## Perceptual Reports in (varieties of) Arabic Maris Camilleri, Shaimaa ElSadek and Louisa Sadler (University of Essex)

The linguistic encoding of perceptual reports, with verbs in the *seem* class and verbs of perceptual resemblance (*sound, smell*) has been the focus of considerable recent work both within LFG (Asudeh, 2004, 2012; Asudeh and Toivonen, 2012) and beyond (Landau, 2011). Much of this concerns the phenomenon of copy raising (CR) with verbs in the *seem* class. CR in (1) differs from subject raising (SSR), in (2), in that it involves a finite COMP containing a pronominal copy of the raised SUBJ, and also contrasts with the non-raising counterparts in (3) and (4).

- (1) Kim seemed like he enjoyed the hike.
- (2) Kim seemed to enjoy the hike.
- (3) It seemed like Kim enjoyed the hike.
- (4) It seemed that Kim enjoyed the hike.

On Asudeh and Toivonen (2012, (henceforth AT))'s account, the syntax of (1) involves standard SSR: *like* (as though, as *if*) heads a PP XCOMP which itself contains a finite COMP, as shown in (5). As a lexical requirement (not shown here), CR seem must serve as the antecedent of a pronominal within the COMP (hence satisfying coherence). Semantically, the non-expletive CR version and the plain raising version **evaluate** to the same meaning (apart from any additional contribution associated with the predicate *like* itself), but they **compose** differently (see (6)-(7): for reasons of space and simplicity, we omit the glue side). The CR subject composes in place of the pronoun, which is removed by a manager resource introduced by the CR predicate (also not shown here). All expletive subject versions also evaluate to the same meaning (again, modulo any additional contribution associated with *like*): they share the compositional structure of standard raising (in which seem composes directly with its propositional argument, and lacks the manager resource).

[5] 
$$\begin{bmatrix} \text{PRED 'SEEM'} \\ \text{SUBJ } a \big[ \text{PRED 'KIM'} \big] \\ \text{XCOMP } \begin{bmatrix} \text{PRED 'LIKE'} \\ \text{SUBJ } \\ \text{COMP } \big[ \dots p \big[ \text{PRED PRO} \big] \big] \end{bmatrix} \end{bmatrix}$$

$$(6) \text{ seem.cr: } \lambda P \lambda x \lambda s. [seem(s, P(x)) \land P\text{-SOURCE}(s) =_{\tau} x]$$

$$(7) \text{ seem: } \lambda p \lambda s' seem(s', p) \\ \lambda S \lambda s \exists v_{\epsilon} [S(s) \land P\text{-SOURCE}(s) =_{\tau} v_{\epsilon}]$$

A key aspect of the analysis of the difference between SSR and CR concerns the semantic role PSOURCE, first discussed in Rogers (1973), which AT argue is defined for all perceptual eventualities (in English and Swedish). In true CR the PSOURCE is the individual denoted by the SUBJ of the perceptual report verb, accounting for the observation that the individual must be present. In contrast, in SSR and in expletive cases, it is of type *eventuality* (so this requirement is consequently weaker): AT postulate existential closure over the PSOURCE role, which in this case is of type *eventuality*, see (7).

This paper offers what is to our knowledge the first description and analysis of the encoding of perceptual reports in contemporary Arabic (principally Modern Standard Arabic (MSA), Maltese (MT) and Egyptian Cairene Arabic (ECA)), building on the analytic framework offered by AT. In the abstract we highlight different aspects of the phenomenon which are illustrated in the different dialects. Broadly, we show that a range of different syntactic constructions are attested in our languages to encode perceptual reports with *seem* predicates (with variability *inter alia* as to whether SSR is attested) while the core semantic observation developed in AT, concerning the distinction between types of PSOURCE, is found to hold robustly across the varieties of Arabic we have investigated.

Our discussion of **MSA** will show that PR verbs in the *seem* class, which take complements introduced by the particle *?anna-*, are not SSR verbs (ie. do not show the pattern in (2)): an NP in initial position is in fact a fronted topic (Soltan, 2007) and the verb shows default 3SGM agreement. We will demonstrate however that in the presence of the particle *ka?anna* a copy raising pattern emerges: the pronominal copy may occur in a range of nominal GF functions (SUBJ, OBJ, GF POSS, OBL OBJ, etc). As AT argue, in the CR version the matrix subject is necessarily interpreted as the PSOURCE. In addition to the absence of SSR, a further issue concerns the analysis of *ka?anna*: is this a simple complementiser or a preposition heading an XCOMP? Note that there is no motivation for the latter analysis from parallelism with SSR, since SSR is not attested. We will argue that the particle is a complementiser, and should be seen as marking a sort of direct evidentiality. There is hence a clear relation between the use of the SSR-CR variant and the choice of complementiser: a COMP introduced by *ka?anna* is associated with a CR semantics, the lexical requirement for a pronominal copy, and the relevant manager resource. Those introduced by *?anna* are not.

