Predicates of inquisitive emotion and distributivity at the clausal level

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There are two types of approaches in the literature to analyze responsive predicates, i.e., clause-embedding predicates that are compatible with both declarative and interrogative clauses (e.g., know, be certain). According to the Question-to-Proposition (Q-to-P) reduction approach (Spector & Egré 2015, as well as many other classic papers on this topic), when a predicate V takes a question Q (formally denoting a set of propositions), "V Q" is true iff $\exists p \in Q.V(p)$. In recent years, however, Elliott et al. (2017) and Theiler et al. (2018) have argued against this canonical view and in favor of a uniform approach: a responsive predicate always semantically combines with a set of propositions and it takes a singleton set when the complement is declarative, i.e., "V that p" is true iff $V(\{p\})$. In this talk, based on data involving predicates of inquisitive emotion, such as "be puzzled" and "be intrigued" and their cross-linguistic counterparts, we argue that neither approach alone is sufficient, and propose a hybrid approach: responsive predicates uniformly combine with sets of propositions, but Q-to-P reduction is still invoked sometimes to obtain otherwise underivable readings. We will furthermore discuss implications of the analysis for an attempt to consider a parallel between distributivity at the clausal domain and at the nominal domain.

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Thinking (and *finding*) compositionally
(Submission for the special session on complementation)

Overview Cross-linguistically, the meaning of several attitude verbs depends on the kind of complement they combine with (Özyıldız, 2017; Bondarenko, 2020; Bogal-Allbritten, 2016, a.m.o.). This paper delineates a novel case of meaning alternation due to complementation: in Brazilian Portuguese (BP), *achar* can be translated as *think* or *find*, depending on the syntax of its complement. We provide a formal analysis of these facts within Bondarenko's (2022) framework, and discuss their implications for our understanding of Predicates of Personal Taste (PPTs) and Subjective Attitude Verbs (SAVs).

Data In BP, the verb *achar* is translated as *find*, when it embeds a Small Clause (SC), and as *think*, when it embeds a CP. Only in the latter case, is *achar* able to obviate the Acquaintance Inference (AI) of a PPT in its complement.[1] That is, (1a) cannot be felicitously uttered by a speaker who hasn't tried the pizza; (1b), on the other hand, could be uttered by a speaker who had indirect evidence that the pizza is tasty—say, from testimony.

(1) a. Eu **acho** [$_{SC}$ essa pizza gostosa], #mas eu nunca provei ela.
         I   ACHAR [$_{SC}$ this   pizza tasty   ], #but I   never tried   her
         'I <u>find</u> this pizza tasty, #but I never tried it.'

     b. Eu **acho** [$_{CP}$ que   essa pizza é gostosa], mas eu nunca provei ela.
         I   ACHAR [$_{CP}$ COMP this   pizza is tasty   ], but I   never tried her
         'I <u>think</u> this pizza is tasty, but I never tried it.'

There's evidence that this is not a case of ambiguity. First, one single occurrence of *achar* can be distributed over a SC and a CP (2a). Second, *achar* can be gapped. Under the widespread assumption that the meaning of an elided constituent follows from its antecedent, this fact would be left unexplained if we assumed *achar* has two distinct lexical entries.

(2) a. O João **acha** matemática divertida e   que a   escola dele é muito boa.
         the John ACHAR math   fun   and that the school his   is very   good
         'John <u>finds</u> Math fun and <u>thinks</u> that his school is very good.'

     b. O João **acha** matemática divertida e   a   Maria, que a   escola deles é boa.
         the John ACHAR math   fun   and the Mary, that the school theirs is good
         'John <u>finds</u> Math fun and Mary <u>thinks</u> their school is good.'

Proposal In line with a compositional approach to attitude verbs, we give *achar* a bare-bone semantics, treating it as a predicate of situations. We also assume SCs denote properties of situations:

(3) $[\![\text{achar}]\!]^{s,t,g} = \lambda s'_s.^{\Vdash e}\text{think}(s')$

(4) $[\![_{SC}\text{ the pizza tasty}]\!]^{s,t,g} = \lambda s'.^{\Vdash e}\text{tasty}(s')_{s,t} \wedge \text{HOLDER}(s') = \text{the pizza}$

To explain why *achar*+SC gives rise to an AI, we adopt Bondarenko's (2022) proposal, originally meant to capture a case of factivity alternation. The crux of the proposal is that *achar* combines with the SC via an argument-introducing head, Θ_{about}, whose lexical entry is given in (5). Θ_{about} takes *achar* as its first argument and an individual as its second. Since the domain of situations is a proper subset

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[1]Besides this difference in behavior wrt to the AI, *think* and *find* also differ in their selectional requirements. *Find* can only embed discretionary predicates (#I find this dish vegetarian), but *think* places no such requirements. This contrast is also true of *achar* when it embeds a SC or a CP, but for the sake of space, we focus on AI in this abstract.

of the domain of individuals ($D_s \subset D_e$), this second argument can also be a situation. Crucially, Θ_{about} <u>presupposes</u> that this entity must exist before the evaluation time t—in the case of situations, that amounts to the requirement that the left boundary (LB) of their running time starts before t.

