

A conceptual semantic analysis of thematic structure in predicate nominals¹

Elaine J. Francis
*University of Hong Kong*²

1. Introduction

Predicate nominals are NPs used predicatively. They may be structurally very simple, as in (1a), or they may be quite complex, as in (1c). Since the usual function of NPs is as arguments rather than predicates, predicate NPs are semantically non-prototypical of NPs with respect to logical function (McCawley 1988, Williams 1983). In addition, predicate NPs are non-prototypical of NPs with respect to discourse function, since they are not referring expressions and therefore cannot refer to any participant of the discourse (Hopper and Thompson 1984). In (1a), for example, the NP *a cat* does not refer to any specific or non-specific cat, but rather says something about the subject NP *Max*. Specifically, it classifies Max as belonging to a particular species. The use of the NP *a cat* in (1a) as a predicate can be contrasted its use in (1b) as an argument. Unlike in (1a), the NP *a cat* in (1b) actually refers to a cat.

- (1) a. Max is **a cat**. (predicate NP)
b. Max saw **a cat**. (argument NP)
c. The core of Plant's argument is **a careful statement of**

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² This paper was presented and written when I was at the University of Chicago. As of September, 1999, I am at the University of Hong Kong.

**the case for social citizenship and the reasons for preferring it to
the philosophy of the New Right.** (British National Corpus)

As several authors have observed, the special semantic function of predicate NPs causes them to display a number of 'defective' formal properties as compared with typical argument NPs (see Ross 1995). For example, many predicate NPs do not allow the full range of determiners, and some allow no determiners at all (2a). In addition, unlike argument NPs, predicate NPs require number agreement with the subject NP (2c), and they cannot serve as antecedents to a personal pronoun (2e). In contrast, argument NPs, as in (2b,d,f) do not normally display such defective properties.

- (2)
- a. *The boys are not yet **the / these / some good students**.
(determiners)
 - b. They boys have not yet met **the / these / some good students**.
 - c. *The boys are **a good student**. (agreement)
 - d. The boys met **a good student**.
 - e. *The boys are not yet **good students** but will soon be **them**.
(pronominalization)
 - f. The boys have not yet met **the good students** but will soon meet them. (2a-f adapted from Ross 1995)

The consequences of such defective formal properties for theories of syntactic categories are explored in a number of works, including Croft (1991), Francis (1998, 1999), Hengeveld (1992), Hopper and Thompson (1984), Langacker (1991), McCawley (1988), Ross (1973, 1995), and Sadock (1990).

Despite their defective properties, however, predicate NPs are still like ordinary argument NPs in many ways due to the lexical category features of their head nouns. Predicate NPs are therefore distinct from other kinds of intransitive predicates such as intransitive VPs simply because nouns are distinct from verbs. The examples in (3) illustrate some of these ordinary nominal properties of predicate NPs: modification by adjectives rather than adverbs (3a), modification by relative clauses (3b), and occurrence with PP complements (3c).

- (3)
- a. Spahn is **not only a superior pitcher but a gentlemanly fine fellow**...
 - b. As for food, Mrs. Henry Louchheim, chairman of this phase, is **a globetrotter who knows good food**.
 - c. It is not news that Nathan Milstein is **a wizard of the violin**.
(3a-c from Brown Corpus)

Since these nominal properties are not semantically incompatible with predication, their occurrence presents no particular theoretical problem. There is, however, one particular categorial property of nouns which appears to be semantically *incompatible* with main-clause predication, but which nevertheless affects the head nouns of predicate NPs as well as the head nouns of argument NPs. This property is the inability of nouns to assign thematic roles outside their own NP.

As noted above, several authors have discussed the special properties of predicate

NPs with respect to theories of syntactic categories. However, very few works have discussed the special properties of predicate NPs specifically with regard to theories of argument structure and thematic roles. Moro's insightful (1997) analysis of predicate nominals in copular sentences is a notable exception. Moro recognizes some of the special thematic properties predicate NPs and discusses the consequences of these properties for Principles and Parameters theory. However, Moro's Principles and Parameters (P&P) analysis still leaves some important questions unanswered.

