

## Thematic Role Specificity in Argument/Oblique Alternations

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Argument/oblique alternations have received considerable attention for what they may reveal about the structure of lexical semantic representations. I argue that alternations are derived not from lexical semantic structure but rather from subtle variations in thematic role assignments. Consider the locative alternation:

- (1) (a) John loaded the hay onto the wagon.
- (b) John loaded the wagon with the hay.

Previous approaches (see Levin and Rappaport 1988, *inter alia*) have claimed that the two variants of *load* represent two distinct event types (change-of-location vs. change-of-state), each of which makes a different participant (the locatum or location) more prominent in the underlying lexical semantic representation, determining the choice of direct object. However, little previous work has spelled out explicitly how structural prominence explains certain differences in the entailments of each variant. In (1) the direct objects are holistically affected, i.e. the hay is all moved in (1a) and the wagon totally loaded in (1b), but the oblique participants are underspecified for holistic affectedness (Anderson 1971, Dowty 1991), as shown in (2).

- (2) (a) i. John loaded the hay onto the wagon, filling the entire wagon.
- ii. John loaded the hay onto the wagon, and still had room for the grain.
- iii.#John loaded the hay onto the wagon, and still had two bales left over.
- (b) i. John loaded the wagon with the hay, leaving none behind for the horses.
- ii. John loaded the wagon with the hay, and still had two bales left over.
- iii.#John loaded the wagon with the hay, and still had room for the grain.

Similar correlations hold for conative, dative, and reciprocal alternations (among others):

- (3) (a) John slashed the canvas. (canvas affected)
- (b) John slashed at the canvas. (canvas underspecified for affectedness)
- (4) (a) John mailed Mary a letter. (Mary a goal and (intended) possessor)
- (b) John mailed a letter to Mary. (Mary underspecified for possession)
- (5) (a) The truck and the car collided. (both car and truck in motion)
- (b) The truck collided with the car. (car underspecified for motion)

I argue that a generalization based on thematic roles captures all of these distinctions:

- (6) Oblique markers encode thematic roles that are underspecified for thematic role information that is encoded by direct argument markers.

I model (6) by treating thematic roles as sets of entailments (following Dowty's (1991) proto-role theory). Of the thematic roles a given verb assigns to its participants, the roles that most conform to the agent, patient, and recipient proto-roles are associated respectively with that verb's subject, direct, and indirect object. Oblique markers, however, encode only *subsets* of these roles, i.e. they encode more "generic" versions of the same roles. Thus participant marking inventories are structured: obliques share some proto-role

properties with direct arguments but are underspecified for other properties. The specific roles encoded by different realization options in a given context are determined by a combination of the thematic roles assigned to the verb's arguments and the inherent semantics encoded by the oblique markers.

To take a concrete example, two entailments relevant for determining the proto-patient in a clause are undergoing a change and holistic affectedness (cf. “causally affected by another participant” and “incremental theme” in Dowty’s terms). The verb *load* allows both its location and locatum participants to have these properties. Since the set containing these two properties is the most proto-patient-like role *load* assigns, this role is encoded by its direct object. The English locatum and location oblique markers *with* and *onto* may also encode properties of proto-patients. But in the context of *load* the thematic role of each is underspecified for holistic affectedness, conforming to (6). Instead, *with* and *onto* just encode some kind of change (in addition to the individual locatum and location semantics of each, irrelevant for direct object selection). The space of realization possibilities for the patient-like participants of *load* is given in (7).

(7) Alignment of realization to thematic role properties relevant for direct object selection of *load* :

$$(a) \text{ Obj}_{load} := \left\{ \begin{array}{c} \text{Affected} \\ \text{Holistically Affected} \end{array} \right\} \quad (b) \text{ with}_{load} := \{ \text{Affected} \} \quad (c) \text{ onto}_{load} := \{ \text{Affected} \}$$

The locative alternation arises from a conflict of resources. Although both the locatum and location may be holistically affected, given the limited options in (7), only one may be realized as the direct object. The remaining participant must instead be realized by an appropriate “next best option”, *with* or *onto*, inherently “downgrading” the participant’s thematic role to one where holistic affectedness is not known. A different situation occurs for alternations such as (3)-(5) where there are no conflicts between participants. For instance, in the conative example in (3), there is just one participant (who is potentially affected) but two realization possibilities, aligned to thematic roles as in (8).

(8) Alignment of realization to thematic role properties relevant for direct object selection of *slash* :

$$(a) \text{ Obj}_{slash} := \{ \text{Affected} \} \quad (b) \text{ at}_{slash} := \{ \}$$

Here either option is acceptable for realizing the slashed entity, but with a commensurate difference in thematic role. Other alternations are amenable to similar analyses. In all cases the conditions that determine which options are most appropriate in a given context depend on both semantic and discourse-based factors (e.g. relative topicality). This approach eliminates the need for polysemy for alternating verbs while capturing the subtle semantic distinctions directly in terms of the alignment of thematic roles to participant markers. The characterization in (6) also has significant cross-linguistic validity in other argument/oblique oppositions, e.g. accusative/dative alternations in Japanese causee marking (Shibatani 1973) and absolutive/oblique alternations in Tongan antipassives (Chung 1978) show similar correlations of obliqueness to underspecificity (again of affectedness). Thus the type of analysis proposed here may have considerable universal applicability, suggesting that argument/oblique alternations can in general be understood as deriving from the relationships between different participant markers and the thematic roles they encode.

## References

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