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EPISTEMIC AND DEONTIC MODALITY IN DAILY HOROSCOPES: A CORPUS-BASED STUDY OF ENGLISH AND UZBEK

Annotation

Drawing on a corpus of about 64,000 words of daily horoscopes, the article compares how English and Uzbek express epistemic and deontic modality. In English the epistemic load is spread across several modal verbs; in Uzbek it rests mainly on one item, mumkin “possible”. Despite this difference, both languages systematically avoid markers of high certainty and strong obligation, which supports the hypothesis of pragmatic convergence in the genre.

Keywords: epistemic modality, deontic modality, hedging, corpus analysis, modal verb, horoscope.

ЭПИСТЕМИЧЕСКАЯ И ДЕОНТИЧЕСКАЯ МОДАЛЬНОСТЬ В ЕЖЕДНЕВНЫХ ГОРОСКОПАХ: КОРПУСНОЕ ИССЛЕДОВАНИЕ НА МАТЕРИАЛЕ АНГЛИЙСКОГО И УЗБЕКСКОГО ЯЗЫКОВ

Аннотация

На материале корпуса ежедневных гороскопов объёмом около 64 тысяч слов сопоставляются средства выражения эпистемической и деонтической модальности в английском и узбекском языках. В английском языке эпистемическая нагрузка распределена между несколькими модальными глаголами, в узбекском – сосредоточена в единице mumkin. При этом оба языка систематически избегают маркеров высокой уверенности и строгого предписания, что подтверждает гипотезу о прагматической конвергенции жанра.

Ключевые слова: эпистемическая модальность, деонтическая модальность, хеджинг, корпусный анализ, модальный глагол, гороскоп.

KUNLIK MUNAJJIMLAR BASHORATIDA EPISTEMIK VA DEONTIK MODALLIK: INGLIZ VA O‘ZBEK TILLARI KORPUSI ASOSIDAGI TADQIQOT

Annotatsiya

Maqolada taxminan 64 ming so‘zlik kunlik bashorat korpusi asosida ingliz va o‘zbek tillarida ehtimollik va zarurat ma’nolarining ifodalanishi miqdoriy jihatdan qiyoslanadi. Ingliz tilida epistemik yuk bir nechta modal fe’l o‘rtasida taqsimlangani, o‘zbek tilida esa asosan bitta vosita – mumkin – zimmasiga tushishi aniqlandi. Grammatik farqqa qaramay, ikkala tilda ham yuqori ishonch va qat’iy majburiyat bildiruvchi birliklar tizimli ravishda kam qo‘llanadi, bu janrning pragmatik konvergensiyasini tasdiqlaydi.

Kalit so‘zlar: epistemik modallik, deontik modallik, hedging, korpus tahlili, modal fe’l, modal so‘z, bashorat janri.

Introduction. The author of a horoscope faces two demands. The text must convince the reader and sound authoritative, yet the author must not be held responsible for a prediction that later “fails”. This tension shows first of all in modality, that is, in how the speaker marks their degree of confidence in what is said and the degree of obligation in what is advised.

Horoscopes are therefore an ideal material for studying modality in use. Unlike scientific or legal texts, where modality is constrained by disciplinary norms, horoscopes are written for a mass audience and must balance persuasion against caution in every sentence. A comparison of English and Uzbek adds a typological dimension: the two languages differ sharply in their grammatical means of expressing modality.

Two hypotheses are tested. H1 (typological asymmetry): English and Uzbek express epistemic modality through different grammatical mechanisms, a closed class of modal verbs in English and open-class analytical means in Uzbek. H2 (pragmatic convergence): despite different means, the horoscope genre in both languages prefers low-to-medium certainty and soft advice.

Theoretical background

J. Lyons defined epistemic modality as the speaker’s qualification of the truth of a proposition, and deontic modality as the expression of necessity or possibility of acts performed by morally responsible agents [7]. F. Palmer developed this distinction into a typology of propositional modality (epistemic and evidential) and event modality (deontic and dynamic) and showed that languages differ widely in how they grammaticalise these categories [3].

For English, J. Coates described the modal auxiliaries as a graded scale of confidence: might and could express the lowest, may a medium, and will and must the highest degree of commitment [3]. M. A. K. Halliday interpreted the same phenomenon functionally, distinguishing high, median and low values of probability and obligation [4;387]. These scales provide a convenient frame for comparing languages that use very different forms.

The softening of commitment has been studied under the name of hedging since G. Lakoff’s work on “words whose job is to make things fuzzier” [6]. K. Hyland showed that hedges serve two functions: they protect the writer from being proved wrong and they leave room for the reader’s own judgement [5;308]. Both functions are central to horoscopes.

