purpose-oriented excessive truth conditions (1a), of the form described by Meier (2003) and others, whereas post-predicate $qu\acute{a}$ is instead a comparative construction that projects a not-at-issue malefactive inference (1b). We begin in section 2 with a study of the two excessive $qu\acute{a}$ constructions, arguing for their distinct conventionalized meanings.

The expression of excessive meaning is not the only use of $qu\acute{a}$. Pre-predicate $qu\acute{a}$ can also function as a type of intensifier, akin to English very, but with particular restrictions on its use. Post-predicate $qu\acute{a}$ also has an additional function in forming exclamations. As the existence of these non-excessive uses complicates the targeted study of the excessive constructions, we describe the use and salient properties of these non-excessive uses of $qu\acute{a}$ in section 3. We conclude in section 4. Two Appendices briefly discuss nominal-internal uses of $qu\acute{a}$ and what is known regarding the history of $qu\acute{a}$.

2 Excessive quá

We begin by investigating the two different $qu\acute{a}$ excessive constructions, distinguished by their position of $qu\acute{a}$: $qu\acute{a}$ can precede or follow its gradable predicate. This was demonstrated above with the gradable adjective 'big' in (2) and the gradable verbal predicate 'miss grandma' in (3). It's worth noting that this variability in $qu\acute{a}$'s surface position is unusual for a degree morpheme in the language. A basic inventory of degree morphemes in Vietnamese is given in (4) below. All other degree morphemes necessarily precede or follow the gradable predicate that they modify. $Qu\acute{a}$ is unique in its ability to occupy these two different positions.

(4) The position of Vietnamese degree morphemes:

'very'	'quite'	'enough'	'too'	'very'	'more'	'as'
rất A	hơi A	đủ A	quá A	*lắm A	*hơn A	*như/bằng A
*A rất	*A hơi	*A đủ	A quá	A lắm	A hon	A như/bằng

In addition to gradable adjectival and verbal predicates, non-gradable predicates with a nominal argument headed by $nhi\tilde{e}u$ 'many' or it 'few' can also serve as the predicate, with $qu\acute{a}$ commenting on that nominal's quantity. Such quantity-measuring uses are not a special property of $qu\acute{a}$, as $l\tilde{a}m$ intensives, hon comparatives, and nhu equatives can also be formed from such predicates, as also seen in (i):

 ⁽i) Nó [VP] mua [NP] nhiều sách] cho Kim] {quá / lắm / hơn Minh / như Minh }.
 he buy many book for Kim Quá very more Minh as Minh
 'He bought {too many books / very many books / more books than Minh / as many books as Minh} for Kim.'

We note however that such predicates are generally incompatible with pre-predicate degree morphemes, as in (ii). We leave the study of this and other properties of such quantity-measuring predicates for future work.

As previewed above, we will argue that the pre- and post-predicate $qu\acute{a}$ excessive constructions are in fact two very different constructions, in their semantics as well as syntax. The pre-predicate excessive $qu\acute{a}$ is a purpose-oriented excessive construction of the well-studied kind (1a), which is a comparative where "the standard of comparison is... an upper bound of admissibility, and the value of the object lies above this value" (Meier, 2003: 70). It can occur with a purpose clause, but not with a comparative standard or comparison class. In contrast, post-predicate excessive $qu\acute{a}$ is a regular comparative with an implicit or explicit standard — not determined by calculating an "upper bound of admissibility" for a particular purpose — with an additional malefactive inference (1b).

2.1 Pre-predicate excessive quá

The excessive construction with pre-predicate $qu\acute{a}$ encodes a purpose-oriented excessive meaning. The relevant purpose can be expressed overtly with the addition of a purpose clause, introduced by $d\acute{e}$:

(5) Pre-predicate quá with overt purpose clause:

```
Cái bàn này quá to [purpose để đặt (nó) ở phòng khách]. CL table this QUÁ big ĐỂ put it in living-room 'This table is too big to put in the living room.'
```

Example (5) expresses that the maximum degree that the table attains on the scale of the gradable adjective *to* 'big' — i.e. the size of the table — exceeds the maximum degree of size allowed for the purpose clause to be true. Following Meier's (2003) proposal for the English *too* excessive construction, we propose a semantics for (5a) as in (6a), also paraphrased in (6b).

(6) Purpose-oriented excessive truth conditions for pre-predicate quá:

```
Cái bàn này quá to [_{\text{purpose }P} để _{\text{PRO}_{\text{arb}}} đặt (nó) ở phòng khách]. CL table this QUÁ big _{\text{D}}\mathring{\text{E}} put it in living-room a. \max(\lambda d . this table is d-big) > \max(\lambda d' . if the table is d'-big, _{\text{CAN }}P)
```

b. The maximal degree d such that the table is d-big is greater than the maximal degree d' such that, if the table were d'-big, one could put it the living room.

The standard of comparison in (6) is directly determined by the proposition expressed by the $d\hat{e}$ purpose clause, P: we consider the degrees d' that satisfy the conditional expression 'if the table is d'-big, CAN P.' Unlike comparatives (7a), pre-predicate $qu\acute{a}$ cannot take a measure phrase standard (7b). Pre-predicate $qu\acute{a}$ also cannot take a comparison class, which we demonstrate later in section 3.1.

² See Meier 2003 for detailed discussion of the interpretation of the conditional, in the Lewis/Kratzer modal restrictor tradition (Lewis, 1975; Kratzer, 1981, 1991).

