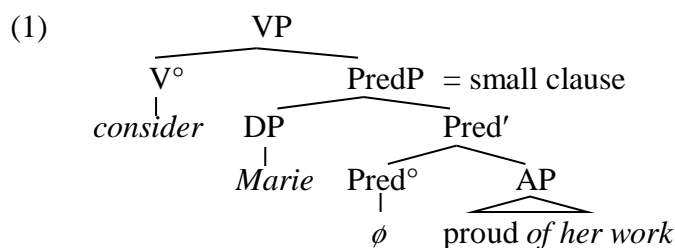# AGAINST PREDP

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1 Introduction

Whereas Stowell 1981, 1983 analyzes small clauses (minimal units of predication) as maximal projections of the head of the predicate (i.e., as APs, PPs, etc.), Bowers 1993, 2001 argues that this is not enough and predication must be mediated by a functional head (Pred°), which has both a semantic and a syntactic function:

(1)

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                    VP
        ┌───────────┴─────────┐
        V°                    PredP   = small clause
        │              ┌────────┴──────┐
    consider          DP              Pred′
                       │        ┌───────┴──────┐
                     Marie    Pred°            AP
                              │            ┌────┴────┐
                              ∅          proud of her work
```

Bowers' motivation for this proposal was mostly theoretical, but some empirical evidence was also provided. However, as I will argue below, this conclusion, although widely accepted by now, is not, on closer examination, supported by linguistic evidence that has been adduced in its favor and theory-internal arguments for it either have become obsolete or may be counted by an alternative explanation.

2 Theoretical Evidence for PredP

The first, most frequently cited argument for the existence of a functional head in small clauses comes from coordination. While it is generally impossible to coordinate maximal projections of different lexical heads (a constraint from Chomsky 1957 that Williams 1981 terms the Law of Coordination of Likes), coordination of small-clause predicates is possible (Sag et al. 1985):

(2)   a. I consider Fred crazy and a fool.

      b. I consider Mary both shrewd and in the know.

Bowers proposes that the Law of Coordination of Likes can be explained by the impossibility of assigning a label to the constituent formed by the coordination of projections of X° and Y°. The fact that small-clause predicates can be coordinated suggests therefore that they belong to the same category, and postulating a functional head heading the small clause resolves the issue.

Two objections can be raised to this line of argument. On the one hand, most recent takes on coordination hypothesize that a constituent containing coordination is actually a projection of the coordinating word (CoordP), which may, for instance, assign case to the second conjunct. On the other hand, as already noted in Maling 1983 (citing Dik 1968 and Peterson 1981), projections of different lexical heads may in fact be coordinated in cases of adverbial modification (3), which suggests that the prohibition is semantic (see Whitman 2004 for a proposal):

(3)   The surgeon operated slowly and with great care.

Further theory-internal arguments in favor of having a functional head in small clauses come from Svenonius 1994: this hypothesis can account for two of Williams' (1983) objections against small clauses: prohibition against moving segments and multiple specifiers. First of all, as shown by (4), the small clause predicate can move to [Spec, CP], which makes it a maximal projection, as in the structure in (1). Conversely, in Stowell's analysis, the predicate of the small clause is assumed to be an X′, which is generally assumed to be unable to move.

(4)   a. What does John consider Bill?   Svenonius 1994:29

      b. How do you want your eggs?

      c. How famous did the incident make the criminal?

Setting aside the fact that arguments for the prohibition against moving X′-constituents may by now have become obsolete and the prohibition itself is unfalsifiable given the proliferation of functional projections, there exists nevertheless an alternative analysis that can derive examples like (4) without assuming that a segment is moved. Indeed, on the assumption that the subject of the small clause has to move into [Spec, VP] (i.e., the Raising-to-Object analysis of Postal 1974, see Runner 2006 for discussion) such examples can be analyzed as involving the movement of the entire small clause.

