

Central coincidence: The preposition *with*

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In this paper, I examine the preposition *with* and its expression of the relation of central coincidence. The term *central coincidence* originates with Hale 1986, in which the *terminal coincidence* - *central coincidence* contrast parallels a basic semantic opposition that exists throughout language: the opposition between the dynamic, the change, and the stative, the static.

I argue here that *with* connects two arguments in a relation of central coincidence and show some of the unexpected interpretive consequences of this particular relation.¹

1. TERMINAL COINCIDENCE AND CENTRAL COINCIDENCE

A clear illustration of the terminal-central opposition can be found in the spatial realm:

- (1) a. terminal coincidence: The person ran to the hill.
b. central coincidence: The person stood on the hill.

In (1)a, the directional example, the end of the trajectory of the figure (*the person*) coincides with the place (*the hill*): there is a change in the location of the figure in relation to the place. In (1)b, the locational example, the two elements coincide (more or less centrally) in space.² The sentence describes an unchanging relation between the figure and the place.

I will assume a general definition of central coincidence as relating two entities in a constant, unchanging way. Thus, as Hale notes, while most instances of central coincidence are stative, and all statives involve central coincidence, the two notions are not interchangeable. Consider the examples in (2) (adapted from Hale 1986's Warlpiri examples (5) and (6)):

- (2) a. The horse ran along the river.
b. Reeds grow along the river.

In (2), the location of the figure, that is, its trajectory (2)a or its linear arrangement (2)b, corresponds throughout to (and to the extent practical, coincides 'centrally' with) the place. Thus, despite any motion on the part of the figure, the relation between figure and place remains constant: hence, central coincidence.³

The terminal-central opposition defines not only spatial, but also temporal and identity relations. Hale notes that the opposition is manifested variously throughout a grammar, such as in the meanings of case endings, complementizers, tense-aspect morphology and, of course, prepositions.

Listed in (3) are some of the English prepositions that encode each of the two relations:

- (3) a. encoding terminal coincidence: to, up to, onto, into, from, out of, off of
b. encoding central coincidence: on, at, by, in, along, over, past, through, with

I limit myself in what follows to a preliminary exploration of the element that is, according to Hale & Keyser 2005, the prototypical preposition of central coincidence—the preposition *with*. In this initial foray, I build on the insights of linguists of varying stripes in an attempt to determine what *with* means and what its function is.

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¹ I am grateful for comments to the audience of the Prepositions and Aspectuality conference at the Université de Provence, June 2011.

² As Hale 1986 puts it: "The spatial coincidence in this case is 'central coincidence' in that, to the extent that it is physically and practically possible, given the nature of the figure and place and the specific stance or movement of the figure, the center of the figure coincides with the center of the place. (p. 239)"

³ It seems to clearly follow that central coincidence is an atelic notion, with all the properties generally associated with atelic aspect; there will be little discussion of this here.

2. THE PROTOTYPICAL PREPOSITION OF CENTRAL COINCIDENCE

With is variously defined as expressing accompaniment, association, possession, instrument, manner, and simultaneousness. To briefly exemplify this, consider the following partial definitions of *with* from a variety of dictionaries:

- a. accompaniment or proximity: *the child you were with, a steak with a bottle of wine*
- b. having or possession: *a shirt with a white collar, the man with a red moustache*
- c. instrument or means or material: *cut it with a knife, fill the bowl with water*
- d. manner or circumstances: *the children shouted with joy*
- e. proportion, relation or simultaneousness: *the pressure varies with the depth*

All of these definitions can be condensed into a single definition of accompaniment or simultaneousness, a constant relation between two elements. Let us assume, then, that *with* expresses a locative relation of accompaniment.

The typical accompaniment case is the comitative or associative use (as Seilor 1974 puts it: coexistence or copresence), involving the expression of some secondary participant. Three common comitative senses of *with* are shown in (4) (from Kidd & Cameron-Faulkner 2008).⁴

- (4)
- a. I ate the pasta with Rufus. (accompaniment)
 - b. I ate the pasta with meatballs. (accompaniment)
 - c. I ate the pasta with a fork. (instrument)
 - d. I ate the pasta with gusto. (manner)

In principle, then, the same *with*-phrase can be interpreted variously.⁵

Because of the seeming wide range of interpretations introduced by *with*, Svenonius 2007 proposes that the preposition be viewed as a functional, rather than a lexical element. Since this element has no semantic content, he suggests, *with*'s apparent complement is really an argument of the verb.