In the present paper, I address Moro's unanswered questions. Specifically, I argue that a P&P analysis lacks the proper tools for understanding the special thematic properties of predicate nominals. I propose instead a conceptual semantic analysis in the general spirit of Construction Grammar (Goldberg 1995).³ I analyze predicate nominals as involving constructions which impose a classifying or identifying relationship between the main-clause subject and the post-verbal NP, and which contribute a thematic role to the main-clause subject. More generally, I propose that the inadequacies of nouns for the function of main-clause predication are compensated for by the meaningful predicate nominal constructions in which the nouns occur.

Before I present this analysis, however, I will first summarize Moro's important 1997 analysis of the thematic properties of predicate nominals and discuss some problems which arise from it.

2. Moro's puzzle

Consistent with traditional predicate logic, Moro assumes that predicate NPs are intransitive predicates much like intransitive VPs. That is, they are predicates which take a single argument, and that argument is typically realized as the grammatical subject in a copular sentence. In (4), for example both *run* and *cat* participate in intransitive predicative expressions.⁴

- | | | | |
|-----|----|-----------------|----------------------|
| (4) | a. | Max is running. | running (x) |
| | b. | Max is a cat. | a cat (x) |
| (5) | a. | Max is running. | run : <agent> |
| | b. | Max is a cat. | cat :: |

However, as shown in (5), the verb *run* and the noun *cat* have different inherent thematic properties. *Run* in its intransitive sense requires that its argument be assigned the role of agent, but *cat* seems to have no such requirement. Rather, the noun *cat* is normally understood to have no thematic structure at all. This brings up the question of whether, and if so how, the argument in subject position, Max, receives a thematic role.

³ Although I find the notion of 'construction' quite valuable, I do not adopt all of the assumptions of Construction Grammar. In other work (Francis 1998, 1999), I advocate a version of Autolexical Grammar (Sadock 1991) which unlike Construction Grammar assumes an autonomous level of syntax to account for cases of mismatch.

⁴ Moro also presents syntactic arguments from English and Italian further supporting the idea that the post-verbal NPs under discussion really are predicates and not the arguments of inverse copular sentences.

Again in (6a), the noun *place* is similar to the noun *cat*: it assigns no thematic roles, leaving the question of how or whether the subject NP *the pulpit* receives a thematic role. A related problem is shown in (6b-c). In these examples, the deverbal noun which heads the predicate NP is clearly relational in the sense that it *can* take arguments and assign thematic roles. The nouns *portrayal* and *desire* are in this way unlike the non-relational nouns *cat* and *place*, and more like their verbal counterparts *portray* and *desire*. In (6a), for example, the noun *portrayal* takes two arguments. It assigns the agent role to *Smith* and the theme role to *the Civil War*. However, there is no argument role left for it to assign to the subject NP *the movie*. That is, the argument roles lexically specified by *portrayal* are both filled within the predicate NP. Again, we have a situation in which the head noun of the predicate NP can assign no thematic role to the main-clause subject, which is outside the predicate NP.

- (6) a. The pulpit is **a lonely place**.
place:
- b. The movie is **Smith's portrayal of the Civil War**.
portrayal: <agent, theme>
- c. This is **the desire of Dante for Beatrice**.
desire (noun): <experiencer, stimulus>
- d. *Laura is **the desire of Dante for Beatrice**.
- e. Beatrice is **the desire of Dante**.
desire (noun): <experiencer, stimulus>
- f. Beatrice is **desired by Dante**.
desire (verb): <experiencer, stimulus>
- g. *Dante is **the desire for Beatrice**.
- h. This is **the description of the inferno by Dante**.
description: <agent, theme>
- i. *The inferno is **the description by Dante**.
- j. *Dante is **the description of the inferno**.
(6a from Brown Corpus; 6c-j from Moro 1997)

Moro argues that in cases such as (6a-c), in which the head noun of the predicate NP fails to assign any thematic role to the main-clause subject, the main-clause subject receives no thematic role at all (Moro, 1997: 85-86; Moro, 1991). Because the main-clause subject is a fully referential argument, such cases violate Chomsky's theta-criterion (Chomsky, 1981: 36), which requires that each argument receive one and only one thematic (theta) role.⁵ Moro offers no specific explanation for why such a violation is allowed.⁶ Curiously, Moro also observes that violations of the theta-criterion are not

⁵ I agree with the spirit of Chomsky's theta-criterion only in part. I would claim that all referential arguments are in some sense 'participants' and therefore bear some semantic relation to a predicate. It is this fact which is so problematic for Moro's (1997) claim that the subject NPs of predicate nominals bear no thematic role. However, I agree with Jackendoff (1987: 381-383) that it is possible and in fact not unusual for a single argument to bear more than one thematic role. For example, in the sentence *John sold his book to Mary*, Mary is both the recipient (of the book) and the source (of the money). This disagreement between Chomsky and Jackendoff is not, however, important for the present analysis.