Williams' second objection to Stowell's proposal is that DP predicates may have specifiers (5a), which would render this position unavailable for the small-clause subject. Likewise, in comparatives (5b), [Spec, AP] is often assumed to be filled by DegP (Bowers 1975, Jackendoff 1977, Heim 2000, Bhatt and Pancheva 2004, etc.; for the hypothesis that Deg° takes AP as its complement see Abney 1987, Bowers 1987, Corver 1990, 1991, 1997a, b, Matushansky 2013), similar theories have been advanced for measure phrases appearing in PPs (5c). If small clauses are projections of a functional head (Pred°), [Spec, PredP] can host the subject.

(5)   a.   I consider Josiah **my** best friend.

b.   Ayelet seems **much** smarter **than her friends**.

c.   Set the pole **15 inches** to the right.

However, the theory-internal prohibition against multiple specifiers has become obsolete by now: Chomsky 1995 assumes multiple specifiers in order to deal with *there*-insertion; to enable movement out of the vP phase (Chomsky 2000) it is necessary to postulate that vP has specifiers in addition to the thematic specifier hosting the subject; multiple CP specifiers are required in order to account for multiple wh-fronting (Rudin 1988). I conclude that nothing precludes the merger of small-clause subjects into the specifier of the predicate itself.

3   Empirical Evidence for Pred°

The assumption that small clauses are projections of a functional head would not require theory-internal motivation if direct or indirect empirical evidence for this head can be provided. Two types of cross-linguistic data have been brought up as such evidence: overt realization of Pred° and its ability to assign case. The canonical instance of the former, first mentioned by Bowers 1993, is the Welsh copular particle *yn* (6). The hypothesis that the Russian instrumental case on predicates is assigned by Pred° (7) has been proposed by Bailyn and Rubin 1991 and applies to other instances of predicative case. We will examine the two in the next sections.

(6)   a.   Mae   Siôn   *(yn)   ddedwydd.   Welsh (Rouveret 1996:128)
           is   Siôn   PRT   happy

'Siôn is happy.'

b.   Y   mae   Siôn   yn   feddyg.
     PRT   is   Siôn   PRT doctor

Siôn is a doctor.

(7)   a.   Ja   sčitaju   ee   lingvistkoj.   Russian
           I   consider.1SG her.ACC   linguist.INS

'I consider her a linguist.'

b.   Ona   vernulas'   krasavicej.
     She   came back   beauty.INS

'She came back a beauty.'

Finally, *as* and *for* in examples like (8) (e.g., Emonds 1985, Aarts 1992, Bowers 1993, 2001, den Dikken 2006) and their cross-linguistic equivalents (Bailyn 2001, 2002 for Slavic, Eide and Åfarli 1999 for Norwegian) have been hypothesized to lexicalize Pred°:

(8)   a.   Mary takes John **for** a fool.

b.   Jessamine views her mother **as** her best friend.

We set them aside here but see Marelj and Matushansky 2010, [to appear] for evidence that this hypothesis is not supported by data for English, Russian and Serbo-Croatian.

3.1   Predicative Case as a Non-Argument for Pred°

In a number of languages NP and sometimes AP predicates are systematically case-marked: with instrumental in Russian (7), with accusative in Arabic (9), with dative in Hungarian (10), etc. As in the generative framework case is assigned by a functional head, the question arises which head assigns predicative case, and Pred° fits the bill perfectly, as it is local enough for the small-clause subject to not act as an intervener.

(9) a. salma   ʕayyanat   walad-a-ha   wazir-an.   Arabic
         salma   nominate.CAUS-PRF   child-ACC-her   **minister-ACC**

    'Salma nominated her child to be a minister.'

   b. walad-u-ha   ʕuyina   wazir-an.
      child-NOM-her   nominate.PASS-PRF   **minister-ACC**

    'Her child was nominated to be a minister.'

(10) a. Az   anyja   tanárnak   tanítatja   Pétert.   Hungarian
         the   mother-his   **teacher-DAT**   learn-make   Peter ACC

    'His mother makes Peter learn to become a teacher.'

   b. A   lány-om-at   elnök-nek   jelölt-em.
      the daughter-1SG-ACC   **president-DAT**   nominated-1SG

    'I nominated my daughter president.'

