

THE KAZAKH NOUN/ADJECTIVE DISTINCTION*

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1 Introduction

This paper bears on the long-debated question of whether every language has the familiar major word classes *noun*, *verb*, and *adjective*. Some researchers have claimed that there are languages with no noun/verb distinction, such as Salish languages (Kinkade, 1983), languages with flexible word classes, such as Mundari (Peterson, 2005), or languages with unusual, language-specific categories, such as Chamorro (Topping, 1973). However, these claims are often challenged by later work (Van Eijk and Hess (1986), Evans and Osada (2005) and Chung (2012), for those claims respectively). The status of adjectives, in particular, as a separate lexical category crosslinguistically seems especially unclear since Dixon's (1977) work arguing that some languages have only a small, closed class of adjectives, and other languages may have no adjective class at all. In such languages, property concepts, which in English are canonically encoded as adjectives, may be lexicalized as verbs or nouns (Lehmann, 1990, Wetzer, 1996, Francez and Koontz-Garboden, 2013).

Here, we engage this debate over crosslinguistic lexical categories by investigating a single language in detail. We are inspired by Braun and Haig (2000), henceforth B&H, who follow Bangüoğlu (1986) and Ergin (1993) in proposing that Turkish does not have a clear noun/adjective distinction; we argue that their conclusions do not extend to the Turkic language Kazakh. Our work also counters a brief claim made by Somfai Kara (2002) that Kazakh nouns and adjectives have nearly equivalent morphological behavior. We present several reliable diagnostics showing that the Kazakh lexicon can be analyzed according to the discrete categories *noun* and *adjective*. We also find that some other noun/adjective diagnostics are unreliable, and that they point to syntactic phenomena that obfuscate a lexical noun/adjective distinction. Thus, our work aligns with Baker (2003) and Chung (2012), who show that these familiar categories can be applied to many different languages.

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Kazakh and other Turkic languages have several words that are at first difficult to classify as either nouns or adjectives. For example, *erkek* ‘male’ and *äyel* ‘female’ behave like adjectives in that they can modify nouns, as in (1), but they can also behave like nouns in serving as the head to a modifier, as in (2).¹

(1) a. erkek adam	(2) a. ädemi erkek
male person	beautiful man
‘man’	‘beautiful man’
b. äyel adam	b. ädemi äyel
female person	beautiful woman
‘woman’	‘beautiful woman’

In light of these data, it is reasonable to suspect that Kazakh may not have a clear lexical distinction between nouns and adjectives. These data, however, could also be analyzed in other ways. Perhaps *erkek* ‘male’ is represented as a noun in the lexicon, but can be converted to an adjective syntactically, or perhaps *erkek adam* ‘man’ is a noun-noun compound. Thus, although many Kazakh words seem to span lexical categories, it is in principle possible to maintain the idea that the Kazakh lexicon distinguishes nouns from adjectives. The following sections present an argument that it is worthwhile to divide the lexicon into discrete lexical categories.

Further, we suggest that some of the apparent evidence that Kazakh has no noun/adjective distinction is not persuasive. Specifically, we present noun-noun compounding, pluralization, substantivization, and nominal ellipsis as syntactic phenomena that obfuscate a lexical distinction between nouns and adjectives. When these confounding phenomena are taken into account, we see that the Kazakh lexicon can be split into the distinct categories of *noun* and *adjective*. We predict that using the same methodology, one could also maintain the noun/adjective distinction in other languages.

2 Braun and Haig on the Turkish lexicon

In this section, we consider Braun and Haig’s (2000) argument that Turkish nouns and adjectives are not discrete classes. According to B&H, the Turkish lexicon can be discretely divided only into verbs and ‘nominals’. The nominals form a continuum from prototypical noun to prototypical adjective, allowing for a large and indeterminate intermediate area.

B&H find that the prototypical adjectives can undergo first-syllable reduplication (a Turkic intensification strategy), they can be degree-modified, and they can modify a noun in the frame *X bir N*, where X is the word to test, *bir* is the indefinite determiner, and N is a prototypical noun. They cannot take the suffix *-sIz* ‘without’, or *-II* ‘with’. Moreover, when a prototypical adjective immediately precedes a prototypical noun, the noun cannot take the possessive suffix *-sI*. In contrast, the most prototypical Turkish nouns display the opposite behavior, rejecting first-syllable reduplication, degree modification, modification in the frame *X bir N*, and accepting *-sIz* and *-II*. When a prototypical noun precedes another noun, the second noun can take *-sI*, forming the *izafet* construction (see Lewis (1967) and Underhill (1976) for Turkish).