Certainly, it appears to be the case that the *with*-phrase is interpreted differently depending on the verb heading the sentence, as the following (from Svenonius 2007) briefly illustrate:

- (5)
- a. We sprayed the dog with tomato juice.
 - b. We left the dog with tomato juice.
 - c. We advertised the dog with tomato juice.

Despite the similarities that could be argued to hold among the interpretations of these *with*-phrases,⁶ one could conclude from data like these that at least in cases of secondary predication, *with*'s association and consequent interpretation are dependent on other elements in the sentence. I will assume, however, that the different interpretations are simply due to the various contextually-influenced readings of 'accompaniment'; in this, extending a point made in Seilor 1974:

“...it is precisely the function of the comitative...to leave unspecified the extent of participation in the action” [of *with*'s complement. This noun phrase participates] “in varying degrees: from mere ‘accompanying’ to ‘helping’ to full-fledged ‘partnership’.”

In what follows, I present the rudiments of an argument against the functional view of *with*, proposing instead that *with* does indeed take two arguments, imposing a particular semantic interpretation on the relation between them.

2.1 *With as main predicate*

Consider cases in which there is no (semantically-contentful) verb that could be argued (à la Svenonius) to take *with*'s apparent object as its complement. At first glance, such cases seem rare, but checking with native speakers (6)(a-d) and the internet (6)(e-i), shows that verb-independent occurrences of *with* are plentiful:

⁴ See Stolz 2001 for cross-linguistic distinctions among the realization of the various senses or functions.

⁵ For now, we can assume that cases of ambiguity are resolved according to which element the *with*-phrase is associated with structurally— and context, of course.

⁶ In Croft 1991, for example, these three uses are in the same class of thematic roles.

- (6) a. Are you with or without luggage? (at hotel's reception)
 b. I am with a car, so don't need a lift.
 c. My friend is with a jacket, but not a tie. (at entrance to strict restaurant)
 d. Today, I am with my child.
 e. (I couldn't see her- she was with her back to the light.)
 f. If he is with a gun, then it's not Jesus.
 g. He is with a hat and a red shirt.
 h. If he is without a tie and jacket or a suit, he is generally attired in a Polo sweater.
 i. A lot of people don't understand why he is with an umbrella all the time.

These examples do seem to run counter to the claim that non-locative *with* cannot be predicative (found in, for example, Svenonius, Wechsler 1997, Levinson 2011): There is no semantic verb around to lend a thematic role to *with*'s complement in these sentences—or to the sentence subject, for that matter. Taking an uncontroversial stand that every (noun) phrase in a sentence must have some kind of interpretation, we are left with the default assumption: both of these noun phrases get an interpretation via *with*.

So summarize at this stage: *with*, a relational element, connects its two arguments, henceforth the *with*-subject and the *with*-object, in a particular type of central coincidence: a locative relation of accompaniment. This particular relation of accompaniment is characterized by the dependence of the *with*-object on the *with*-subject; more specifically, by the dependence of the location of the former on that of the latter. In other words, the current location of the *with*-subject controls the accompaniment relation.⁷ (It would seem redundant to state that in cases of accompaniment, wherever the first element is, the second is. But as we see below, this statement has rather more interesting implications.) These points are summarized in (7).

- (7) Interpreting *with* I:
 a. *with* expresses the central coincidence of two entities
 b. *with*'s two arguments are interpreted as in a locative relation of accompaniment
 c. *with*'s subject has locative control over this relation

2.2 With and possession

(7) is not a little reminiscent of definitions of possession (although not that of typical ownership): The elements of a locational relation and of control characterize many types of possession, as analyzed in, for example, Heine 1997, Stassen 2000, 2009, Viberg 2010, Levinson 2011, Erteschik-Shir & Rapoport 2011.⁸ Consider the following examples:

- (8) Possession:
 A prototypical case of possession is characterized by the presence of
 (a) the possessor and the possessee are in some relatively enduring locational relation, and
 (b) the possessor exerts control over the possessee (and is therefore typically human).
 Stassen 2009:15

Physical possession: when possessor and possessee are physically associated with one another at reference time.

Heine 1997: 34

Note, too, Viberg's inclusion in the definition of physical possession of 'availability for immediate use'.⁹

I conclude, then, that the relation that *with* imposes on its arguments is one of possession. The definitions of physical possession are particularly apt when we consider sentences like (6), which illustrate the association of the possession relation with the current discourse situation. This can easily be seen in contrasts such as that between (6)b, which necessarily involves only the temporary, physical possession of a car, and *I have a car*, which may or may not be relevant to the current situation. (And note the impossibility in English of the expression of general ownership by *I am with a car* or *I am with luggage*.)