However, as shown by Matushansky 2010, 2012a, the actual distribution of predicative cases is considerably more complicated and argues in fact against the hypothesis that they are assigned by Pred°. First of all, predicates also surface with nominative; in Russian and Arabic (11) it is the only option in present tense copular clauses. Matushansky 2010 provides evidence that Russian nominative-marked post-copular NPs and APs are indeed interpreted as predicates:

(11) a. Vera   assistent/*assistentom.   Russian
         Vera   assistant.NOM/INS

    'Vera is an assistant.'

   b. Zaydun   waziirun/*waziiran.   Arabic, Maling and Sprouse 1995
      Zaydun-NOM   minister.NOM/ACC

    'Zaydun is a minister.'

A further problem for the hypothesis that Pred° assigns case is the fact that in a number of languages predicates are marked with a number of oblique cases (e.g., in Finno-Ugric (12)-(13)), in function of the environment the small clause appears in: thus in Finnish secondary predicates

are marked translative if the embedding verb is a change-of-state one and essive if it is not (Fong 2003).

(12) Hungarian

  a. A   béka   királyfi-vá vál-t.   *Kenesei et al. 1998:201*
     the frog-NOM   prince-TRS change-PAST.3SG

    'The frog turned into a prince.'

  b. A katoná-t   mindenki   halott-nak   hi-tte.   *Kenesei et al. 1998:203*
     the soldier-ACC   everyone.NOM dead-DAT   believe-PAST.3SG

    'Everyone believed the soldier to be dead.'

(13) Finnish

  a. Vanhus   tul-i   sokea-ksi.   *Fromm and Sadeniemi 1956:143*
     old man.NOM go/become-PAST.3SG blind-TRS.SG

    'The old man went blind.'

  b. Hän   kuol-i   vanha-na.   *Fong 2003*
     3SG.NOM   die-PAST.3SG   old-ESS

    'S/he died old.'

The hypothesis that Pred° assigns case does not explain none of these patterns. The standard assumption that nominative is assigned by T° appears to explain why it surfaces on the predicate in copular clauses, but this is merely an impression, as the distribution of nominative predicates is more complex: while in both Russian and Arabic nominative predicates are the only option in the present tense (where the copula is null), in Russian a non-null copula (in the past, future, etc.) allows both nominative and instrumental predicates, whereas in Arabic an overt copula requires accusative-marked predicates. This cross-linguistically varying interaction between case and the overtness of the copula clearly demonstrates that the case on the small-clause predicate depends on the embedding verb, which is what the Finno-Ugric predicative case patterns also show (see Matushansky 2012a for an analysis of predicative cases in Finno-Ugric and Matushansky 2010 for a discussion of Russian).[1]

To summarize, the hypothesis that the predicative case is assigned by Pred° does not explain the actual cross-linguistic distribution of case-marked predicates. On the one hand, in most if not all languages a morphologically realized case on the non-verbal predicate alternates with the unmarked case (nominative, absolutive or citation case). On the other hand, in a number of languages nonverbal predicates receive different cases in function of the environment. Neither of these patterns follows directly from the hypothesis that Pred° assigns case to predicates. We turn now to another putative argument for Pred°: copular particles.

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[1] A possible way out would seem to be to assume several instances of Pred°, each of which assigns a different case (see, e.g., Bailyn 2001, 2002, attempting to link the case on the predicate with the overtness of Pred° in Slavic). However, then motivation needs to be provided for the choice of a particular instance of Pred° on both semantic and syntactic sides; I'm not aware of any such proposal.

3.2   Two Types of Copular Particles

In a number of languages a functional element (a particle) appears before a non-verbal predicate (6). Starting with Bowers 1993, suggesting that the Welsh copular particle *yn* is an overt instance of Pred°, it has become customary to treat many copular particles in this way (e.g., Baker 2003). It can, however, be shown that that the distribution of copular particles does not correspond to what is expected from Pred°, not even in Welsh.