¹Abbreviations used in the glosses: 1 *first person*, 3 *third person*, ACC *accusative*, CNVB *converb*, COP *copula*, DAT *dative*, IMP *imperative*, NEG *negation*, NPST *non-past*, PL *plural*, PST *past*, SG *singular*.

		Positive Criteria for Adj.			Negative Criteria for Adj.	
		Reduplic.	Deg. Mod.	X (bir) N	-II or -sIz	Izafet
Adjectives	<i>siyah</i> ‘black’	+	+	+	-	?+(with <i>renk</i>)
	<i>beyaz</i> ‘white’	+	+	+	-	?+(with <i>renk</i>)
	<i>büyük</i> ‘large’	+	+	+	-	-
	<i>küçük</i> ‘small’	-	+	+	-	-
	<i>iyi</i> ‘good’	-	+	+	-	-
	<i>kötü</i> ‘bad’	-	+	+	-	-
Neutral	<i>zengin</i> ‘rich’	?	+	+	-	?+
	<i>genç</i> ‘young’	+	+	+	-	-
	<i>kadin</i> ‘woman’	-	+	+	+	+/-
	<i>erkek</i> ‘man’	-	+	+	+	+/-
	<i>polis</i> ‘police officer’	-	+	+?	+	+/-
Nouns	<i>ağaç</i> ‘tree’	-	-	-	+	+
	<i>masa</i> ‘table’	-	-	-	+	+
	<i>araba</i> ‘car’	-	-	-	+	+
	<i>kitap</i> ‘book’	-	-	-	+	+

+ = regularly; - = never; ?+ = in highly restricted contexts; +/- = both possible; ? = unclear

Table 1: Adapted from Braun and Haig (2000)

Between the prototypical nouns and prototypical adjectives on the nominal continuum, B&H posit a class of ‘neutral’ words, which generally denote human properties. As illustrated in Table 1, these ‘neutral’ words do not pattern consistently with respect to the diagnostics for adjectivehood or nounhood. Instead, the behavior of words along the nominal continuum appears to be quite gradient.

Although B&H are working in a very different framework, it is possible to re-frame their claims using the terms of Distributed Morphology (DM) (Halle and Marantz, 1993, Marantz, 1997, Harley and Noyer, 2000). In DM terms, one could say that Turkish has some category-neutral roots that usually combine with an *n* head to become nouns, some that usually combine with an *a* head to become adjectives, and a large number of underspecified roots that can readily combine with either head. One would then have to say, following Barner and Bale (2005), that the reason that certain roots fail to combine with certain category-assigning heads is extra-grammatical, or a fact about the world knowledge of the concepts involved.

Our data from Kazakh, however, differ from B&H’s and run counter to DM’s predictions. We argue that the Kazakh lexicon can be divided into the discrete categories of *noun* and *adjective*, regardless of what operations may convert one category to another in the syntax. In the next section, we present morphosyntactic evidence of this distinction in Kazakh.

3 Kazakh morphosyntactic diagnostics

To test whether Kazakh nouns and adjectives can be reliably distinguished, we applied six morphosyntactic diagnostics to twenty-five words in consultation with native speakers. Six of the words denote concrete, time-stable objects. They are meant to be uncontroversial or canonical nouns, and are shown in (3). Next, we chose ten words denoting property concepts that are

most likely to be encoded as adjectives crosslinguistically, according to Dixon (1977). These uncontroversial or canonical adjectives are shown in (4). Finally, we chose nine words denoting types of humans and properties that often hold of humans, shown in (5).