⁷ I will not be discussing Levinson's 2011 'animate location' contexts, in which this direction of control does not necessarily hold:

- (i) a. (Where is the child?) The child is with John.
 b. John is with the mayor this afternoon.

⁸ I note the fact that, in his discussion of comitative, instrumental, and possessive markers cross-linguistically, Stolz 2001 claims that the attribute possessive use of *with*, as in *a flower with three petals*, is, at least, closely associated with the comitative use of *with*.

⁹ And note the following contrast:

- (i) a. She has an umbrella with her. [= here and now]
 b. She has an umbrella.

However, the concepts of control and physical possession together still do not capture a crucial aspect of the *with*-relation: The relation between the possessor/*with*-subject and the possessee/*with*-object is more constrained than mere ‘physical association’; the possessor’s control of the possessee is restricted. It is not simply that the possessor controls the location of the possessee; rather, it is the possessor’s location itself that effects this control and so dictates the possessee’s location. This is the requirement of accompaniment that is the basic, central coincidence characteristic of the preposition *with*.

With’s central coincidence character can be seen in the distinction between the following two sentences:

- (9) a. I am with a car now.
b. #I am with a table now.

A car can, in principle, accompany a person wherever she goes, so (9)a, using *with*, is fine. But (9)b, which would seem to be appropriate when triumphantly called to my friends in a crowded café, is not. Despite that fact that the above criteria for physical possession are met, and despite locative control being possible (as it is in *I have a table*), the particular locative relation of accompaniment that is crucial to interpreting *with* is not (typically) found in this sentence: wherever one goes, a table does not (necessarily) go; (9)b is therefore unacceptable.

Taking the facet of central coincidence (accompaniment) into account, together with the above definitions of possession, allows a reduction of (7) to (10).¹⁰

- (10) Interpreting *with* II:
With defines a locative central coincidence relation of physical possession.

In what follows, I will consider the effect of *with*’s properties of central coincidence and control on interpretation. It is this control that accounts for the holistic or Affectedness readings of certain *with* constructions in which, unlike the cases above, the possessor (or controller) is not human.

2.3 Predicative *with* in embedded clauses

In English, as it happens, the same element that expresses (concomitance and instrument as well as) the predicative relation of central coincidence physical possession in main clauses expresses this relation in subordinate clauses as well. Consider the following examples of the *spray-load* alternation, the locative alternation of, for example, Fillmore 1968, Fraser 1971 (examples based on Fraser 1971):

- (11) a. We sprayed paint on the wall.
b. We sprayed the wall with (the) paint.
- (12) a. She loaded the boxes onto the wagon.
b. She loaded the wagon with (the) boxes.
- (13) a. She stuffed the clothes into the suitcase.
b. She stuffed the suitcase with (the) clothes.
- (14) a. The workers planted the trees in the garden.
b. The workers planted the garden with (the) trees.

The (a) alternant describes the change of location of some element. The (b), *with*, alternant describes a location as having some element on or in it.¹¹ For our purposes here, it is enough to assume the rough structural analyses in (15), adapted from Erteschik-Shir and Rapoport (henceforth: ES&R) 1997, 2004, 2010, etc., together with their interpretations.

- (15) a. [we sprayed [paint V onto the wall]]
= We caused paint to go onto the wall.
- b. [we sprayed [the wall V with paint]]
= We caused the wall to be with paint = to have paint on it.

¹⁰ Specifying ‘locative’ is redundant but helpful here for clarification.

¹¹ This is Talmy’s 2000 example of Figure demoted and Ground promoted.

Clearly, we have in (15)a, as Hale and Keyser (henceforth: H&K) 2005 claim, a relation of terminal coincidence expressed by the terminal preposition *onto*: the paint moves to end up on the wall. In (15)b, the wall ends up having paint on it: a relation of central coincidence, expressed by the central preposition *with*.¹²

In the (b) variant, the location is in the lower subject position, but is superficially the direct object. As is often suggested, this correspondence is significant: the L-subject (to borrow and extend Dowty's 2000 term) has an 'affected' or 'holistic' interpretation; the location is interpreted as being significantly affected by the action. Usually, this means that the L-subject in the (b) sentences is interpreted as being completely covered or filled by the theme. But at the very least, as Pinker 1989 puts it, there must be a 'qualitative change'. When this interpretation is not possible, (b)-type sentences are ruled out. The (a) sentences, on the other hand, in which the location is a prepositional object and not characterized by Affectedness, are not similarly constrained. Consider the contrasts in the following examples, adapted from Fraser 1971:

- (16) a. He crammed (stuffed, wadded) pencils/a pencil into the suitcase.
b. He crammed (stuffed, wadded) the suitcase with pencils/*a pencil.
- (17) a. They loaded boxes/a box/three boxes onto the truck.
b. They loaded the truck with (?the) boxes/*a box/*three boxes.¹³
- (18) a. The girl planted trees/a tree/three trees in the garden.
b. The girl planted the garden with (?the) trees/*a tree/*three trees.