(5) $[\![\Theta_{\text{about}}]\!]^{s,t,g} = \lambda f_{st}.\lambda x_e.\lambda s'_s : \underline{\text{LB}(\tau(x))} \prec t . f(x) \wedge \text{ABOUT}(s') = x$

Because SCs are of type $\langle s, t \rangle$, they must QR and leave a trace of type s to solve a type mismatch. That yields the (simplified) LF in (6), whose truth conditions are stated in (7):

(6) $[_{\text{SC}}$ the pizza tasty $\lambda_1 \exists [$ John $[\Theta_{\text{about}} [$ acha $t_{1,s}$

(7) $[\![(6)]\!]^{s,t,g} = 1$ iff $[\![(7a)]\!]^{s,t,g}$ & $[\![(7b)]\!]^{s,t,g} = 1$
   a. $[\exists s', s'' [^{\Vdash_e}\text{think}(s')_{s,t} \wedge \text{HOLDER}(s') = \text{John} \wedge \text{ABOUT}(s') = s'']$
   b. $\text{LB}(\tau(s'')) \prec t [^{\Vdash_e}\text{tasty}(s'')_s \wedge \text{HOLDER}(s'') = \text{the pizza}]$

These truth conditions alone don't yet guarantee that (6) gives rise to an AI: a priori, there could be a situation exemplifying the pizza being tasty that doesn't involve actually trying the pizza. This possibility, we argue, is banned by the Acquaintance Principle (Ninan, 2014, adjusted to our framework):

Acquaintance Principle (AP): A situation s' exemplifies *being tasty* iff s' is a tasting situation.

To explain why *achar*+CP obviates the AI, we assume that CPs are functions relating individuals and their propositional contents. Following Bondarenko (2022), we treat the complementizer COMP as taking two arguments, a proposition and an individual:

(8) $[\![\text{COMP}]\!]^{s,t,g} = \lambda p_{\langle s,t \rangle}.\lambda x_e : x \in dom(\text{CONT}).\text{CONT}(x) = p$

COMP combines with the proposition-denoting clause *the pizza is tasty* via FA, and then with *achar* via PM. After $\exists$-closure applies, we obtain the following truth conditions:

(9) $[\![\exists [$ John $[$ acha $[_{\text{CP}}$ COMP the pizza is tasty$]\!]^{s,t,g} = 1$ iff
   $\exists s'[\text{think}(s') \wedge \text{HOLDER}(s') = \text{John} \wedge \text{CONT}(s') = \{s : \text{the pizza is tasty in } s\}]$

This yields a straightforward explanation of why *achar* obviates the AI when it embeds a CP. When *achar* takes a CP, the attitude's content is a set of situations, none of which may be actual.

Negation. When *find* has a PPT as its complement, the AI projects through negation:

(10) I don't find the pizza tasty. $\qquad\qquad\qquad\qquad \rightsquigarrow$ The speaker has tried the pizza.

To capture this data, we treat negation as denoting a function *Neg* mapping verbal situations P to the situations that preclude P from becoming actual (Bernard and Champollion, 2018).

(11) a. $[\![\text{not}]\!] = \lambda V \lambda s.s \in Neg(\lambda s'.V(s'))$
   b. $closure = \lambda S.\exists s.actual(s) \wedge S(\lambda s'.\top)(s)$

(12) $\exists s'[actual(s') \wedge {}^{\Vdash_e}\text{think}(s')_{s,t} \wedge \text{HOLDER}(s') = \text{John} \wedge \text{ABOUT}(s') = s''] \wedge$
   $s'' \in Neg(\lambda s'''.\text{LB}(\tau(s''')) \prec t [^{\Vdash_e}\text{tasty}(s''')_s \wedge \text{HOLDER}(s''') = \text{the pizza}])]$

By moving to a system with negative situations, (10) will be true only if there is an actual tasting precluding the pizza from exemplifying tastiness as in (12).

Outlook In addition to its empirical contribution, this paper also contributes to our understanding of the semantics of SAVs and the nature of the AI. In recent work, Korotkova and Anand (2022) suggest that the transparency of the complement of *find*-verbs *follows* from a (semantically-encoded) requirement that the attitude holder have direct knowledge of the truth of this complement. We have shown, however, that the same verb can behave like *find* or like *think in virtue* of whether it combines with an opaque or with a transparent complement. That suggests that the direct-knowledge requirement is a consequence of the transparency of the complement of *find*, not the other around.

