Online Resource 1 — Functional categories, diagnostic tests, decision tree and boundary examples

Don't Worry, the Stars Know: Negation and Hedging in Turkish Digital Horoscope Discourse (Corpus Pragmatics). Instance numbers refer to negation_annotation.tsv (Online Resource 3). Examples are quoted as they appear in the cleaned texts, including transcription features.

1. Identification rules (final)

Counted as instances: finite verbal *-mA* in all tense, aspect and mood forms; *değil*; existential *yok*; converbs *-mAdAn*, *-mAyArAk*, *-mAyIp*; participles and nominalisations *-mAyAn*, *-mAdIK*, *-mAyAcAK*, *-mAmIş*, *-mAmA*, *-mAmAk*, attributive *-mAz*; ability negation *-(y)AmA-* (recorded as the feature +ABIL on the formal type); *-mAyAbilir* (MOD-POSS) and *-mAmAlI* (MOD-NEC); correlative *ne … ne*; transparent privative *-sIz*, tested by the paraphrase "X'i olmayan / X olmadan" (*huzursuz, kararsızlık, belirsizlik, uykusuz, gereksiz, plansız, hasarsız, ücretsiz, kusursuz*); lexical negatives *kaçınmak, vazgeçmek, engellemek, reddetmek, mahrum (kalmak)* and *uzak durmak / uzak kalmak* in their avoidance sense (formal type LEX).

Negative concord: a polarity item (*hiç, hiçbir, kimse, asla, sakın, bir türlü*) and the verbal negation that licenses it are one instance; the item is recorded in the field npi (60 instances). Polarity items without negation are not negation (*hiç* in questions, *ya hep ya hiç*).

Lexicalised, recorded but not function-coded (status = lexicalised): *beklenmedik, inanılmaz, taşınmaz, anlaşmazlık, kaçınılmaz, vazgeçilmez, değişilmez, unutulmaz, dayanılmaz, durdurulamaz, sarsılmaz, görmezden gel-*; lexicalised *-sIz*: *olumsuz, sonsuz* (as intensifier), *rahatsız(lık), bağımsız, öksüz, kansızlık* and the fixed term *insansız hava aracı*; at adjudication *sahipsiz, işsizlik, düzensiz, itibarsız-* and (in one of five occurrences) *sessiz* were counted as transparent.

Excluded with reason (status = excluded): *-Ar -mAz* 'as soon as'; *-mAdAn önce* 'before'; quotative/enumerative *yok* (*Yok işte göbek yaptım, yok basen çıktı*); *yoksa* 'or'; mentions of *hayır*; evaluative adverbs (*maalesef, ne yazık ki*); retrieval false positives; rows from duplicated text.

2. Fine categories and diagnostic tests

Code	Name	Diagnostic test	Example (instance, text)
DIR	Negative directive	The host is, or is embedded under, a directive (imperative, optative, *-mAlI*, *-mAmAyA özen gösterin*, *-mAmAk gerekiyor*, *kaçının*, *uzak durun*). Paraphrasable as "X	*Lütfen herkese güvenmeyin* (IG-24)

Code	Name	Diagnostic test	Example (instance, text)
		yapmamanızı tavsiye ediyorum” with no change in force	
ASCR	Backgrounded (presupposed) ascription	The negation sits in a relative, nominalised, factive-complement or derived nominal constituent whose content is taken for granted, not asserted. It survives “Hayır” to the host sentence; “Bir dakika, … olduğunu bilmiyordum” is a natural challenge	*bir türlü yapamadığınız bir konuyu size yaptıracak* (YT-14)
PROB	Asserted unfavourable state	At-issue negative whose affirmative the addressee or referent would prefer; announces or diagnoses trouble. The affirmative counterpart is the desirable state; *ne yazık ki* can be inserted	*beklentiler karşılanmayabilir* (IG-20)
PART	Audience or case partition	Negative in a conditional or relative clause that defines the subset of addressees or cases for which the following statement holds. The clause can be replaced by its affirmative twin with a different continuation	*Hayatınızda bir insan yoksa da* (YZ-11)
REAS	Reassurance (threat cancellation)	At-issue negative whose affirmative would be a threat or burden to the	*öyle çok ciddi olaylar yaşanmayacak* (YT-05); *yalnız kalmak zorunda değilsin* (IG-

