ON THE NEED FOR A MORE REFINED APPROACH TO THE ARGUMENT-ADJUNCT DISTINCTION:

THE CASE OF DATIVE EXPERIENCERS IN HUNGARIAN

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Abstract

The so-called circumstantial PPs (instruments, benefactives, and the like) have traditionally been analyzed in terms of thematic roles, but it is generally recognized that they have a special syntactic status. In this paper, I argue that they can systematically be treated as adjuncts that bear a thematic role. I substantiate this claim through a case study of dative experiencers in Hungarian, which I analyze in terms of an LFG-theoretic application of the Theta System of Reinhart (2000, 2002). I distinguish between thematic arguments, thematic adjuncts and non-thematic adjuncts; and I argue that this threefold distinction is minimally needed to be able to account for the behavior of the three empirically distinct types of dative experiencers.

1.   Introduction: the non-core thematic domain

The argument-adjunct distinction is a fundamental design feature of the standard LFG architecture. For expository purposes, I will be glossing over syntactic and semantic aspects of representation in the basic terminology that I use in this paper, and understand the terms *argument* and *adjunct* as follows. A typical *argument* is an element that is obligatory both syntactically and semantically, i.e. it is entailed by the predicate.[1] A typical *adjunct* is optional both syntactically and semantically, and acts as a semantic modifier. In LFG, arguments have a crucial syntactic influence as they provide the minimal information needed for the construction of the f-structure assigned to the predicate. Adjuncts are collected in sets and from a syntactic perspective, they are in general simply required to be integrated into the immediate f-structure containing a PRED feature. The two are further distinguished by the standard assumption that semantic arguments receive a thematic specification, whereas adjuncts do not.

There are certain expressions that are often discussed in terms of thematic roles but which are unlike typical arguments in being optional. In particular, most PPs described as *comitatives*, *instruments*, *benefactives*, (spatial or abstract) *sources* and *goals* are in this non-core thematic domain. The standard LFG approach is to regard these as "*possible grammatical arguments of the verb*" (Bresnan: 1982, 165). Bresnan (1982) assumes that the verbs in (1a) and (1b), for example, are two distinct lexical entries: the latter has been derived from the former by the lexical rule of *Instrumentalization*. This rule adds an additional *instrument argument* to the input agentive predicate.[2]

(1)   a.   *John assassinated the president.*
       a.'   *assassinate$_1$*   < agent, patient >

       b.   *John assassinated the president with the dynamite.*
       b.'   *assassinate$_2$*   < agent, patient, instrument >

Technically, the instrument is obligatory *qua* the argument of the predicate (1b') in this analysis. Its apparent optionality is the result of the fact that we are in general free to choose between a lexical entry with (1b') or without (1a') an instrument. An *optional argument* of a predicate P_2 is then such that it (i) bears a thematic role and (ii) there exist a

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[1]   I will not be concerned with non-semantic arguments (e.g.: *expletives*) in this paper.

[2]   Here and throughout the paper I represent argument structure by inserting thematic roles directly into the argument list.

separate lexical entry P_1 in the lexicon which is minimally different from P_2 in not having this argument.[3]

This approach relies on a broad interpretation of argumenthood, which renders it difficult to capture more fine-grained distinctions between different uses of instruments, benefactives, and the like. Focusing on the example of instruments, there exist verbs which entail the existence of an instrument participant and which minimally contrast in this property with *assassinate* (*cut*, *peel*, *sow*, etc., see Levin & Rappaport 1995 and Reinhart 2002).

(2)   *John peeled the potato with the knife.*

The conceptual structure of *assassinate* does not entail the existence of an instrument – one can in principle assassinate the president simply by jumping on him/her. One grammatical reflex of this conceptual/semantic difference between the two verbs is that the instrument PP in (2) can, but the one in (1b) cannot be mapped onto SUBJ. This is pointed out in Reinhart (2002), who also calls attention to the fact that *peel* cannot otherwise take cause subjects (4). The noun phrase *the knife* is licensed in (3b) as an instrument.

(3)   a.   **The dynamite assassinated the president.*
      b.   *The knife peeled the apple.*

(4)   a.   **The heat assassinated the president.*
      b.   **The heat peeled the apple.*

One possible explanation for the grammaticality difference between (3a) and (3b) is that only argument PPs can be re-linked to a term function as a result of a morpholexical operation. In other words, the data in (3) can be explained if we assume that the instrument phrase is an argument of *peel*, but it is an adjunct of *assassinate*.[4] This is in accord with the fact that *peel* entails the existence of an instrument, but *assassinate* does not. If, however, we assume the analysis in (1b'), then it is not possible at the level of argument structure (and, consequently, at f-structure) to differentiate *peel*-type verbs systematically from verbs that do not entail the existence of an instrument (like *assassinate*).

Considerations of this sort have led to proposals in which non-core thematic expressions are not analyzed on a par with regular arguments. Rather, they can be treated as event-

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[3]   If we assume that regular arguments can be reduced (as in the case of the formation of passives, middles or reflexive/reciprocal verbs), then condition (ii) is a necessary but not a sufficient condition for an expression to be an optional argument.

[4]   Essentially the same argument is made in Grimshaw (2005:109, an updated version of Grimshaw 1989) to distinguish between two types of *for*-PPs. She claims that the PP in (ia) is a *possessor argument*, whereas the PP in (iia) is a benefactive and "*presumably an adjunct*". Consequently, only the former can undergo dative shift, i.e. be re-linked to a term function, cf. (ib) and (iib).