(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.'
```

The implicit possibility modal in the purpose clause in (5/6) can also be overt, with no change in meaning, as in (8). Its addition clarifies the flavor of the modal interpreted in the purpose clause.

(8) Overt possibility modal in the purpose clause, to clarify modal flavor:

```
Cái bàn này quá to [purpose để có thể đặt (nó) ở phòng khách]. CL table this QUÁ big Để able put it in living-room 'This table is too big to be able to put in the living room.'
```

The modal in the purpose clause can be a necessity modal, which leads to a predictable change in interpretation. In (9), we add a deontic necessity modal, *phåi*.

(9) $D\vec{e}$ purpose clauses with a necessity modal, with change in meaning:

```
Cái bàn này quá to [purpose để phải đặt (nó) ở phòng khách]. CL table this QUÁ big Để have-to put it in living-room 'This table is too big to be required to put in the living room.'
```

This purpose-oriented excessive semantics for pre-predicate $qu\acute{a}$ also immediately extends to examples with negative adjectives, as in (10). Here too, an overt possibility modal — here, post-verbal $du\acute{\rho}c^3$ — can be added to clarify the modal in the interpretation of the purpose clause.

(10) Pre-predicate excessive quá with negative polar adjective:

```
Nó quá nhỏ [purpose để hiểu (được) [CP chuyện gì đang xảy ra]]. He QUÁ small Để understand able CL what PROG happen 'He is too small to be able to understand what is happening.'
```

On the interpretation and analysis of excessives with negative adjectives, we refer readers to the discussion in Meier 2003, where she shows that her basic analysis — which we follow here for pre-predicate $qu\acute{a}$, as in (6) above — accurately extends to negative adjectives, based on the interval-based theory of degrees (Kennedy, 1999).

Meier (2003: 100ff) notes that the English *too...to* excessive construction and *enough...to* sufficiency constructions could be described as semantic "duals" of one another, with similar syntax. The same can be

³ See Simpson 2001 for discussion of the modal *được* and its post-verbal position. See also Duffield 1999 for discussion of the various functions of *được*.

said of Vietnamese pre-predicate $qu\acute{a}$ and the sufficiency construction in Vietnamese. In the sufficiency construction, the degree morpheme $d\mathring{u}$ must precede the gradable predicate. (See also the table in (4) above.) The $d\mathring{u}$ sufficiency construction can also include an overt $d\mathring{e}$ -purpose clause, just as excessive pre-predicate $qu\acute{a}$ can:

(11) The $d\vec{u}$ sufficiency construction:

```
Cái bàn này đủ to ([purpose để đặt ở phòng khách]).

CL table this enough big \to pể put in living-room

'This table is big enough (to put in the living room).'

\max(\lambda d \cdot \text{this table is } d\text{-big}) \ge \min(\lambda d' \cdot \text{if the table is } d'\text{-big, CAN } P)
```

(11) asserts that the target degree meets or exceeds (\geq) "the *minimal* extent that satisfies the corresponding conditional" (Meier, 2003: 92). This truth condition is also given in (11).

This parallel between the syntax and semantics of pre-predicate excessive $qu\acute{a}$ and the $d\mathring{u}$ sufficiency construction further supports our analysis of pre-predicate excessive $qu\acute{a}$ as a purpose-oriented truth-conditional excessive, just as proposed for English too in Meier 2003.

2.2 Post-predicate excessive quá

Next we turn to the construction with $qu\acute{a}$ in post-predicate position. Although post-predicate $qu\acute{a}$ is often also felicitous in contexts that support the use of pre-predicate $qu\acute{a}$ or English too, we will argue that post-predicate $qu\acute{a}$ has a very different syntax and semantics from pre-predicate $qu\acute{a}$. Post-predicate $qu\acute{a}$ is a comparative construction — similar in its syntax and semantics to the canonical comparative construction with hon — with an additional, not-at-issue inference that if the target degree exceeds the standard, someone will be negatively affected.

We first begin with some basic distributional properties of post-predicate $qu\acute{a}$, in relation to the prepredicate $qu\acute{a}$ of the previous section, and present evidence for the malefactive inference later in the section. Example (12) shows that post-predicate $qu\acute{a}$ is incompatible with a $d\acute{e}$ purpose clause, in contrast to pre-predicate $qu\acute{a}$, as we saw above in the previous section.

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

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

Example (12) is grammatical without the $d\vec{e}$ 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 purpose such as tying the string in a particular way, but it cannot be so related by adding a $d\vec{e}$ purpose clause.

The standard of comparison for post-predicate $qu\acute{a}$ can instead be made explicit through the addition of a measure phrase standard, as in (13). Recall from (7) above that pre-predicate $qu\acute{a}$ cannot take a measure phrase standard.

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

```
Sợi dây này dài quá [_{standard} 2m]. 
 _{CL} string this long _{QU\acute{A}} 2m _{\approx} 'This string is longer than 2m, and this negatively affects me.'
```

When there is no measure phrase standard given, it may refer to a contextually salient standard, or to a degree which could be naturally paraphrased as "the allowed degree" or "the required degree," as in (14):

(14) Candidates for implicit standards of post-predicate quá:

```
Sợi dây này dài quá [_{standard} {mức cho phép / mức tôi cần}].

CL string this long QUÁ level allow level I need

\approx 'This string is longer than the length {allowed / I need}, and this negatively affects me.'
```

In its ability to take a following measure phrase standard, post-predicate $qu\acute{a}$ mirrors the syntax of the comparative morpheme hon, which also follows its gradable predicate:

(15) Comparative *hon* also takes measure phrase standards:

```
Sợi dây này dài hơn ([_{standard} {mức cho phép / mức tôi cần / 2m}]). CL string this long more level allow level I need 2m 'This string is longer (than {the length allowed / the length I need / 2m}).'
```

Given this analogy between post-predicate $qu\acute{a}$ and comparative hon, we propose that post-predicate $qu\acute{a}$ has the syntax and semantics of a comparative, ⁴ with the addition of a conventionalized malefactive inference, which we describe as follows:

```
(i) Sợi dây này ngắn quá \{\text{mức cho phép / mức tôi cần / *2m}\}. CL string this short QUÁ level allow level I need 2m 'This string is shorter[QUÁ] than \{\text{the length allowed / the length I need / *2m}\}.'
```

Second, *hon* can take an individual-denoting phrasal standard such as 'that string,' but *quá* cannot:

```
(ii) Sợi dây này dài *quá / √hơn [standard sợi dây kia].
CL string this long QUÁ more CL string that 'This string is longer than that string.'
```

We leave these contrasts between *quá* and *hon* open for future work.

However, to our knowledge, there remain two differences between the two comparative constructions in the types of standards they can take. First, negative adjectives with *quá* cannot take measure phrase standards, although they can take 'level' expressions of the type in (14); see (i). In contrast, *hon* comparatives with negative adjectives can take measure phrase standards such as 2m, as well as the others in (i).

(16) 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 (16) 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 (17-18) below, where we need to find a string that is less than 2m long. In the context in (17), the string has a length of 2.5m and is thus inappropriate for our purpose. The variants of (17) with post-predicate $qu\acute{a}$ and hon 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 $qu\acute{a}$, although the situation also supports the use of hon.

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

<u>Context:</u> 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 { \( \frac{\pmanuma}{\pmanuma} \) \( \frac{\pm
```

true

In (18), 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 *hon* are both judged as false, and thus infelicitous.

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

<u>Context:</u> 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 $qu\acute{a}$ and hon in (17–18) is explained by their shared comparative truth conditions: both assert that the target degree exceeds the standard degree.

The malefactive inference of post-predicate $qu\acute{a}$ (16) however gives it a more restricted distribution than hon. This is evident in the contrast in (19) below, where we now need a string that is at least 2m long. The hon comparative is felicitous and true, but the variant with post-predicate $qu\acute{a}$ is now judged as infelicitous.

(19) Need: \geq 2m; target: 2.5m

<u>Context:</u> 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.'

QuÁ → being longer than 2m would be a problem (false in context)
```

Despite expressing the same at-issue content — that the target degree (2.5m) exceeds the standard degree (2m) — post-predicate $qu\acute{a}$ is judged as inappropriate in (19) 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 $qu\acute{a}$ under negation. In example (20), 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 $qu\acute{a}$ and hon variants with negation are felicitous in this context:

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

<u>Context:</u> 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 { \( \squa \) / \( \hon \) 2m.

CL string this not long QUÁ more 2m

'This string is not longer than 2m.'

QUÁ \( \simes \) being longer than 2m would be a problem (true in context)
```

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 $qu\acute{a}$ 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 a not-at-issue meaning and therefore projects through negation (Simons et al., 2010).

Further support for this conception of the malefactive inference comes from example (21), which differs from (20) 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 $qu\acute{a}$ with negation is infelicitous.

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

<u>Context:</u> 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 not long QUÁ more 2m 'This string is not longer than 2m.'

QuÁ → being longer than 2m would be a problem (false in context)

The infelicity of post-predicate $qu\acute{a}$ in (21) 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 $qu\acute{a}$ is conditional, calculated below negation and projecting through.

We note that the hon variants in (20) and (21) were felicitous throughout. Again, the use of hon is insensitive to the discourse participants' goals and simply expresses that the target degree exceeds the standard degree, here under negation.

The table in (22) summarizes the judgments presented regarding the felicity and truth conditions of post-predicate $qu\acute{a}$ and hon.

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

desired length	target	standard	quá	hơn		
	length	length	length	чии	non	_
	< 2m	2.5m	2m	\checkmark	\checkmark	(17)
	< 2m	1.5m	2m	#	#	(18)
	≥ 2m	2.5m	2m	#	✓	(19)
	< 2m	1.5m	2m	\checkmark	\checkmark	with negation (20)
	$\geq 2 \text{m}$	1.5m	2m	#	\checkmark	with negation (21)

These patterns motivate our proposal for post-predicate $qu\acute{a}$: post-predicate $qu\acute{a}$ and hon are both comparatives, with the same syntax (although see footnote 4) and at-issue comparative semantics, but with post-predicate $qu\acute{a}$ introducing a not-at-issue conditional malefactive inference, giving it a more restricted distribution.⁵

Our description of the malefactive inference as in (16) predicts all examples of the form "long *quá* 2m" to require that "if it [the string] is longer than 2m, that is a problem." We note that this predicted inference would also be true in a context where, for example, we are looking for a string that is less than one meter in length. However, if we modify an example such as (17) so that we require a string less than one meter, the use of *quá* is judged as degraded. There are potentially two ways of thinking of this effect. First, it is possible that this reflects a quantity implicature that the stated standard (2m) should be the most informative value that makes the malefactive inference true. Second, it is possible that the standard is conventionally required to match the

2.3 Summary

In this section we presented the detailed syntax/semantics of two excessive $qu\acute{a}$ constructions in Vietnamese. We have argued that pre-predicate $qu\acute{a}$ is a purpose-oriented excessive, akin to the English too construction. It asserts that the target degree exceeds "an upper bound of admissibility" (Meier, 2003: 80) calculated based on a purpose which may be made explicit using a $d\acute{e}$ purpose clause. In contrast, post-predicate $qu\acute{a}$ is a comparative construction, with an additional not-at-issue, conditional malefactive inference.

As noted at the beginning of section 2, $qu\acute{a}$ is unique among Vietnamese degree morphemes in allowing both pre- and post-predicate position. The behaviors of these two constructions that we have documented here allow us to productively relate the two different $qu\acute{a}$ constructions to other degree constructions in Vietnamese. The table in (23) below illustrates two groups of constructions with shared syntactic and semantic behaviors. The pre-predicate $qu\acute{a}$ and $d\mathring{u}$ sufficiency construction share a core syntax and semantics which allows them to take a $d\mathring{e}$ purpose clause and use it to calculate a threshold degree. Post-predicate $qu\acute{a}$ forms a natural class with the comparative hon and the equative $nhut/b \grave{a}ng$, which are all post-predicate and relate the target degree to a standard degree which can be introduced explicitly, immediately following "A $qu\acute{a}/hon/nhut/b \grave{a}ng$."