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Interpreting [+distal] complementizers as markers of Common Ground

Session: Complement Clauses

Finite complementizers are often derived from originally [+distal] elements, such as English *that* in *Sue said that/*this it is raining*. It is commonly assumed that the [+distal] feature has bleached away, and that complementizer *that* has a purely grammatical function (Lasnik & Saito 1991: 324; Rizzi 1997: 312; implicitly Huddleston 2002: 947–1030; and see Roberts & Roussou 2003: 111–116). This begs the question why a demonstrative came to be used for complementation in the first place—and the answer to this question may tell us something about how spatial concepts are used for the representation of propositional content.

Some scholars have argued that the original [+distal] feature is still relevant for the synchronic description of complementizer *that*, which allows for a more economical, polysemous description (Bolinger 1972; Yaguchi 2001; Dor 2005; Staps & Rooryck forthcoming). In this presentation we show that this argument generalizes to other language families, using Biblical Hebrew (BH) as an example. The originally [+distal] BH complementizer *kī* 'that' can be used in a wider variety of contexts than English *that*, and thus provides a good test for the hypothesis that [+distal] is relevant in the synchronic description of these finite complementizers. We show that the functions of BH *kī* can indeed be reduced to a [+distal] feature.

BH *kī* is typically described as a clausal connective introducing complement clauses (1), causal clauses (2), temporal/conditional clauses (3), concessive clauses (4), adversative clauses (5), or expressing emphasis (6):

(1) *wattahar   wattēre'   **kī**   hārāṯā*
     and.conceive.PRET.3F.SG and.see.PRET.3F.SG COMP conceive.PERF.3F.SG
     '... and she conceived, and she saw **that** she had conceived.' (Genesis 16:4)

(2) *məšol   bā-nū   ... **kī**   hōšaʿtā-nū   miy=yaḏ   miḏyān*
     rule.IMPV.2M.SG in-1PL ... COMP save.PERF.2M.SG-1PL from=hand Midian
     'Rule over us, **for** you have saved us from Midian's power.' (Judges 8:22)

(3) ***kī**   yiṗəḡāšə-ḵā   ʿēśāw ... wə=ʾāmartā*
     COMP meet.IMPF.3M.SG-2M.SG.OBJ Esau ... and=say.PERF.2M.SG
     '**If/When** Esau meets you ..., you must say: ...' (Genesis 32:18)

(4) ***kī**   ḡāḇərū   ʿālē-nū   ... wannihye   ʿālē-hem   ʿaḏ*
     COMP be_strong.3PL over-1PL ... and.be.PRET.1PL over-3M.PL until
     peṯaḥ   haš=šāʿar
     opening.of the=gate
     '**Though** they overpowered us ... we forced them (back) to the gate.' (2 Samuel 11:23)

(5) *wayyōreš   ʾeṯ hā=hār **kī**   lō'   lə=hōrīš   ʾeṯ*
     and.conquer.PRET.3M.SG OBJ the=hill COMP NEG to=conquer.INF OBJ
     yōšəḇ-ê   hā=ʿēmeq
     dwell.PTCP-PL.of the=valley
     '[Judah] conquered the hills, **but** couldn't conquer the people of the plains' (Judges 1:19)

(6) *ḥay   yhwh   **kī**   bən-ē   māweṯ ʾattem*
     life.of Yahweh COMP son-PL.of death 2M.PL
     'By the life of Yahweh, (**that**) you are dead men**!**' (1 Samuel 26:16)

BH *kī* is etymologically related to Proto-Semitic **ka*, a [+distal] morpheme also used in demonstrative pronouns and various adverbs (Lipiński 2001; Hasselbach 2007). Previous scholars have tried to link the functions of *kī* to deixis in general (Muilenburg 1961; Schoors 1981), but not to distal deixis specifically, and have not been able to explain all uses of *kī* in this way. We show that a comprehensive analysis can be provided with reference to a [+distal] feature.

In particular, as shown in Staps & Rooryck (forthcoming) for [+distal] complementizers in Germanic and Romance, we argue that a [+distal] feature in the left periphery is interpreted as referring to the Addressee (A), who is "far" from the Speaker (S). A clause is marked by [+distal] *kī* when it contains information known to or easily accommodated by A: information that is in, or easily added to, the Common Ground (CG; e.g. Stalnaker 1978; Clark 1996). For example, a comparison with other finite complementation structures shows that *kī*-complementation (1) is specifically used when the complement is already in the CG. This is especially clear in (1), where the proposition *she has conceived* has been introduced in the previous clause. Likewise the cause in (2) can be backgrounded because its information content (*you have saved us...*) is already known to A. A conditional clause (3) can be seen as creating a hypothetical CG in which the consequences of a proposition can be evaluated by S and A (and temporal clauses are similar). A concessive clause (4) necessarily refers to background information in the CG. In (5), it is clear from context that Judah aims to conquer the whole country; therefore the question whether he conquers the people of the plains is already under discussion. We see the concessive interpretation as contextually derived. Finally, emphatic *kī* (6) forms exclamatives, which refer to presupposed information in the CG (Zanuttini & Portner 2003). In this way, these widely varying uses of *kī* can all be related to Common Ground, and hence to [+distal]; the difference in interpretation is derived contextually.