(3) Canonical nouns	(4) Canonical adjectives	(5) Human descriptors
a. <i>ağas</i> ‘tree’	a. <i>qızıl</i> ‘red’	a. <i>jas</i> ‘young’
b. <i>kitap</i> ‘book’	b. <i>qara</i> ‘black’	b. <i>qart</i> ‘old’
c. <i>gül</i> ‘flower’	c. <i>aq</i> ‘white’	c. <i>sulw</i> ‘beautiful’
d. <i>qwırṣaq</i> ‘doll’	d. <i>ülken</i> ‘large’	d. <i>ädemi</i> ‘pretty’
e. <i>iiy</i> ‘house’	e. <i>kişkentay</i> ‘small’	e. <i>bala</i> ‘child’
f. <i>taw</i> ‘mountain’	f. <i>eski</i> ‘old’ (inanim.)	f. <i>küyew</i> ‘husband’
	g. <i>käri</i> ‘old’ (anim.)	g. <i>erkek</i> ‘male’
	h. <i>jaña</i> ‘new’	h. <i>äyel</i> ‘female’
	i. <i>jaqsi</i> ‘good’	i. <i>säbï</i> ‘infant’
	j. <i>jaman</i> ‘bad’	

To test for adjectivehood, we investigated whether the word’s first syllable could be reduplicated for intensification,² whether the word could be deintensified with *-ṣA* or *-Law*,³ and whether the word could be degree-modified by *öte* ‘very’. These adjectivehood tests are exemplified in (6)–(8).

Adjectivehood tests

- (6) Intensive reduplication of the first syllable
 - a. *qara* ‘black’ → *qap~qara* ‘very black’
 - b. *ağas* ‘tree’ → **ap-ağas*
- (7) Deintensification with *-ṣA* and *-Law* ‘somewhat’
 - a. *qızıl* ‘red’ → *qızıl-ṣa* ‘somewhat red’
 - b. *qwırṣaq* ‘doll’ → **qwırṣaq-ṣa/-taw*
- (8) Gradability with *öte* ‘very’
 - a. *qara* ‘black’ → *öte qara* ‘very black’
 - b. *gül* ‘flower’ → **öte gül*

To test for nounhood, we asked whether the word could be suffixed with *-sIz* ‘without’, whether the word could be suffixed with *-LI* ‘with’, and whether the word could trigger the third person singular possessive suffix *-(s)I* on a noun it modifies in the *izafet* construction, as exemplified in (9)–(11).

²Intensive reduplication is acceptable only colloquially.

³Following convention in Turkic linguistics, a capital letter *A* indicates a low vowel unspecified for backness, and capital *I* indicates a high vowel unspecified for backness. The vowel’s backness quality is determined by harmony with the preceding vowels. *L* alternates between \l, \d\, and \t\.

Nounhood tests

- (9) Suffixation with *-sIZ* ‘without’
 - a. *üy* ‘house’ → *üy-siz* ‘homeless’
 - b. *qara* ‘black’ → **qara-siz*
- (10) Suffixation with *-LI* ‘with’
 - a. *taw* ‘mountain’ → *taw-li* ‘with many mountains’
 - b. *jaña* ‘new’ → **jaña-li*
- (11) *Izafet* construction
 - a. *qwırṣaq* ‘doll’ + *üy* ‘house’ → *qwırṣaq üy-i* ‘dollhouse’
 - b. *qızıl* ‘red’ + *üy* ‘house’ → **qızıl üy-i*

When we applied these six tests to our twenty-five test words, we found that the tests reliably separated the canonical adjectives from the canonical nouns. This is not surprising even for B&H, because they would classify these words as prototypical nouns and prototypical adjectives. More interestingly, the human descriptor words that B&H termed ‘neutral’ – those that sit somewhere between nouns and adjectives on the nominal continuum – also split into clear groups: four adjectives and five nouns, listed in Table 2 in the Appendix. These clean separations are not predicted if these words are categorically neutral or underspecified. Rather, such data suggest that Kazakh has a clear noun/adjective distinction.

4 Confounds

In this section, we discuss four grammatical phenomena that obfuscate a lexical distinction between nouns and adjectives. We argue that the first two, compounding and pluralization, interfered with two additional purported diagnostics for distinguishing nouns and adjectives. Even canonical nouns could appear in the construction purported to pick out only adjectives, and even canonical adjectives could appear in the construction purported to pick out only nouns. Thus, we show that these diagnostics are unreliable if handled superficially.

We then show two further grammatical phenomena, substantivization and nominal ellipsis, in which an apparent adjective appears in a construction usually reserved for a noun. Even though all four of these grammatical constructions appear to blur the distinction between noun and adjective, we argue that they occur due to constrained syntactic operations and are not evidence of underspecified lexical categories.

