

Objects are the most semantically inert grammatical function, challenging the consensus over the thematic hierarchy which governs participant-to-function mapping, and apparently needing four distinct grammatical function labels to capture the distinctions between arguments in their different functions ('direct object' vs 'primary object', and 'indirect object' vs 'secondary object'). I argue that the two 'objective' grammatical functions proposed in LFG – OBJ and OBJ_θ – are sufficient, and that the other tools available in LMT – feature decomposition of grammatical functions, the distinction between basic and derived participant-to-function mappings, and the concomitant default versus non-default distribution of properties associated with grammatical functions over the available arguments – can appropriately model all types of objects.

1. Justifying the second object function (OBJ_θ) Although the original motivation for the second object in LMT (OBJ₂, now OBJ_θ) came from the double object construction found in the dative alternation, I argue for the need to distinguish OBJ_θ from both OBJ and OBL based on data from languages which are considered to have 'canonical datives' (both subcategorised and free), such as:

- (1) *Maria buk Jana einen Kuchen.* (German)
 Maria.NOM baked Jana.DAT a.ACC cake.ACC
 'Maria baked Jana a cake.'

Languages with canonical datives (i.e. languages with 'true' datives, Levin 2006: 12; or 'indirect object-centred languages', Gerds 1993: 592), are those whose dative marker is distinct from allative or locative markers, and which do not have a construction corresponding to the English double object construction in which the beneficiary/recipient would receive the same encoding as the theme/patient (Siewierska 1998).

Apart from their dedicated morphology, canonical dative arguments are distinct from objects on several syntactic accounts: they cannot passivise; they show binding and extraction limitations (see Vogel and Steinbach 1998: 72-77 for a summary of tests in German); they may use a different relativisation strategy (see Sadler and Camilleri 2012 for Maltese); they are always optional; and in principle they can be multiplied (with different semantic interpretations). In the (anti)causative alternation, the object of the causative always alternates with the subject of the anticausative, while the subject of the causative can optionally alternate with the dative argument in the anticausative (e.g. in Polish, Kibort 2007: 258).

Similarly, both the morphological encoding and the syntax distinguish canonical dative arguments from other obliques, in particular oblique recipients/goals: they are casemarked rather than preposition marked; in Maltese, pronominal datives are expressed by verbal affixes, while pronominal obliques are inflected prepositions, furthermore, datives and obliques also use different relativisation strategies and show accessibility contrasts in pronominal binding (Sadler and Camilleri 2012); quantifier float may be possible with datives but not oblique goals (Maltese, Polish); a dative and an oblique recipient can co-occur (and occasionally alternate if the meanings of both participants allow this); however, although the subject of the causative can optionally alternate with the dative argument in the anticausative, an oblique recipient cannot alternate with the subject of the causative.

In traditional views, the canonical dative is a 'structural case' encoding a Proto-Beneficiary (see e.g. Primus 1999). The contrasts listed above support the LFG proposal that OBJ_θ is a distinct grammatical function, and the fact that the canonical dative is not restricted to a small class of subcategorising predicates but is available to any 'free' beneficiaries supports the view that it is a basic grammatical function in languages with canonical datives.

2. The semantics of OBJ and OBJ_θ, and the participant-to-argument mapping Börjars and Vincent (2008) demonstrate that the grammatical function of the object cannot be associated with any easily definable semantic content - cognate objects, pseudo-objects in resultative constructions, and object expletives are particularly revealing examples. Derived constructions (whether morphologically marked on the verb or not) provide further evidence: in the dative alternation theme and recipient compete for the object status; similarly, themes and various other oblique participants compete to be objects in numerous other English alternations such as the *spray/load* alternation, the *with-against* alternation, etc., documented by Levin (1993: Ch. 2); furthermore, in applicative constructions, a wide range of semantic participants may become objects. The dative alternation has been the main source of the controversy over the ranking of recipient/goal and theme/patient in thematic hierarchies, but a broader consideration of the semantics of objects reveals that no single thematic hierarchy will capture the mapping between thematic roles and OBJ.

Börjars and Vincent (2008) leave the development of a revised formal analysis of the mapping between grammatical functions and roles to further work. The present paper offers a direction in which this work could be undertaken. I employ one of the existing models of LMT (with the revisions proposed in Kibort 2007) which assumes that any operations on argument structure that alter the meaning of the predicate – and thereby change the predicate's entailments and the interpretation of the roles of its participants – occur in the lexical semantics (Ackerman and Moore 2013: 10ff). In this way, the LMT algorithm that determines grammatical functions can remain monotonic and be entirely dependent on the classificatory features (Ackerman and Moore 2013: 18).