⁶ Parsons (1995: 644-645) comes to the similar conclusion that the subject NPs of predicate nominal

always allowed, as when the extra argument *Laura* is added in subject position in (6d).⁷

To complicate matters further, Moro argues that some nouns *can* assign a thematic role to the main-clause subject. In (6e), for example, the noun *desire* assigns the role of experiencer to its complement within the NP, but assigns the role of stimulus directly to the main-clause subject *Beatrice* (Moro 1997:81). This is in contrast to (6c), in which both roles associated with the noun *desire* are assigned within the NP and no role is assigned to the main-clause subject *this*. Moro calls such cases as (6e) ‘pseudo-extraction’ because of their superficial similarity to passives (6f).

This analysis leaves Moro with some puzzling restrictions on which argument can occur as main-clause subject. According to Moro’s analysis, the difference in grammaticality between (6e) and (6g) shows that the stimulus role (assigned to *Beatrice*) but not the experiencer role (assigned to *Dante*) may be realized in main-clause subject position. However, he does not propose any specific reasons for this restriction. In addition, Moro’s analysis leaves the question of why some deverbal nouns such as *description* apparently cannot assign any thematic role outside the predicate NP, as shown in (6h-i). Moro observes that nouns which denote psychological attitudes tend to allow pseudo-extraction while nouns which denote activities do not. However, he shows that this generalization does not hold for some psychological nouns, and he leaves it an open question as to what the relevant constraints on pseudo-extraction actually are (Moro, 1997: 83-84).

Thus, Moro offers a very interesting description of the thematic properties of predicate nominals. Especially insightful is his observation that the subject NP of a predicate nominal expression need not receive a thematic role from any lexical head. However, as Moro himself admits, his analysis is incomplete in that he offers no unified explanation for the puzzling grammaticality patterns in (6d-j) and the puzzling violations of the theta-criterion in (6a-c).

The main limitation of Moro’s P&P analysis, as I see it, is that Moro does not consider the special semantic properties of predicate nominals as compared with other kinds of predicates. For example, although he describes some structural differences between (6e) and its passive paraphrase (6f), he does not consider the fact that those two sentences have different meanings as well. Such differences will, I argue, prove crucial for solving Moro’s puzzle.

In what follows, I present a conceptual semantic analysis of the special semantic properties of predicate nominals.⁸ In doing this semantic analysis, I found it advantageous

constructions bear no thematic role. However, his reasoning is different than Moro’s. Parsons claims that because predicate nominals do not involve underlying events or states, there can be no thematic relations.

⁷ Examples (6c-j) are from Moro (1997: 81-85). Moro presents these data both in Italian and in English translation. For the examples shown here, both languages make the same point, and I only include the English version.

⁸ See also Wierzbicka (1986) for an analysis of some semantic differences between predicate nominals and predicate adjectives.

to use the notion of ‘construction’ as it is used in Construction Grammar -- a notion which is unavailable in P&P theory. I show that in explicating these semantic properties in a constructional analysis, one can provide a unified explanation for all of the examples in (6).

3. Predicate nominals as meaningful constructions

The term ‘construction’ has been used at least informally in much of the linguistic literature, most notably in descriptive grammars, to refer to any specific, recurrent grammatical pattern. For example, linguists often speak of possessive constructions, partitive constructions, and serial verb constructions. In recent work in the theory of Construction Grammar, a technical notion of ‘construction’ is taken to be ‘the basic unit of language’ (Goldberg 1995: 4). Essentially, a construction is a conventional symbolic pairing of form with meaning. Although lexical items such as *cat* conform to this definition most clearly, syntactic patterns may also qualify as meaningful symbolic units. Hence, those units covered under the traditional informal notion of construction (i.e., a recurrent grammatical pattern) are also constructions in this technical sense to the extent that they are conventionally meaningful.