The (a) sentences are fine when the theme is realized by a bare plural, a singular or count noun, but the (b) sentences are restricted to (bare) plural themes since, as is usually assumed, only with such themes is the requisite holistic or Affectedness reading possible.

Affectedness has been argued (e.g. Tenny 1992) to be associated with an incremental theme or measurer, a function restricted to direct objects. In the (b) sentences of (16)-(18) the location is (at least, superficially) the direct object and thus it is the argument that measures out and can delimit the action.¹⁴

Let us now consider the possibility that the holistic property of the *spray/load* (b) sentences is not a question of syntactic position, but rather, a result of the requirements of *with*'s interpretation.

3. POSSESSION AND THE HOLISTIC PROPERTY

An alternate approach to the holistic property takes *with*'s identification as a preposition of possession as a starting point.

ES&R 2010, for instance, argue that a possession interpretation is what yields the holistic effect. Following H&K 1993's suggestion that the (b) sentences involve a possessive use of the preposition of central coincidence, ES&R propose that the possessor relation is derived by a combination of the presence of *with* and the identification of the L-subject, e.g. *the wall*, with the location (component) inherent in the meaning of the verb. Thus, in order for an L-subject such as the wall in (11)b *We sprayed the wall with paint* to be considered a 'possessor' of the sprayed paint, there must be a significant amount of wall that has paint on it.

¹² Mateu 2002 questions making the terminal-central distinction here, given the results of telicity tests on the (b) sentences, as exemplified by the following (this and other examples in Rowlands 2002):

- (i) Jane loaded the truck with the piano in five minutes/#for five minutes.

The possibility of the endpoint-compatible *in*-adverbial and impossibility of the duration-compatible *for*-adverbial are taken by Mateu as evidence for the telicity of the (b)-type sentences. Mateu combines this with his and HK's 2005 suggestion that the central-terminal opposition be identified with the atelicity-telicity distinction and concludes, contra HK, that both the (a) and (b) alternants involve terminal coincidence.

However, one could easily argue that the telicity or atelicity of the sentences as a whole is irrelevant to the central coincidence relation in the lower clause. Furthermore, the sentences of (i) are not typical. Singular noun themes are possible in the (b) *spray-load* alternants only if interpreted as producing a significant locative effect: pianos are big and cover a lot of truck. (And see the discussion below.) And even this effect is hard to push with singular nouns, as (iib) demonstrates:

- (ii) a. Jane planted a huge tree in the tiny garden.
b. #Jane planted the (tiny) garden with a huge tree.

In fact, when a bare plural or mass noun is used, we do find, contra (i), the possibility of an atelic reading:

- (i) The workers planted the garden with grass for five minutes/(in five minutes).

¹³ (17)b is possible under the interpretation that the box/es are large enough to fill, and so 'qualitatively' affect, the truck.

¹⁴ See Mateu 2002 for an argument that Affectedness is necessarily related to telicity.

While this seems to me correct, as far as it goes, I propose that the special interpretation of the (b), L-subject sentences is not simply a result of a relation of possession. Rather, the holistic interpretation is due to the accompaniment interpretation imposed by *with*, with the consequence that the L-subject, the possessor, is the location that controls the location of the *with*-object, the possessee: wherever the wall is, the paint is, as it were.¹⁵ Put differently, in order for paint to be considered to accompany the possessor the wall as required by *with*'s interpretation, the paint must be associated with the wall along the wall's spatial extent. (The two elements must be spatially contiguous, to adopt Wechsler's 1997 term.¹⁶)

The examples of (6) above show that when the controller of the accompaniment relation is human, its location dictates the location of the *with*-object. Here we see that when the controller of the relation is not human, the result is the same, but accompaniment yields a holistic interpretation (and the restrictions on the arguments that effect this). This is not a property of lower predication structures like those of (15) in general; (15)a (=11)a has no such interpretation, for example. Rather, in these and the cases above, the interpretive effects are due to the particular relation of central coincidence that *with* imposes on its arguments, the particular requirement of L-subject control.¹⁷

To continue with the proposal that Affectedness is due to the influence of *with*, I turn now to a seemingly different type of *with*-construction.