In the absence of a universal thematic hierarchy governing participant-to-argument mapping, the following is a proposal of mapping principles which capture instead the relations the participants of the predication bear to one another and to the predication. The ordering of argument positions already represents the relative syntactic prominence of the arguments of the predicate (based on the Keenan and Comrie 1977 hierarchy):

- (2) Rules for mapping participants to the argument positions
- a. The participant of whom the event or state is predicated maps on the first argument position (arg₁).
 - b. If the predicator has any dependents, the most prominent semantic complement of the predicator maps on the second argument position (arg₂).
 - c. [For languages with datives – some languages may not use this argument position] If the predicator has another semantic complement, it maps on the third argument position (arg₃).
 - d. If the predicator has further semantic dependents which it selects, they map onto further argument positions (arg₄, ..., arg_n).

The mapping rules in (2) have to be made more specific for particular languages – e.g. many languages restrict the semantics of the participant which is allowed to map onto the first argument position (arg_1), the default argument position of the subject. This restriction could be formulated in terms of a cluster of properties (as in the Dowtian proto-role approach, implemented e.g. in Ackerman and Moore 2001, 2013), or in terms of features (e.g. inspired by Reinhart 2002: +/- causally involved, and +/- possessing a mental state). For most languages, rule (b) probably has to remain as stated, without any further restrictions. For all languages with canonical datives, rule (c) can further specify that the participant which is to map onto the third argument position (arg_3) has to be a beneficiary/recipient (corresponding e.g. to Primus’s 1999 proto-role definition, or Levin’s 2006 LCS definition); with this specification, it will also be possible to achieve correct mappings for monotransitive verbs which subcategorise only for a dative (e.g. ‘help’, ‘serve’, etc.). Rule (d) is for all other arguments contributing to the specification of the predication, i.e. arguments fulfilling various oblique roles selected by the predicate.

3. LMT’s classificatory features revisited I propose a way of reinterpreting LMT features [+/- r/o] which is consistent with the revised participant-to-argument mapping principles in (2) and follows a long tradition of linguistic description. Traditionally, the arguments of a predicate are cross-classified in two different ways: into subject and complements; and into core arguments and oblique arguments. LMT features can be understood to refer to these same concepts, distinguishing subsets of grammatical functions cross-classified by the features:

(3)	[+o]	complements	(‘internal arguments’ of the predicate)
	[-o]	non-complements	(the ‘external’ argument and oblique arguments)
	[-r]	core arguments	(subject and object only)
	[+r]	non-core arguments	(all arguments except subject and object)

The lack of a reference to a semantic/thematic restriction means that the focus again is on the syntactic criteria for the classification, tying in with the mapping principles in (2). (N.B. At least two other linguists have proposed LMT feature sets without referring to the semantic/thematic restriction: Alsina 1996, and Hemmings 2012.)

4. Dative shift Dative shift is a restricted derived construction, which appears to have an OBJ_θ argument (a second object), even though languages with dative shift do not normally have this grammatical function available for basic mappings. Which of the two objects in dative shift is OBJ and which OBJ_θ , however, has been a perennial question with no consensus reached so far.

The present proposal follows the analysis of ditransitives in Kibort (2008). I argue that the mapping principles outlined in the sections above lend support to this analysis. The key idea in this analysis is that English ditransitives make use of three, not just two, different mappings from participants to functions:

(4)	x	y	b	(5)	x	b	y	(6)	x	y	b
	< arg_1	arg_2	arg_4 >		< arg_1	arg_2	arg_3 >		< arg_1	arg_2	arg_3 >
	[-o]	[-r]	[-o]		[-o]	[-r]	[+o]		[-o]	[-r]	[+o]
	SUBJ	OBJ	OBL_θ		SUBJ	OBJ	OBJ_θ		SUBJ	OBJ	OBJ_θ

(4) corresponds to the mapping of the beneficiary/recipient participant b to an oblique argument, where the identification of the grammatical functions is uncontroversial. (5) corresponds to the double object construction, and accounts correctly for the fact that in this construction only the beneficiary argument can become the passive subject; however, since the theme participant y has realigned to map onto a [+o] argument position, it can be expected to display any other characteristics of objects apart from passivisability – which it indeed does, as was demonstrated by Hudson (1992). (6) corresponds to the construction which is found exceptionally in standard modern English (in the active: *You can give it me back*; and in the passive: *Another place was shown me...*) and features prominently in British English dialects, particularly in the (north)west of England (see Orton et al. 1962-1971, 1978 for *give*; Siewierska and Hollmann 2007 for *give*, *send*, and *show*). This construction is cognate with the one found in languages with canonical datives, and shows a corresponding meaning, morphology, and syntax. Since English used to have the canonical dative construction (Allen 2001), it appears that the canonical dative mapping may have persisted in English with a restricted number of predicates – especially when their objects are pronominal – as a fossil of earlier morphosyntax (cf. Gast 2007).

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