THE RELATIONSHIP BETWEEN CASE MARKING AND S, A, AND O IN SPOKEN SINHALA

CARMEN JANY

University of California, Santa Barbara

1. INTRODUCTION. In this paper I examine the relationship between case marking and S, A, and O in spoken Sinhala. I will demonstrate that case roles are not assigned on the basis of grammatical relations, but rather they depend on a series of semantic and lexical principles including volitivity, animacy, semantic roles, and definiteness. This paper will furthermore provide evidence for S, A, and O in spoken Sinhala and describe how they pattern together.

Case in its most traditional sense refers to the morphological marking by which some languages indicate the grammatical relation of each argument in a clause to a predicate (DeLancey 2001). As in many other Indo-Aryan languages, case markers in spoken Sinhala do not coincide on a one-to-one basis basis with any syntactic roles (Masica 1991:367, Blake 1994). In fact, subjects and objects are not distinguished by case marking in many sentences in Indo-Aryan languages. Both can occur in the nominative case (Masica 1991). In particular the category of subject or lack thereof has been widely discussed for Indo-Aryan languages (Masica 1991), including spoken Sinhala (Gair 1976, 1990). The properties generally associated with subjects, such as agency, animacy, verb agreement, nominative case, control of reflexivity, coreferential deletion, and topicality, do not coincide in the same noun phrase in many Indo-Aryan languages (Masica 1991). Subjects functioning as experiencers rather than as agents and marked with the dative case rather than the nominative are very common in these languages (Masica 1991, DeLancey 2001). They are also found in Sinhala (Gair 1976, 1990).

Given the lack of a coherent subject category in spoken Sinhala (Gair 1976) and the multifunctionality of case markers, grammatical relations will be discussed in terms of S, A, and O following the definitions given in Payne (1997), rather than in terms of subjects and objects. According to Payne (1997), S represents the only nominal of a single-argument clause, A describes the most agent-like argument of a multi-argument clause, and O the most patient-like argument of a multi-argument clause. If there is no argument in a clause which can be identified as an agent or patient on a semantic basis, then A and O are assigned to the arguments that are treated morphosyntactically in the same manner as prototypical agents or patients respectively (Payne 1997).

Grammatical relations independent of semantic and pragmatic influences are identified by a) case marking, b) participant reference on verbs, and c) constituent order (Payne 1997). In spoken Sinhala, however, case marking is not an indicator of grammatical relations given that any argument may appear in the nominative case, and there is no verb agreement. That leaves us with constituent order as a syntactic indicator for grammatical relations. Sinhala is a verb-final language, and arguments may change position to add or change focus in a sentence. Hence, constituent order needs to be used with caution as an indicator for grammatical relations. This paper describes mainly unfocused sentences with an unmarked word order¹, which is SV or AOV in Sinhala, in order to include constituent order in the discussion of grammatical relations. However, it will only be used as a tool for the identification of S, A, and

¹ Unmarked refers to the basic word order whereby no constituent is put into focus.

O. In certain instances word order may function as an indicator of semantic roles, such as in transitive clauses with two inanimate arguments, both in the nominative case.

Spoken Sinhala distinguishes four cases for inanimate nouns: nominative (direct), dative, genitive, and instrumental, and six cases for animate nouns: nominative, accusative, dative, genitive, instrumental, and vocative. Animate pronouns occur in all except for the vocative, while inanimate pronouns are found in all but the vocative and the accusative case. There are different case forms for singular and plural, and definite and indefinite nouns in the singular, as well as for inanimate and animate pronouns in the singular and plural (Gair and Paolillo 1997). Except for the genitive and vocative case, all cases occur on either S, A, or O arguments. S may be marked with the nominative (unmarked), dative, instrumental, or accusative case, while A can only occur in any of the first three. O can be marked as nominative (unmarked), accusative, or dative (Gair and Paolillo 1997). These patterns are summarized below.

S:		A:	Nominative	Nominative
	Accusative		-	Accusative
	Dative		Dative	Dative
	Instrumental		Instrumental	

TABLE 1. Possible case markers for S, A, and O.

Two key concepts for the understanding of case marking in spoken Sinhala are animacy and volitivity. The distinction between animates, including humans and animals, and inanimates, including objects and plants, is pervasive in the language. Different forms for these two categories are used for case markers, pronouns, demonstratives, and numerals. The distinction between volitive and involitive verbs is for the most part encoded in the verbal derivational morphology, as the verb pairs in Table 2 illustrate. The formal distinction between the two sets surfaces in different verb tenses and aspects including past, imperfective, future, and focused forms. Semantically, the involitive verbs are associated with non-volitionality, lack of control, and lack of agency. However, the correlation is 'by no means neat or complete', as Gair and Paolillo (1997:39) assert. Some involitive verbs are also used in a volitional sense and some verbs lacking an involitive derivation are essentially involitive.