Many of the functions of *kī* are expressed by parallel [+distal] elements in other languages, such as German causal *da* 'there, since' and English concessive *though* (containing the PIE demonstrative **to-*). The fact that humans reason about discursive notions like Common Ground in spatial terms fits in a wider pattern of the repurposing of spatial categories for concepts like time and causation, and suggests that space is a cognitive primitive.

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Depictive manner complements

Complement clauses introduced by manner *wh*-words like English *how* and German *wie* are, first of all, manner interrogatives or free relatives asking for, or indicating, manners – pure manners as well as instruments and methods, see (1). In addition to their regular manner reading, they exhibit a non-standard reading which is close, though not fully equivalent, to declarative complements introduced by *that / dass*, see (2). The two readings can be distinguished by, e.g., adding *namely*-continuations, which are appropriate with regular manner complements but less so with non-standard ones, cmp. (1) / (2). Other means of disambiguation are stress – regular manner readings allow stress on the *wh*-word while non-standard readings do not – and additional manner adverbs in base position, which are not appropriate in regular manner complements (??*Frieda saw* HOW *George skillfully repaired the bike*).

Regular manner reading
(1)   Frieda asked / remembered / saw / told me how George repaired the bike.
                                            […namely with a special wrench].
Non-standard/depictive reading
(2)   Frieda remembered / saw / told me how George [skillfully] repaired the bike.
                                            [???namely with a special wrench].

In this talk, the focus is on the non-standard reading of manner complements, which we call *depictive* for reasons to be explained below. This reading is attested in a large number of languages, including English, German, French, Russian, Basque, and many more. The broad range of languages is strong evidence against the assumption of homonymy – it seems no coincidence that manner *wh*-words can take the role of (near) neutral complementizers raising the question what is special about the concept of manner supporting this role.

    It has been suggested that manner *wh*-words in non-standard readings are declarative complementizers resulting from a grammaticalization process, see van Gelderen (2015), see, also Liefke (2021) for an ambiguity based semantic analysis. However, non-standard readings of manner complements are not fully equivalent to declarative complements. Speakers agree that they include an additional vividness effect inviting the addressee to imagine a scene or process depicting the complement's content. If you ask German native speakers about (3), they will report a scene or process in which Alec kills one of his bodyguards. For English, Nye (2013) suggests that non-standard readings convey *narrativity* (which has also been suggested for French *comment* clauses by Defrancq 2009): While the use of *that* in (4) involves the simple recollection of the fact of her blushing, the use of *how* indicates that "what is recalled is not only this simple fact, but also additional details or particular idiosyncrasies of this blushing." (Nye 2013, p.175). Likewise, McCormick (2018) argues that *how*, in contrast to *that*, "personalizes the message, inviting the interlocutor into the speaker's subjective perspective". (McCormick 2018, p.21). In (5), for example, the addressee is invited to witness Boehner's encounter with the pope.

(3)   Sie änderte ihre Meinung über Alec, als sie sah, wie er kurzerhand einen seiner Bodyguards tötete, weil er ihn des Verrats verdächtigte.
       'She changed her mind when she witnessed Alec killing one of his body guards because he suspected him of betrayal.'

(4)   I remembered how she used to blush whenever I said "I love you".

(5)   John Boehner […] got quite emotional earlier this afternoon when he said how the Pope pulled him aside and asked him to pray for him.

This paper focuses on the semantics of non-standard uses of manner complement clauses, as in (2) - (5). How do they differ from regular manner complements, on the one hand, and from declarative complements, on the other hand? And what is the source of the vividness effect induced by these complements?

    A semantic analysis is proposed according to which, contrary to appearance, the manner *wh*-words in the two readings uniformly denote manner modifiers. Different from common

situation/event semantic accounts, manners are not considered as primitive entities but instead as classes of situations that are similar (with respect to relevant features). Similarity is implemented by generalizing degree semantics from 1-dimensional metric scales to n-dimensional spaces with scales of arbitrary scale level.

As for syntax, we follow Legate (2010) in assuming that, while in regular manner complements *wh*-words are base-generated within the VP, in non-standard complements they are base-generated in the left periphery. This difference in syntax has a serious consequence in semantics: When base-generated in a low position, manner *wh*-words modify the situation type (or event type) by intersection. But when base-generated in a high position, situation types are no longer available for modification, and thus a manner *wh*-word in a high position can only modify the respective token in an appositive way.