(i) a.   *I'll fix/make a sandwich for the children.*
    b.   *I'll fix/make the children a sandwich.*

(ii) a.   *I'll fix/mend the radiator for the children.*
     b.   **I'll fix/mend the children the radiator.*

internal participants which receive a special *circumstantial role* (Fillmore 1994, Cinque 1999, 2006), or a an *auxiliary theta role* (Ernst:2002, 65). It is important to emphasize that circumstantials receive a thematic role in their own right, unlike the *a-adjuncts* of Grimshaw (1990), which only gain their thematic specification by being related to a suppressed argument position, as is the case with passive *by*-phrases. The generally emerging view is that circumstantials are neither real arguments, nor real adjuncts, but are of a special intermediate sort. Cinque (2006), for example, builds up an analysis in which circumstantials have their own elaborate syntactic domain of insertion inside the VP.

I have started this paper with the point that the argument-adjunct dichotomy is fundamental in LFG. It seems desirable to maintain this design feature, which forces us to be strongly committed to categorizing circumstantials either as arguments or as adjuncts. As we have seen, Bresnan (1982) opts for treating them as arguments. Recently, Asudeh & Toivonen (2005, 2006) have proposed a different LFG-theoretic analysis of a subset of what I am referring to here as circumstantials. Let me concentrate on what they call the *Pgoal* (goal of perception), as this role type will directly be relevant to us. This role, which I regard to be a particular instance of experiencer, is borne by the optional *to*-PP of *seem*-type predicates, as in (5).

(5)   *It seemed to Tom that Kate had won.*

Asudeh & Toivonen (2005, 2006) make two important claims concerning the status of the *to*-PP. First, it is claimed to be an adjunct. The most important reason for this is that it is optional syntactically. Second, they assume that it bears a semantic, rather than a thematic role (every thematic role is a semantic role, but not vice versa). For them, only syntactic arguments bear a thematic role. Non-thematic semantic roles are possibly assigned not only to what has been referred to above as circumstantials, but also to time, place and manner adjuncts in general. They only briefly mention that instruments and Pgoals differ from time, place and manner adjuncts in being lexically restricted, but the two types of adjuncts are assigned a semantic type from the same pool of semantic roles (2006:22).

In this paper, I carry out an investigation of dative experiencers in Hungarian, the counterparts of English *to*-experiencers. I show that these datives in Hungarian and the corresponding *to*-PPs in English fall into three empirical classes and I argue that these classes are best captured if we assume the following triadic classification.

(6)   (a)   *This appeals **to me**.*   [(thematic) argument]

        (b)   *This is important **to me**.*   [thematic adjunct]

        (c)   ***To me**, this is nice.*   [(non-thematic) adjunct]

The *to*-PP in (6a) is a regular argument with a thematic role, which is selected by the predicate. The *to*-PP in (6c) is a regular event-external adjunct without a thematic role, and it is not selected by the predicate. I claim that the *to*-PP in (6b) is part of the non-core thematic domain, i.e. it is a type of circumstantial PP. I concur with Asudeh & Toivonen (2005, 2006) in categorizing this expression as an adjunct, rather than an argument. I argue nevertheless that these adjunct PPs receive the same sort of thematic specification as regular arguments. Accordingly, I refer to these objects of grammar as thematic adjuncts, or

ADJ_Θ for short.

The paper is organized as follows. I first discuss dative experiencer predicates in Hungarian (section 2). I show that dative arguments differ from dative thematic adjuncts in terms of their morphological encoding, their possible range of interpretations, and in terms of optionality (subsection 2.2.). Then I survey some empirical differences between thematic datives and non-thematic dative adjuncts (subsection 2.3.). I present an analysis in section 3. To represent thematic information, I assume a feature decomposition approach to thematic roles as in the Theta System of Reinhart (2000, 2002). I briefly show how Reinhart's Theta System can be accommodated in an LFG grammar (subsection 3.1.). Dative arguments (3.2.) and dative thematic adjuncts (3.3.) are then analyzed in this framework. Since the two thematic domains are formally kept separate along the lines of the argument-adjunct distinction, well-formedness conditions governing thematic entities can now be thought of as being applied to them in a distributive fashion. In particular, the uniqueness condition precludes the co-occurrence of two arguments or two thematic adjuncts of the same thematic type, but it is in principle not ruled out that an argument may co-occur with a thematic adjunct of the same thematic type. I show that this approach makes the right predictions with respect to how the thematic datives under investigation can be interpreted. I sum up in section 4.

2. Three types of dative experiencers in Hungarian: an empirical overview
2.1. *The predicate classes that take thematic datives*

Predicates that take dative experiencer arguments can be classified as falling into two groups in Hungarian. The first of these contains regular *piacere*-predicates (cf. Belletti & Rizzi 1988). I refer to the second group as *verbs of mental appearance*. This group includes psych-verbs which denote the emergence of a mental image or the resulting emotional state, and which are often metaphoric in nature. Respective examples are given in (8).

(7)   **Verbs taking dative arguments**

(i)   Group 1: *Piacere*-predicates
derogál   'it is beneath one's dignity to'
jól/ rosszul esik   'feels good/bad to' [*lit*. 'falls well/badly to sb]
sikerül   'succeeds, works well'
tetszik   'appeals to'

(ii)   Group 2: *Verbs of mental appearance*
feltűnik   'appears, attracts attention'
beugrik   'clicks, the recognition comes'   [*lit*. 'jumps in to sb']
bejön   'likes'   [*lit*. 'comes in to sb']
leesik   'gets it, picks it up'   [*lit*. 'falls down to sb']

(8)   a.   *Te   tetsz-el   János-nak.*
           you   appeal-2SG John-DAT
           'You appeal to John.'

b.   *Ez   be-jön   Kati-nak.*
this   in-come   Kate-DAT
'Kate likes this.'   [*lit*. 'This comes in to Kate.']

The number of predicates that take dative thematic adjuncts is relatively large. The two most important groups are modal and evaluative predicates.[5] Besides, there exist a variety of verbs that take optional dative experiencers, some of which I list in Group 3 below.[6] I provide an example sentence with an evaluative adjective in (10).