I propose here that predicate nominal expressions can be fruitfully characterized as meaningful constructions which impose a semantic relationship between the subject NP and the post-verbal NP of a copular clause. Following Croft (1991) and Hengeveld (1992), there are actually two major predicate nominal constructions, each with its own conventional meaning: the classifying (or class-inclusion) construction (7), and the identifying construction (8).

- (7)
 - a. Max **is a cat**. / Max and Sam are **cats**.
 - b. With the growing complexity of markets and intensity of competition, sales management, whether at the district, region or headquarters level, is **a tough job** today...
 - c. The pulpit is **a lonely place**.
 - d. Technical knowledge is **a wonderful thing**, but it’s useless unless it eventually feeds the cash register.
 - e. Skorich, however, is **a strong advocate of a balanced attack** – split between running and passing.
 - f. As a Neiman-Marcus award winner the titian-haired Miss Garson is **a personification of the individual look so important to fashion this season**.
 - g. As for food, Mrs. Henry Louchheim, chairman of this phase, is **a globetrotter who knows good food**.

(7b-g from Brown Corpus)
- (8)
 - a. Max is **the neighbor’s cat**.
 - b. Mrs. Chase is **the former Miss Mary Mullenax**.
 - c. Mantle has kept the vow. Among all the Yankees, he is **the veteran most friendly to rookies**.
 - d. A better position for negotiations is **the real point of this speech**.
 - e. This is largely because of the unpredictability of the man who operates the helm of the state government and is **the elected leader**

- of its two million inhabitants** -- Gov. Ross Barnett.
- f. Military power does not cause war; war is **the result of mistrust and lack of understanding between people.**
 - g. The welfare of citizens, old and young, is **the responsibility of the community**, not only of that part of it that rides the Aj.
 - h. This “family-community” spirit is **the real explanation of the marvel of our achievement.**
(8b-h from Brown Corpus)

The classifying construction categorizes its argument as a member of some class or kind. In (7a), Max is classified as a member of the species called *cat*. In other words, (7a) asserts that Max belongs to the general category delimited by the noun *cat*. Similarly, (7b) classifies sales management as a member of the class of tough jobs. The classifying construction can be used to talk about more specific categories as well, as in (7f), which classifies Miss Garson as ‘a personification of the individual look so important to fashion this season’.

The identifying construction has a slightly different meaning from the classifying construction. This construction identifies its argument with some specific entity. For example, the predicate NP *the nice man who fixed Tom’s bike* in (8a) serves to identify the subject NP Sam as a *particular* nice man known to both speaker and hearer as having fixed Tom’s bike, but presumably not previously associated with the Sam of the current discourse. Similarly, in (8b), the writer is identifying the Mrs. Chase of the current discourse by giving her maiden name, which is assumed to be known to the reader. The identifying construction can be used in identifying more abstract entities as well, as in (8h). The family community spirit referred to in (8h) was a topic of the previous discourse. The writer of (8h) is identifying this community spirit as something which can explain the achievements of the community.⁹

4. Role mismatches between lexical head and construction

Armed with this notion of meaningful construction, it is now possible to solve the problems which Moro identifies in his analysis. The first problem is that the head nouns of predicate NPs may be incapable of assigning any thematic role to the main-clause subject of a copular sentence. Moro (1997) characterizes such cases as a seemingly inexplicable violation of Chomsky’s theta- criterion. Under the present analysis, however, it is quite plausible to suggest that the single argument of a predicate NP (realized syntactically as the main-clause subject) does in fact receive a thematic role -- from the construction.

⁹ The classifying construction differs formally from the identifying construction with respect to the range of determiners which may be used in the predicate NP. The classifying construction normally allows only the indefinite article for singular predicate NPs, and no determiner at all for plurals (7a). In contrast, the identifying construction normally allows the full range of determiners in the predicate NP. Since both types of predicate NPs act like semantic predicates in other respects (pronominalization, agreement), it seems that the best explanation for this is that the predicate NP of an identifying construction denotes a specific entity, and specificity is a semantic property of determiners which may be exploited fully even in non-referential contexts.

As argued quite convincingly in Goldberg (1995), it is possible for the number of thematic roles assigned by the lexical verb to be fewer than the number of thematic roles assigned by the construction in which the verb occurs. For example, Goldberg argues that the verb *sneeze* lexically specifies only one argument and therefore assigns only one thematic role on its own. However, this verb may occur in a construction which licenses a greater number of arguments and which itself assigns them the appropriate thematic roles.