Concluding that not all copular particles qualify as Pred°, we now turn to those that appear in small clauses. Given the assumption that APs, NPs and PPs require Pred° in order to function as predicates, we expect either no categorial differences with lexicalization of Pred° or more or less random lexicalization (in some languages with APs, in some with PPs and NPs, etc.). However, the cross-linguistic lexicalization patterns for copular particles (Hengeveld 1992, Stassen 1997, Pustet 2005) clearly demonstrate that different lexical categories of predicates do not behave the same: PP predicates never allow copular particles whereas AP predicates combine with a copular particle only if NP predicates do. Therefore, the copular particle cannot lexicalize Pred° under the assumption that Pred° fulfills the same function in all small clauses.

A good theory of Pred° should explain these patterns, and doing so requires going beyond the simple assertion that Pred° mediates predication and providing it with a proper role, syntactic or semantic. However, in this view the fact that AP predicates may pattern with NP predicates, but do not always do so suggests a variation in the status of adjectives across languages (see Dixon 1977, but also Baker 2003). The most promising venue of research, to my mind, is suggested by Hengeveld 1992, proposing that in a given language or across languages adjectives can be "more verbal" or "more nominal", which explains why AP predicates may cluster with NP predicates in requiring the copular particle. As Adger and Ramchand 2003 propose a semantic motivation for a nominal copular particle (NP predicates do not have an eventuality argument slot), the nominal copular particle can be accounted for.

The view sketched above predicts that in languages where APs require a copular particle in the predicate position adjectives will also share other properties with nouns. Investigating the syntax of the copular particle in three languages demonstrably using it with AP predicates (Edo, Welsh and Berber), we will see evidence that adjectives in these languages are indeed similar to nouns. We will see at the same time that copula particles do not form a uniform class and that even in languages where their distribution is the closest to what would be expected of Pred°, it is nonetheless sufficiently different to conclude that they cannot instantiate Pred°.

3.2.1   Pronominal and "Finite" Copular Particles

In a number of languages, including Hebrew (14) (see Doron 1983, 1986, Greenberg 1998, 2002, Heller 1999, 2002, and Spector Shirtz 2014, among others), copular clauses may, in addition to the verb *be*, contain an optional functional element, which may be identical to a demonstrative or a pronoun:

(14) dani hu/ze mar   kohen.   Spector Shirtz 2014
       Dani he/this Mr.   Cohen

       'Dani is Mr. Cohen.'

A crucial property of such copular particles is that they give rise to the equative reading of the copula or the less transient, more generic, classificatory, etc., interpretation of the predication relation. They are impossible in other small-clause environments and therefore cannot reasonably be treated as instantiations of Pred°.

Another class of copular particles that are unlikely to instantiate Pred° can be viewed as non-verbal counterparts of the copula *be*. Such is the case in Hausa (15), which requires the copular particle with all NP predicates and many AP ones (Stassen 1997:80), but crucially not with raising verbs like *become* (Green 2004). Since Pred° should appear in all small clauses, it cannot be restricted to primary predication.

(15) a. Kano̲   ga̲rī   ba̲bba   nē̲.   Abraham 1941 via Stassen 1997
       Kano   town   big   COP.MSG

   'Kano is a big town.'

   b. Ruwā zâi   kōmằ   k̓ank̓arā.   Green 2004
      water FUT.3MSG become   ice

   'The water will turn into ice.'

One attested case of such mistaken identification of a copular particle with Pred° comes from the Nigerian language Edo. The special property of Edo is that it uses different copular particles for AP and NP predicates (Baker 2003). Two ways of handling this fact can be envisaged: (1) in Bowers' framework Pred° may agree with its complement and as a result be realized differently or (2) in Baker's framework Pred° introduces the external argument differently for different lexical categories, and as a result, different lexicalizations of Pred° for AP and NP predicates are not unexpected:

(16) a. Èmèrí   *(yé)   mòsèmòsè.   Edo (Baker 2003:40)
       Mary   PRED   beautiful.A

   'Mary is beautiful.'

   b. Úyì   *(rè)   òkhaèmwèn.