(9)   **Verbs taking dative thematic adjuncts**

(i)   Group 1:   Evaluative predicates
elég   'enough'
fontos   'important'
jó   'good'
kellemes   'pleasant'
korai   'early'

(ii)   Group 2:   Modal predicates
kell   'needs'
kötelező   'obligatory'
lehetséges   'possible'
szükséges   'necessary'

(iii)   Group 3:   Miscellaneous verbs licensing dative thematic adjuncts
számít   'matters, counts'
tűnik   'seems'
jelent   'means'
hiányzik   'is missing to'

(10)   *Ez   nagyon fontos   nek-em*.
this   very   important DAT-1SG
'This is very important to me.'

In the next subsection (2.2), I substantiate first the empirical difference between dative experiencer arguments (7) and dative thematic adjuncts (9). Then in 2.3, I provide some arguments for why these two sorts of datives should be distinguished from non-thematic, event external dative adjuncts. As we will see, such dative adjuncts can be inserted freely into any sentence, and are not required to be selected by particular types of predicates.

2.2. *Dative arguments vs. dative thematic adjuncts*

There are three important properties in which dative arguments differ from the proposed

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[5]   See Dalmi (2005), Komlósy (1994), É. Kiss (2002) and Tóth (2000), among others, for a discussion of these predicate classes. These authors all assume that modal and evaluative predicates take dative arguments in Hungarian.

[6]   A comprehensive taxonomy of the verbs in Group 3 can be found in Rákosi (2006).

dative thematic adjuncts. First, the morphology of dative arguments is always fixed in the lexicon, whereas dative thematic adjuncts can be coded by competing morphological markers. In English, experiencer arguments are always marked by the preposition *to* (11), whereas thematic adjuncts can generally appear as complements of either *to* or *for* (12).

(11) a. *You appeal to/*for John.*
      b. *The same thought occurred to/*for me.*

(12) a. *This doesn't matter to/for me.*
      b. *This is important to/for John.*
      c. *This is forbidden to/for us.*
      d. *This seems to/%for me the best option.*

There is some dialectal variation in the data in (12). In particular, *seem*-type raising predicates only dialectally license *for*-PPs, and most speakers of standard British or American English find it marginal or unacceptable. Furthermore, the two prepositions are not always completely equivalent semantically, a point I come back to directly. What is immediately relevant is that such morphological variation only exists in the case of the PPs in (12), but not in the case of the PPs in (11). The existence of this contrast is expected, even if not fully explained, under the assumption that only the PPs in (11) are arguments. Being arguments, their morphology can be closed in the lexicon. The morphological encoding of adjuncts (12), however, is generally relatively free, subject only to the available morphological inventory of the given language.

In Hungarian, dative thematic adjuncts are either marked by dative case or by the inflecting postposition *számára* 'for' (14).[7] Dative arguments require dative case (13).

(13) a. *Kati tetsz-ik   János-nak / *János   számára.*
          Kate appeal-3SG John-DAT   John   for.3SG
          'Kate appeals to/*for John.'

      b. *Ez   be-jön János-nak / *János   számára.*
          this in-come John-DAT   John   for.3SG
          'John likes this.'   [lit. 'This comes in to/*for John.']

(14) a. *Úgy tűn-t   János-nak / János   számára, hogy ... .*
          so   seem-PAST John-DAT   John   for.3SG   that
          'It seemed to/%for John that ... .'

      b. *Ez   fontos   János-nak / János   számára.*
          this important John-DAT   John   for.3SG
          'This is important to/for John.'

      c. *Ez   sok-at   jelent nek-em / számomra.*
          this much-ACC means DAT-1SG   for.1SG
          'This means a lot to/for me.'

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[7] As far as terminology is concerned, I abstract over this morphological variation and continue using the term *dative thematic adjunct* to refer to expressions that are in fact marked by the postposition *számára* 'for'.

Thus the contrast that we have observed in English reappears in Hungarian.[8]

The second property in which the two types of dative expressions in question differ concerns their semantics. Dative arguments of *piacere*-predicates and of *verbs of mental appearance* are necessarily interpreted as experiencers, that is, they refer to participants whose mental state is described by the predicate. In the case of dative thematic adjuncts, however, it is generally possible to have a non-psych construal, too. Consider the following two sentences, the first of which has an argument dative, and the second has a dative thematic adjunct.

(15) a. *János-nak tetsz-ik a meleg idő.*
John-DAT appeal-3SG the warm weather
'Warm weather appeals to John.'

b. *János-nak nem számít a meleg idő.*
John-DAT not matter the warm weather
'Warm weather does not matter to John.'

If (15a) is uttered, John must have favorable dispositions towards warm weather. It does not matter whether he is aware of it or not, he must like warm weather by (15a). (15b), on the other hand, can be used to describe a property of John, and it need not tell us anything about his dispositions (cf. Arad 1998 for similar data). (15b) is compatible with the assertion that John himself in fact believes that warm weather matters to him – but somebody else (his coach, for example) knows that this is not true and John can play in warm weather just as well as in cold weather.

That dative thematic adjuncts need not be interpreted as experiencers is evident in light of the fact that most predicates that license them allow them to be inanimate. *For* tends to be preferred to the preposition *to* in these environments, but *to* is also grammatical, cf. (16b).

(16) a. *Garlic is good for the vocal cords.*
b. *Oceans are important to the environment.*
c. *We don't know what these particles were, but it doesn't matter for the theory.*

In Hungarian, most speakers require the complement of the postposition *számára* 'for' to be animate and therefore dative case is generally the only option with inanimates.

(17) *A fokhagyma jó a hangszalag-ok-nak / *hangszalag-ok számára.*
the garlic good the vocal.cord-PL-DAT vocal.cord-PL for.3SG
'Garlic is good to/for the vocal cords.'