The semantic analysis of manner complements in their regular and in their non-standard reading is demonstrated in (6) and (7). The two readings differ in their ontological type: The regular reading yields a manner object while the non-standard reading yields a situation (this is accounted for by silent determiners Δ_M and Δ_S rsp.). The variable $\mathcal{M}_{SIM}$ represents a manner similarity class (introduced by a similarity interpretation of *how*). In (6), due to the low base position of the *wh*-word, $\mathcal{M}_{SIM}$ combines with a set of bike-repairing situations, i.e. a situation type. In (7), however, it combines with a single situation, i.e. a situation token. Note, that $\mathcal{M}_{SIM}$ in (7) comes with the additional constraint that the situation token is minimal (in the sense of Kratzer), so every other element in the similarity class extends the situation described in the complement.

(Frieda remembered) how George repaired the bike.

(6) $[[[_{DP} \Delta_M [_{CP} how_{LOW\_i} [_{C'} \varnothing [_{VP} \text{George bike-repair } t_i]]]]]]$
     $= \lambda s. \iota\mathcal{M}_{SIM}. \text{ag}(s, \text{george}) \ \& \ \text{bike-repair}(s) \ \& \ \mathcal{M}_{SIM}(s)$

(7) $[[[_{DP} \Delta_S [_{CP} how_{HIGH} [_{C'} \varnothing [_{VP} \text{George bike-repair}]]]]]]$
     $= \iota s. \text{ag}(s, \text{george}) \ \& \ \text{bike-repair}(s) \ \& \ \mathcal{M}_{SIM}(s) \ \& \ \forall s' \in \mathcal{M}_{SIM}(s). \ s <_{part} s'$

According to this analysis, non-standard manner complements differ from regular manner complements in that modification by the *wh*-word affects the situation token instead of the situation type. The idea that a manner *wh*-word non-restrictively modifies a token appears highly trivial at first sight – you can always think of a manner modifying a given token. It is this trivial modification, however, that explains why non-standard manner complements exhibit a vividness effect while genuine declarative complements do not: The use of *how* instead of *that* invites the addressee to fill in additional details regarding the manner of the described situation.

Finally coming back to the notion of depiction – we call non-standard manner complements *depictive* because the modification in the non-standard case precisely meets Clark's (2016) requirements for depictions: it is appositive and it makes use of similarity. Unlike iconic depictions there is no gesture serving as a "depictor", there is only the *wh*-word. This is why non-standard-manner complements convey the impression that the addressee herself has to fill in additional details. One might argue that she can also do that in the case of declarative complements, and, yes, she is free to do so, but she is not explicitly invited. It is the invitation to form an image – to think of ways the situation could have been – that distinguishes non-standard manner complements from declarative complements and makes them depictive.

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Action-oriented apprehensives and the embedding of negative purpose adjuncts

1. Question and scope. Verbs of fearing are robust selectors of expletive negation (ExN) complement clauses across languages, including French *craindre* ('fear') (1).

(1)   Je crains qu'il **ne** se fasse mal. – 'I fear that he might hurt himself.'

We propose that ExN-complements to verbs of fearing descend from Latin negative purpose (aka. apprehensional) adjuncts. We show that sentences with verbs of fearing can receive an action-oriented reading or a mere-fear reading (extending Hare (1971)'s distinction for *want*), and, based on the manual annotation of a custom-made corpus (relying on the BFM2022 corpus of Medieval French (c. 10th-16th century) and the GGHF corpus for Modern French (c. 16th-20th century)), we establish that: (i) in Medieval French, *ne* appears only with the action-oriented reading of *craindre* and *douter*, and (ii) it can appear with the mere-fear interpretation of *craindre* in Modern French. We newly argue that (i) *ne* introduces a final clause in Latin and Medieval French with an action-oriented reading of *craindre*. (ii) Both as a complementizer in Latin and as part of the mood projection in Medieval French, *ne* bears universal quantification over a teleological modal base. (iii) In Modern French *ne* can introduce non-at-issue preferential content with mere-fear *craindre*.

2. Data. 2.1. Action oriented and mere-fear interpretation of *craindre*. Present-Day French *craindre* can receive an action-oriented reading or a mere-fear reading. Just as with modals (2-a)-(2-b), the action-oriented reading arises with embedded eventives, see (3-a), and the mere fear reading (akin to the epistemic reading of modals), arises with embedded statives, see (3-b).

(2)   a.   He must get a bus ticket. (eventive prejacent, goal-oriented reading of *must*)
         b.   He must be sick today. (stative prejacent, epistemic reading of *must*)

(3)   a.   Je crains qu'elle n'arrive en retard. (eventive prejacent, action oriented *craindre*)
                'I'm afraid that she'll be late.'
         b.   Je crains que Marie soit la coupable. (stative prejacent, mere-fear *craindre*)
                'I fear that Mary is the culprit.'