      Uyi   PRED   chief.N

   'Uyi is a chief.'

However, the distribution of Edo copular particles does not follow from the hypothesis that they realize Pred°. While raising and ECM verbs do not take small-clause complements in Edo, in depictives and resultatives the two copular particles disappear (in the latter case, a variant with the copular particle appears to be possible, but an inceptive particle is then needed):

(17) a. À   bié̲   Èmérì   òkhaèmwèn.   Edo (Ota Ogie, p.c.)
       IMPRS   give.birth   Mary   chief.N

   'Mary was born a chief.'

   b. À   bié̲   Èmérì   mòsèè.   Edo (Ota Ogie, p.c.)
      IMPRS give.birth Mary   beautiful.A

   'Mary was born beautiful.'

(18) a. Òzó   kòkó   Àdésuwa   mòsèmòsè.   Edo (Baker 2003:219)
          Ozo   raised   Adesuwa   beautiful

          'Ozo raised Adesuwa so that she was beautiful.'

      b. Úyì   yá   èmátòn? (dòó) yé   pèrhè.   Edo (Baker 2003:42)
          Uyi   make   metal   INCEP PRED flat

          'Uyi made the metal to be flat.'

      c. *Òzó gbé   èmátòn yé   pèrhè.   Edo (Baker 2003:43)
          Ozo beat   metal   PRED   flat

          'Ozo beat the metal, causing it to be flat.'

The status of adjectives in Edo is also unclear. Contrary to Baker, Omoruyi 1986 asserts that Edo has very few true adjectives, which form a closed class and are obligatorily attributive, i.e., they cannot appear in a sentence without an NP that they modify:

(19) a. *ógbòn èré   Òsàró dérè.   Omoruyi 1986:299
          new   it-is   Osaro buy.PAST

      b. òwiyí èré   Òsàró dérè.
          old   it-is Osaro buy.PAST

          'It is an old one that Osaro bought.'

It seems therefore that the items that Baker treats as adjectives may in fact be deverbal nouns, further supporting the intuition that in languages where AP predicates require the copular particle adjectives are more "nominal".

3.2.2 Non-Finite Copular Particles: Welsh and Eastern Riffian

The Welsh copular particle *yn* appears not only in copular clauses (20), but also in small-clause complements of ECM verbs (21), in resultatives (22a) and in depictives (22b), in NP-internal reduced relatives (24), as discussed by Willis 2006, and in absolute constructions (24). In other words, it clearly appears in small clauses:

(20) a. Mae Siôn   *(yn) ddedwydd.   Rouveret 1996:128
          is   Siôn   PRT happy

          'Siôn is happy.'

      b. Y   mae   Siôn *(yn)   feddyg.
          PRT   is   Siôn PRT   doctor

          'Siôn is a doctor.'

(21) Rydw   i'n   ystyried [Siôn   yn   niwsans].   Zaring 1996
     am   I+PROG consider   John   PRED   nuisance

     'I consider John a nuisance.'

(22) a. Peintia'r   petryal   bach   yn   goch.
        paint-IMP+the   rectangle small   PRED   red

        'Paint the small triangle red.'

    b. Dw   i'n   licio   cwrw   yn   oer.   Bob Morris Jones, p.c.
        be-1SG   I+PROG like   beer   PRED cold

        'I like beer cold.'

(23) buddsoddi ym mhensaernïaeth fy   ngwlad, yn   hen ac yn   newydd Google
     invest.VN   in   architecture   my   country   PRED old and PRED new

     'to invest in the architecture of my country, old and new.'

(24) A   mi   yn   ofnus, ni   ddywedais ddim.   Rouveret 1996
     and   I   PRED shy   NEG said   nothing

     'Since I am shy, I said nothing.'