3.1 Swarm with and black with: more cases of with's subject as possessor

Consider the *swarm* sentences of (19)-(21), based on Salkoff 1983, and the *black* sentences of (22):

swarm with sentences:

- (19) a. Bees swarmed in the garden.
b. The garden swarmed with bees.
- (20) a. Fireflies glowed in the field.
b. The field glowed with fireflies.
- (21) a. Ants crawled on the floor.
b. The floor crawled with ants.

black with sentences:

- (22) a. The floor was black with ants.
b. The hills were white with snow.
c. The cave was red with paint.
d. The ceiling was black with soot.
e. The rocks were green with moss.
f. Her cheeks were wet with tears.

Both of the *with*-constructions above display the holistic property: in both (21)b and (22)a, for example, the entire floor is interpreted as covered with ants. As with *spray/load* sentences, the L-subject (*the garden/the field/the floor*, etc.) is interpreted as filled, or covered, with bees/fireflies/bugs, respectively. As expected, a singular *with*-object is not possible in the (b) sentences:

- (23) a. A bee swarmed in the garden.
b. #The garden swarmed with a bee.

¹⁵ Some evidence that the holistic property is indeed associated with *with* rather than with this sentence type is found in Hebrew, in which a (b)-type sentence containing a non-*'with'* preposition does not necessarily exhibit Affectedness (Segal, personal communication):

(i) Maraxti et ha-kir be-(ktsat) tseva
Smear -1sg ACC the-wall in-little paint
'I smeared the wall with (a little) paint.'

(i) is fine, even under an interpretation in which the wall is not ruined as a result of the paint smearing. See Segal 2008 for detailed discussion and analysis of both these and removal constructions in Hebrew.

¹⁶ It is worth noting here Wechsler's 1997 definition of *with* as "something like 'become spatially contiguous as a result of active causation'." For Wechsler, this 'material' *with* is not predicative and is to be distinguished from other senses of *with*.

¹⁷ The L-subject has other functions; see ES&R 2011 in which the L-subject is argued to define the discourse stage.

- (24) a. A firefly glowed in the field.
b. #The field glowed with a firefly.
- (25) a. An ant crawled on the floor.
b. #The floor crawled with an ant.
- (26) a. #The floor was black with an ant.
b. #Her cheek was wet with a tear.

The (b) sentences in (23)-(26) do not allow a holistic reading: one ant cannot cover, or significantly affect, a floor, for example. As with the *spray/load* constructions, usually a bare plural or mass term must be used as theme.

As Dowty 2000 puts it with respect to *swarm* sentences, there must be enough extent, intensity, frequency and/or perceptual salience to categorize the location in a way relevant to current discourse. Hoeksema 2008 argues for a ‘high-degree’ interpretation. The abundance interpretation (associated with some predicates of Motion) stems from this total affectedness requirement: the characterization of the (entire) garden by the swarming of bees entails a lot of bees.

This, I suggest, is the Affected/holistic property once again.

However, according to Dowty 2000 and Rowlands 2002, the apparent similarity of *spray/load* to *swarm with* is superficial. They claim that the holism effect has different causes in each construction and argue that the *with*-object in *swarm* is not an incremental theme or measurer of the type in *spray/load*. Rowlands notes that there is no change of state or change of location in these *swarm* constructions and that the theme is not ‘used up’ or ‘gone through’, as would be expected of an affected theme (particularly under Tenny’s 1992 view). This parallels Dowty’s point that the *swarm* action ‘fills’ the space denoted by the L-subject—but only in a stative sense. (Note, though, that in the *black* sentences we find no semantic verb at all, so obviously there is no linguistically-specified action that results in the filling up of space, in a stative sense or otherwise, and no incremental theme that measures out such an action.)¹⁸

But I claim here that, in fact, the holistic effect in both the *spray-load* and the *swarm* and *black* constructions is the same: both require that the L-subject be covered or filled significantly because in both constructions, the location of *with*’s L-subject must spatially control the location of a second element: the theme must accompany the location along its spatial extent. Thus, it is not relevant whether or not an incremental theme measures out an action; what matters is the presence of *with*. In the *swarm/black* cases, the abundance or holistic interpretation is simply the result of the reading we get from the *with*-relation, the same Affectedness reading we find in the *spray-load* cases.