Code	Name	Diagnostic test	Example (instance, text)
		addressee; *merak etmeyin* or *korkmayın* can follow coherently. Field expectation_source: C (threat in co-text), W (world/genre knowledge), N (introduced by the negative itself)	07)
NPRED	Neutral negative assertion or prediction	At-issue negative that fails the preference test in both directions: attributed volition, traits, generic statements. Neither *ne yazık ki* nor *merak etmeyin* fits	*ödün vermek istemeyeceksiniz* (YZ-16)
COR	Corrective contrast	"X değil, Y" or "X-mAk yerine / -dAn çok Y" with Y supplied. Deleting the negated member leaves the assertion of Y intact	*Mantık değil, sezgi kazanır* (IG-24)
ADD	Additive expansion	"sadece/yalnızca X değil, Y (de)", "-mAklA kalmayacak". Entails both X and Y	*sadece yengeçlerin değil* (IG-06)
HEDG	Commitment reduction	The negative lowers what the speaker is committed to rather than reversing a truth value: epistemic disclaimer (*bilmiyorum, bilemeyiz*), liability disclaimer (*yatırım tavsiyesi değil*), denial of universality (*her zaman … değildir*), litotes (*kötü*	*Çok yoğun bir etkisi yok ama olabilir* (IG-18)

Code	Name	Diagnostic test	Example (instance, text)
		bir ay değil), negation under possibility (-*mAyAbilir*), negative escape conditions (*vazgeçmediğiniz müddetçe*). The affirmative would expose the speaker to falsification more than the negative; *ama olabilir de* can follow without contradiction	
NONEX	Neutral absence or non-occurrence	Reports that an entity, property or event is absent, with no counter-expectation marker, contrast or evaluation. Paraphrasable with "X yok / X-sIz"; *ama, aslında, henüz* absent	*yarın yağış beklenmediğini* (CTRL-15); *hasarsız* (CTRL-12)
REJ	Rejection or refusal	Expresses volition not to do or accept something, by the speaker or by a voiced/reported speaker. Paraphrasable as "X-i reddediyorum / istemiyorum"	*Ben artık böyle yaşamak istemiyorum* (YT-11, voiced); *hiçbir hediye istemiyorum* (CTRL-07)
DE	Explicit denial	Denies a proposition on record in the co-text, asserted by or attributed to an identifiable voice; the denied affirmative can be quoted from the preceding text	*"Ben öyle değilim" durumu ise söz konusu bile değil!* (YZ-02)
DI	Implicit denial, residual	Denies an expectation derivable	*2 Mart'ın bir önemi yok* (IG-30)

Code	Name	Diagnostic test	Example (instance, text)
		independently of the negative (co-text, *artık/henüz*, world knowledge) and not covered by COR, ADD, REAS or HEDG; "sanıldığı/beklendiği gibi … değil" can be inserted	
CONC	Concessive	Negative inside a clause marked by *-sA dA, bile, rağmen*, or a first conjunct before *ama/ancak* that the main claim overrides	*Bu tutulmalar burcunuzda gerçekleşmese de* (YZ-17)
ALT	Alternative pole	One pole of an A / not-A disjunction, neither pole asserted	*Girmen mi gerekiyor, girmemen mi gerekiyor* (YT-11)
INT	Interactional	Tag *değil mi?*, rhetorical negative question, negative question as suggestion; no proposition is negated	*huzur sizin için gerçek şansınızdır değil mi* (IG-23)
IDM	Idiom	Negation is part of a fixed expression with no independent function	*duyan duymayana haber versin* (IG-02)
UNCL	Unclassified	Satisfies none of the tests	*Siz sevmeyeceğim* (IG-16, transcription artefact)

Primary function: the function judged to carry the illocutionary force of the host utterance (first in the functions field). Boundary examples (Section 5) give the adjudicated codes. Ordering rules: a negative directive that also reassures is DIR first, REAS second; with *-mAyAbilir* the content function (PROB or NPRED) is primary and HEDG secondary; HEDG is primary only where reducing commitment is the main thing the negative does; DE requires the denied proposition to be on record in the co-text.