There are, however, several reasons for doubting that *yn* is an overt realization of Pred°. First of all, as illustrated in (25), in accordance with the more general cross-linguistic generalizations, *yn* is absent when the predicate is a PP (Jones and Thomas 1977:47, Jones 2009). Even with AP and NP predicates, when the predicate is fronted (26),[2] *yn* generally disappears (Rouveret 1996, Zaring 1996, etc.). While the form of the verb changes concomitantly, this change cannot be due to the incorporation of Pred°, since exactly the same form surfaces in any environment where the copular verb moves to C°, including equatives (27) and clause-initial question particle (28a) or negation (28b).

(25) a. Mae Siôn (*yn)   yn Lludain   /o   flaen   y   tŷ.   Zaring 1996
        is   Siôn PRED in London   of   foremost the   house

        'Siôn is in London/in front of the house.'

    b. A   hwy yn yr eglwys,   ysbeiliwyd eu   tŷ.   Rouveret 1996
        and them in the church   was-looted their house

        'While they were in the church, their house was looted.'

(26) a. %Ffeind wrth   bawb   ydy Mair.   Jones 1993 via Rouveret 1996
        kind   to   everyone is   Mair

        'Mair is kind to everyone.'

    b. Meddyg yw Sion.   Rouveret 1996
        doctor   is Sion

        'Sion is a doctor.'

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[2] Predicate-fronting examples in the literature generally involve definite NP predicates, with AP fronting, as in (26a), reported (Rouveret 1996) to not be possible in all dialects.

(27) a. Y   brenin yw Arthur.   Rouveret 1996
      the king   is   Arthur

      'Arthur is the king.'

    b. Arthur   yw'r   brenin.
      Arthur   is-the   king

      'It is Arthur who is the king.'

    c. *Y mae Arthur yn   y brenin.
      PRT is   Arthur PRED   the king

(28) a. A ydyw Ifan   yn   bregethwr?   Rouveret 1996
      Q is   Ifan   PRED preacher

      'Is Ifan a preacher?'

    b. Nid   yw   Ifan   yn   saer.   Williams 1980:94
      NEG is   Ifan   PRED carpenter

      'Ifan is not a carpenter.'

    More importantly perhaps, the distribution of *yn* with degree modifiers is incompatible with its analysis as Pred°. Relatively unproblematic is the fact (Jones 2009) that *yn* disappears before equative and intensive (*so*, *such*) degree operators (29). Given that the one of these lexical items, *cyn* 'so', is homophonous with the preposition *cyn* 'before', the lack of *yn* can be accounted for by assuming that these two lexical items are lexically prepositions, giving rise to a PP predicate, which, as we already know, is incompatible with an overt Pred°.

(29) a. Mae   Gwen mor gryf(ed)   â   Megan.   Jones 2009
      be.PRES.3SG Gwen as   strong(-EQ) with Megan

      'Gwen is as strong as Megan.'

    b. Mae   Gwen cyn gryfed   â   Megan.
      be.PRES.3SG Gwen as   strong-EQ with Megan

      'Gwen is as strong as Megan.'

    However, the syntax of *yn* in comparatives that include a differential phrase argues against the hypothesis that it is an overt realization of Pred°. In addition to the expected situation (30), where the differential follows *yn*, the order can also be reversed, with *yn* intervening between the differential and the comparative (31).[3] The two word orders may even be available in one and the same idiolect (32):[4]

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[3] (31a) is a reduced relative; if a degree-modified AP appears in the attributive position, *yn* is absent, showing that it is not required for degree modification in principle:

    (i) ateb   ychydig gwell
        answer   little   better
        'a slightly better answer'

[4] When the differential is a measure phrase (*two inches taller*), the situation is much less clear: *yn* may appear in the two positions at once (both before and after the differential), or be omitted in one of them and the choice which can

(30) Mae   'r   bwrdd   yn   llawer   mwy   na   'r   silff.   Jones 2009
be.PRES.3SG the table   PRED much   bigger than the shelf

'The table is much bigger than the shelf.'