- (9) a. Joe sneezed.
b. Joe sneezed the napkin off the table. (Goldberg, 1995: 55)
sneeze: <sneezzer>
caused motion construction: <cause, goal, theme>

Regarding example (9), Goldberg argues that the verb *sneeze* contributes only one thematic role (to the sneezer), while the ‘caused-motion’ construction contributes three roles. Only one of these three roles contributed by the construction corresponds to the role contributed by *sneeze*, leaving the other two to be specified *only* by the construction.¹⁰

I propose here a similar kind of role mismatch between the head noun of a predicate NP and the clausal construction in which it occurs. In a case in which the head noun of a predicate NP is non-relational, the noun assigns no roles at all, but the construction assigns one role. For example, in (10), the noun *place* assigns no thematic roles, but the classifying construction assigns a special role to the subject *the pulpit*.

- (10) The pulpit is a **lonely place**.
place:
classifying construction: <classified>

Although not a traditional role such as agent, patient, or experiencer, the argument *the pulpit* plays a particular role nonetheless. This role may be described informally as ‘that which is classified’, or ‘classified’ for short. Similarly, the single argument of an identifying construction may be described as ‘that which is identified’ or ‘identified’. In (8b) for example, Mrs. Chase is assigned the role of ‘identified’ by the identifying construction.

Note that verbs and their associated constructions may assign similar non-traditional roles. In a sentence such as *The book belongs to John* the argument in subject position (*the book*) is neither an agent nor a patient nor an experiencer. Rather, it is assigned a special role describable as ‘that which is possessed’ or ‘possessed’. In fact, the two special roles proposed here for predicate nominal constructions -- ‘classified’ and ‘identified’-- also occur in verb-centered constructions such as that associated with the verb *consider*. In (11a), for instance, both the subject of the predicate NP (*Max*) and the first object of the verb *consider* (*him*) are assigned the special role of ‘identified’. Similarly, in (11b), both the subject of the predicate nominal (*John*) and the first object of the verb *consider* (*himself*) are assigned the role of ‘classified’.

¹⁰ Goldberg (1995: 43) makes a terminological distinction between the roles assigned by the construction and the roles assigned by the verb. The former are called ‘argument roles’ while the latter are called ‘participant roles’. Goldberg notes that participant roles are semantically more specific than argument roles.

- (11) a. I know **Max** is really *the neighbor's cat*, but I consider **him** *my cat*.
 b. **John** is *an architect*, but he considers **himself** *an artist*.

More precisely, the verb *consider* takes a classifying or identifying proposition as its internal argument (*him my cat*). Within that proposition, there is a single argument (*him*), which is assigned the role of 'classified' or 'identified', and a predicate NP (*my cat*) which classifies or identifies that argument. Thus, with evidence of role mismatches in cases such as *sneeze* and of special thematic roles in cases such as *belong* and *consider*, it seems quite reasonable to suggest that the main-clause subjects of predicate nominals in copular sentences may receive a special thematic role from the meaningful constructions in which they occur.

Predicate NPs containing deverbal nouns are, in this analysis, just like predicate NPs containing non-relational nouns in that the head noun of the predicate NP contributes no role to the main-clause subject. With so-called 'action nominalizations' -- deverbal nouns which denote an action or state -- the analysis is straightforward. In (12), for example, the noun *portrayal* assigns its two roles (agent, theme) to arguments within the NP, *Smith* (agent) and *the Civil War* (theme). But only the identifying construction assigns a role to the subject, *the movie*. In other words, the movie is identified as Smith's portrayal of the Civil War, but the movie does not itself play a role in the portrayal: it is not the agent who portrays nor is it that which is portrayed.

- (12) The movie is **Smith's portrayal of the Civil War**.
portrayal: <agent, theme>
identifying construction: <identified>

Slightly trickier for this analysis are participant nominalizations -- deverbal nouns which incorporate one participant role into their core lexical meaning and optionally assign another role to their PP complement. For example, the noun *advocate* in (13a) means, roughly, 'someone who advocates'. The agent role is assigned to the covert element 'someone', which is part of the core lexical meaning of the noun *advocate*, while the theme role is assigned to the overt complement *a balanced attack*.