Volitive Verb		Involitive Verb)
lissannə	'to slip, to slide'	lissennə	'to slip'
wațannə	'to drop'	wæțennə	'to fall'
marannə	'to kill"	mærennə	'to die'
națəwannə	'to boil'	næțəwennə	'to let boil'
națannə	'to dance'	næțennə	'to dance'
gahannə	'to hit'	gæhennə	'to shake'
ahannə	'to listen'	æhennə	'to hear'
riddannə	'to hurt'	ridennə	'to be hurt, feel pain'
toorannə	'to explain'	teerennə	'to understand'
balannə	'to watch'	bælennə	'happen to watch'
-	-	dænennə	'to feel, to perceive'
dakinnə	'to see'	peennə	'to see'

Table 2. Volitive/involitive verb pairs.

The last pair of verbs in Table 2 demonstrates that the semantic volitive/involitive distinction is not always encoded in the verbal derivational morphology. Some verb pairs are completely distinct lexical items with different roots. In addition, not all verbs have a volitive or involitive counterpart, as *dænennə* 'to feel, to perceive' demonstrates.

This paper is divided into three main parts. First, I will describe each of the three categories: S, A, and O separately in terms of case marking, verb morphology where applicable, and constituent order. Verbless and copular clauses will be treated separately. Second, I will examine the different arguments marked with the same case in search for common semantic and syntactic properties. Third, I will combine the two analyses to discuss the relationship between syntactic roles and case marking in spoken Sinhala. I will show that argument marking is not assigned on the basis of grammatical relations, but is dependent on a series of semantic properties of the argument, such as animacy, semantic role, and definiteness, and on the semantic and lexical properties of the verb, in particular on volitivity.

2. Case Marking on S, A, and O.

2.1. S ARGUMENTS. By definition S represents the only core nominal in a single-argument clause. In spoken Sinhala there are many verbs which can take only one argument. According to Gair and Paolillo (1997), S can be in the nominative, the accusative, the dative, or the instrumental case. In the variety of spoken Sinhala examined for this paper, the instrumental case is not used for S arguments. The consultant used the nominative case in the same examples presented with instrumental case in Gair and Paolillo (1997:33). Examples (1)-(4) illustrate these different case markings.

(1)	ADV	S		
	[mæturuwa	i-iŋ passe] [ee	aliya]	[ekəpaarəṭəmə]
	chant-?	after DIST.VIS.A	NIM.SG elephant.SG.DEF.NC	M suddenly
	OBL		Р	-
	[wanəyațə]	[aayet]	[diuw-a]	
	jungle-GOAL	again	run-PST	
	'After he ch	anted, that elephan	nt suddenly ran again inte	o the jungle.'
(2)	S	Р		
	[mamə]	[diuw-a]		
	1s .NOM	run-PST		
	'I ran'			
(3)	S	Р		
	[maawə]	[wæțe-nəwa]		
	1s .ACC	fall.invol-impf		
	'I am falling	g (involuntarily).'		
(4)	S	Р		
	[mațə]	[næṭun-a]		
	1s .DAT	dance.INVOL-PST		
	'I danced.' (for some external r	reason, such as being pos	sessed by a spirit)

As can be seen in (1)-(4), the single argument of a clause can be in the nominative, the accusative, or the dative case. The latter two markings, however, imply lack of control and lack

of volition. This is clearly indicated by the obligatory co-occurrence of an involitive form as part of the verbal derivational morphology (Gair and Paolillo 1997). Examples (5)-(8) will illustrate the formal volitive/involitive distinction. The difference between (3) and (4) lies in the semantics of S. Accusative and dative S both occur with involitive verb stems, and the S argument has no control over the action. While the accusative marking describes an affected undergoer², the dative marking describes an experiencer³, someone who receives a sensory impression. The S argument *mata* 'I' in (4) does not control the action, but rather 'experiences' some external force. If the S argument is visibly affected, as in (3), the accusative case is used.

A key factor in case assignment for S arguments is the volitive/involitive distinction, encoded in the verbal derivational morphology. Involitive verb forms correlate for the most part with non-volitionality, lack of control, and lack of agency. However, the correlation is not complete. Some involitive verbs are used in a volitional sense, such as *hærennə* 'to turn' (Gair 1998), and some verbs lacking an involitive derivation are essentially involitive, such as *lissannə* 'to slip'. Examples (5)-(8) illustrate imperfective and past tense inflection of volitive and involitive verb stems.