4.1 Compounding

In addition to the six successful diagnostics presented in the last section, we also attempted to use a seventh, an adjectivehood test based on one used by B&H for Turkish. This diagnostic asks whether the word can be used to modify a noun in the frame *bir X N*, where X is the word to test, *bir* is the indefinite determiner, and N is a prototypical noun.⁴ Almost all of our twenty-five words were able to modify nouns in that frame. For prototypical adjectives, this pattern is predicted to

⁴Whereas Turkish modification can use the order *X bir N*, which would help rule out compounds, the order *bir X N* is much preferred in Kazakh.

hold uncontroversially; the adjective simply modifies the noun in the usual way. The pattern is unexpected for canonical nouns as well as for the other words that we have argued are nouns. Nevertheless, examples (12) and (13) show that these words can modify prototypical nouns.

(12) **Canonical nouns**

- a. bir üy kitap-xana
one house library
'a house-like library'
- b. bir taw adam
one mountain person
'a mountain person'
- c. bir qwırşaq bet
one doll face
'a doll-like face'

(13) **Human descriptor nouns**

- a. bir erkek adam
one male person
'a man'
- b. bir äyel adam
one female person
'a woman'
- c. bir säbï bala
one infant child
'an infant child'

We argue that the examples in (12) and (13) are noun-noun compounds, which explains why so many of the test words could modify prototypical nouns. Two further diagnostics suggest that these structures are compounds.⁵ First, while it should be possible for an additional modifier to intervene between an adjective and a noun, it is generally not possible to insert modifiers into a compound without distorting the lexicalized meaning. In (14), we see that the Turkish compound *ilk okul* 'elementary school' cannot be interrupted by a modifier while still retaining its lexicalized meaning.

(14) Turkish (Yükseker, 1987)

- a. [ilk okul]_N
first school
'elementary school'
- b. [ilk]_A [yeni]_A [okul]_N
first new school
'first new school'
≠ 'new elementary school'

In light of these predictions, (15)–(18) appear to be compounds, since material cannot be inserted between the two words while they retain their lexicalized meaning.⁶

(15) a. ülken [üy kitap-xana]_N
big home library
b. * üy ülken kitap-xana
home big library

(16) a. baqıttı [erkek adam]_N
happy male person
b. * erkek baqıttı adam
male happy person

(17) a. baqıttı [äyel adam]_N
happy female person
b. * äyel baqıttı adam
female happy person

(18) a. baqıttı [säbï bala]_N
happy infant child
b. * säbï baqıttı bala
infant happy child

⁵Though see Bauer (1998) for critique of these, and other, commonly-used diagnostics for noun-noun compounds.

⁶Some languages have strict adjective orders, which might interfere with the use of this diagnostic. In Kazakh, multiple adjective orders are acceptable.

In contrast, (19) shows that intervening material can be inserted between what we have argued is an adjective and a clear noun.

(19) a. baqıttı [jas]_A [adam]_N
happy young person

b. [jas]_A baqıttı [adam]_N
young happy person

A second diagnostic for compounding concerns conjunction. If the two elements in a combination are separate words, it should be possible to conjoin the modifier with another word of the same lexical category, so that both conjuncts modify the head. However, if the two elements in the combination form a single unit, it will not be possible to conjoin another modifier, as in (20).

(20) a. the big and [black]_A [shoes]_N

b. * the big and [blackbird]_N

The words that we argue are modifiers in noun-noun compounds cannot be conjoined with a clear adjective, as in (21).

(21) a. * baqıttı jäne [erkek adam]_N
happy and male person

b. * baqıttı jäne [äyel adam]_N
happy and female person

c. * baqıttı jäne [säbı̄ bala]_N
happy and infant child

These two diagnostics suggest that (15)–(18) should be analyzed as compounds. Because the words used in these examples pattern like nouns according to the six successful diagnostics above, it seems most likely that they are still nouns here, meaning that these structures are noun-noun compounds.

The productivity of noun-noun compounding in Kazakh makes the *X bir N* diagnostic problematic when applied superficially. The fact that almost all words were able to modify a clear noun should not be interpreted as evidence that Kazakh has no noun/adjective distinction, but instead only as evidence of a productive process of word formation.