- (13) a. Skorich, however, **is a strong advocate of a balanced attack** -- split between running and passing.
advocate (noun): <agent, theme>
classifying construction: <classified>
 b. Skorich, however, **is someone who strongly advocates a balanced attack** -- split between running and passing.
 (advocate = someone who advocates)
 c. Skorich, however, **strongly advocates a balanced attack** -- split between running and passing.
advocate (verb): <agent, theme>
transitive construction: <agent, theme>

Much like action nominalizations, as in (12), participant nominalizations as in (13a) assign all their thematic roles within their own NP, leaving the subject NP to be assigned its role only by the classifying construction. (13a) is therefore roughly equivalent to (13b)

in meaning: in both examples, the subject *Skorich* is classified as someone who strongly advocates a balanced attack. Significantly, (13a) is different from (13c), its verbal paraphrase, both in meaning and in how thematic roles are assigned. In (13c), Skorich is not classified as a particular type of person (an advocate) but rather he simply advocates. That is, the verb *advocate* denotes an action rather than a participant and assigns the agent role directly to Skorich. So in this case, the roles assigned by the verb *advocate* align perfectly with the roles assigned by the transitive construction in which the verb occurs. Thus, we can explain the subtle semantic differences between (13a) and (13c) as arising at least in part from the different meanings of the two constructions involved and the ways in which lexical items fit into those constructions.

We can then draw two main conclusions from this section: (1) Although the subject NP of a predicate nominal construction receives no thematic role from the head noun of the predicate NP, it does receive a special role from the construction itself.¹¹ Thus, contrary to Moro's analysis, the theta-criterion is not violated in examples such as (6a-c). (2) The semantic differences between deverbal nouns used predicatively and their verbal paraphrases follow in part from the different meanings of the constructions involved.

5. The remaining pieces of Moro's puzzle

Now that we have dealt with the apparent violations of the theta-criterion from examples (6a-c), we are in a position to solve the remaining pieces of Moro's puzzle -- the grammaticality patterns in examples (6d-j). (For convenience, (6) is repeated below.)

- (6)
- a. The pulpit is **a lonely place**.
place:
 - b. The movie is **Smith's portrayal of the Civil War**.
portrayal: <agent, theme>
 - c. This is **the desire of Dante for Beatrice**.
desire (noun): <experiencer, stimulus>
 - d. *Laura is **the desire of Dante for Beatrice**.
 - e. Beatrice is **the desire of Dante**.
desire (noun): <experiencer, stimulus>
 - f. Beatrice is **desired by Dante**.
desire (verb): <experiencer, stimulus>
 - g. *Dante is **the desire for Beatrice**.
 - h. This is **the description of the inferno by Dante**.
description: <agent, theme>

¹¹ A possible alternative to this analysis is to say that the semantic relationships between subject NP and post-verbal NP are specified in the lexical entry of the copula *be*, and that the differences between what I call classifying and identifying constructions can instead (or in addition) be attributed to two different senses of the copula. Cross-linguistic data are not of much help in deciding between these options, since some languages have no copula at all (and would therefore be most amenable to a construction analysis) while others (e.g., Thai) have more than one copula, each corresponding to a different meaning (see Croft 1991: 70). I assume that in English, the semantic relationships between subject and predicate are specified only in the entire classifying or identifying construction, and not in the copula itself. Thus, the copula is akin to a phoneme: it contributes a formal element to a meaningful construction, but it is not meaningful on its own.

- i. *The inferno is **the description by Dante**.
- j. *Dante is **the description of the inferno**.

First of all, in the present analysis, nouns *never* assign a thematic role directly to the main-clause subject.¹² Rather, any noun which has thematic structure at all must assign its roles *within* its own NP. Examples such as (6e) are no exception; they are just a little deceptive. Apparently, Moro assumes that the noun *desire* in (6e) has the same meaning as the noun *desire* in (6c), leading him to propose that *desire* assigns the stimulus role directly to *Beatrice* in both cases. However, these two examples actually represent two different senses of the noun *desire*, neither of which is capable of assigning any thematic roles outside the predicate NP.