Uzbek has no closed class of modal verbs. Modality is expressed by modal words, analytical constructions and affixes. Sh. Rahmatullayev divides Uzbek modal words into three semantic groups: possibility (mumkin, ehtimol), necessity (kerak, zarur, shart) and certainty (albatta, shubhasiz) [10]. This classification makes it possible to map Uzbek units onto the English scale.

Materials and methods. The corpus consists of daily horoscopes for all 12 signs published in July–August 2026: 32,837 words in English and 31,034 words in Uzbek. Modal units were retrieved automatically and every occurrence was then checked manually in context. This step proved essential. For example, Uzbek balki occurs 58 times, but 36 of these are the conjunction “...emas, balki...” (“not ... but ...”); only 17 carry the epistemic meaning “perhaps”. Likewise, 2 of the 6 tokens of must are nominal (a must, must-have) and were excluded. Frequencies were normalised per 1,000 words to compare corpora of slightly different size.

Results and discussion

Basic frequencies. The counts of the units examined are given in Table 1.

English	Type	Count	Uzbek	Type	Count
could	epistemic, low	224	mumkin	epistemic, universal	770
can	epistemic / dynamic	155	ehtimol (ehtimoli bor / katta)	epistemic, graded	149
may	epistemic, medium	94	kerak	deontic, advice	70
will	epistemic, high	92	balki	epistemic, low	17
might	epistemic, low	72	zarur	deontic, strong	9
should	deontic, advice	12	albatta	epistemic, high	7
must	deontic, strong	4	shubhasiz	epistemic, high	5
perhaps / likely	epistemic adverbs	10 / 7	shart emas	deontic, negative	4

Table 1. Frequencies of modal units in the daily corpus

English: a distributed system. The most frequent unit is could (224). Although past in form, in predictions it raises the degree of tentativeness: “A better opportunity could be right around the corner.” (Cancer, 16.07.2026); “You could crank out a lucrative assignment or finally pitch that dream client you’ve been circling.” (Leo, 16.07.2026). In every case could presents the prediction as a mere possibility, so that the author cannot be blamed if it does not come true.

Might belongs to the same low-certainty zone but often adds a note of surprise: “They might surprise you with original insights that were far off your radar.” (Cancer, 17.07.2026). It can also combine epistemic and deontic meaning: “In some instances, it might be best to bid adieu to a certain posse and go your own way.” (Scorpio, 17.07.2026), where the speaker both estimates and advises.

May (94) expresses medium certainty and in most cases softens unwelcome news: “Although it may be awkward, it’s time that you directly face the problem at hand.” (Libra, 17.07.2026); “Anyone who expects you to foot the bill may be more of a user than a friend.” (Leo, 17.07.2026). This is a typical face-saving use: an unpleasant message is delivered in a mitigated form.

Can (155) is frequent, but most of its uses are dynamic rather than epistemic: it states a general possibility rather than a specific prediction. “Crossing off every last task can be just as satisfying as headlining a flashier effort.” (Aries, 16.07.2026). Such gnomic statements fit any reader, which is precisely their function. Treating can as equivalent to could or may would therefore be methodologically wrong.

Will (92) occupies the high-certainty zone and fuses prediction with confident inference: “Sharing your feelings will get you further today than sitting on them.” (Virgo, 16.07.2026). Characteristically, will is used mostly for advice-like statements whose truth is hard to check rather than for specific events.

Epistemic adverbs are rare: perhaps (10), likely (7), possibly (5), probably (4), certainly (1). The English daily horoscope thus expresses modality mainly at the level of the auxiliary verb, in line with the general preference of English for modal verbs over adverbs in informal registers. Together, could, might and may account for about 59% of all epistemic units: the “centre of gravity” of the genre lies in cautious, unverifiable prediction.

Uzbek: a centralised system. In Uzbek the epistemic function is carried mainly by an analytical construction, verbal noun + mumkin. It attaches to almost any verb (bo‘lishi mumkin, kelishi mumkin, his qilishingiz mumkin) and occurs 770 times, nearly five times more than the next unit, ehtimol: “Bugungi kun siz uchun faqat foydali bo‘lishi mumkin.” (“Today can only be useful for you”; Qo‘y/Aries, 16.07.2026); “Siz aniq javob topmasligingiz mumkin.” (“You may not find a clear answer”; Egizaklar/Gemini, 16.07.2026).

Mumkin also takes part in double hedging: “Bugun siz uchun yangi imkoniyatlar eshigini ochishi mumkin bo‘lgan ijobiy kun bo‘lishi kutilmoqda.” (“Today is expected to be a positive day that may open the door to new opportunities”; Qisqichbaqa/Cancer, 16.07.2026). Here the possibility is embedded in an expectation, a construction functionally similar to English could possibly. Notably, the negative mumkin emas “impossible” does not occur at all: a horoscope opens possibilities and never closes them.