(5)	S	Р
	[maawə]	[n æṭe -nəwa]
	1s .ACC	dance. INVOL -IMPF
	'I am danci	ng (involuntarily).'
(6)	S	Р
	[maŋ]	[n a ṭ ə -nəwa]
	1s .NOM	dance-IMPF
	'I am danci	ng.'
(7)	S	P
	[maawə]	[diu n -a]
	1s .ACC	run .INVOL -PST
	'I ran (invo	luntarily).' (something made me run)
(8)	S	Р
	[maŋ]	[diu w -a]
	1s .NOM	run-PST
	'I ran.'	

In addition to showing the derivational volitive/involitive distinction, the examples above illustrate that case marking is not determined by the lexical verb in this case, but by the semantics of the entire clause. While only nominative case can occur with verb stems lacking involitive derivation, both accusative and dative case are found in clauses with involitive verb stems. Nevertheless, dative case is only found with a few verbs, such as $n \alpha tenno$ 'dance', diwenno 'run', and *ridenno* 'feel pain'.

The predicates presented so far are either motion or action verbs. Verbs describing a change of state can also have arguments with different case markings, as shown in (9)-(12).

² Actor and undergoer are viewed here as semantic macro-roles generalizing across specific semantic roles. While 'actor' comprises agent, experiencer, instrument, and other specific semantic roles, 'undergoer' subsumes patient, theme, and recipient, among others.

³ An experiencer neither controls nor is visibly affected by an action. It is someone who receives a sensory impression (Payne, 1997).

(9)	S [ohu] 3s.м. NOM 'He died.'	P [mærun-a] die.INVOL-PST
(10)		P [mærun-a]
	3s.м. ACC 'He died.' (re	die.INVOL-PST portedly rarely used)
(11)	•	P
	[malbanduna	a] [kædun-a]
	vase.SG.DEF.N	ом break.invol-pst
	'The vase bro	oke.'
*(12)) S	Р
	[malbanduna	a-wə] [kædun-a]
	vase.SG.DEF-A	.cc break.INVOL-PST
	'The vase bro	oke.'

In general, only animate arguments show possible case alternations. Examples (11)-(12) demonstrate that inanimates can only be marked with the nominative case. This makes sense as only animates can control an action, act with volitivity, be visibly affected, or receive a sensory impression.

Table 3 summarizes the possible case markings found on S arguments, some properties of the arguments, and some of the verbs with which they have been elicited. While both verb stem types, volitive and involitive, can occur with nominative case, only involitive verb stems are found with accusative or dative case. The same verb stem can occur with different case markings depending on the semantics of the S argument and the entire clause. In addition, as will be shown later with O arguments, the accusative case marker can sometimes be dropped. The result is a nominative case argument with no change in meaning. This explains the involitive verb forms occurring with nominative case S.

Case marking	Verbs	Argument properties			
Nominative	Volitive: lissannə 'slip', duwannə 'run', națannə	animate, inanimate,			
	'dance', kadannə 'break', natəwannə 'boil'				
	Involitive: wæțennə 'fall', mærennə 'die'				
Accusative ⁴	Involitive: wæțennə 'fall', lissennə 'slip', mærennə	animate,			
	'die', diwennə 'run', næțennə 'dance', kædennə	affected undergoer			
	'break', nætawenna 'boil', gæhenna 'shake', kæpenna				
	'cut' (reflexive), <i>æhennə</i> 'hear' (passive),				
	issennə 'lift' (passive)				
Dative	Involitive: næțennə 'dance', diwennə 'run', ridennə	animate, experiencer			
	'feel pain'	_			

Table 3. Case markings on S.

⁴ Clauses with a reflexive or a passive meaning follow the same pattern, such as for example *maava kæpuna* 'I cut myself' where the animate affected undergoer is accusative-marked.

While Table 3 summarizes the case marking patterns found with different verbs in clauses with a single argument S, Table 4 demonstrates a hierarchy of triggers for the different case markings. If the S argument is inanimate, it can only take nominative case. If it is animate, it can occur in all three cases depending on the verb stem type and semantics. With volitive verb stems, the argument is always in the nominative case. With involitive verb stems, case marking correlates with the semantics of the argument: accusative for an affected undergoer or dative for an experiencer.



TABLE 4. Triggers for case marking on S

2.2. A ARGUMENTS. A arguments can be found in the nominative, the dative, or the instrumental case. The same as for S arguments, the instrumental case is not used in the variety of spoken Sinhala examined here. The consultant used the nominative case instead. Examples (13)-(16) illustrate the different case markings.