(31) a. ateb   ychydig yn   well   Mittendorf and Sadler 2008
answer   little   PRED   better

'a slightly better answer'

b. ateb   sydd   ychydig   yn   well
answer is.REL   little   PRED   better

'an answer that is slightly better'

(32) a. Mae   hi   llawer/ychydig   yn   dalach.   Peredur Webb-Davies, p.c.
be.PRES.3SG he   much/slightly   PRED   taller

b. %Mae   hi'n   llawer/ychydig   talach.
be.PRES.3SG   he+PRED   much/slightly   taller

'He is a lot/slightly taller.'

Given the hypothesis that Pred° takes the extended AP as its complement, the position of *yn* after the differential is incompatible with the hypothesis that *yn* heads the small clause. It cannot be assumed that the differential has moved to a position before Pred° either, since adverbs and degree expressions generally do not scramble.

Furthermore, degree modification requires *yn* when the predicate is fronted (Borsley 2011):5

(33) a. Bron   yn   barod   ydy   Mair.
almost   PRED   ready   be.PRES.3SG Mair

'Mair is almost ready.'

b. *Bron   parod   ydy   Mair.
almost ready   be.PRES.3SG Mair

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be omitted is not the same in different examples. For another speaker, the variant in (32b) and its measure phrase counterparts are both ungrammatical. As I do not at present have sufficient data, I leave this question for future research.

5 Rouveret 1996 reports that in some dialects an NP predicates can be fronted retaining *yn*. Note that, unlike in examples (33)-(35), the copula retains the locative form (i), just like when a PP predicate is fronted (ii).

(i) %Yn   feddyg y   mae Sion.   Jones 1993 via Rouveret 1996
PRED doctor PRT is   Sion
'Sion is a doctor.'

(ii) Yng   Nghaerdydd mae 'r   lle   i   fod.   Borsley et al. 2007:131
in   Cardiff   is   the place to be.INF
'The place to be is (= is located) in Cardiff.'

(34) a. Braidd   yn   siomedig   ydy   hi.
         rather   PRED   disappointed   be.PRES.3SG   she

      'She is rather disappointed.'

    b. *Braidd   siomedig   ydy   hi.
       rather   disappointed   be.PRES.3SG   she

(35) a. Bron   yn   fradychwr   ydy   o.
         almost   pred   traitor   be.pres.3sg   he

      'He is almost a traitor.'

    b. *Bron   bradychwr   ydy   o.
       almost   traitor   be.PRES.3SG   he

While predicate fronting, as discussed above, generally disallows *yn*, in the presence of a degree modifier, as explicitly noted by Borsley, this option is not is available: *yn* must be present and follow the degree modifier. This interaction of *yn* with degree operators is incomprehensible on the assumption that it realizes Pred°.

Having said that, it is important to note that *yn* appears only in predicative environments. The hypothesis that it turns APs and NPs into predicates would appear to be incorrect, given that APs and NPs can function as predicates without *yn* when fronted. However, Welsh provides evidence for the hypothesis that copular particles appear with nominal predicates: Welsh adjectives do in fact share a number of properties with nouns (Matushansky 2012b).

The same is true in the Berber language Eastern Riffian. As discussed by Oomen 2011, the very existence of the category "adjective" in Berber languages is controversial. While in some of them quality concepts are expressed by stative verbs, in others, such as Eastern Riffian, quality concepts appear to be deverbal nouns, at least from the point of view of their morphology (see also Djemai 2008). Such adjectives, when used as predicates, require the copular particle *ḏ* that also appears with NP predicates. The copular particle is obligatory in copular clauses (36), as well as in secondary predication (37):

(36) a. netta   ḏ   a-ryaz   Oomen 2011
         he   PRED   M-man

      'He is a man.'

    b. netta   ḏ   a-wessar
      he   PRED   M-old

      'He is old.'

(37) a. y-err-iṯ   ḏ   lmalik   Oomen 2011
         3SG:M-turn.into:P-3SG:M:ACC   PRED   king

      'He made him king.'

    b. i-ssess   lqehwa-nnes   t   ta-berḵan-t
      3SG:M-drink:I coffee-3SG:M:POSS   PRED   F-black-F

      'He drinks his coffee black.'