3. Decision tree for ASCR / PROB / PART (fixed at adjudication, applied to the whole data set)

1. Is the negative in a conditional or relative structure that defines the subset of addressees or cases for which the following predication holds? → PART.
2. Otherwise, does it attribute a property or supply background to the main proposition without restricting its domain (relative, nominalised, factive or derived-nominal constituent; survives "Hayır")? → ASCR.
3. Otherwise, is the negative state asserted as the problem at issue (affirmative = desirable; *ne yazık ki* insertable)? → PROB. PROB is not used for unfavourable content inside backgrounded structures.

4. Macro categories

Preventive = DIR. Ascriptive = ASCR + PROB + PART. Reassuring = REAS. Non-committal = HEDG + ALT (the proposal's label for this group was 'vagueness-generating'; the final label follows the shared property of the instances: the negative does not commit the speaker to the negated proposition). Other = NONEX, NPRED, COR, ADD, REJ, DE, DI, CONC, INT, IDM, UNCL. The grouping was fixed after the pilot round and before the reportable round; in the pilot, PART had been grouped with the non-committal categories (pilot macro κ = .52 under that grouping, .58 under the final grouping).

5. Representative and boundary examples

Preventive. *Kalbinizin sesini lütfen bastırmayın. Çünkü doğru karar huzur getirir size.* (208, IG-23). *Bu nedenle sözlerine dikkat et ve fazla söz vermemeye özen göster.* (190, IG-20). *Mart ayında buralara odaklanmamanızı tavsiye edeceğim.* (229, IG-28). *Yaşadığımız hiçbir şeyi olumsuzluk olarak değerlendirmemeliyiz.* (740, YZ-15). Boundary: *Hiçbir zaman korkma sevgili ikizler* (130, IG-04) is a negative imperative whose content is reassurance; coded DIR with REAS secondary under the ordering rule. *Bunları yapmamanız için hiçbir neden yok* (289, YT-05) is formally existential negation and pragmatically encouragement; it was finally coded DIR primary with REAS secondary under the same rule.

Ascriptive. *Aşk hayatınızda şimdiye kadar yaşamadığınız kadar yoğun ve çarpıcı duygular deneyimleyebilirsiniz.* (776, YZ-16, ASCR). *Bu hafta yapamayacağım, edemeyeceğim gibi duygular.* (427, YT-15, ASCR, ability negation). *Üstlendiğin gereksiz sorumlulukları geride bırakmak … isteyebilirsin.* (144, IG-08, ASCR, *-sIz*). *Aşk hayatınızda beklentilerinizin karşılanmadığı hissini yaratabilir.* (833, YZ-20, PROB). *Hayatınızda bir insan yoksa da hayatınıza bir insan almanın zorunluluğunu fark edeceksiniz.* (727, YZ-11, PART). Boundary: *Şimdiye kadar fark edemediğiniz konu ve olaylar* (729, YZ-13): the author's first coding read this as PART, but the relative clause does not restrict the domain of the following predication; under the decision tree it is ASCR. *Bu sezon henüz galibiyet alamayan Trabzonspor* (99, CTRL-29) shows that backgrounded ascription also occurs in the control, which is why ASCR is defined by information status, not by genre. *Bağlar'a gitmek istemeyenler var* (60, CTRL-21) was adjudicated PART (a subset of people) over PROB (a complaint).

Reassuring. *Hayatını düzene sokarken yalnız kalmak zorunda değilsin.* (142, IG-07, N). *Her sorunu tek başınıza çözmek zorunda değilsiniz.* (805, YZ-18, N). *Kaygılı olabilirsiniz. Ha, kötü*

bir ay değil. İyi planlayın. (461, YT-17, REAS with HEDG, C). *Seni sınırlamak için değil, artık neyi aşmış olduğunu fark etmen için.* (485, YT-20, REAS with COR, N). *Toplum önü duruşunuzda önemli adımlar atmaktan KORKMAYACAKSINIZ anlamına geliyor.* (300, YT-05, N). Boundary: *Kimsenin yardımına ihtiyaç duymayacaksınız* (886, YZ-24) was first coded NPRED and adjudicated REAS: dependence on others is the burden cancelled. *Bu aydan hiçbir Başak boş çıkmayacak* (164, IG-13) is REAS, not ASCR: the negated outcome is at issue and addressed to the audience as a promise. Flattering negatives that cancel no threat (*hiçbir engel tanımıyor; taviz vermiyorsunuz*) are NPRED.