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[8] The cross-linguistic distribution of dative case and *for*-type P-elements is somewhat more complex. As far as I am aware, it generally holds that dative arguments (e.g. the *piacere*-class) cannot be coded by anything else than dative case if dative is available in the language. There is some variation in whether dative case is grammatical on thematic adjuncts (especially with modals and evaluatives), or only an equivalent of *for* can be used. In Russian, the preposition *dlja* 'for' is licensed on thematic adjuncts as an alternative to dative case, whereas Romanian only allows dative case with some of these predicates and it is more common to use the preposition *pentru* 'for' instead. In Italian and Czech, dative case is almost never allowed on thematic adjuncts and a preposition must be used (*per* in Italian and *pro* in Czech, both meaning 'for').

Some of the predicates that license a dative thematic adjunct have a [+animate] selectional restriction on it. *Kellemes* 'pleasant', *kellemetlen* 'unpleasant' and *kényelmes* 'comfortable' belong to this cross-linguistically identifiable group. This selectional restriction notwithstanding, a non-psych reading is still available.[9] Consider this Hungarian example.

(18)   *Ez   a   helyzet   kellemetlen   János-nak   /   János   számára.*
         this   the   situation   unpleasant   John-DAT   John   for.3SG
         'This situation is unpleasant to/for John.'

(18) is ambiguous the same way as (15b). It has a psych-reading that expresses John's mental state, but it can also be uttered in a context in which the speaker knows that John is in fact enjoying the situation. There is a slight preference to use *számára* 'for' to render the non-psych reading, but the ambiguity is generally present both with dative case and the postposition.

    The third property in which dative thematic adjuncts differ from dative arguments is their optionality. Indeed, this is the crucial property which, I argue, makes them what they are. An argument can be optional in the sense that it is semantically closed in the lexicon and is not represented in c-structure (cf. Bresnan 1982). Using generally accepted terminology, this argument remains implicit. In English, dative arguments always have to be expressed phonologically; observe the contrast between *appeal to* and *matter*. The latter is analyzed here as taking a dative thematic adjunct.

(19)   a.   *This does not appeal *(to me).*
       b.   *This does not matter (to me).*

In Hungarian, a dative argument can be omitted in appropriate discourse, but it necessarily has to be interpreted as a definite implicit argument, whose intended referent is always recoverable from the context. By default, the referent of an implicit dative argument is identified with the speaker. Consider the following example.

(20)   *Manapság   nem   népszerű   ez   a   könyv,   de   régen   tetsz-ett.*
         these.days   not   popular   this the   book   but   formerly   appeal-PAST
         (i)   'This book is not popular these days, but it used to appeal to me.'
         (ii)   *'This book is not popular these days, but it used to appeal to someone.'
         (iii)   *'This book is not popular these days, but it used to appeal to people.'

The only possible interpretation of this sentence is the one given under (i), and there is no discourse which would license the interpretations (ii) and (iii). It is obvious that the existence of a definite dative experiencer argument is always entailed, and Hungarian only differs from English in allowing this dative argument to remain implicit.

    The question is then how to approach (19b) or (21). These two sentences contain predicates that I claim to license an optional dative thematic adjunct.

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[9]   The only exception to this is 'tűnik' *seem*. This predicate necessarily reflects the mental state of the referent of its optional dative thematic adjunct.

(21)   *A   fehér   galamb jelent-i   a   béké-t.*
            the   white   dove   mean-3SG the   peace-ACC
            'The white dove means peace.'

(21) describes a property of the white dove, rather than a relation between it and an individual or a set of individuals (cf. Jackendoff to appear, Cuervo 2003). It is evident that there is no definite implicit dative involved, in contrast with (20). We could still assume, however, that a dative thematic adjunct can be closed existentially or universally, in which case (21) corresponds roughly to (22a) or (22b). I use English for ease of exposition.

(22) a.   *The white dove means peace to someone.*
      b.   *The white dove means peace to everyone.*

The objective or "*perspective-free*" (Jackendoff to appear) interpretation of (21) is certainly compatible with (22a), and (22b) seems to be a good paraphrase of what (21) means. I want to argue nevertheless that (21) is not equivalent to the construction in (22b) in semantic terms. It is known that universal quantification tolerates exceptions (23a), but it does not tolerate massive exceptions (23b,c).

(23) a.   *The white dove means peace to everyone, but John does not know this symbol.*
      b.   *#The white dove means peace to everyone,*
           though most people do not know this symbol.
      c.   *#The white dove means peace to everyone, though no one knows this symbol.*

(23b), and especially (23c), are contradictory. However, if the dative is unexpressed in the matrix clause, such construction generally become acceptable to most speakers.

(24) a.   *The white dove means peace, though most people do not know this symbol.*
      b.   *The white dove means peace, though no one really knows this symbol.*

This effect is even stronger if some domain restriction is placed on the predicate; compare the following two sentences.[10]

(25) a.   *#This book is historically important for everyone,*
           though not for anybody anymore.
      b.   *This book is historically important, but not for anybody anymore.*

It does not seem to be the case therefore that a construction of the type *The white dove means peace* can be reduced to *The white dove means peace to everyone*. In other words, a dative thematic adjunct can be genuinely absent not only in the syntactic sense, but also in the sense of not being entailed by the predicate. As such, it is not represented as an implicit argument, and the predicates *important* or *mean*, as well as the rest of the predicates in (9) can be thought to be truly monadic. A dative thematic adjunct is only added optionally.

What I am claiming is that *This book is important* does not entail that the book is important for anyone, though it is entailed that someone will find it important. Crucially,

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however, the two participants in question are of two different syntactic types, and they may in fact co-occur in the same clause. Consider the following examples.[11]

(26) a. *To me, this book is important for mankind.*

     b. *Számomra, ez   a   könyv   fontos   az   emberiség-nek.*
        for.1SG   this   the   book   important   the   mankind-DAT
        'For me, this book is important to mankind.'

