Experiencers vs. Agents in Urdu/Hindi Nominalized Verbs of Perception

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Urdu/Hindi displays a curious construction with nominalized verbs of perception. There are two nominalized verbs of perception, d_ik^hai 'seeing' and *sonai* 'hearing', which can combine with the light verb version of *de* 'give' as shown in (1). As a complex predicate, the construction shows a combined argument structure of just two arguments: a dative experiencer and a nominative theme/stimulus ('I' and 'sign' in (1-a); 'they' and 'voice' in (1-b)).

(1)	a.	muj ^h -e	is=ka	koi	lakṣan	nahi d	lık ^h -a-i				
		Pron.1.Sg-Da	at this.Obl=Gen.	M.Sg som	e sign.M.Sg.N	Nom not a	ppear-Caus-F.Sg				
		de-t-a									
	give-Impf-M.Sg										
		'I do not see	any sign of it'								
	b.	un-hẽ	gogi=ki	mahin ava	aj	sun-a-i	d-i				
		Pron.3-Pl.Dat gogi=Gen.F.Sg sweet voice.F.Sg.Nom hear-Caus-F.Sg give-Perf.F.Sg									
		'They heard Gogi's sweet voice.'									

However, the verb de 'give/let' consistently only licenses an agentive subject elsewhere in the language, see a.o. Butt (1995), Butt and Geuder (2001), Davison (2014). This is true for its main verb use, illustrated in (2-a), as well as an idiomatic use in (2-b) and its light verb uses as a permissive in (3-a) or as part of an aspectual complex predicate in (3-b). Agentive subjects of (di)transitives in Urdu/Hindi require an ergative subject when the verb's morphology is perfective, as such all the subjects in (2) and (3) are ergative.

(2)	a.	nadya=ne	bacce=ko	kıtab	d-i					
		Nadya.F=Erg child.M.Sg.Obl=Dat book.F.Sg.Nom give-Perf.F.Sg								
		'Nadya gav	e the child a/the	e book.'	-	-	(main verb)			
	b.	protestar=n	e 1slamabad=r	nẽ d ^h ɑrna	di-ya					
		protestor=E	rg Islamabad=i	n sit-in.M.Sg.Nom	give-Perf.M.Sg	3	(1, 1,			
		Protesters	staged a sit-in ii	n Islamabad.			(idiomatic use)			
(3)	a.	nadya=ne	bacce=ko	kıtab	par ^h -ne	d-i				
		Nadya.F=E	rg child.M.Sg.C	bl give-l	Perf.F.Sg					
		'Nadya let t	he child read a	-	(permissive light verb)					
	b.	nadya=ne	bațua	k ^h o di-ya						
		Nadya.F=E								
		'Someone le		(aspectual light verb)						

There is no trace of an agentive argument in any of the examples with $d_k a_i/sonai+de$ that we have found in our corpora and native speakers judge the addition of agentive argument to examples as in (1) as ungrammatical. The absence of an agentive argument in the complex predication is even more puzzling when one considers the individual parts making up the nominalization. The nouns $dik^{h}ai$ and sonai each consist of a verb stem (dik^{h}/son) whose causativized version (addition of causative -a) is nominalized via the affix -i, which derives abstract feminine nouns from a verbal base form (Chatterji 1926, §402).

Given what is known about complex predicate formation in Urdu/Hindi (Butt 1995, 1998, 2014, Mohanan 1994), one would thus expect a total of four arguments in the clause, as illustrated in (4), where we show the linking between arguments and grammatical functions as conceived of in LFG's classic Mapping Theory (e.g., see Bresnan and Zaenen (1990), Bresnan (2001)) for ease of exposition. The matrix goal argument is assumed to be fused/coindexed with the highest embedded argument as per Butt's (2014) theory of complex predication, this is indicated by the subscript *i* on the arguments. The fusion entails that only one instance of these coindexed arguments will be realized overtly in the syntax.

(4)	GIVE <	agent	$goal_i$	$CAUSE < agent_i$	APPEAR $<$	experiencer	theme	>>>
		[-0]	[+0]			[-0]	[-r]	
		SUBJ	OBJ_{go}			OBL	OBJ	
		Erg/Nom	Dat			Loc	Nom	

In studying the construction more closely, we determined that the nominalized causative is not productive in the language anymore. There is a fixed list of nouns of this type speakers can draw on, but new nominalizations cannot be built on this pattern. Thus, although the compositional nature of the nominalization is still transparent, we could hypothesize that d_ik^hai and *sunai* have been lexicalized to be nouns of perception with an attendent experiencer/theme argument structure. We can thus potentially simplify the argument structure contributed by d_ik^hai (and *sunai*) as shown in (5).