Non-committal. *Tabii ki de yatırım tavsiyesi değil ama bunu da söyleyelim.* (132, IG-05). *Çok yoğun bir etkisi yok ama olabilir.* (183, IG-18). *Nasıl 1'den 30'a geçeceğinizi ben de bilmiyorum.* (240, IG-30). *Onu bilmediğim için genel anlamda şöyle yorumlayabilirim.* (398, YT-12). *Son anda vazgeçmediğiniz müddetçe her şey mükemmel gelişecek.* (883, YZ-23). *Yeni düzenin gerçekten size uygun olup olmadığını değerlendirmek önemli olabilir.* (628, YZ-03, ALT). *Bunu belli etmek istemeyebilirsiniz.* (865, YZ-22, NPRED primary, HEDG secondary). Boundary: *Hiçbir dijital platform öğretmenin yerini tutamaz* (55, CTRL-19) was first read as an impossibility claim that strengthens commitment (NPRED with DI secondary) and adjudicated HEDG with DI secondary [AUTHOR: confirm; this reverses the earlier adjudication note]. *İmkânsız gibi görülebilir* (881, YZ-23) reports others' perception, not the speaker's commitment; PROB.

Other. *İlk 5'te Türk oyuncu yok.* (9, CTRL-04, NONEX with DI). *Öğretmenler Günü'nde hiçbir hediye istemiyorum.* (16, CTRL-07, REJ, reported). *Ben artık böyle yaşamak istemiyorum ayı.* (366, YT-11, REJ, voiced). *Mantık değil, sezgi kazanır size.* (210, IG-24, COR). *Rutin bir yaşam size göre değil.* (853, YZ-21, NPRED). *Sanmayın ki bu iş böyle yürüyor, öyle yürümüyor tabii ki.* (233, IG-30, adjudicated DI; first read as DE because the denied proposition is on record in the preceding clause) [AUTHOR: confirm].

6. Decisions another annotator could have taken differently

One instance or two: concord items merged with their host; coordinated negatives under one directive (*çok agresif olmamaya, çok sert olmamaya … özen gösterin*) are three instances. Lexical negatives and *-sIz* included: without them the rates are 13.35 (horoscope) and 5.54 (control) per 1,000. Valence test: PROB, REAS and NPRED are separated by whether the addressee would prefer the affirmative; this judgement is the main source of medium-confidence codes. ASCR against NONEX: attributive negatives describing a participant's state, ability or experience, or evaluating a referent as deficient, are ASCR; attributive negatives that only register absence are NONEX; technical astrological attributes (*Venüs'ün rahat hissetmediği burç*) were coded NONEX. Voiced speech: 47 instances occur in speech the astrologer puts in the addressee's mouth; they are coded for what the voiced utterance does (REJ, ASCR) and marked V. Purpose clauses (*-mAmAk için*) are coded by the act they support.

7. Revisions during annotation (all applied retrospectively)

(a) NPRED introduced after the first thirty rows. (b) PART and ALT introduced during AST-IG-16 to 30; earlier texts rechecked. (c) A first label WARN (unfavourable prediction) widened to PROB to cover past and present diagnoses. (d) *rahatsız* reclassified as lexicalised. (e) ASCR first defined as ascription to the addressee, redefined on reaching the control as any backgrounded negative; addressee orientation is carried by

the field second_person_in_window. (f) At adjudication: *uzak durmak/kalmak* as LEX only in the avoidance sense; ASCR/PROB/PART decision tree (Section 3).

Categories considered and rejected: a single implicit-denial category (it would have absorbed COR, ADD, REAS and most of HEDG, 133 of 693 horoscope instances, which pass different tests); a separate unexpectedness category (its members fail no ASCR test); a gnomic category; a purpose/avoidance category; tense-based prediction categories (tense is already a field).

8. Fields in the data file

instance_id; text_code; subcorpus; token_index; negated_string; context (13 tokens before, 10 after); status; exclusion_reason; formal_type; scope_constituent; host_mood_tense; person; reported_speech (0 / R reported / V voiced); formulaic; multiple_negation; npi; functions; primary_function; n_functions; confidence (H/M/L); expectation_source (C/W/N); source_internal_recycling; second_person_in_window (mechanical flag); note.