Furthermore, with an action-oriented reading, *craindre* can embed deontic necessity modal (*devoir*) (4-a), a landmark of non-epistemic attitudes (see Anand & Hacquard, 2013). With the mere-fear reading, the deontic reading of the necessity modal is not allowed, see (4-b).

(4)   a.   Si tu oublies le lait dehors, je crains qu'on ne doive^deontic le jeter.
                'If you forget the milk outside, I'm afraid that we'll have to throw it away.'
         b.   Je crains que mon chien #doive^deontic être malade, parce qu'il aboie de manière excessive.
                'I fear that my dog has to be sick, because he barks excessively.'

2.2 Diachronic data. (i) In **Latin**, *ne* is found in both embedded (5) and non-embedded contexts (6).

(5)   Timui   ego, **ne** me   poetam   vocaret.
        fear-PFV.1SG me   *ne* PRO.1SG.ACC poet-ACC call-3SG.IPFV.SBJV
        'I was afraid lest he would call me a poet.' (satyricon, WoPoss)

(6)   non in die   festo   **ne** forte   tumultus   fieret   populi
        NEG in day-ABL feast-ABL *ne* perhaps tumult-NOM happen-2SG-SBJV people-GEN
        'Not during the feast [killing Jesus], lest there be an uproar among the people.' (mk14_02, WoPoss)

(ii) **Medieval French** is an important case in point, as ExN is attested with *craindre* (7) as well as with *douter* ('doubt') (8), which only feature an action-oriented reading.

(7)   mult criem   que **ne**   t'   em perde
        much fear-1SG that ExN 2SG PRO lose-1SG.SBJV
        'I'm afraid that I'll lose you [God]' (1050-AlexisRam, p.30, BFM2022)

(8) nous doutons   qu' ele **ne**   vous   face   mourdrir
  2PL doubt-3SG that 3SG ExN PRO-2PL make-3SG.SBJV die
  'we are afraid that she'll cause you to die' (1260-menreims, p.2, BFM2022)

(iii) By 1600, *craindre* develops a mere-fear reading, (9), and *douter* becomes an epistemic attitude with a dubitative reading. With them, ExN is not attested.

(9) Il   craint que vous soyez   en colere contre luy
  he fears that you be-2PL-SBJV in anger against him
  'He fears that you are angry with him' ('because of the fault he has made') (1610-Astree, GGHF)

(iv) In Present-Day French, *ne* is optional with the mere-fear interpretation of *craindre*.

(10) Je crains que Marie (**ne**) soit malade. ('I fear that Marie is sick.')

3. Analysis. Focusing first on Medieval French, we propose that ExN-complements to verbs of fearing with an action-oriented reading are negative purpose clause (in order to $\neg p$). We assume that 'ne' is a negative marker which is part of the mood projection and, in line with Kratzer (2016), Sisovics (2018), we endorse that mood can introduce universal quantification over modal bases. In our analysis (11), the complementizer 'que' plays no semantic role ($M(i)$ is the epistemic modal base and w_0 the actual world):

(11) $[\![\text{ne}]\!]^{M,i,\text{GOALS}} = \lambda w.\lambda p.\forall w' \in \text{GOALS}(\mathbf{M}(i), w_0) : \neg p(w')$

We endorse a double-layered analysis of the attitudes whereby uncertainty is represented as a partitioned $M(i)$ (also explaining the licensing of the subjunctive) and the verb of fearing introduces a universal quantification over a restricted set of worlds in $M(i)$ that comply with the fears of i in the actual world w_0. *ne*-clauses introduce a layer of modality, as follows:

(12) $[\![i \text{ fears}_{\text{ACTION-ORIENTED}} \text{ that } p]\!]^{M,i,\text{FEARS,GOALS}}$ is defined if $M(i)$ is partitioned between p and $\neg p$ worlds (uncertainty). If defined, $[\![i \text{ fears}_{\text{ACTION-ORIENTED}} \text{ that } p]\!]^{M,i,\text{FEARS,GOALS}} = 1$ iff
  $\forall w' \in \text{FEARS}(M(i), w_0): \forall w'' \in \text{GOALS}(M(i), w')): \neg p(w'')$

4. The diachronic path. 4.1 Latin We propose a unitary view of embedded (5) and non-embedded (6) contexts, where 'ne' is by itself a subordinating operator (11), akin to the 'lest' morpheme, see Lichtenberk (1995) (see also AnderBois and Dabkowski (2020)) (and involving a silent bouletic attitude in (6), à la Condoravdi and Lauer (2008), roughly, 'I want, so that $\neg p$'). In the path from Latin to Medieval French, *ne* only maintains its mood value and is no longer a complementizer. **4.2. Present-Day French** In Present-Day French the use of ExN can be generalized to the epistemic reading. We submit that, in this context, *ne* looses its plain modal meaning and becomes non-at-issue, expressing mere dispreference (see Yoon, 2011).