The first adjunct (the *to*-PP in (26a) and the postpositional phrase in the Hungarian example (26b)) is a real, non-thematic adjunct, external to the VP and to the event. It identifies an individual who is taken to be the immediate anchor of the model in which the embedded proposition is interpreted. These initial PPs are like time, place, and manner adjuncts which function semantically as clause-level operators. As Bresnan (1982) points out, these frames or anchors are entailed for every clause, but this does not make them arguments. In the next section, I briefly discuss these event-external experiencers. Continuing my previous practice, I make the terminological convenience of talking uniformly about dative adjuncts irrespective of the actual encoding (dative case or P-marker).

2.3. *Non-thematic dative adjuncts*

An event-external experiencer dative can be added to any declarative sentence, as in the following English and Hungarian examples.

(27) a. *To her and her colleagues, this is simply a great opera.*
     b. *For me, it is first and foremost an intellectual exercise.*
     c. *To me, he had a great life in London - seeing friends, eating out, having time to read ... .*

(28) *Számomra / nek-em,   a   barátság   az   barátság.*
     for.1SG   DAT-1SG   the   friendship   that   friendship
     'For/to me, friendship is friendship.'

These expressions are adjuncts, which is evidenced by the fact that their morphology is not fixed (cf. 2.2). I analyze them as non-thematic, regular adjuncts. In this subsection, I briefly discuss some properties by which these differ empirically from dative arguments and event-internal dative thematic adjuncts.

First of all, event-external dative adjuncts do not need to be licensed by specific classes of predicates. (27) and (28) show that they can be inserted quite freely. Second, they are ungrammatical or very marginal in a predicate-internal c-structure position. This is true even in Hungarian, a language which is known to be non-configurational (cf. É. Kiss 2002). Thus whereas a dative thematic adjunct can be inserted between its predicate and the subordinate clause (29a), a non-thematic dative adjunct cannot (29b). It typically occurs on the left edge of the clause (29c).

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[11] This construction sounds best in both languages if a different morphological marker is chosen for the two experiencers.

(29) a. *Fontos   nek-em,   hogy itt-marad-j.*
important DAT-1SG   that   here-stay-SUBJUNCTIVE.2SG
'It is important for me that you should stay here.'

b. *??/*Butaság   nek-em,   hogy itt-marad-sz.*
stupidity DAT-1SG   that   here-stay-2SG
'It is a stupidity to me that you stay here.'

c. *Nek-em   butaság,   hogy itt-marad-sz.*
DAT-1SG   stupidity   that   here-stay-2SG
'To me, it is a stupidity that you stay here.'

Third, dative thematic adjuncts can host anaphors in Hungarian whereas non-thematic dative adjuncts cannot, or only very marginally.

(30) a. *Egymás-nak   fontos-ak   vagyunk.*
each.other-DAT   important-PL   are.1PL
'To each other, we are important.'

b. *??/*Egymás-nak   vicces-ek   vagyunk.*
each.other-DAT   funny-PL   are.1PL
'To each other, we are funny.'

For a more detailed discussion of the syntactic differences between thematic and non-thematic datives, I refer the reader to Rákosi (2006).

Though they do not receive a thematic role, the event-external datives are also interpreted as experiencers in the sense of primarily reflecting upon their referent's dispositions, rather than on their knowledge state. Dative adjuncts minimally contrast with *according to*-type adjuncts in this respect. Imagine a context in which *John* knows that *Kate* is ugly.

(31)   **John knows that Kate is ugly but**

(a)   *#according to him, she is still beautiful.*

(b)   *to him, she is still beautiful.*

In such a context, (31b) can be used felicitously, but (31a) cannot. *According to him* introduces a report on what John knows, whereas *to him* introduces a report on what John feels. *To him* relativizes the interpretation of the proposition *Kate is beautiful* to a model determined by John's disposition or feelings, and this model can in principle be compatible with a model that represents John's knowledge state and which contains the proposition *Kate is ugly*. This shows that non-thematic dative adjuncts have experiencer semantics. Indeed, this is the reason why they are discussed here together with thematic datives. However, being external to the event, they do not receive a thematic role, and their experiencerhood can be thought of as a semantic role, as this notion is understood by Asudeh & Toivonen (2005, 2006).

3.   Datives in two thematic domains
3.1.   *The Theta System of Reinhart (2000, 2002)*

I briefly introduce here the Theta System of Reinhart (2000, 2002), which is a lexicalist thematic theory that provides us with the tools that enable us to capture the behavior of dative thematic adjuncts, and to compare them with dative arguments. I focus on those aspects of the Theta System that are immediately relevant.

Reinhart's proposal shares some of its basic background assumptions with Dowty's (1991) proto-role analysis and with subsequent LFG-based proto-role analyses (such as Ackerman 1992, Zaenen 1993, and Alsina 1996). In particular, the traditional system of discrete thematic roles is rejected in the Theta System, and the exact interpretation of thematic content is thought to be possibly context-dependent. The Theta System differs from proto-role accounts as well as from the standard lexical mapping theory of LFG (cf. Bresnan & Kanerva 1989), inasmuch as thematic information is decomposed into two binary features: +/–*cause* and +/–*mentally involved*. A traditional agent argument, for example, is coded as [+c+m], since an agent-type participant is causally responsible for the event and he/she is also mentally involved. A patient is coded negatively as a participant that is not causally responsible and whose mental state is not necessarily relevant in the interpretation of the event: [−c−m]. The value of either attribute can be left unspecified in the lexicon, as in the case of the subject argument of *open*, which can be interpreted as an agentive or a non-agentive cause: [+c]. Traditional thematic role labels are not recognized formally in the Theta System and are not used to characterize the thematic content of arguments. Terms like *agent*, *patient*, and the like are at best names of semantic roles. In (32), I list the thematic roles of the Theta System and the semantic roles they correspond to.