(23) The two excessive *quás* and their relatives:

'enough'	'too'	'more'	'as'	
đủ A purpose-oriented sufficiency	quá A purpose-oriented excessive	*hơn A	*như/bằng A	
*A đủ	A quá comparative w/malefactive	A hon comparative	A như/bằng equative	

As noted above, the two *quá* excessive constructions exemplify two different approaches to the semantic expression of excess, repeated here in (24):

(24) Two roads to the expression of excess: =(1)

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

threshold determined by a contextual goal. We leave a fuller investigation of this question of the choice of standard value for future work.

Nonetheless, we recall that in basic examples such as (2), repeated here as (25), speakers report that these two different $qu\acute{a}$ constructions express the same excessive meaning.

(25) Two excessive constructions with $qu\acute{a}$: =(2)

Quả bóng này {**quá** to / to **quá**}. (Tớ muốn một quả nhỏ hơn. / Nó không vừa cái túi đâu.) CL ball this Quá big big Quá I want one CL small more it not fit CL bag PRT 'This ball is too big. (I want a smaller one. / It won't fit in the bag.)'

Our analysis also allows us to understand such intuitions. The purpose-oriented excessive semantics (24a) entails that the relevant goal expressed by the purpose cannot be attained, as discussed by Meier (2003). Assuming that the attainment of these goals of excessive constructions inherently bear a positive association, its non-attainment will have a negative effect. On the other hand, claiming that the degree exceeds a certain standard and that this negative affects someone (24b) suggests that some desired goal has become unattainable. Both approaches in (24) will thus often systematically result in the the same overall message of excess.

Finally, we note that the unique status of $qu\acute{a}$ in allowing both pre- and post-predicate placement, with distinct but related semantics and corresponding syntax, opens up a natural question regarding the diachronic relationship between these two constructions. Such discussion would ideally be informed by historical evidence regarding the timing of different uses of $qu\acute{a}$, including the non-excessive uses which we turn to next. We do not undertake this work here, but we include some information on the historical source of $qu\acute{a}$ in the Appendix.

3 Non-excessive quá

The study of these distinct uses of $qu\acute{a}$ as an excessive degree morpheme in Vietnamese is further complicated by other, non-excessive uses of $qu\acute{a}$, which are distinct constructions with their own syntactic and semantic characteristics, but which sometimes appear to overlap in their distribution and use. In this section we describe the use of pre-predicate $qu\acute{a}$ as an intensifier with limited distribution (section 3.1) and the use of post-predicate $qu\acute{a}$ in forming degree exclamatives (section 3.2). In both cases, we show that these uses are distinct from their corresponding pre- and post-predicate excessive $qu\acute{a}$ described above, but may have historically derived from the excessives.

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 $qu\acute{a}$ also projects the malefactive inference associated with post-predicate excessive $qu\acute{a}$. Pre-predicate excessive $qu\acute{a}$ makes conventional reference to an implicit or explicit purpose; if we generally think of the non-attainment of such purposes 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 $qu\acute{a}$ is thus compatible with it projecting the same malefactive inference of the form in (16), but we have not been able to construct positive evidence showing that this must be the case.

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

In this section, we discuss another use of pre-predicate $qu\acute{a}$ as an intensifier. The semantics of this degree modifier is similar to that of Vietnamese $r\acute{a}t$ and $l\acute{a}m$ and English very, which claims that the target degree noticeably exceeds the contextually-determined threshold for the predicate's positive evaluation. However, unlike these other intensifiers, the intensifier use of $qu\acute{a}$ is limited to contexts where the speaker asserts and publicly commits to this evaluation. We will also show that this use of pre-predicate $qu\acute{a}$ is distinct from its excessive use, described in section 2.1 above.

We begin by observing that many simple pre-predicate $qu\acute{a}$ sentences invite translations as both 'too' or 'very,' depending on their context of use. Consider the pair in (26). Here, the two continuations in (26B1,B2) reflect different attitudes by the speaker towards the size of the room.

(26) 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. Tớ rất thích (nó). CL room this Quá large I very like it 'This room is very large. I like it very much.'

Example (26B1) expresses a negative attitude, compatible with an interpretation of the pre-predicate $qu\acute{a}$ with an implicit purpose that cannot be achieved: for example, it is too big for the interlocutors to rent. In contrast, there is no such negative attitude reflected in (26B2), where the speaker goes on to say that they like the room very much. Intuitively, the example in (26B1) invites a translation using an exceptive, e.g. 'too large,' whereas (26B2) does not.

We will argue that these two uses of pre-predicate $qu\acute{a}$ reflect two distinct constructions, with their own semantics and pragmatics. The first way to distinguish excessive and intensifier pre-predicate $qu\acute{a}$ is that the intensifier use can take an expression introducing a comparison class, but the excessive cannot. Comparison classes are typically introduced by the phrase $so\ v\acute{o}i$ and inform the determination of the threshold for positive form evaluations, as in (27) with $r\acute{a}t$, the more basic pre-predicate 'very.'

(27) 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 one is very expensive.'

A so $v\acute{o}i$ comparison class can co-occur with pre-predicate $qu\acute{a}$, but in such cases, $qu\acute{a}$ can only be interpreted as an intensifier, not as an excessive. See the contrast in (28). 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 (32) below.

(28) 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].'

 $D\vec{e}$ purpose clauses can appear with both excessive and intensifier pre-predicate $qu\acute{a}$, but we argue that the purpose clauses serve different functions in these two cases. Consider a situation where an interlocutor asks whether a bag is big enough for a particular purpose, in (29A); we can reply using the excessive pre-predicate $qu\acute{a}$ sentence in (29B) with or without repeating this $d\vec{e}$ purpose clause. The continuation 'find another one' in (29B) supports the excessive interpretation. The semantics of excessive pre-predicate $qu\acute{a}$ computes a strict threshold using the purpose, whether explicit in the answer or not, allowing for the juxtaposition with 'although it is not very big' without contradiction.⁷

(29) Excessive pre-predicate quá computes a strict threshold using implicit or explicit purpose:

A: Cái túi này đủ to [purpose để đựng máy tính] không? CL bag this enough big Để carry laptop Q 'Is this bag big enough for carrying a laptop?'

