

## Anaphors in space: The view from Hebrew and Greek

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**1. Introduction** This talk compares the distribution of Greek and Hebrew reflexive anaphors in spatial PPs, presenting new empirical observations demonstrating a similar behaviour which differs from that of well documented reflexives in languages like English, French, Icelandic, Japanese and Mandarin. The general understanding arising from previous works (Kuno 1987, Zribi-Hertz 1989, and Reinhart & Reuland 1993 i.a.) is that PPs of spatial relations (e.g. 1-2) license reflexive forms in pronoun positions, which are considered to lack a local antecedent - contra the predictions of standard Condition A.

- (1) John saw a snake next to him/himself. (English)
- (2) Jean a vu un serpent à côté de lui(-même) (French)  
'John saw a snake next to him/himself'

Previous works have analyzed the reflexives above as essentially different from anaphors with local antecedents, classifying them as Exempt Anaphors (Pollard & Sag 1992) or Logophors (Reinhart & Reauland 1993). On the other hand, Ross (1970), Kuno (1987), Svenonius (2004), Rooryck & Vanden Wyngaerd (2007), and Charnavel & Sportiche (2016) argue that local and non-local anaphors are subject to similar restrictions and should be treated as a unified category. At any rate, it is generally agreed that reflexives used in spatial PPs express the point of view from which the utterance is made, and are thus subject to pragmatic restrictions instead of/ in addition to restrictions imposed by the syntax. Greek and Hebrew reflexives are a conundrum in this respect: as plain anaphors they are similar to the English and French reflexives, subject to the effects of standard binding Condition A, but trying to integrate them in configurations like (1-2) results in ungrammaticality.

- (3) jon ra'a naxas leyad-o/\*acmo. (Hebrew)
- (4) O Janis idhe ena fidhi dipla tu/ ston eafto tu. (Greek)  
'John saw a snake next to him/\*himself'

That these reflexives are not acceptable in spatial PPs has been reported in previous works (see Joseph & Philippaki-Warburton 1987: 80, Holton et al. 1997 for Greek and Botwiniq-Rotem 2008 for Hebrew), but has yet to be investigated systematically. Three immediate questions come to mind: (i) are Greek and Hebrew anaphors ever allowed in spatial PPs? (ii) is their distribution conditioned by syntax or by discourse factors pertaining to logophoricity? (iii) why are Greek/Hebrew reflexives different from English/ French ones?

**2. P Typology** Since Jackendoff (1973), spatial Ps are distinguished into Places, which denote fixed locations, and Paths, which denote scales of change in location. Note that Ps that denote fixed location can appear in constructions denoting change of location, in which case the preposition describes a stage in the path of motion (Gehrke 2008). Given this, there are at least three possible combinations to take into consideration: (i) motion verbs with Path Ps, (ii) motion verbs with Place Ps, and (iii) stative verbs with Place Ps (as in 1-4).

**3. Questionnaire** We constructed a set of parallel sentences in Hebrew, Greek and English, testing the availability of reflexives in spatial PPs in the three combinations presented in section 2. In order to classify the anaphors as plain/exempt we included cases with inanimate antecedents, which are said to block exempt anaphors due to the lack of point of view value (Charnavel & Sportiche 2016). We used 3 lexical prepositions in each group, constructing 4 contexts for each prepositions (2 animate and 2 inanimate), with either a reflexive anaphor or a pronoun in the complement of P (total of 72 items per language). In all of the examples, only the matrix subject matched the anaphor in phi features. Representative sentences along with judgments from 3-5 native speakers for each language are presented in Table 1 below.

**4. Preliminary results** (i) The Hebrew and Greek sentences paralleled each other with respect to grammaticality judgments; (ii) Hebrew, Greek and English sentences were judged as grammatical with a reflexive within a path phrase, as well as with a pronoun (which can be

interpreted as having a disjoint reference), whether the antecedent was animate or inanimate; (iii) with stative locative constructions, Hebrew and Greek sentences were judged as ungrammatical with reflexives and grammatical with pronouns; English sentences were grammatical with both reflexives and pronouns when the antecedent was animate, but only with pronouns when inanimate; (iv) The motion constructions which contained a Place P patterned with the stative-locative group. A survey of a larger scale is currently in process.

**5. Discussion** Grammaticality judgments suggest that the Hebrew and Greek anaphors go together with respect to PP licensing. Both languages block the reflexive in Place phrases, contrasting with English and other languages investigated in this respect. However, both languages license the reflexive form in Path phrases. The fact that animacy did not affect grammaticality here indicates that these are plain rather than exempt anaphors, and that PathPs enable local anaphoric relations between the subject and the PP complement. The fact that PPs that denote a path at the phrase level but a place at the P level pattern with locatives comes as a surprise since these too are interpreted as change of location, and were thus attributed a similar syntactic structure in many proposals.

Group	Animate	English	Hebrew	Greek
Motion + Path	yes	✓ The gymnast threw the ribbon toward herself	✓ ha-mit'amelet zarka et ha-seret le-kivun acma	✓ O jimnastis petakse tin kordela pros ton eafto tu
	no	✓ The magnet pulled metallic objects toward itself	✓ ha-magnet mašax et ha-sika le-kivun acmo	✓ O magnitis elki ta metalika adikimena pros ton eafto tu
Stative +Place	Yes	✓ The pilot identified russian planes in front of himself	* ha-tayas ziha metosim yardeniyim lifne acmo	* O pilotos anagnorise rosika aeroplane brosta apo ton eafto tu
	No	* The radar identified russian planes in front of itself	* ha-radar ziha metosim yardeniyim lifne acmo	* to radar anagnorise rosika aeroplane brosta apo ton eafto tu
Motion + Place	Yes	✓ The baby threw the pacifier behind herself	* ha-tinoket zarka et ha-mocec me'axore acma	* to moro erikse tin pipila piso apo ton eafto tu
	No	* The printer threw out one of the pages behind itself	* ha-mdpeset he'ifa et exad ha-amudim me'axorey acma	* o ektipotis petakse tis selides piso apo ton eafto tu

**Table 1: Sample of the database presented by environment and animacy and language. Parallel examples with pronouns were included. The sentences in each row are close translations of each other.**

**6. Analysis.** Having shown that the Hebrew/Greek anaphors that are allowed in spatial PPs are plain anaphors, we argue that their licensing in PathPs indicates a structural contrast. Spatial PPs are commonly analysed as small clause constituents (Hoekstra 1988, Folli & Harley 2006, Ramchand 2007, Mateu & Acedo-Matellán 2012), which should block anaphoric relation beyond the PP, while other views reject the small clause analysis of spatial PPs in general (Rothstein 2006, Bruening 2018), or of PathPs in particular (Bassel 2018). We argue that restricting the small clause analysis only to those PPs that contain a Place preposition yields the prediction that plain anaphors will be licensed in Path phrases, while exempt anaphors are licensed in Place phrases. The availability of the English anaphor in PlacePs, contra the Hebrew/Greek counterparts, can be explained if it alone can be used as a logophor. This is supported by the data in table 1, which shows that in Place Ps, English inanimate anaphors pattern with Hebrew/Greek anaphors, leading to ungrammaticality.

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