The forms ehtimoli bor “there is a chance” and ehtimoli katta “it is very likely” mark degrees of certainty explicitly and are thus closer to English likely and probably: “...kunning umumiy kayfiyati bilan to‘liq uyg‘unlikda bo‘lishingiz ehtimoli katta.” (“you are very likely to be in full harmony with the mood of the day”; Qisqichbaqa/Cancer, 16.07.2026). Double hedging occurs here too: “...bugun biroz qiyinroq kun bo‘lishi mumkin, chunki odatdagidek samarali bo‘la olmasligingiz ehtimoli bor.” (“today may be a somewhat harder day, as there is a chance you will not be as productive as usual”; O‘qotar/Sagittarius, 16.07.2026).

High-certainty words albatta (7) and shubhasiz (5) are as rare as English certainly. Moreover, they refer to present or past states rather than to the future: “Ishda ham, uyda ham ko‘plab o‘zgarishlar bo‘lgani shubhasiz.” (“There have undoubtedly been many changes at work and at home”; Egizaklar/Gemini, 16.07.2026). High certainty is used only where it can be checked at once and therefore poses no risk to the author.

Deontic modality. In both languages advice is given through a “soft” device: should (12) in English and kerak (70) in Uzbek. “Effectively working together should be your primary aim, but respect your limits.” (Scorpio, 17.07.2026); “Omadingiz kelishi uchun sabrli bo‘lishingiz kerak bo‘ladi.” (“You will need to be patient for luck to come”; Chayon/Scorpio, 16.07.2026). “Hard” devices, must (4) and zarur “necessary” (9), are rare: “Ready or not, you must release something that is no longer serving you.” (Virgo, 12.08.2026). Epistemic must (“you must be tired”) does not occur at all, since it would signal a level of certainty the genre avoids.

Negative deontic forms are also telling. Uzbek uses shart emas “not necessary” (4) and kerak emas (2) to grant freedom rather than impose a duty: “Har doim faol va tetik bo‘lishingiz shart emas.” (“You don’t always have to be active and lively”; Tarozi/Libra, 22.07.2026). Zarur emas does not occur. The genre thus avoids imposing on the reader and

offers friendly guidance instead, a strategy that politeness theory describes as respect for the hearer’s negative face [2].

Summary indicators and distribution across signs. The density of modal units per 1,000 words is 34.5 in Uzbek and 20.8 in English. The ratio of epistemic to deontic units, however, is almost identical: about 95% to 5% in English and 92% to 8% in Uzbek. Table 2 shows the density of the most frequent unit in each language across the 12 signs.

Uzbek sign	mumkin, count	per 1,000 words	English sign	could, count	per 1,000 words
Arslon	78	29.9	Cancer	25	8.9
Qisqichbaqa	76	29.0	Sagittarius	24	8.9
Egizaklar	71	28.3	Taurus	22	8.1
Tarozi	71	27.6	Capricorn	21	7.6
Qovg‘a	70	27.2	Gemini	20	7.6
Qo‘y	65	26.0	Scorpio	19	7.1
Tog‘ echkisi	68	25.6	Aquarius	19	7.0
Baliq	57	23.7	Pisces	17	6.3
Sunbula	59	23.3	Aries	15	5.5
O‘qotar	55	20.9	Leo	15	5.5
Buzoq	50	19.9	Libra	14	5.2
Chayon	50	19.6	Virgo	13	4.8

Table 2. Density of mumkin and could across the 12 signs

The ratio between the highest and the lowest values is only about 1.5 in Uzbek and 1.9 in English. If horoscopes were written individually for each sign, much larger variation would be expected. The narrow ranges show that the choice of modal devices depends on the formulaic structure of the genre rather than on the “character” of a sign.

Implications for translation. Since the two systems differ, modal units cannot be translated one-to-one. The corpus suggests the following functional correspondences: could, may → -ishi mumkin; might → balki ... -ishi mumkin; likely → ehtimoli katta; will → future form in -adi; should → kerak; must → shart or zarur. Translators should be aware that the single Uzbek mumkin neutralises the fine distinctions between could, might and may.

Limitations. The corpus covers two summer months and one source per language. Different sources or seasons may show different absolute frequencies, although the narrow variation across signs suggests that the overall pattern is stable.

Conclusion. H1 is confirmed: English distributes epistemic modality across a closed class of modal verbs, whereas Uzbek concentrates it around one high-frequency analytical device, mumkin, supported by ehtimol and rare high-certainty words. H2 is confirmed: in both languages markers of high certainty (certainly, albatta, shubhasiz) and strong obligation (must, zarur) are systematically rare; the genre relies on cautious confidence and soft advice. High-certainty markers are used for present or past states that can be checked at once, not for future predictions. Counting multifunctional units (balki, can, must) without context distorts the results; corpus counts must be complemented by qualitative analysis. The findings matter for translation: English could and might are often rendered by a single Uzbek mumkin, and fine distinctions in certainty may be lost.

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