(32)   ***Feature decomposition of thematic roles in the Theta System***

THEMATIC ROLES	CORRESPONDING SEMANTIC ROLES
[+c+m]	agent
[+c−m]	instrument
[−c+m]	experiencer (*worry*-type object experiencers)
[−c−m]	theme, patient
[+c]	cause
[+m]	sentient, experiencer (*like*-type subject experiencers)
[−m]	subject matter (cf. Pesetsky 1995), locative source
[−c]	goal, benefactive, recipient, experiencer (*appeal to*)

In LMT, features are used to decompose argument functions. The features [+/–r(estrictive] and [+/–o(bjective)] mediate between the thematic content of an argument and the syntactic function the argument is mapped onto. These features are thus essential for the mapping. In the Theta System, the [+/–c] and the [+/–m] features are interpretable, and they are used to encode thematic information directly.

Reinhart's (2000, 2002) mapping proposal has two dimensions. One is a distinction between external and internal arguments. This is not directly relevant for us, and I refer the reader to the works cited for the details. The other dimension concerns the role of case in

the mapping.[12]

(33)   ***Mapping of arguments in the Theta System***: *the case dimension*

        Given an n-place verb, n>1

     a.   Mark the verb with the ACC feature if the entry includes
both a [+]-role (i.e., [+c+m], [+m] or [+c]), and a fully specified cluster
with the [−c] feature (i.e., [−c+m] or [−c−m]).

     b.   The [−] unary features (i.e., [−m] and [−c]) require inherent case
(or an adposition).

Since the EPP is assumed, the argument which does not receive lexically specified case generally becomes a subject. In case of monadic entries, the single argument is always a subject. For our purposes, this can be adopted into an LFG-framework as follows.

(34)   ***An LFG-theoretic reconsideration of (33)***

     a.   Assume the Subject Condition.

     b.   An argument specified as [−c+m] or [−c−m] is mapped onto OBJ in the
presence of an argument specified as [+c+m], [+m] or [+c].

     c.   An argument specified as [−m] or [−c] is mapped onto OBL_{Θ}.

     d.   Other arguments, including the single argument of a monadic predicate, are
mapped onto SUBJ.

(34) will be sufficient for our purposes.

We need two further ingredients for the analysis. First, uniqueness is recognized in the Theta System as a well-formedness condition on argument structures (cf. Marelj 2004). I make specific arguments in Rákosi (2006) that uniqueness can be interpreted as directly applying to thematic features, rather than to semantic roles. In other words, an argument structure which includes two [−c−m] roles at the same time is ungrammatical, even though one argument could be interpreted as a theme (i.e. unaffected entity that moves) and the other as a patient (affected entity), and thus they would not share the same semantic role. Second, Marelj (2004:67) proposes the following rule on unary thematic roles.

(35)   ***The Principle of Full Interpretation*** (Marelj: 2004, 67)

        For the purposes of interpretation, all thematic roles must be fully specified.

[+c] is a unary thematic role in the sense that the *mental state relevant* attribute is underspecified. The subject of the verb *open* has an underspecified subject of this sort (36a). What (35) says is that in a given context of use, the [+c] argument will be interpreted either as [+c+**m]**, as in (36b), or as [+c**−m]**, as in (36c).

---

[12]   Notice that this mapping proposal does not rely on a thematic hierarchy. The traditional thematic hierarchy cannot have a formal role in the Theta System since traditional thematic role labels are not used to specify thematic content.

(36) a. *open*:   < [+c] [−c−m] >
    b. *John*$_{[+c+m]}$ *opened the window*$_{[−c−m]}$.
    c. *The wind*$_{[+c−m]}$ *opened the window*$_{[−c−m]}$.

This 'expansion' is governed by uniqueness, that is, it cannot result in two identical fully specified roles.

Finally, let me make a remark on how experiencers are encoded in the Theta System. As I have shown in (32), a traditional experiencer may be encoded as [−c+m], [+m] or [−c]. [−c+m] is the specification that the object of *worry*-type predicates receive. The subject of *like*-type subject experiencers is [+m]. Dative experiencers are coded as [−c]. In Rákosi (2006), I argue that this difference is not arbitrary, but there indeed exist thematically relevant differences between arguments that are otherwise all treated as experiencers. For now, it suffices to be aware that by (35) each of these three roles can be interpreted as [−c+m], and therefore there is a possible construal under which the thematic content of these three different types of experiencers is the same. In particular, the [−c] encoding of dative arguments helps us to capture the known conceptual and morphological relatedness between benefactives, recipients and dative experiencers. The generalization over these semantic roles is that they characterize participants that are not causally related to the event, but their mental state can be relevant.

I now turn to the analysis of the dative argument - dative thematic adjunct distinction that I have made empirical arguments for in section 2. The analysis is going to be executed as an extension of the Theta System.

3.2. *Dative experiencer arguments in the Theta System*

Predicates that have dative experiencer arguments (7) are represented in the form of the following type of dyadic lexical entry.

(37)   *tetszik* 'appeal to< [−c−m] [−c] >'

The dative argument is coded as [−c], as discussed at the end of subsection 3.1. The subject argument of these predicates is coded as [−c−m] in the Theta System. The [−m] feature is self-explanatory, given that the mental state of a stimulus-type participant is not relevant in the event. The [−c] specification of the subject is in accordance with Pesetsky's claim that *piacere*-predicates do not have a cause(r) subject. For Pesetsky, this argument bears the role *target* (*of emotion*). A target-type participant is simply evaluated, but it does not affect the experiencer.[13]

The mapping of the entry in (37) is described in (38).