4. TOWARDS AN ANALYSIS

Throughout this paper, I have been claiming that the semantics of *with* are central to the interpretation of the sentence in which it appears.¹⁹ I have shown examples of the *with*-phrase as matrix predicate (see (6) above), I have presented cases in which *with* is the subordinate clauses’ main (semantic) predicate (*spray/load*’s (b) sentences), and have argued for *with*’s strong interpretive role in *swarm-black* constructions. The next step is the exploration of the possibility that in these last constructions, too, *with* is the main predicate.

¹⁸ I note at this point the *black from* sentence type, which is to be distinguished from *black with*. Thus, while we find similarities like those of (i), we also find the distinctions in (ii):

- (i) The ceiling was black from/with soot.
Her cheeks were wet from/with tears.
- (ii) *The floor was black from ants.
*The hills were white from snow.

In the *black from* construction, *from*’s complement is interpreted as the cause of the resulting adjective’s description. This is as opposed to *black with*, which relates to the current discourse situation. The contrast is illuminated by the following:

- (iii) Her hair was grey from dust/from worry.
Her hair was grey with dust/#with worry.
Her face was grey with dust/with worry.
- (iv) The ceiling turned black from soot/*with soot.
Her cheeks turned wet from tears/*with tears.

¹⁹ Discussion of the secondary-predicate use of *with*, as in the comitative examples of (4), is beyond the scope of this paper.

Thus, as opposed to Svenonius' and Dowty's assertions that the preposition *with* is a functional element (Dowty claims that *with* is simply an expression of 'means', that the bees are the means by which the garden has the swarming property), I propose that not only is the *with*-relation a semantic one, but in the *swarm* and *black* constructions, it is the verb (*swarm*) or adjective (*black*) that is the functional element. All that is required of the verb/adjective used is that it be compatible with the holistic reading imposed by *with*. As we can see from the (b) examples of (19)-(21) and the examples of (22), the verb/adjective used simply picks out a salient property of the relevant theme (the *with*-object): ants crawl, ants are black. But the adjective or verb lends little to the basic sentence interpretation, which is something like (for example): "The floor was [ant/crawl/black] with ants." Thus, it is not that the floor has a 'crawling' or a 'black' property marked by *with* or that (per Rowlands) the garden has the complex property of 'swarming-with-bees'. Rather, the garden has a 'with bees' property, with all that *with* entails.

The functional analysis of the verb/adjective in *swarm/black with* sentences receives further support from the existence of a related sentence type, let's term it *fat with*:

- (27) a. The floor was thick with ants.
 b. The air was thick with snow.
 c. The room was heavy with perfume.
 d. The fields were fat with corn.

The adjectives of (27) cannot be interpreted as directly describing their subjects (floor are not thick; fields are not fat).²⁰ Still, these adjectives are not chosen at random. Each allows Hoeksema's 'distributed abundance' result, yielding much the same interpretation for these sentences as for those above (compare (27)a with (21)b and (22)a).

An analysis for *fat* sentences in which the adjectives have a solely functional role seems even more clearly appropriate. Here, too, all that is required of the adjective is that it be compatible with a holistic reading, that is, that the floor, field, etc. be interpretable as filled/covered. (Note that we cannot find with *with* equivalent sentences expressing an opposite, non-holistic sense, such as *The ground was thin with snow*, despite good sentences like *Snow was thin on the ground*.) Compatibility with *with*'s requirements, then, is what constrains such sentences, so it is not surprising that they express what the *swarm with/black with* sentences do.

My view of the semantic superfluity of the verb/adjective in the *with* sentences of (19)-(21), (22) and (27) allows for two corollary possibilities: One is that it is the *with*-object, the theme, that is central to interpretation (and that *with*'s semantic contribution is more subtle than I have suggested so far). The other, the one that I am entertaining in this paper, is that *with*'s semantics are what is central to the sentences' interpretation. Each of these possibilities receives some interesting cross-linguistic support, of which I offer a very brief taste in what follows.

(A) The *with*-object is the semantic core of the *swarm/black* sentences, which would thus have an interpretation equivalent to the following:

- (28) a. "The garden beed/was beeing."
 b. "The floor anted/was anting."

Of course, such an analysis could be construed as dispensing (almost entirely) with *with*'s services (and the thesis of this article), but its focus away from what I am claiming to be a functional verb/adjective is nonetheless worth considering. In fact, (28) is what we find in Tahitian, as I have been informed by Claude Delmas, to whom I owe the facts and examples (from Peltzer and Lazard 2000:68) that follow:

- (29) a. 'Ua rō te pani
 PERF ant the pan
 = has ant(ed) the pan
 = The pan has 'ant-ed'.
 'The pan is full of ants.'
- b. 'Ua rō-hia te pani
 PERF ant+RES/PASS the pan
 = has got-ant(ed) the pan
 'The pan got filled (filled itself) with ants.'