(13)	А	0	OBL	Р
	[maŋ]	[paləturə]	[pihiyə-kiŋ]	[kæpuw-a]
	1s .NOM	fruit.sg.def.nom	knife.sg.ind-inst	cut-PST
	'I cut the	fruit with a knife.'		
(14)	ADV	0		
	[issrə]	[rajjuruwaŋ-	ge maalikaa-weweḍə-kərəna	ə minisun-țə]
	long.time	.ago king.def-gen	palace-loc work-do.pres	S.PPL people-dat
	А	ADV	Р	
	[rajjuruw	o] [itaamat	hoňdiŋ] [sæləkuw	-a]
	king.def. n	юм very	well treat-PST	
	'In the old	d days, the king tre	eated people working in the p	oalace very well.'
(15)	А	0	Р	
	[mațə]	[sindu]	[æhe-nəwa]	
	1s .DAT	music.IND.NOM	hear.invol-impf	
	'I hear mu	usic.'		

⁵ This pattern only occurs when the accusative marker is dropped.

(16)	Α	ADV
	[etəkotə tamai] [matə]	[ættətəmə]
	then EMPH 1s.DAT	truly
	Р	0
	[teerune-e]	[meeke bæræruŋkamə]
	understand.INVOL-FOC.PST	DEM-GEN seriousness
	'Then I truly understood t	ne seriousness of this.'

While in (13)-(14) the A is a prototypical semantic agent, in (15)-(16) it is an experiencer receiving a sensory impression. Nevertheless, *mațə* 'I' in (15) is more agent-like than *sindu* 'music', as it is animate and human. In addition, *mațə* 'I' precedes *sindu* 'music' and, therefore, acts syntactically like a prototypical agent.

Protoypical semantic agents are generally in the nominative case, as the following three examples illustrate. Their characteristics include: animacy, acting with volition, and affecting a patient.

(17)	А	0		Р
	[maŋ]	[laməya-ṭə]		[gæhuw-a]
	1s .nom	child.sg.def-1	DAT	hit-pst
	'I hit the	child.'		
(18)	А	0	Р	
	[maŋ]	[ohuwə]	[mara	-nnə ya-nəwa]
	1s .nom	3s.acc kill-in	NF go-	IMPF
	'I am goir	ng to kill him.'		
(19)	А	0	Р	
	[ohu]	[maawə]	[kæpu	ıw-a]
	3s . м .nom	1s.ACC	cut-PS	ST
	'He cut m	.e.'		

Nevertheless, less prototypical agents in A function can also be marked with the nominative case, as in (20) and (21). While in (20) there is no affected patient and no volitional action, in (21) the A argument is not animate. Hence, in both cases the A is not a prototypical agent, but it is the more agent-like argument of the two, given its humanness in (20) and its agentive interpretation in both examples.

(20)	А	0		Р
	[maŋ]	[gedəra		[dækk-a]
	1s .NOM	house.	SG.DEF.NOM	see-PST
	'I saw the	house.'		
(21)	А		0	Р
	[aaňduwa	»]	[taxes]	[issuw-a]
	governm	ent .NOM	taxes	change-pst
	'The gove	ernment	changed the t	caxes.'

A arguments in the dative case are never prototypical agents. Rather, they are experiencers in clauses with verbs of sensation or cognition. This is illustrated in the following examples.

(22)	A [mațə] 1s .DAT 'I am seei	child.	SG.DEF-A	-1	ləwa] VOL-IMPF
(23)		EF- DAT		wə] sg.def.nom :he story.'	P [teere-nəwa] understand.invol-impf
(24)	A [mațə] 1s .DAT 'I smell tł	O [roți roti.D]		pusmə] smell.def.noм	P [dænun-a] feel.INVOL-PST

In the data examined, all of the verbs occurring in clauses with a dative-marked A argument are involitive, i.e. they belong to the e-conjugation class, called class III by Gair and Paolillo (1997). Class III verbs are 'essentially the same as those verbs that include the involitive morpheme' (Gair and Paolillo 1997:24). This shows that, the same as for S, an A in the dative case correlates with involitive verbal morphology⁶ and with semantic experiencers.

The findings for A arguments are summarized in Table 5. Dative case markings are only found on animate arguments and with involitive verb stems. There are a limited number of verbs, mostly indicating sensation or cognition, that can occur in clauses with dative-marked A arguments. Semantically, prototypical agents are marked with the nominative case, while experiencers take the dative case. Except for the accusative marked S arguments, the observed patterns are very similar for S and A arguments, as can be seen in Table 6.