B: Mặc dù nó không to lắm, nhưng ([purpose để đựng máy tính], thì) nó quá to. Tìm cái although it not big very but Để carry laptop then it QUÁ big find CL khác đi.

another PRT

'Although it is not very big, it is too big for carrying a laptop. Find another one.'

A $d\vec{e}$ purpose clause can also cooccur with pre-predicate $qu\acute{a}$ with intensifier interpretation, as in (30) below. Here too, we answer the same question but use the continuation 'good' to hone in on the intensifier reading of $qu\acute{a}$. In (30B1), the $d\vec{e}$ purpose clause serves to inform the choice of contextual standard 'very' makes reference to. Notice that this allows the intensifier $qu\acute{a}$ to express that the bag is very big for this particular purpose, despite the preceding 'although' clause's claim that it is not very big in a general sense. Now notice that, in contrast to the excessive $qu\acute{a}$ in (29B) above, dropping the $d\vec{e}$ purpose clause in (30B2) makes the whole utterance sound contradictory and therefore infelicitous. The English translations in (30) give a sense for how (B2) but not (B1) is judged to be a contradiction.

We prepose the $d\hat{e}$ purpose clause here to make this example parallel to (30B1) below, as the purpose clause is more natural preceding the predicate with 'very' $qu\hat{a}$. (29B) is also natural with the purpose clause following the predicate.

(30) Pre-predicate 'very' quá does not make conventional reference to a purpose:

- A: Is this bag big enough for carrying a laptop? (=29A)
- B1: Mặc dù nó không to lắm, nhưng [purpose để đựng máy tính], thì nó quá to (ấy chứ). although it not big very but ĐỂ carry laptop then it Quá big in.fact Tốt. good
 - 'Although it is not very big, it is (in fact) very big for carrying a laptop. That's good.'
- B2: # Mặc dù nó không to lắm, nhưng nó quá to (ấy chứ). Tốt. although it not big very but it Quá big in.fact good 'Although it is not very big, it is (in fact) very big. That's good.'

This contrast in (29-30) shows that excessive pre-predicate $qu\acute{a}$ makes conventionalized reference to a purpose, which can be determined by the Question Under Discussion (see e.g. Roberts, 1996/2012), whereas the interpretation of the intensifier does not.

Our discussion here predicts that pre-predicate $qu\acute{a}$ cannot simultaneously take a comparison class introduced by $so\ v\acute{o}i$, which is available only for the intensifier $qu\acute{a}$ (28), together with a purpose clause used to determine a strict threshold of comparison for excessive $qu\acute{a}$. This prediction is borne out. As a baseline, example (31) below is interpreted as unambiguously an excessive use of $qu\acute{a}$, as the purpose clause describes a clear upper bound of admissibility. Adding a $so\ v\acute{o}i$ comparison class to this example, as in (32) below, results in ungrammaticality.

(31) Unambiguous excessive pre-predicate quá:

```
Quả bóng kia quá to [purpose để đặt vừa cái hộp]. CL ball that QUÁ big ĐỂ 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.'

(32) 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 Để 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 $qu\acute{a}$ has a use as an intensifier, distinct from the excessive pre-predicate $qu\acute{a}$. 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 $qu\acute{a}$ is thus interchangeable in many contexts with the canonical intensifiers in Vietnamese, pre-predicate $r\acute{a}t$ and post-predicate $l\acute{a}m$, as in (33). However, the use of $qu\acute{a}$ as an intensifier

is more restricted than the use of $r\hat{a}t$ and $l\hat{a}m$. Here we set aside the post-predicate intensifier $l\hat{a}m$ and compare the distribution of intensifier $qu\hat{a}$ to that of $r\hat{a}t$.

(33) 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 propose that the intensifier $qu\acute{a}$ can only be used in contexts where the speaker asserts and publicly commits to the intensified evaluation.⁸ Evidence that supports this description comes from the limited ability of intensifier $qu\acute{a}$ to be embedded and questioned. We first show that intensifier $qu\acute{a}$ 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 $qu\acute{a}$. We see that the intensifier $r\acute{a}t$ is available in both embeddings.

(34) 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.'

(35) 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 me go see if CL table that very QUÁ big then we will buy it 'Let me go see it. If that table is very big, we will buy it.'

Note that excessive pre-predicate $qu\acute{a}$ is generally unrestricted in its embedding. Examples (36–37) are minimally modified from (34–35) above (with differences underlined) to support the excessive reading of $qu\acute{a}$, and show that excessive pre-predicate $qu\acute{a}$ is available in both reason and conditional clauses, unlike the intensifier use of pre-predicate $qu\acute{a}$.

(36) 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.'

Impressionistically, the intensifier use of $qu\acute{a}$ seems particularly common in conversational contexts where the speaker expresses emphatic agreement or disagreement with another's evaluation. This pattern of use may be explained by this effect of intensifier $qu\acute{a}$ to put the speaker on the record as committed to the truth of the evaluation.

(37) 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 me go see if CL table that QUÁ big then we 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 $qu\acute{a}$ 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 (35). 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 (34), which then allows for the felicitous use of intensifier $qu\acute{a}$. As we see, the other pre-predicate intensifier $r\acute{a}t$ 'very' as well as the excessive use of pre-predicate $qu\acute{a}$ are not subject to this restriction.

Support for this characterization comes from the limited compatibility of intensifier $qu\acute{a}$ with polar question formation. Vietnamese has multiple strategies for polar question formation; see discussion in e.g. Trinh 2005, Duffield 2013, and Nguyen 2021. The unbiased question with final $kh\acute{o}ng$ and biased question with final $a\acute{a}$ in (38a,b) only allow for pre-predicate $qu\acute{a}$ to be interpreted as an excessive, whereas the confirmation-seeking tag question with final $ph\acute{a}i$ $kh\acute{o}ng$ allows both excessive and intensifier readings of pre-predicate $qu\acute{a}$. Empirically, the (un)availability of the intensifier readings for these questions can be verified by judging the felicity of the reply in (39) below.

(38) 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?'

(39) Reply to (38) which requires intensifier construal:

```
{ Có / Ù }. Chúng ta cần một cái bàn thật to nên chúng ta sẽ mua nó. PRT right we need one CL table really big so we will buy it 'Yes. We need a very big table so we will buy it.'
Felicitous reply to (38c) but infelicitous for (38a,b)
```

The question in (38) which involves the particle $c\dot{o}$ is answered in the affirmative most naturally by repeating the particle $c\dot{o}$. \dot{U} is a felicitous affirmative short answer for (38b.c).

The intensifier reading of $qu\acute{a}$ is incompatible with $kh\^{o}ng$ and \grave{a} questions, which are pure interrogatives with no speaker commitment to the truth of the proposition at issue. In contrast, as Nguyen (in prep) argues, $ph\^{a}i$ $kh\^{o}ng$ questions involve the speaker first asserting and committing to a proposition and then seeking confirmation with the question $ph\^{a}i$ $kh\^{o}ng$ 'Is that right?'. The restricted availability of question formation with intensifier $qu\^{a}$ is thus explained by, and further supports, our generalization.

In this section we have identified a distinct, non-excessive use of pre-predicate $qu\acute{a}$ as an intensifier that is restricted to contexts of speaker commitment. We hypothesize that the intensifier $qu\acute{a}$ historically derived from the excessive use of pre-predicate $qu\acute{a}$ in a process of bleaching similar to that attested with English too (see OED sense 3, "as a mere intensive"). Together with this semantic shift, pre-predicate intensifier $qu\acute{a}$ also behaves as a positive form construction in allowing for a comparison class but without conventional reference to a purpose, mirroring the canonical pre-predicate intensifier $r\acute{a}t$.

3.2 Exclamatives with post-predicate quá

Next we turn to another, non-excessive use of post-predicate $qu\acute{a}$, 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.

Exclamative $qu\acute{a}$ frequently cooccurs with interjections such as \acute{o} or oa 'wow,' as in example (40) below. This utterance expresses the speaker's surprise at the size of a table. The continuation here ensures that this large size does not constitute a problem of the speaker; thus, this cannot be an instance of the excessive use of post-predicate $qu\acute{a}$, which we have argued to encode a conventional malefactive inference.

(40) Exclamative quá expressing surprise, with no negative affect:

```
(Ò/Oa,) cái bàn này to quá! Tôi sẽ mua nó. wow CL table this big QUÁ I will buy it '(Wow,) this table is so big! I'll buy it.'
```

We will argue that exclamative $qu\acute{a}$ is a distinct grammatical construction which cannot be reduced to excessive post-predicate $qu\acute{a}$, over and above the lack of a malefactive inference as demonstrated in (40) above. First we observe that exclamatives that express surprise such as (40) are subject to a recency effect, which Rett and Murray (2013: 464) 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." Evidence for the recency effect in mirative uses of exclamative $qu\acute{a}$ comes from the contrast between (41) and (42):

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

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

<u>Context:</u> 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!'
```

(42) Stimulus not satisfying the recency requirement:

<u>Context:</u> 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 $qu\acute{a}$ is available in (41) where the speaker immediately reacts to seeing the table, in contrast to (42) where the stimulus is old for the speaker and the utterance is judged as infelicitous.

Excessive post-predicate $qu\acute{a}$, on the other hand, is not subject to this constraint. This serves to force an excessive interpretation in (43):

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

<u>Context:</u> 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 they not 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 $qu\acute{a}$ 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 (44). These uses appear to not be subject to the recency requirement: for instance, the felicitous use of (44) 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 $vui~qu\acute{a}$ 'so happy.'

(44) Exclamative quá expressing speaker's own extreme physical state:

```
Ôi, tớ { đói / lạnh / vui / nhớ bà } quá!
gosh I 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 $qu\acute{a}$ 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 (45). This contrasts from excessive post-predicate $qu\acute{a}$, which as we argued in section 2.2 is a comparative that requires only that the target degree exceed the (potentially implicit) standard degree, and thus resulting in no contradiction in (46B).

(45) Exclamative *quá* is evaluative:

```
{Ô/Oa,} Kim cao quá! (# Mặc dù cô ấy cũng không cao lắm.) wow Kim tall Quá although she also not tall very 'Wow, Kim is so tall! (# Although she is not very tall.)'
```

(46) 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 not tall very 'Kim is too tall, although she is not very tall.'

Third, we observe that exclamative $qu\acute{a}$ cannot be embedded, as expected due to these utterances being exclamative speech acts rather than declaratives. Consider examples (47–48) below. Here the conditional and reason clauses include post-predicate $qu\acute{a}$. Example (47) has a consequent that is compatible with an exclamative or otherwise intensified reading of $qu\acute{a}$ but not an excessive, whereas example (48) is natural with the excessive use of post-predicate $qu\acute{a}$. Speakers judge (47) to be unnatural but (48) to be natural, which is explained by exclamative $qu\acute{a}$ being unembeddable, in contrast to excessive post-predicate $qu\acute{a}$.

(47) 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 we will buy it a. * 'If/because it is so big, we will buy it.'
b. # 'If/because it is too big, we will buy it.'
```

(48) 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 we must find CL table another a. * 'If/because it is so big, we will buy it.'
b. 'If/because it is too big, we will buy it.'
```

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

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

```
* Ö, cái bàn này không to quá!
wow CL table this not big QUÁ
Intended: 'Wow, this table is not big!'
```

(50) Questioned post-predicate quá must be excessive:

```
(#Ô/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 $qu\acute{a}$ to be embedded or questioned is reminiscent of the behavior of the intensifier use of pre-predicate $qu\acute{a}$ in section 3.1. However, we saw there that intensifier $qu\acute{a}$ can be embedded in limited environments which express the speaker's commitment, such as in reason clauses (35) and confirmation-seeking tag questions with final $ph\acute{a}i$ $kh\^{o}ng$ (38c). In contrast, exclamative $qu\acute{a}$ cannot be embedded or questioned even in these environments.