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[13] As Pesetsky (1995) points out, *appeal to* minimally differs from *please* in this respect. *Please* does have a cause subject. One consequence is that only *please* can be passivized.

(i) a. **John was appealed to by the film.*
    b. *John was pleased by the film.*

(38)   *tetszik*$_v$ 'appeal to < [−c−m] [−c] >

                                    OBL$_{[-c]}$ [34c]
                            SUBJ   [34d, *Subject Condition*]

I now repeat (8a) as (39). (40) is the simplified f-structure of (39).

(39)   *Te   tetsz-el   János-nak.*
        you   appeal-2SG John-DAT
        'You appeal to John.'

(40)
$$
\begin{bmatrix}
\text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'PRO'} \\ \text{CASE} & \text{NOM} \\ \text{PERS} & 2 \\ \text{NUM} & \text{SG} \end{bmatrix} \\
\\
\text{PRED} & \text{'appeal to < (SUBJ) (OBL}_{[-c]}\text{) >'} \\
\\
\text{OBL}_{[-c]} & \begin{bmatrix} \text{PRED} & \text{'JOHN'} \\ \text{CASE} & \text{DAT} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \end{bmatrix}
\end{bmatrix}
$$

I have argued in 2.2. that dative experiencer arguments are morphologically closed; they can only be coded by dative case. Following Bresnan & Kaplan's (1982) analysis, I assume that *to* is a non-predicative case-marker that is used to code [−c]-arguments, including experiencers of *appeal to* predicates. I consider dative case in Hungarian to have the same function. It is a *semantic case* in the sense of Butt & King (2005).[14] The lexical entry for (this use of the) Hungarian dative case can be described as in (41), in the manner of Butt & King's analysis of Urdu/Hindi semantic case markers.

(41)   *-nVk*:   (↑CASE)=DAT
                (OBL$_{[-c]}$↑)

This requires Hungarian dative case to be associated with a [−c] oblique argument.

Finally, I have shown in 2.2. that dative experiencers of *piacere*-predicates and of verbs of mental appearance can only be interpreted as experiencers. This can be derived in the Theta System as follows (cf. Marelj 2004). By the Principle of Full Interpretation (35), every argument has to be fully specified for the purposes of interpretation. In the current case, the [−c] argument is underspecified, and two different interpretations can be

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[14]   Hungarian dative case satisfies the two defining characteristics of semantic case that Butt & King (2005) propose: (i) predictability via the formulation of generalizations across predicates and constructions, and (ii) a subjection to syntactic restrictions (such as only appearing on certain grammatical functions).

computed.

(42) a.   *tetszik*   'appeal to < [−c−m] [−c+**m**] >'
      b.   **tetszik* 'appeal to < [−c−m] [−c−**m**] >'

(42b), however, is ruled out by the uniqueness constraint, since two [−c−m] roles co-occur in the same argument structure. Therefore, only (42a) is a well-formed interpretation, and it indeed requires the dative argument to be construed as an experiencer.

3.3.   *Dative thematic adjuncts in the Theta System*

I argued in 2.2. that modal and evaluative predicates, as well as the verbs listed in (9) do not select for a dative argument. They only license a dative thematic adjunct. Let me first characterize the argument structure of these predicates. In the previous subsection 3.2, I argued that the subject of a verb that takes a dative experiencer argument is a non-cause *target*, or [−c−m] in terms of the Theta System. In contrast, the subject of a predicate that takes a dative thematic adjunct can often be interpreted as a potential cause. Consider the following English examples.

(43) a.   *The situation was unpleasant for John.*
      b.   *The water was not enough for all the soldiers.*
      c.   *This matters to me a lot.*

The PPs refer to participants which are all affected in the relevant events. An affected participant generally occurs at one end of a causality chain which starts with a cause. Affectedness is not included among the thematic features in the Theta System, but being a cause is thought to be a thematically relevant property. I assume consequently that the subject of the predicates in (43) is a potential cause, or [−m] in terms of the Theta System, underspecified for the *cause*-feature. I assume furthermore that the predicates that license [−c] dative thematic adjuncts all have a [−m] subject argument. We can possibly derive the licensing condition of dative thematic adjuncts from this, on analogy with the licensing of non-argument instruments, which I take to be thematic adjuncts of the [+c−m]-type. It is well-known that an instrument phrase is licensed by any predicate that has an agent argument ([+c+m]). Similarly, a [−m] subject, which can potentially be interpreted as a cause, can license a non-cause participant [−c], which can be affected in the event denoted by the predicate.

The lexical entry for the representative predicate *fontos* 'important' is given in (44). For expository purposes, I represent the optional thematic adjunct in brackets outside the argument list and outside the semantic form of the predicate. This notation is not intended to mean that the dative is a non-thematic argument, nor do I want to suggest that it is in fact part of the argument list in any way.

(44)   *fontos* 'important < [−m] >' ([−c])

(44) simply tells us that the semantic form of the predicate *fontos* 'important' is such that it optionally can license a thematic adjunct. But (44) is a monadic entry, and its single

argument will be mapped onto SUBJ by the Subject Condition.

We have seen that this adjunct can be coded by dative case as well as by the postposition *számára* 'for'. I assume that these two are not simply case-markers, but are predicative P-elements (cf. Bresnan 1982, footnote 12). This entails that dative case has another lexical entry in Hungarian, which crucially differs from the case-marker (41) in having a PRED feature. The two relevant lexical entries therefore minimally encode the following information.

(45) a.   *-nVk₂*   'to < (OBJ) >'
      b.   *számára*   'for < (OBJ) >'

(45) includes only the bare minimum that is needed now. Most importantly, it should also be specified that the dative in (45a) is still a morphological case, whereas (45b) is a postposition.[15] What is important, however, is that these markers are predicative. Since the postposition *számára* 'for' only has a predicative use, it follows that it cannot mark arguments, since PRED features cannot be unified.