Case marking	Verbs	Argument properties
Nominative	Volitive: kannə 'eat', dakinnə 'see', tiintəgaannə 'apply paint', gahannə 'hit', tarəvatu kərannə 'scold', saləkənnə 'treat', andəgahannə 'call', kadannə 'break', marannə 'kill', kapannə 'cut', naṭannə 'boil', ahannə 'listen', kataa kərannə 'talk to', riddannə 'hurt', pavičči kərannə 'use', sænəsannə 'console', stutikərannə 'thank', udankərannə 'help', beerannə 'save'	
Dative	Involitive: æhennə 'hear', dænennə 'feel', peennə 'see', teerennə 'understand' læbennə 'receive'	animate, experiencer

Table 5. Case markings on A.

⁶ There is one exception to this rule. In clauses with *hambəvennə* 'meet', a verb with involitive morphology, the A appears in the nominative case. However, the verb does not retain its involitive meaning when used with a nominative A.



TABLE 6. Triggers for case marking on A.

2.3. O ARGUMENTS. O arguments occur in the nominative, the accusative, or the dative case. Examples with each of these case markings are given below.

(25)	A	0	Р				(same as 14)
	[mațə]	[sindu]	=	ehe-nəwa]			
		music.IND.NO	M ł	ear.INVOL-I	MPF		
<i>.</i>	'I hear m	usic.'					
(26)	OBL		0		_	0	_
	[samahar	rə perəhærə-w					nætuŋ]
	some	parade.pl-	loc drago	n dance.P	L.NOM	lion	dance.pl. nom
	0	_					
	[saha]	[paatə paatə			9-gat		minisu
	and	color color	cloth.pl	wear	-PST.PPL	people	.NOM
	ekə ekə	vikəțə	javənika			pavatv	2
	one one	funny	perform	ance.PL .NOM		perfor	m-PPL
			A		Р	_	
	paarə	digee ya-nə		namə]	[dækk	-a]	
	road	along go-імі		S.NOM	see-PS		
							funny acts by people
	wearing	colorful clothe	s while go	ing along tl	ne road.'		
(27)	А	0	Р				
	[mațə]	[ohuwə]	[æhun-a				
	1s.dat		hear.inv	OL-PST			
	'I heard h	iim.'					
(28)	А	0	Р				
		[meesə-țə]		gæhuw-a]			
	1s.nom	table.sg.def-1	DAT ł	it-pst			
	'I hit the	table.'					

Examples (25)-(27) demonstrate that animate O arguments may be in the accusative case, unlike inanimate O arguments that are in the nominative case, as in (25) and (26), or in the dative, as in (28). Gair and Paolillo (1997:31) assert that the use of the accusative marker for objects (here O arguments) shows dialectal variation. Most animate arguments are marked with the accusative case, with a few exceptions. While definite O arguments always take the accusative marker, it can be omitted in some indefinite O arguments, as in (30).

(29)	А	0	Р
	[ohu]	[eluva-və]	[mæruv-a]
	3s.m.nom	goat.sg.def-ACC	kill-pst
	'He killed	the goat.'	
(30)	А	0	Р
	[ohu]	[eluvek]	[mæruv-a]
	3s.m.nom	goat.sg.ind.nom	kill-pst
	'He killed	a goat.'	

The O argument in (30) is animate, the same as in (29), but it is indefinite. In general, the consultant varies in the use of the accusative marker with indefinite animate O arguments, whereas definite animate O arguments do not show such a pattern. The correlation between the accusative case marker and indefiniteness needs further investigation.

The alternation between accusative and dative case is lexically specified by the verb rather than being a property of the O argument, as a comparison of the previous examples with (31) and (32) demonstrates. Both O arguments are typical patients in that they are both animate and affected. Nevertheless, *minisu* 'people' in (31) and *lamaya* 'child' in (32) are marked with the dative, while *eluva* 'goat' in (29) takes the accusative case. Following Gair and Paolillo (1997:31) 'some verbs require the dative case of an animate object'. Such verbs include: *gahanna* 'hit', *taravatu karanna* 'scold', *salakanna* 'treat', and *andagahanna* 'call', among others. However, in a few instances where the semantics of the verb allows it, such as with *gahanna* 'hit' in (28), this pattern extends to inanimate O arguments. In general, many of the verbs with O arguments in the dative case are verbs of speaking where the O can be interpreted as an addressee. In these cases, the dative-marking can be viewed as an extension of the ditransitive argument structure of verbs of speaking. The following examples illustrate the dative case marking.