(13) $[\![i \text{ fears}_{\text{MERE-FEAR}} \text{ that } p]\!]^{M,i,\text{FEARS,GOALS},w}$ is defined if $M(i)$ is partitioned between p and $\neg p$ worlds (uncertainty). If defined, $[\![i \text{ fears}_{\text{MERE-FEAR}} \text{ that } p]\!]^{M,i,\text{FEARS,GOALS},w} = 1$ iff
  $\forall w' \in \text{FEARS}(M(i), w_0) : p(w')$
  NON-AT-ISSUE Non-fear worlds are preferred to fear worlds.

5. Comparison with previous approaches. In spite of the many recent advances cross-linguistically, as far as we can see, the distinction between the action-oriented from the fear-oriented interpretation has not been previously identified (neither by syntactic approaches Espinal, 2007; Greco, 2018) nor by pragmatic ones (Yoon 2011; Delfitto et al., 2019). Our work thus shed new light on the unitary meaing of *ne* in embedded and unembedded contexts, as well as its distributions across these two interpretations.

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Modal object referring noun complement clauses: Uniqueness and how to circumvent it

This paper argues that the default case for so-called noun complement clauses like *the belief that S* is to refer to a single and unique modal object (in the wider sense of Moltmann *forthcoming*). In German, uniqueness is imposed by a silent weak definite head the CP. Deviations from uniqueness are marked by a more complex syntactical structure. The paper will deal with recent objections to the uniqueness approach.

So-called noun complement clauses (NCCs) have been assumed to play the role of appositions or predicates, rather than complements (e.g. Moulton 2009, de Cuba 2017), evidenced by their ability to enter predicational or specificational structures as in *That S is a fact* or *My belief is that S*. They are however special, in that they usually resist indefiniteness and quantification, cf. **a/two facts/beliefs that S*.

We adopt this approach, specifically the close apposition, approach for one type of NCCs, henceforth U(nique)CCs (cf. Hankamer & Mikkelsen 2021, Müller *to appear*). CPs exhibit a nominal nature across languages (e.g. Roussou 2020, Faure 2021, Müller *to appear*) and it has been proposed that NCCs are headed by a weak definite head in the sense of Schwarz (2009) that ensures uniqueness (Faure 2021, Hankamer & Mikkelsen 2021). The abovementioned facts play together, if we assume that that-clauses need to refer to unique entities and UNCCs are coreferential with their head noun, so construction inherits uniqueness from the property of the that-clause and as a consequence, indefiniteness and quantification are barred. This is shown by two ways the noun *Fall* 'case' can combine in German (cf. Moltmann 2019): when *Fall* is followed by a relative clause, quantification over individual cases is preferred, (1a), but when it is followed by a that-clause, quantification over occurrences of a unique case marked by a definite is preferred, (1b).

(1) a. Wir hatten zwei Fälle, in denen jemand ausgefallen ist.
'We had two cases in which someone cancelled.'
b. Wir hatten zweimal den Fall, dass jemand ausgefallen ist.
'Twice we had the case that someone cancelled.'

However, this kind of approach has been recently challenged by Srinivas & Legendre (2022), who themselves assume the weak definite to be semantically vacuous in constructions with creation verbs as in (2a). Two issues for unique reference are raised: (i) they argue that in sentences like (2b) the existence of the claim is not presupposed, but negated at-issue and *the claim that S* does not refer at all; (ii) that in sentences like (2c) *the decision that/whether S* can refer to two different decisions, in the case of *whether* a positive and a negative one.

(2) a. John makes the claim/decision that S.
b. John did not make the claim that S.
c. After the interview, Anthony and Sara both (independently) made the decision that/whether Martha should be hired.

We follow Aguilar-Guevara (2014) in assuming that weak definites refer to unique kinds. We can make 'the same claim' as someone else, and this claim maybe 'widespread' or 'common', illustrating its nature as a kind. What is the contribution of *make* then? The comparison with the ordinary full verb *make* sheds light on its difference from other verbs of creation. In both (3a) and (3b), *the new Model F* can refer to a kind of car, but they differ in that *make* takes this model to be preexisting and describes the process of making instantiations of it, whereas in (3b) it is truly created as new, but no instantiations are necessarily made.

(3) a. The make the new Model F here.   → possibly created elsewhere
    b. The create/design the new Model F here.   → possibly made/manufactured elsewhere

Thus, we posit that in *make the claim that S*, *make* takes a preexisting unique kind of claim as an argument and creates an instantiation of it. Thus, you can quantify over the event of instantiation creation, as in *I often made the claim that S*, but not over the kind itself, cf. *#Hara and Mara made the claims that S*. That we can use referential expressions for non-existent objects as in *did not make the claim*, cf. *that S is a claim that no one ever made*, is a fact tackled by Meinongians (e.g. Priest 2005) and which lies orthogonal to our interests here. Similarly to *claim, the decision that S* in (2c) refers to a unique kind of decision even if it is individually 'made' at different times.