²⁰ Not unexpectedly, the *from* sentences are impossible with this adjective type, as the following comparison with (27) shows:

- (i) *The floor was thick from ants.
 *The fields were fat from corn.

The preposition *from*, obviously, does not have the properties of the preposition *with*.

In both of these examples, the theme *rō* ‘ant’, the *with*-object in English, is used as the main predicate. In (29)a, we find *rō* immediately following *ua*, a perfective aspectual auxiliary or resultative marker (depending on context), which is usually immediately followed by a verb. And in (29)b, *rō* has the verbal suffix *hia*, normally a passive marker (although here, according to Delmas (p.c.), it is most likely an inchoative or resultative particle, there being no agent). In both examples, then, the theme is in what is usually a V position, resulting in an Affected interpretation: the pan is full of ants.

These examples illustrate the importance of the L-subject—theme (‘pan-ant’) relation, without the need for a grammatical intermediary. Next, let’s consider the alternative analysis:

(B) *with* is the main predicate. The *swarm/black* sentences would then be interpreted as in (30).²¹

- (30) a. *‘The garden was with bees.’ (= “The garden withed/was withing bees.”)
 b. *‘The floor was with ants.’ (= “The floor withed/was withing ants.”)

This analysis takes on a different cast when considered in light of some facts of Itelmen, which, according to Jonathan Bobaljik (p.c.), contains a transitive verb meaning ‘to do together with’: č’eŋ-. Consider the following examples (also contributed by Bobaljik):

- (31) a. Kutx t’salaj Petenga k-č’eŋ-qzu-ŋin ngikł-ki
 K. fox P. prtcl-WITH-ASP-3sg.obj sleep-NFIN
 ‘Kutx slept with the fox Petenga’
 = ‘K. withed P, sleeping’ (Volodin 1976:174)
- b. pŋxa-ŋn n-č’eŋ-qzu-z-ne?n kirβitxet-ki
 friend-PL 3PL.SUBJ-WITH-ASP-PRES-3SUBJ>3PL.OBJ talk-NFIN
 ‘The friends are talking (with each other)’
 lit: Friends do.with them, talking.
 = ‘Friends withed each other, talking’ (Georg & Volodin 1999:210)

Thus, a language in which an equivalent of *with* is used as, and the central coincidence relation linguistically expressed by, a main verb. This is not unexpected, given the analysis here of English *with* as main predicate.

The examples from Tahitian and Itelmen allow a glimpse into the analytical possibilities of the preposition *with* and of *with*-type sentences. I have considered one such possibility in this paper.

5. CONCLUSION

I have argued here, based on sentences in which *with* is obviously the main predicate and based on *spray/load*, *swarm/black* and *fat* constructions, in which *with* is analysed as the main predicate, that *with* is a semantic preposition, a preposition that imposes on its two arguments a particular type of physical possession relation, that of central coincidence. The effects of this relation include (as shown for main clauses with a human possessor:) the characterization of the possession relation relative to the current discourse situation and (as shown for embedded clauses with an inanimate possessor:) the holistic (Affectedness) property.

BIBLIOGRAPHY

- Croft, W., 1991, *Syntactic categories and grammatical relations: The cognitive organization of information*, Chicago, University of Chicago Press.
- Dowty, D., 2000, ‘The garden swarms with bees’ and the fallacy of ‘argument alternation’, in Y. Ravin & C. Leacock (eds.), *Polysemy. Theoretical and Computational Approaches*, Oxford, Oxford University Press, p. 111-128.
- Erteschik-Shir, N. & Rapoport, T., 1997, Verbal projection, in G. Matos, M. Miguel, I. Duarte, & I. Faria (eds.), *Interfaces in Linguistic Theory*, Lisboa, APL/Edições Colibri, p. 129-148.
- Erteschik-Shir, N. & Rapoport T., 2004, Bare Aspect: a theory of syntactic projection, in J. Guéron & J. Lecarme (eds.), *The Syntax of Time*, Cambridge, Mass, MIT Press. P. 217-234.
- Erteschik-Shir, N. & Rapoport, T., 2010, Contact and other results, in M. Rappaport Hovav, E. Doron, & I. Sichel (eds.), *Lexical Semantics, Syntax, and Event Structure*, Oxford, Oxford University Press.
- Erteschik-Shir, N. & Rapoport, T., 2011, Projecting possession: the syntax of *give*. Presented at *Approaches to the Lexicon (Roots III)*, The Hebrew University of Jerusalem, June 2011.
- Fillmore, C., 1968, The case for case, in E. Bach & R. T. Harms (eds.), *Universals in Linguistic Theory*, New York, Holt, Rinehart and Winston, p. 1-90.