4.2 Pluralization

As a final noun/adjective diagnostic, we suffixed the plural marker *-LAr* onto our test words. As Kazakh adjectives do not agree with their head nouns in number, we expected *-LAr* to attach only to nouns. Instead, we found that almost every word was able to take the plural suffix. However, the semantic interpretation of the words we have argued are adjectives was somewhat restricted.

When the plural suffix *-LAr* appears on a canonical adjective, the resulting word denotes the group of humans who have the property denoted by the adjective. Like English *the poor* or *the beautiful*, which tend to refer to a group of people, not things, Kazakh adjectives with plural morphology must refer to people, shown in (22).

(22) a. aq-tar
white-PL
'white people'
≠ 'white things'

b. ülken-der
big-PL
'big people'
≠ 'big things'

Additionally, the interpretation of the adjective with plural morphology must be generic, and does not easily refer to previously-mentioned specific discourse referents. In (23), the referent of *jas-tar* ‘young-PL’ in the target sentence is interpreted to be some young people other than those mentioned in previous discourse.

(23) CONTEXT: Someone says: *Eki jas adamdar-men eki qart adamdar birge turdi*. ‘Two young people and two old people were standing together.’ Then they say:
 Marat jas-tar-di kör-di
 Marat young-PL-ACC see-PST
 ‘Marat saw some (other) young people.’
 ≠ ‘Marat saw the two young people.’

Again, this is similar to the behavior of English *the poor* or *the beautiful*.

This kind of pluralization is productive across many adjectives. It could be analyzed as an adjective that is syntactically converted to a noun and then pluralized, or as a true adjective modifying a null *pro* (Borer and Roy, 2010). Regardless of the particular analysis, these data can be accounted for without giving up the noun/adjective distinction in Kazakh. Instead, the fact that this kind of pluralization is so semantically restricted only for those words that test as adjectives with respect to the six reliable diagnostics suggests that a lexical noun/adjective distinction is worth maintaining.

4.3 Substantivization

Another situation where an adjective appears to behave like a noun occurs with substantivization in the sense of Jackendoff (1977), where a word that is normally an adjective is used in a noun-like context to denote the abstract property ascribed by the adjective, as in *Many people are afraid of the unknown* (Giannakidou and Stavrou, 1999). This structure also occurs in Kazakh, as in (24).

(24) **jaman-sız jaqsı** bol-ma-y-di
 bad-without good COP-NEG-NPST-3
 ‘Without the bad, there will be no good.’

Here, since the apparent adjective serves as an argument to a verb, it seems to behave like a noun. Given this pattern, one might conclude that the noun/adjective distinction is blurry (as Goes (2007) does for French, on this basis). Alternatively, one could say that the apparent adjective has been converted to a noun presyntactically (see Giannakidou and Stavrou (1999) for Greek), or that the entire adjective phrase is converted to a noun phrase in the syntax (see Glass (2014) for English). Thus, substantivization seems to show only that a word’s lexical category can be converted syntactically in a specific construction, and is not evidence that a language’s lexical categories are inherently fuzzy or otherwise underspecified.

4.4 Nominal ellipsis

A final situation where an adjective may appear to behave like a noun occurs with nominal ellipsis, described in Giannakidou and Merchant (1997) and Giannakidou and Stavrou (1999) for Greek under the term ‘nominal subdeletion’. Here, an adjective appears to stand in for a specific entity having the property denoted by the adjective, as in (25). In Kazakh, adjectives do not generally

agree with their head nouns in case. However, in this construction, they must bear overt case morphology, as both examples show.

(25) Dana qızıl maşına-nı sat-ıp al-dı järe Baqıt-gül **kök**^{*}(-ti) sat-ıp al-dı
 Dana red car-ACC buy-CNVB take-PST and Baqıt-gül blue-(ACC) buy-CNVB take-PST
 'Dana bought the red car and Baqit-gul bought the blue (one).'

(26) Dana da qart dos bar järe Baqıt-gül de **jas** *(dos) bar.
 Dana also old friend COP and Baqit-gül also young (friend) COP
 'Dana has an old friend and Baqit-gul has a young (one).'