Uniqueness can be circumvented, however, if a preposition mediates between the noun the uniquely referring CP (cf. Hankamer & Mikkelsen 2021 for Danish *om*). We call this type ANCC. The function of these prepositions is diverse. For instance, we can talk about *mehrere Fälle von Covid* 'several cases of Covid' and German has corresponding PPs that incorporate a pronominal element as in *mehrere Fälle davon, dass S* 'several cases there.of that S'. Other nouns exhibit fine-grained distinctions as *der Glaube, dass S* 'the belief that S' vs. *der Glaube daran, dass man genug hat* 'the belief in having enough'. Specifically, Müller (*to appear*) shows that these PPs are responsible for quasi-argumental readings of ANCCs, where the NCC is not described by the head noun, but rather refers to an argument of it, as *in der Beweis (dafür), dass S* 'the proof (for the fact) that S', which allows us to uphold the assumption that the noun itself does not assign case or theta-mark (cf. Stowell 1981, Kayne 2008). Importantly, the complete prepositional adverb (e.g. *dafür, davon*) can be dropped in German, while the preposition + NP can be dropped in English (e.g. *for the fact*). As (4) shows, quantification forces an ANCC over a UNCC reading even if the PP is dropped.

(4) Kant adduces two reasons [for the assumption] that aesthetic ideas deserve their name (from COCA, […] added)

This extends further to non-finite NCCs as in (5):

(5) a. Es gab immer noch die Möglichkeit, die Flasche zu öffnen.   UNCC
       'We still had the possible option of opening the bottle.'
    b. Es gab mehrere Möglichkeiten (dafür), die Flasche zu öffnen.   ANCC
       'There were several possible ways to open the bottle.'

This brings us to Srinivas & Legendre's (2022) second objection to uniqueness, namely where *the decision whether S* is compatible with two different decisions. In this case, it might be unreasonable to assume that *whether S* refers to a unique kind of decision. However, we show that this is actually a case of an ANCC. In English, prepositions can be dropped alone if the NCC is finite and not introduced by *that*, cf. *several reasons/explanations/theories (for) why you should do this*. Not only does *the decision whether* appear in at least two prepositional variants, *the decision of whether* and *about whether*, but those two together are more frequent than the bare NCC in COCA (142+271 vs. 369).

In summary, this paper defends the uniqueness approach to NCCs taking them to be headed by weak definites that refer to unique kinds and showing that deviations can be analyzed as ANCCs such that an (overt or silent) mediating preposition prevents co-referentiality between the unique NCC and the head noun, thus circumventing the uniqueness restriction.

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Noun-complement clauses and structural relations in DP

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Short abstract

This paper approaches the syntax of so-called noun-complement clause constructions (e.g., *the claim that he lied*) from the perspective of a general hypothesis that holds that clausal subordination uniformly involves a predication relationship between two phrasal terms. For noun-complement clause constructions, these terms are the NP (the predicate) and the clause, connected within the maximal nominal structure by a functional head (a RELATOR). The empirical component of the discussion of the syntax of noun-complement clauses will be focused on novel data from Dutch. In an extension of the central proposal to the syntax of clauses traditionally analysed as complements to P or V, a central role will be shown to be played by proleptic pronouns (like the *it* of *I am sure of it that he lied* and *I hate it that he lied*).

Biosketch

Marcel den Dikken (*1965) received his MA in English language and literature in 1988 and his PhD in linguistics in 1992, both from the University of Leiden, in the Netherlands. Since 2015, he has held a dual appointment as a Research Professor at Eötvös Loránd University and as a Senior Researcher at the Hungarian Research Centre for Linguistics in Budapest, Hungary. From September 1998 to September 2015, he was a Professor on the faculty of the PhD and MA Program in Linguistics at the CUNY Graduate Center in New York City. He has also held appointments at the Vrije Universiteit Amsterdam, the University of Groningen, and Tilburg University, and has served the University of California at Los Angeles, the Université de Paris VII, the Meertens Institute of the Royal Netherlands Academy of Arts and Sciences, and Seoul National University as a Visiting Professor.

 Den Dikken is the author of the monographs *Particles* (1995), *The structure of the noun phrase in Rotuman* (2003), *Relators and linkers* (2006), and *Dependency and directionality* (2018), and co-author of *Syntax of Dutch: Nouns and noun phrases* (Vol. 2; 2012). He has published well over 100 articles in peer-reviewed journals and edited volumes and encyclopedias, and is (co-)editor of several volumes and special issues of journals. His research covers a wide variety of aspects of syntax and its interfaces with morphology and semantics.

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