   c. ṯa-mɣar-ṯ-nnes   ṯ-err-iṯ   ḏ   a-wessar
       F-woman-F-3SG:POSS   3SG:F-turn:P-3SG:M:ACC   PRED M-old

      'His wife made him old.'

The link between the nominal nature of an adjective and the presence of the copular particle is further supported for Eastern Riffian by the fact (Oomen 2011) that non-integrated adjectives of Arabic origin, such as *mṭewweṛ* 'smart', appear without the copular particle:

(38) y-etban   eyyi   mṭewweṛ   Oomen 2011
      3SG:M-appear:I 1SG:DAT smart

      'He seems smart to me.'

In other words, language-internally we also observe the correlation between the "nominal" nature of an adjective and the presence of the copular particle. While this is not what is expected from Pred°, which, as we discussed before, should not be sensitive to the lexical category of the predicate, the hypothesis that copular particles characterize nominal predicates only accounts for the observed patterns. The question naturally arises why this should be the case.

One possible explanation is provided by Adger and Ramchand 2003, linking predication to eventuality. While retaining the hypothesis that APs, NPs, PPs and VPs are all predicates, they suggest that NPs denote properties of individual entities (type ⟨e, t⟩, setting intensionality aside), whereas APs, PPs and verbal constructions denote properties of individuals with respect to an eventuality. In their view therefore the copular particle is needed to link an NP predicate to an eventuality.[6]

4 Conclusion

Both theoretical and empirical evidence has been provided for the existence of a functional head of small clauses, Pred°. In this paper I have argued, however, that this evidence is flawed. On the one hand, recent developments in syntactic theory render the prior theoretical arguments in favor of Pred° invalid: the adoption of the raising-to-object analysis makes it possible to account for cases of putative X′-level category movement in cases of predicate fronting, and the acceptance of multiple specifiers allows for the projection of the small-clause subject without an appeal to an extra functional head. Furthermore, the prohibition on the coordination of unlikes that can be violated with small clauses can be shown to be semantic rather than syntactic.

On the empirical side, we have examined (briefly) the behavior of predicative case and (in considerably more detail) the distribution of copular particles. The hypothesis that predicative case is assigned by Pred° turns out to be unable to explain the fact that languages systematically employ more than one case on predicates. Likewise, the systematic cross-linguistic correlation

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[6] A possible objection comes from the work by Maienborn 2005a, b, arguing that the anchoring of predication to an eventuality is done by the copula. More precisely, in her view the copula introduces a referential argument for a temporally bound property exemplification (thus turning it into a "Kimian state"; other instances of Kimian states are stative verbs such as *think* or *resemble*). It seems, however, unquestionable that NP predicates denote properties that are more time-stable than those denoted by other lexical categories; the role of the copular particle seems then to level out this distinction.

between the use of the copular particle with AP predicates and its appearance with NP predicates does not follow from the hypothesis that it realizes Pred°; neither does the fact that PP predicates never appear with copular particles. A more thorough investigation of the copular particle *yn* in Welsh has further demonstrated that its distribution presents a number of puzzles that cannot be resolved by assuming that it realizes Pred°.

Beyond the scope of this paper remains the question of the semantics of Pred°, should such a functional head be postulated. Bowers himself proposes that APs, NPs and PPs do not denote predicates (semantic type $\langle e, p \rangle$), but rather their entity-correlates (semantic type π, cf. Chierchia 1985, Chierchia and Turner 1988) that must then be converted into predicates by the addition of Pred°. The problem with this approach is that it is incompatible with the compositional semantics of the extended NP projection, which is generally based on the assumption that a noun has the semantic type $\langle e, t \rangle$ or $\langle s, \langle e, t \rangle \rangle$. An alternative would be that the semantic function of Pred° is to add an eventuality argument, which would not be required for APs, NPs and PPs NP-internally. This, however, is the role frequently attributed to the copula (Bierwisch 1988, Kamp and Reyle 1993, Rothstein 1999, among others, see also Maienborn 2005a, b), which means that this route is also not without problems.

We conclude therefore that there is no evidence for obligatory functional heads in small clauses.

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