(31)	ADV	0				
	[issrə]	[rajjuruwaŋ-	-ge maalikaa	-we	wedə-kərənə	minisun-țə]
	long.time.ago	king.def-gen	palace-LC	C	work-do.pres.ppl	people- dat
	А	ADV		Р		
	[rajjuruwo]	[itaamat	hoňdiŋ]	[s	æləkuw-a]	
	king.def.nom	very	well	tı	reat-PST	
	'In the old days,	the king treate	ed people wor	king	in the palace very	well.'
(32)	А	0		Р		
	[amma]	[lamə	ya-țə]	[t	arəwațu kər-a]	
	mother.sg.def.no	ом child	.SG.DEF-DAT	r	eprimand do-pst	
	'The mother sco	lded the child.	,			

(33)	А	0	Р
	[maŋ]	[miniha-țə]	[aňdəgæhuw-a]
	1s.NOM	man.sg.def- dat	call-PST
	'I called	the man.'	

The same as for S arguments, only animate O arguments can take the accusative case. Inanimates in all three syntactic categories only occur in the nominative and the dative cases.

The findings for O arguments are summarized in Tables 7 and 8. As with S and A arguments, the main factor influencing case marking is animacy. While most⁷ inanimates occur in the nominative case, animates are found in any of the three cases. However, only indefinite animate O arguments have been found in the nominative. The volitive/involitive verb distinction does not seem to play an essential role in the case marking of O arguments. Nevertheless, all attested dative-marked O arguments occur with volitive verbs. A clear semantic distinction between O arguments in the accusative and in the dative cannot be established at this point. While many of the dative O arguments represent beneficiaries, some accusative O arguments can equally be described as beneficiaries. The only semantic pattern observed is that many dative-marked O arguments are addresees of verbs of speaking.

Case marking	Verbs	Argument properties
Nominative	Volitive: kannə 'eat', dakinnə 'see', tiintəgaannə	inanimate,
	'apply paint', kadannə 'break', națannə 'boil',	some animate indefinite ⁸
	(marannə 'kill')	
	Involitive: æhennə 'hear', dænennə 'feel'	
Accusative	Volitive: dakinnə 'see', marannə 'kill', kapannə 'cut',	animate
	tiintəgaannə 'apply paint', konitannə 'pinch', pavičči	
	kərannə 'use', sænəsannə 'console', beerannə 'save'	
	Involitive: æhenna 'hear', peenna 'see', teerenna	
	'understand', hambəvennə 'meet'	
Dative	Volitive: tarəvatu kərannə 'scold', saləkənnə 'treat',	animate, inanimate,
	andəgahannə 'call', gahannə 'hit', kataa kərannə	lexical specification of
	'talk to', kæægahanna 'shout', riddanna 'hurt',	verb
	stutikərannə 'thank', udankərannə 'help', uganannə	
	'teach'	

Table 7. Case markings on O.

⁷ Example 28 illustrates that some inanimate O arguments occur in the dative case as a function of the verb.

⁸ This pattern only occurs when the accusative marker is dropped in cases with an indefinite animate O.



TABLE 8. Triggers for case marking on O.

3. VERBLESS AND COPULAR CLAUSES. Verbless and copular clauses behave differently from verbal clauses. It is difficult to assign S, A, and O roles is such constructions. Therefore, they are discussed separately here.

In spoken Sinhala some clauses with predicate nominals include copular verbs with no special marking on the predicate nominal, while others lack a copula but show a predicative suffix. These properties will not be discussed here. Only case markings on arguments in these clauses are described.

Equational, existential, and locational clauses show nominative case marking on their arguments. This is illustrated below. Example (34) represents an equational, (35) an existential clause, and (36) a locational construction.

(34)	NP	NP		
	[Nimal]	[dostərə	kenek]
	Nimal .nom	doctor.sg.ind	person	1.SG.IND. NOM
	'Nimal is a doo	ctor.'		
(35)	NP	COP		NP
	[Nimal]	[i-nne]		[koləm̆bə]
	Nimal .nom	be.anim-foc.n	IPST	Colombo .noм
	'Nimal is in Co	olombo.'		
(36)	OBL	NP		COP
	[gahe-e]	[wanḍurek]		[in-nəwa]
	tree.sg.DEF-LOC	c monkey.sg.iN	ID .NOM	exist.anim-impf
	'There is a mo	onkey in the tree.'		

Nominative case is also found in other constructions with predicate nominals. In most clauses with predicate adjectives the argument is nominative-marked, and in some clauses with predicate nominals one of the arguments takes the nominative case, as the following examples show.

Ρ (37) NP [æyə] [usa-y] 3s.f.nom tall-pred 'She is tall.'

(38)	NP	NP		F)
	[maŋ]	[ee	laməya-tə]	[aasa-y]
	1s .NOM	DIST.SG.ANM	child.sg.def-dat]	like-pred
	'I like that	child.'			
(39)	NP				Р
	[andəre]	[siini	ka-nnə]	[harimə]] [aasa-y]
	Andare. NC	ом sugar	eat-INF	very	like-pred
	'Andare likes to eat sugar very much.'				