²¹ Perhaps a reason the first option is not acceptable in English is that predicative *with* is (currently) possible only with the type of discourse-related locative control that animate subjects can exert.

- Georg, S. & Volodin, A.P., 1999, *Die itelmenische Sprache: Grammatik und Texte*, Wiesbaden, Harrassowitz Verlag.
- Hale, K., 1986, Notes on world view and semantic categories: Some Warlpiri examples, in P. Muysken & H. van Riemsdijk (eds.), *Features and Projections*, Dordrecht, Foris. P. 233-254.
- Hale, K. & Keyser, S.J., 1993, On Argument structure and the lexical expression of argument relations. In K. Hale & S.J. Keyser (eds.), *The View from Building 20*, Cambridge, Mass., MIT Press.
- Hale, K. & Keyser, S.J., 2002, *Prolegomenon to a Theory of Argument Structure*, Cambridge, Mass., MIT Press.
- Hale, K. & Keyser, S. J., 2005, Aspect and the Syntax of Argument Structure, in N. Erteschik-Shir & T. Rapoport (eds), *The Syntax of Aspect. Deriving Thematic and Aspectual Interpretation*, Oxford, Oxford University Press, p. 11-41
- Heine, B., 1997, *Possession: Cognitive sources, forces, and grammaticalization*, Cambridge, Cambridge University Press.
- Hoeksema, J., 2008, The swarm alternation revisited, *A LATEX Package for CSLI Collections*, CSLI Publications.
- Kidd, E. & Cameron-Faulkner T., 2008, The acquisition of the multiple senses of with, *Linguistics* 46:1, p.33-61.
- Levinson, L., 2011, Possessive with in Germanic: have and the role of P, *Syntax* 14:4, 355-393.
- Mateu, J., 2002, *Argument Structure. Relational Construal at the Syntax-Semantics Interface*, Bellaterra, UAB PhD dissertation.
- Peltzer L. & Lazard G., 2000, *Structure de la langue tahitienne*, Paris, Peeters SELAF n°391.
- Pinker, S., 1989, *Learnability and Cognition*, Cambridge, Mass., MIT Press.
- Rowlands, R., 2002, *Swarming with bees: property predication and the swarm alternation*, Canterbury, New Zealand, University of Canterbury MA thesis.
- Salkoff, M., 1983, Bees are Swarming in the Garden. A systematic study of productivity, *Language* 59:2, p. 288-346.
- Segal, Z., 2008, *Locative Alternations in Modern Hebrew*, Beer-Sheva, Israel, Ben-Gurion University MA thesis.
- Seilor, H., 1974, The principle of concomitance: Instrumental, comitative, and collective (with special reference to German). *Foundations of Language* 12. p. 215-247.
- Stassen, L., 2000, And-languages and with-languages, *Linguistic Typology* 4, p. 1-54.
- Stassen, L., 2009, *Predicative possession*, Oxford, Oxford University Press.
- Stolz, T., 2001., To be with X is to have X: Comitatives, instrumentals, locative, and predicative possession, *Linguistics* 39, p. 321-350.
- Svenonius, P., 2007., Adpositions, particles, and the arguments they introduce, in E. Reuland, T. Bhattacharya & G. Spathas (eds.), *Argument structure*, Amsterdam, John Benjamins, p. 63-103.
- Talmy, L., 2000, *Toward a Cognitive Semantics*. Cambridge, Massachusetts, MIT Press.
- Tenny C., 1992, The Aspectual interface hypothesis, in I. Sag & A. Szabolcsi (eds.), *Lexical Matters*, Stanford University.
- Viberg, A., 2010, Basic verbs of possession: A contrastive and typological study, in M. Lemmens (eds), *Unison in multiplicity: Cognitive and typological perspectives on grammar and lexis. CogniTextes 4*. <http://cognitextes.revues.org/308>
- Volodin, A. P., 1976, *Itel.menskij jazyk*, Leningrad, Nauka.
- Wechsler S., 1997, Prepositional phrases from the twilight zone, *Nordic Journal of Linguistics* 20:2, p. 127-154.