The final difference between exclamative and excessive post-predicate $qu\acute{a}$ is related to the ability to take a measure phrase standard. Recall that excessive post-predicate $qu\acute{a}$ is able to take a measure phrase standard, which motivated our proposal in section 2.2 that it is a comparative construction at its core. Exclamative $qu\acute{a}$, however, is in general incompatible with comparative standards. The sentence in (51) is ungrammatical if it is understood as an exclamative.

(51) Exclamative *quá* is incompatible with a standard of comparison:

```
* {Ô/Oa}, cái bàn này to quá [standard 2m]!
wow CL table this big QUÁ 2m
'Wow, this table is (so much) bigger than 2m!'
```

There is however a very limited class of exceptions to this restriction, which are expressions akin to "what can be imagined" and "the imagined level" as in (52). The availability of such unproductive standard phrases suggests that exclamative $qu\acute{a}$ historically originated as an extension of excessive post-predicate $qu\acute{a}$, retaining certain fixed collocations that reflect the construction's origins as a comparative construction.

(52) Exclamative quá allows for certain idiomatic standards:

```
\{\hat{O}/Oa\}, món này ngon quá [standard {sức / mức} (tưởng tượng)]! wow CL this delicious QUÁ capacity level imagine \approx 'Wow, this dish is so delicious, much more than I could imagine!'
```

4 Conclusion

This paper has considered the multiple functions of the morpheme $qu\acute{a}$ in Vietnamese. Starting with the puzzle posed by the unusual property of the degree morpheme $qu\acute{a}$ in allowing both pre- and post-predicate positions, we showed that the excessive pre- and post-predicate are in fact two distinct constructions which have different truth conditions. Excessive pre-predicate $qu\acute{a}$ is a basic purpose-oriented excessive. Excessive post-predicate $qu\acute{a}$, on the other hand, is a comparative that conventionally encodes a not-at-issue malefactive inference.

From a cross-linguistic perspective, it appears that excessive post-predicate $qu\acute{a}$ manifests a relatively rare approach to the expression of excess, encoding only the malefactive component of excessive meaning. Excessive constructions such as the English too...to, in contrast, express a ranking with respect to a purpose-derived threshold (Meier, 2003; Schwarzschild, 2008; a.o.) and possibly also a malefactive inference (see e.g. Nouwen, 2018). Our study of the excessive post-predicate $qu\acute{a}$ gives us a better understanding of this malefactive inference, the second component of excessive meaning which has been less discussed, and shows that it is logically separable from the calculation of a purpose-based threshold.

Along the way, we described other, non-excessive uses for this morpheme: pre-predicate $qu\acute{a}$ as an intensifier with restricted distribution and post-predicate $qu\acute{a}$ in degree exclamatives. For both, we suggest that they may have historically derived from the excessive pre- and post-predicate $qu\acute{a}$. The identification of these distinct uses of $qu\acute{a}$ and the documentation of their basic properties serve to strengthen our study of the two uses of $qu\acute{a}$ as excessive degree morphemes. In addition, we describe nominal-internal uses of $qu\acute{a}$ which express excessive quantity in Appendix A. Together this paper discusses what are to our knowledge all uses of this multifunctional expression in Vietnamese.

The fact that $qu\acute{a}$ has multiple functions is not unexpected as it has been noted previously that Vietnamese has a number of highly multifunctional morphemes; see e.g. Duffield 2017. A future goal will be to investigate what constrains these different uses and how they are related, both synchronically and diachronically. See also Appendix B on what is known regarding the historical source of $qu\acute{a}$. The relationship of different $qu\acute{a}$ to other degree morphemes with overlapping syntactic and semantic characteristics, as sketched here, offers a first step towards this more complete understanding.

Appendix A: Nominal-internal quá

The uses of $qu\acute{a}$ that we have described above all combine with arbitrary gradable predicates in predicative position, preceding or following the gradable predicate, and express a meaning related to its degree. In the interest of completeness, in this section we briefly describe additional, nominal-internal uses of $qu\acute{a}$.

The comparative morpheme hon and excessive $qu\acute{a}$ can both be used to form modified numerals meaning 'more than N,' as in (53). The entire nominal introduced by " $honlqu\acute{a}$ Num" occupies an argument position.

(53) Modified numerals with quá and hon:

```
Nó lấy [NP {quá / hơn} 5 gói bánh]. Nó phải bị phạt. he take Quá more 5 packet biscuit he must PASS punish 'He took more than 5 packets of biscuits. He must be punished.'
```

The 'more than' numeral with hon versus $qu\acute{a}$ differ in that $qu\acute{a}$ introduces a not-at-issue malefactive inference. This effect is observed in the contrast between examples (54a,b), which shows that the felicity of $qu\acute{a}$ but not hon depends on whether exceeding the specified numeral is perceived as problematic or not in the context.