The predicate expressing an emotion in (38) and (39) behaves in the same way as adjectives in spoken Sinhala in that it takes the predicative suffix -y. The arguments with the most resemblance to an agent, *maŋ* 'I' in (38) and *andəre* 'Andare' in (39), are marked with the nominative case, while the object of liking in (38), *ee laməya* 'that child', shows dative marking. The dative marking is also found on inanimate objects of liking, as the following example demonstrates.

(40)	NP	NP	Р
	[maŋ]	[roțiwələ-țə]	[aasa-y]
	1s. NOM	roti.ind- dat	like-pred
	'I like ro	ti'	

In addition to the object of liking, dative case markings occur in several predicate nominal clauses, including possessives. The dative-marked arguments all represent undergoers. This is illustrated below.

(41)	NP	NP	COP
	[mațə]	[salli]	[tiye-nəwa]
	1s .dat	money.IND.N	IOM exist-IMPF
	'I have m	ioney.'	
(42)	NP	NP	Р
	[mațə]	[oyaawə]	[matəka-y]
	1s .DAT	2s.ACC	remember-pred
	'I remem	ber you.'	
(43)		-	NP P
	[ehe inr	iə gama	aŋ] [maṭə] [maṭəka-y] [hæmə aurudæ-mə
	there be.	ANIM.INF while	e 1s- DAT remember-pred every year-?
			NP
	pebərəwa	aari maase na	ætaŋ janəwaari maase] [ciina alut aurudə]
	February	month if.r	not January month Chinese new year
	Р		
	[samərə-	nəwa]	
	celebrate	e-IMP	
	'While I	stayed there,	I remember, every year in February if not in January the
	Chinese 1	New Year is cel	lebrated.'

(44) NP P [mațə] [nidimata-y] 1s.DAT sleepy-PRED 'I am sleepy.'

The possessor in (41) is in the dative case, while the possessed, here an inanimate object, takes the nominative case. Animate objects of possession, such as *ballek* 'dog' have also been found in the nominative case. The animate object of memory in (42), however, shows accusative marking. The undergoers in (42) and (43), *mato* 'I', as well as the only argument in (44), also show dative marking. Example (44) illustrates that predicate adjectives describing a bodily function have a dative-marked argument, while adjectives defining inherent properties, as in (37), correlate with nominative-marked arguments. Other bodily functions with dative-marked arguments include *badoginii* 'to be hungry' and *siitola* 'to be cold', as (45)-(46) illustrate.

- (45) NP P
 [mațə] [badəgini-yi]
 1s.DAT hungry-PRED
 'I am hungry.'
- (46) NP P
 [mațə] [siitəla-y]
 1s.DAT cold-PRED
 'I am cold.'

The findings of this section are summarized in Table 9. Contrary to the findings in clauses with verbal predicates, case marking is for the most part independent of animacy. Only animate objects of memory are accusative-marked, while inanimates are in the nominative. Arguments in the dative case can be interpreted as experiencers. To conclude, in clauses with predicate nominals, the semantic role of the argument determines its case assignment.

Case marking	Type of clause	Argument properties
Nominative	equational, existential, locational, predicate adjective (inherent property), actor of <i>aasa</i> 'like', possessed, object of memory (inanimate)	
Accusative	object of memory (animate)	animate
Dative	object of <i>aasa</i> 'like', actor/possessor of <i>matəkə</i> 'remember', possessor, predicate adjective (bodily function)	animate, inanimate

Table 9. Case markings on arguments in verbless and copular clauses.

4. SEMANTIC AND SYNTACTIC GROUNDS FOR CASE MARKING.

4.1. THE NOMINATIVE CASE. The nominative case is the unmarked or direct case (Gair and Paolillo 1997). It is most often used in spoken Sinhala and appears on S, A, and O, on actors and undergoers, on animate and inanimate arguments, and with most verbs. Furthermore, it is used in equational, existential, and locational clauses, as well as with certain predicate adjectives. It is also found on inanimate objects of memory and on a possessed object or

animal. Given this great variety of arguments marked with the nominative case, no unique property can be identified. However, contrasting nominative-marked arguments with arguments marked differently, it is worth pointing out that most inanimate arguments and some animates take the nominative case. One structure where animates and inanimates behave alike is the possessed which always appears in the nominative case.

4.2. THE ACCUSATIVE CASE. The accusative case only appears on a limited number of animate arguments either in S or in O role or as an object of memory. Apart from being animate, all the arguments marked with the accusative case lack control or volitivity. They represent for the most part directly affected undergoers. Furthermore, they are rather the endpoint of an action than the starting point.