(8) *t-abdu ka?anna-hum ?arsal-u la-ha risāla* 3-seem.IMP.SGF as.though-3PL.ACC sent.PV.3-PL to-3SGF.ACC letter She seems as though they sent a letter to her.

The MSA data shows us that being a SSR predicate is not a necessary condition for the occurrence of a CR pattern. On

the other hand, for MT we will show that the seem predicates allow both SSR (as in (9)) and expletive subject variants.

(9) Dehr-et imdejjq-a/sejr-a seem.PV-3SGF sad-SGF/go.ACT.PRT-SGF

She seemed sad/ to be going.

As well as appearing in both SSR constructions and the expletive (non-raising) counterparts, we show that there is also a CR construction (10), with a pronominal copy in a range of GFs, as in MSA. Unlike English, no intervening *like* predication is required (though as we will exemplify, it can be added).

(10) *T-i-dher* ġa ta-w-ha xebgħa xogħol x't-agħmel!

3-FRM.VWL-seem.IMP.SGF already give.PV.3-PL-3SGF smacking work what.3-do.IMP.SGF
She seems as if they already gave her a whole load of work to do.

The group of PR predicates includes a number of so-called pseudo-verbs, and in fact it is possible to combine a number of *seem* class predicates together, as in (11). We will argue that this involves a cascade of XCOMPs.

(11) Dehr-et qis-ha donn-ha għajjt-u magħ-ha seem.PV-3SGF as.though-3SGF.ACC as.though-3SGF.ACC shout.PV.3-PL with-3SGF.ACC She seemed as though they shouted at her.

The MT seem class PR verbs show precisely the correlation between CR and available PSOURCE interpretations suggested by AT. That it, SSR seem (as in (9)) permits an aspect of the eventuality to be the PSOURCE, whereas the CR version requires the denotation of the SUBJ of seem to provide the PSOURCE. Thus CR (11) is infelicitious if inferred from a pile of files on the desk, but fully appropriate if she is present and looking panicky and stressed. To summarise: MT seem predicates have a SSR subcategorisation, with the seem semantics. They also have a distinct CR syntactic subcategorisation, in which they take a COMP containing a pronominal copy, and the seem.cr semantics.

We will argue that **ECA** and a number of other dialects make use of two main strategies to express CR interpretations: for reasons of space we limit our discussion here to just one: use of the MSG form of the active participle of the verb  $b\bar{a}n$  (Lit:"show") with an  $Sal\bar{e}$  on PP whose denotation corresponds to the PSOURCE, and a complement clause introduced by Sin or Sin There is a clear interpretive difference between (12) (in which the visible aspect of the denotation of the PP is PSOURCE - a CR CASE) and (13) (similar to (3) and (4)) which has the eventuality to be the PSOURCE.

- (12) bāyen Salē-ha ?inn-ohom darab-ō-ha show.PTCP.SGM on-3SGF.ACC that-they beat.PV-3PL-3SGF.ACC She seems like they've beaten her.
- (13) bāyen ?inn-ohom darab-ō-ha show.PTCP.SGM that-they beat.PV-3PL-3SGF.ACC It seems that they've beaten her.

While it is clear that (12) has a CR semantics several aspects of the syntax are less clear. The simplest analysis would be that the PP is an adjunct contributing a PSOURCE to the eventuality it modifies, along the lines of AT's analysis of Swedish  $p\mathring{a}$ -PP with verkar 'seem'. However this would lead us to expect that examples with no copy pronoun in the 7inn clause would be grammatical, and this does not seem to be the case. We will explore the ramifications of a different approach in the paper, namely the possibility that the PP may in fact correspond to a P-marked subject, serving as antecedent to a pronoun within the clausal complement. Some support for this position comes from the agreement on the verb in (14), and from other constructions in Semitic with PP subjects.

(14) kon-t bāyen Salē-k ?inn-ak mabsōt be.PV-2SGM show.PTCP.SGM on-2SGM.ACC that-2SGM.ACC happy.PTCP.SGM You seemed happy.

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<sup>&</sup>lt;sup>1</sup>Complementisers in the *?inna* group in Arabic are followed by a nominal element, which if pronominal, appears as a suffix. This is completely independent of the construction under discussion here.