In contrast to pluralization, adjectives in this construction need not refer to people generically; instead, they can refer to non-humans and to particular discourse referents. Unlike with substantivization, these adjectives can refer to concrete entities.

As Giannakidou and Stavrou (1999) note for Greek, the noun need not be overtly realized in previous linguistic material in order to be dropped. In general, ellipsis does not always require an overt antecedent (Ginzburg and Sag, 2000); the same is true for Kazakh, as shown in (27) and (28).

(27) **qızıl**-dı **qızıl** de-me (28) men **jaman**-dı **jaqsı**-ğa iiter-di-m
 red-ACC red call.IMP-NEG I bad-ACC good-DAT push-PST-1SG
 'Do not call a red thing red.' 'I pushed the bad one to the good one.'

To analyze this construction, we follow Giannakidou and Merchant (1997) and Giannakidou and Stavrou (1999) in suggesting that the adjective modifies an elided noun. In this way, the adjective has not changed its lexical category—it only appears to behave as a noun because the head noun has been elided. Thus, these data can be analyzed without giving up the noun/adjective distinction in Kazakh.

5 Conclusions

We have argued that Kazakh does have a clear noun/adjective distinction, and that evidence to the contrary does not adequately control for grammatical subtleties that obfuscate the distinction, namely, compounding, pluralization, substantivization, and nominal ellipsis. While we cannot speak to the larger question of whether lexical categories are universal, we stress that grammatical diagnostics must be handled carefully—one must always sort out potential confounding factors, such as the ones we have identified here. When they are taken into account, we see that the Kazakh lexicon can be analyzed with the familiar, discrete lexical categories of *noun* and *adjective*—including words referring to human properties, which other researchers have placed into an underspecified category. We predict that, when similar confounds can be controlled for in other languages, the same pattern will emerge.

Appendix

		Adjectivehood Tests			Nounhood Tests			Unreliable Tests		
		Reduplication	öte X	Deintens.	-s _I z	-LI	Izafet	bir X N	Plural	
Adjectives	<i>qızıl</i> 'red'	+	+	+	*	*	*	+	+	
	<i>qara</i> 'black'	+	+	+	+	+	+	+	+	
	<i>aq</i> 'white'	+	+	+	+	+	+	+	+	
	<i>üilken</i> 'large'	+	+	+	+	+	+	+	+	
	<i>kişkentay</i> 'small'	+	+	+	+	+	+	+	+	
	<i>eskî</i> 'old' (inanim.)	+	+	+	+	+	+	+	+	
	<i>käri</i> 'old' (anim.)	+	+	+	+	+	+	+	+	
	<i>jaňa</i> 'new'	+	+	+	+	+	+	+	+	
Human property adjectives	<i>jaqsi</i> 'good'	+	+	+	+	+	+	+	+	
	<i>jaman</i> 'bad'	+	+	+	+	+	+	+	+	
	<i>jas</i> 'young'	+	+	+	+	+	+	+	+	
	<i>qart</i> 'old'	+	+	+	+	+	+	+	+	
	<i>stulw</i> 'beautiful'	+	+	+	+	+	+	+	+	
	<i>ädemi</i> 'pretty'	+	+	+	+	+	+	+	+	
	<i>bala</i> 'child'	*	*	*	*	*	*	??	??	
	<i>kuiyew</i> 'husband'	*	*	*	*	*	*	+	+	
Human descriptor nouns	<i>erkek</i> 'male'	*	*	*	*	*	*	+	+	
	<i>äyel</i> 'female'	*	*	*	*	*	*	+	+	
	<i>säbî</i> 'infant'	*	*	*	*	*	*	+	+	
	<i>ağas</i> 'tree'	*	*	*	*	*	*	+	+	
	<i>kitap</i> 'book'	*	*	*	*	*	*	+	+	
	<i>gül</i> 'flower'	*	*	*	*	*	*	+	+	
	<i>qwırıq</i> 'doll'	*	*	*	*	*	*	+	+	
	<i>iiy</i> 'house'	*	*	*	*	*	*	+	+	
Nouns	<i>taw</i> 'mountain'	*	*	*	*	*	*	+	+	

+ = Acceptable; ?? = Fairly unacceptable; * = Unacceptable

Table 2: Kazakh Morphosyntactic Noun/Adjective Diagnostics

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