GIVE <	agent	$goal_i$	seeing $<$	experiencer _i	theme	>>>
	[-0]	[+0]			[-r]	
	SUBJ	OBJ_{go}			OBJ	
	Erg/Nom	Dat			Nom	
	GIVE <	GIVE < agent [-o] SUBJ Erg/Nom	$\begin{array}{c c} \text{GIVE} < & \text{agent} & \text{goal}_i \\ & [-o] & [+o] \\ & & \\ & \text{SUBJ} & \text{OBJ}_{go} \\ & & \text{Erg/Nom} & \text{Dat} \end{array}$	$ \begin{array}{c c} \text{GIVE} < & \text{agent} & \text{goal}_i & \text{SEEING} < \\ & & [-o] & [+o] \\ & & \\ & & \\ & & \text{SUBJ} & \text{OBJ}_{go} \\ & & & \text{Erg/Nom} & \text{Dat} \end{array} $	$\begin{array}{c cccc} \text{GIVE} < & \text{agent} & \text{goal}_i & \text{SEEING} < & \text{experiencer}_i \\ & & [-o] & [+o] \\ & & & \\ & & & \text{SUBJ} & & \text{OBJ}_{go} \\ & & & & \text{Erg/Nom} & & \text{Dat} \end{array}$	GIVE <agentgoalSEEING <experiencertheme $[-o]$ $[+o]$ $[-r]$ $ $ $ $ $ $ SUBJ OBJ_{go} OBJErg/NomDatNom

However, this still leaves us with a predicted agentive argument that simply does not show up in nominalized perception N-V combinations. In solving this conundrum we make use of two ingredients. One is the "Dative Restriction" first identified by Davison (2008) and discussed with respect to the light verb *de* 'give' in Davison (2014). This is a restriction on control in Hindi (*PROdat) so that control complements are not allowed if the verb in the embedded controlled complement selects for a dative subject. We interpret this as an indication that there seems to be a general incompatibility between experiencer and agentive subjects. The other crucial ingredient is the adoption of the subevental approach to linking articulated in Schätzle (2018). This incoporates Kibort's (2014) revised Mapping Theory, which posits four abstract argument positions as an independent tier of representation ('argument slots') at a-structure. Kibort's theory is combined with the subevental conception of lexical semantics as articulated by Ramchand (2008), in which an event can be decomposed into three subevents: (i) a causing or initiating subevent (*init*); (ii) a process subevent (*proc*); (iii) a result state (*res*). In addition *rhemes* (*rh*) are taken to be part of the description of the predicate and are considered to be in a static relationship with one of the three subevents of a predicate, much like a static spatial Figure/Ground relationship. Each of these licenses an argument participant.

Using this as a basis for analysis, along with Butt's (2014) theory of complex predication we posit the following joined argument predication. This looks very similar to what we had above in (5) in terms of LFG's classic Mapping Theory, however, the subevental information allows for a new insight.



In Ramchand's system, experiencer predicates are analyzed as involving a holder (an experiencer) of a state (a rheme). This holder is identified with the init subevent. When combining the experiencer predicate argument structure with the one provided by 'give', we end up with two different init participants. We posit, along the lines of Davison's insight with respect to control, that two init participants with clashing semantics are incompatible within the same overall event predication. This is also in line with PropBank's annotation guidelines that uses an Arg0 label for Agents, Causers or Experiencers (Bonial et al. 2010) reflecting general Proto-Agent properties (Dowty 1991). However, PropBank in practice never assigns more than one Arg0 label per predication. Similarly we can posit that the structure in (6) is impossible to realize because of the incompatibility of two different inits in one predication and that the predication was therefore reanalyzed as an overall experiencer predication via an initial suppression of the agentive init argument (possibly triggered by the reanalysis of the originally causative nominal as an experiencer predicate).

Our analysis is then also able to make sense of examples as in (7), in which the also normally agentive light verb kar 'do' is also found with a dative experiencer subject rather than the expected agentive one.

(7) parvati=ko c^hopar k^hel-ne=ka man kiya parvati=Dat chopad.M.Sg.Nom play-Inf.Obl=Gen.M.Sg mind.M.Sg.Nom do-Perf.M.Sg 'Parvati felt like playing chopad.'

In sum, we argue that the reconceptualization of LFG's Mapping Theory in terms of an event-based approach to the licensing of event participants at argument structure allows for an insightful way of accounting for initially puzzling examples as in (1) and (7).

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