I now repeat (26b) as (46). Recall that this sentence has two adjuncts: the initial postpositional phrase is a non-thematic adjunct, and the predicate-internal dative DP is a thematic adjunct. I focus on the essentials in the f-structure (47). For expository purposes, I have placed the thematic adjunct into a distinct set. This need not be necessary: I assume that the thematic tag on an adjunct sufficiently identifies it as being of a category that has its own distinguishing syntactic properties.

(46)   *Számomra, ez   a   könyv   fontos   az   emberiség-nek.*
          for.1SG   this   the   book   important the   mankind-DAT
          'For me, this book is important to mankind.'

---

[15] It is well-known though in the literature on Hungarian that case markers have developed historically from postpositions. There are many synchronic similarities between dative case and *számára* 'for'. Both take a bare (non-casemarked) complement, which I simply analyze below in (47) by assuming that the CASE feature is not defined on the complement. Besides, the complement of the postposition *számára* 'for' can only marginally be extracted out of the PP, which shows that the two make up a tight morphological unit.

(47)

$$
\begin{bmatrix}
\text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{`BOOK'} \\ \text{SPEC} & \text{THIS} \\ \text{CASE} & \text{NOM} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \end{bmatrix} \\[2em]
\text{PRED} & \text{`important} < (\text{SUBJ}) >\text{'} \\[1em]
\text{ADJ}_{[-c]} & \left\{ \begin{bmatrix} \text{PRED} & \text{`TO} < (\text{OBJ}) >\text{'} \\ \text{OBJ} & \begin{bmatrix} \text{PRED} & \text{`MANKIND'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \end{bmatrix} \end{bmatrix} \right\} \\[3em]
\text{ADJ} & \left\{ \begin{bmatrix} \text{PRED} & \text{`FOR} < (\text{OBJ}) >\text{'} \\ \text{OBJ} & \begin{bmatrix} \text{PRED} & \text{`PRO'} \\ \text{PERS} & 1 \\ \text{NUM} & \text{SG} \end{bmatrix} \end{bmatrix} \right\}
\end{bmatrix}
$$

Finally, I need to account for the fact that dative thematic adjuncts do not have to be interpreted as experiencers (cf. 2.2). To be able to do so, I assume a relativized understanding of the uniqueness constraint (Rákosi 2006). The basic idea is that thematic arguments and thematic adjuncts represent two distinct thematic domains.

(48)   **Relativized thematic uniqueness**

    a.   The thematic specification of the arguments of a predicate is unique.
    b.   The thematic specification of the thematic adjuncts of a predicate is unique.
    c.   Uniqueness is relative to the given thematic domain of application.

By the Principle of Full Interpretation (35), the entry in (44) can be fully specified thematically in four different ways, assuming the thematic adjunct is present.

(49) a.   *fontos* 'important $< [\mathbf{+c}{-}\text{m}] >$' $[{-}\text{c}{+}\mathbf{m}]$
      b.   *fontos* 'important $< [\mathbf{+c}{-}\text{m}] >$' $[{-}\text{c}{-}\mathbf{m}]$
      c.   *fontos* 'important $< [\mathbf{-c}{-}\text{m}] >$' $[{-}\text{c}{+}\mathbf{m}]$
      d.   *fontos* 'important $< [\mathbf{-c}{-}\text{m}] >$' $[{-}\text{c}{-}\mathbf{m}]$

(49b,d) represent the non-experiencer uses of the thematic adjunct. (49d), in particular, is well-formed even if the same thematic role occurs twice ([−c−m]). This is so because one is assigned to an argument, and the other is assigned to a thematic adjunct, and the uniqueness constraint has been relativized in (48) to apply over these two domains distributively.

4. Conclusions

In this paper, I have explored the possibility that so-called circumstantial PPs can be systematically analyzed as thematic adjuncts. I have focused on dative experiencers, and I hope to have shown that there is empirical motivation behind the assumption that not only arguments, but also certain adjuncts can receive a thematic role. One possible objection to this step may be that it makes our grammar less restrictive, as the inventory of basic syntactic categories is enriched. I believe the introduction of thematic adjuncts is motivated, at least for the following reasons.

First of all, notice that in the strict sense, I have not introduced another basic syntactic category. A thematic adjunct is a type of adjunct which differs from other adjuncts in receiving thematic specification. I have argued that the Theta System of Reinhart (2000, 2002) provides us with tools to express this thematic specification without actually expanding the inventory used in the thematic coding of arguments. Second, by the introduction of thematic adjuncts it becomes in principle possible to eliminate the notion of 'possible arguments' from the grammar. I have shown that this can be achieved with respect to dative experiencers: there is no optional dative experiencer argument. If a dative experiencer is optional, it is taken to be an adjunct in the current proposal. In Rákosi (2006), I argue that instruments, comitatives, and benefactives can be similarly analyzed. Third, thematic adjuncts can be distinguished systematically from event-external, non-thematic adjuncts. Typically, thematic adjuncts are licensed in the presence of a designated type of argument, as is true of instruments and the datives discussed. Event-external adjuncts are generally not selected by the predicate, therefore they cannot be licensed as thematic expressions. I have tried to present independent evidence for this partition of adjuncts. Notice that thematic datives have been argued to refer to possibly affected participants. Being affected is typically a property associated with thematic entities. Event-external dative adjuncts cannot refer to affected participants. Furthermore, I have shown in 3.3. that the thematic analysis of certain dative adjuncts gives the right predictions with respect to how they can be interpreted. Fourth, the current proposal combines what I believe to be the attractive aspects of the traditional LFG approach to circumstantial PPs with the insight of Asudeh & Toivonen (2005, 2006), inasmuch as circumstantial PPs are assigned a thematic role but they are still treated as adjuncts.

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