(54) Modified numeral with quá has a malefactive inference, but not with hon:

a. <u>Context</u>: A goes to check the number of people in each room and reports to B over the phone.
 Due to the pandemic, it is not allowed to have more than 5 people in a room. A enters another room and then tells B:

```
Có [NP] \{ \sqrt{\text{quá}} / \sqrt{\text{hon}} \} 5 người] trong phòng này. Họ sẽ bị phạt. EXIST QUÁ more 5 people in room this. they will PASS punish 'There are more than 5 people in this room. They will be punished.'
```

b. <u>Context:</u> A goes to check the number of people in each room and reports to B over the phone. The rooms they have visited so far all had 5 people. A enters another room and then tells B:

```
Có [NP \{ \# \mathbf{qu\acute{a}} / \sqrt{\mathbf{hon}} \} 5 \text{ người} ] trong phòng này. EXIST QUÁ more 5 people in room this. 'There are more than 5 people in this room.'
```

Recall that, as a degree morpheme, the comparative hon necessarily follows its gradable predicate and is then optionally followed by a standard. The structure and word order of these modified numerals, which take hon or $qu\acute{a}$ immediately followed by a measure phrase, suggests that it is related (at least historically) to these post-predicate comparative structures. Just as post-predicate $qu\acute{a}$ (section 2.2) is a comparative morpheme which introduces a not-at-issue malefactive inference, modified numerals with

 $qu\acute{a}$ then similarly mirror the syntax and at-issue comparative semantics of 'more than' modified numerals with hon, but with an additional malefactive inference.

 $Qu\acute{a}$ can also precede a quantificational NP headed by $nhi\grave{e}u$ 'many' or $\acute{t}t$ 'few' to indicate that the quantity is very many/little or too many/little. See example (55). There is no corresponding variant with hon preceding 'many' or 'few.' The interpretational range here suggests a parallel with pre-predicate $qu\acute{a}$ which forms an excessive or an intensified form of a gradable predicate, as we showed in sections 2.1 and 3.1 respectively above.

(55) Quá modifying 'many' or 'few' NP:

Nó mua [NP **quá** {**nhiều** / **ít**} sách] cho Kim. he buy Quá many few book for Kim 'He bought too/very many/few books for Kim.'

Appendix B: On the history of quá¹¹

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; Phan 2013, and reference there). The morpheme $qu\acute{a}$ and the related verb qua^{12} meaning 'pass' or 'cross' derive from the Chinese 過 (Mandarin $gu\grave{o}$) (Alves, 2005: 319) and are also found in closely related Mường languages (Phan, 2013: 320).

As Alves notes in a series of works (2005, 2007, et seq), functional morphology of Sino-Vietnamese origin may reflect grammatical borrowing from Chinese grammatical constructions or borrowing of content words followed by independent processes of grammaticalization in Vietnamese. In the case of *quá*, Alves (2005: 319) suggests that the latter is the case, noting that "In *Truyện Kiều* [19th century story], *quá* was still used mainly as a verb, so this change is relatively recent." However, earlier examples of *quá* with excessive function can be found, such as in a 15th century poem by Nguyễn Trãi. ¹³

As noted above, different degree morphemes in Vietnamese are in pre- or post-predicate position, and the syntax/semantics of pre- and post-predicate excessive $qu\acute{a}$ appears to follow a certain paradigmatic logic. In particular, pre-predicate $qu\acute{a}$ shares a core purpose-based syntax and semantics with the (pre-predicate) $d\mathring{u}$ sufficiency construction, whereas post-predicate $qu\acute{a}$ shares a core comparative syntax and semantics with the (post-predicate) hon comparative construction. See (23) above. The existence of pre- and post-predicate degree morphology and this internal logic suggest a possible pathway of gram-

¹¹ We thank Henrison Hsieh, Nick Huang, Elaine Lau, Wenkai Tay, and Jianrong Yu for discussion of excessive and comparative constructions in various Chinese languages which informed the discussion in this section.

¹² The two differ in tone: *quá* is rising and *qua* is level.

¹³ See http://nomfoundation.org/nom-tools/QATT/QATT?poem_id=147 line 4. There, quá is written with the homophonous 戈, which Tran Trong Duong (p.c.) notes is also commonly used for quá in Chu Nom texts.

maticalization whereby quá began in either pre- or post-predicate position but then developed a use in the other position, with corresponding changes to its syntax and semantics.

Here it is relevant to note that 過 does have degree morpheme uses in modern Chinese languages. In Cantonese, a structure of the form "A gwo standard" as in (56) is the canonical means of forming a comparative with an explicit standard. The same or similar comparative construction also exists in Mandarin, as in (57), although another comparative construction with distinct morphosyntax (with a pre-predicate standard phrase introduced by $b\check{t}$) is more common in use.

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

今日 (兩 度)。 尋日 Gāmyaht yiht gwo kàhmyaht (léuhng douh). hot gwo yesterday two 'Today is (two degrees) hotter than yesterday.'

(57) Mandarin post-predicate *guò* comparative:

(Liu, 2014: 144)

約翰 高 過 瑪麗 (五 公分)。 Yuēhàn gāo **guò** Mǎlì (wǔ gōngfēn). 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, although $gwo/gu\partial$ do also appear in certain fixed expressions expressing excess.

In addition, 過 is also attested as a productive pre-predicate excessive marker in some languages of the Min group. Example (58) is from the Hui'an dialect of Southern Min:

(58) Min pre-predicate ka^{5-3} excessive:

(Chen, 2020: 455)

落去, Ke^{5-3} tsa³ lo?⁸khw⁰ ke^{5-3} po⁵. 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 — especially those of 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. This opens up the possibility that the unique dual placement of $qu\acute{a}$ in contemporary Vietnamese and their corresponding syntax/semantics

¹⁴ Alves (2001: 232) notes that the comparative morpheme *hon* is of native Vietnamese origin, not Sino-Vietnamese. Wang Li (1948: 60) and Alves (2016: 289) hypothesize that the sufficiency morpheme đủ derives from the Chinese 足, but Phan (2013: 164–165) disputes this on comparative phonological grounds, leaving its origin uncertain.

may reflect the grammatical borrowing of two distinct constructions from Chinese languages, rather than the innovative, Vietnamese-internal development of one construction from another.

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