In (6c) *desire* is an action nominalization denoting an emotion. Its two arguments, the experiencer (*Dante*) and the stimulus (*Beatrice*) are overtly present in the PPs following the noun. But in (6e), *desire* is a participant nominalization denoting the object of desire (the stimulus). *Desire* in this case may be paraphrased as ‘that which is desired’. Much as in the case of *advocate* (in 13a above) the stimulus role in (6e) is assigned to the covert semantic head of the noun *desire*, while the experiencer role is assigned to the overt complement *Dante*. Thus, both (6c) and (6e) are examples of the identifying construction, but what is identified in each case is different. In (6c), the main-clause subject *this* is identified as the *emotion* (namely desire) which Dante has for *Beatrice*, while in (6e), the main-clause subject, *Beatrice*, is identified as the object of Dante’s desire. In either case, the main-clause subject receives no thematic role from the noun *desire*, but does receive a role from the identifying construction.

The resemblance of (6e) to a passive construction such as (6f) is then only a consequence of the fact that *desire* is a nominalization of the stimulus participant rather than the experiencer. Nominalizations of agents, as in example (13a) (repeated below), resemble active sentences rather than passives.

- (13) a. Skorich, however, **is a strong advocate of a balanced attack** – split between running and passing.

Therefore, Moro’s generalization that ‘pseudo-extraction’ is apparently limited to nouns denoting psychological states is true only in the sense that psychological state nouns tend to incorporate the stimulus argument into their core lexical meaning, thus allowing them to be roughly paraphrased as passive sentences. Furthermore, we can account for the fact that (6e) and (6f) mean slightly different things as a consequence of the differences in meaning between the identifying construction and the passive construction, much as we accounted for the semantic differences between (13a) and (13c). In (6e) *Beatrice* is identified as the object of Dante’s desire, while in (6f), she is simply desired by him.

Finally, the grammaticality patterns in (6c-d) and (6g-j), which were puzzling under Moro’s P&P account, are easily explained. The subject NP of a predicate nominal must be semantically compatible with a classifying or identifying function. Therefore, the unacceptability of (6d) is due to the fact that it is semantically odd for a person (*Laura*) to

¹² See Dowty (1989) for an intelligent discussion of the other major thematic difference between nouns and verbs -- the fact that complements of nouns are not obligatory.

be identified as an emotion (*the desire of Dante for Beatrice*). In contrast, it is perfectly fine for the demonstrative *this* in (6c) to be identified as an emotion because *this* is a deictic element which receives its interpretation from the context of the speech event. Similar to (6d), the ungrammaticality of (6g) is a simple consequence of the fact that *desire* means *that which is desired* (not *one who desires*), and therefore only Beatrice (and not Dante) can be identified as the object of desire. Finally, the ungrammaticality of (6i-j) is quite readily explained by the fact that *description* is an action nominalization rather than participant nominalization. That is, since *description* does not mean *that which is described*, it cannot be identified with *the inferno* (6i), and since it does not mean *one who describes*, it also cannot be identified with *Dante* (6j).

To summarize, all nouns, even deverbal nouns, are incapable of assigning any thematic role to an argument outside their own NP. Because of this incapacity, they would make poor main-clause predicates on their own. This is not surprising, since the primary function of NPs is as arguments rather than predicates, and the primary reason for using a deverbal noun rather than a verb is to express events/states as arguments. However, there do exist meaningful predicate nominal constructions which can compensate for the fact that nouns are incapable of assigning thematic roles outside their own NP, thus making it possible for NPs to be used for main-clause predication. More generally, this idea of constructional compensation may be characterized as one possible means by which conflicts between properties of lexical items (including lexical category properties) and properties of the syntactic and semantic contexts in which those items occur can be resolved.¹³

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¹³ Constructional compensation may be considered a subtype of what has been called 'construal' in the cognitive linguistics literature. Constructional compensation is distinct from 'override' (another type of construal) whereby lexical properties are overridden by properties of the larger semantic or syntactic context. For example, in using a mass noun in a count expression, such as 'two beers', the lexical preference for mass is overridden by the meaning of the larger count construction in which the noun occurs (Michaelis, to appear). In contrast, the semantic properties of the predicate nominal construction do not override the lexical properties of their head nouns, but rather they add elements of thematic structure not present in the lexical specification, thus compensating for the missing information in the lexical entry.

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Department of English
 University of Hong Kong
 Pokfulam Road
 Hong Kong