4.3. THE DATIVE CASE. The same as the nominative case, the dative case is found on arguments in S, A, and O roles. It appears mostly on animates with a few exceptions. An inanimate object of liking in clauses with *aasa* 'to like' takes dative case. Arguments marked with the dative case are never prototypical actors. The object of liking, the experiencer of memory, arguments of adjectival predicates describing a bodily function, as well as possessors, are all dative-marked and can be described as experiencers or undergoers which lack control and volitivity. They are rather passive than active participants in an event. The same as with arguments in the accusative case, dative-marked participants represent rather the endpoint of an action than the starting point.

5. CONCLUSIONS: THE RELATIONSHIP BETWEEN CASE MARKING AND S, A, AND, O. It has been shown that S, A, and O and case marking do not coincide on a one-to-basis, a fact that has been discussed for Indo-Aryan languages (Masica 1991) in general, as well as for spoken Sinhala in particular (Gair 1976, 1990, Gair and Paolillo 1997). An S argument can be marked with the nominative, the accusative, or the dative case as a function of animacy, semantic role, and volitivity. An A argument can occur in the nominative or the dative case as a function of semantic role, animacy, volitivity, and verb type. O arguments are marked in the nominative, the accusative, or the dative case depending on animacy, definiteness, volitivity, and on the lexical property of the verb. Hence, case marking is largely dependent on the animacy of the argument, its semantic role, volitivity or the lack thereof as encoded in the verb stem, and occasionally on lexical properties of the verb. It thus encodes the semantic rather than the syntactic function of an argument in a clause.

Syntactically, there is no evidence from case marking that any two syntactic roles share sufficient behavior to form grammatical relations, such as subject or absolutive. Nevertheless, a closer look reveals some subsystems. S and A pattern together in that typical agents acting with volitivity are nominative-marked, while experiencers in either S or A role take the dative case. S and O pattern together as directly affected animate undergoers are marked with the accusative. Given the different behavior of S arguments, it could be argued that Sinhala has a Split-S system, which is in part a nominative-accusative system patterning S and A together, in part an ergative system patterning S and O together. However, due to the complexity of case marking for each of the roles, it seems better to examine case marking on a semantic basis.

Given that the same case marking can be used for different semantico-syntactic roles in a clause, some inherent semantic properties of arguments, such as animacy and definiteness, as

well as word order, play an essential role in identifying the syntactic and semantic function of an argument in a clause.

The possible cooccurrences of case markings in a clause need further investigation. The examples presented in this paper demonstrate the following possible combinations of case markings in a clause: a) nominative and nominative, b) nominative and accusative, c) nominative and dative, d) dative and accusative. Given that A arguments do not take the accusative case, two accusative-marked arguments will not occur in the same clause. Furthermore, two dative-marked arguments in a clause are not possible, given that dative A arguments occur with involitive verb stems, while dative O arguments are found with volitive verbs only. However, clauses with more than two arguments have yet to be examined.

In this paper I have shown that case is not assigned on the basis of syntactic roles. Rather, it depends on a series of semantic properties of the argument, occasionally on lexical properties of the verb, and sometimes on the semantics of the entire clause.

This paper represents only a starting point in the investigation of the relationship between case marking and semantico-syntactic roles in spoken Sinhala. The correlation between definiteness of the argument and accusative case marking needs further investigation. Furthermore, clauses with more than two arguments, as well as possible combinations of case marking in a clause yet need to be examined. In addition, further evidence may be sought by analysing complex sentences with clausal arguments.

REFERENCES

BLAKE, BERRY. 1994. Case. Cambridge: Cambridge University Press.

- DELANCELY, SCOTT. 2001. Figure and Ground in Argument Structure. Summer Institute in Linguistics, University of California, Santa Barbara, Lecture 3.
- GAIR, JAMES W. 1976. IS Sinhala a Subject Language. *The Notion of Subject in South Asian Languages*, ed. by Manindra K. Verma. South Asian Studies, University of Wisconsin-Madison. Publication 2.
- GAIR, JAMES W. 1990. Subjects, Case, and INFL in Sinhala. *Experiencer Subjects in South Asian Languages*, ed. by Manindra K. Verma and K.P. Mohanan. Stanford University: The Center for the Study of Language and Information.
- GAIR, JAMES and JOHN C. PAOLILLO. 1997. Sinhala. München: Lincom Europa.
- GAIR, JAMES and JOHN C. PAOLILLO. 1998a. Sinhala Nonverbal Sentences and Argument Structure. *Studies in South Asian Linguistics: Sihnala and other South Asian languages*, ed. by James W. Gair and Barbara Lust, 87-107. New York: Oxford University Press.
- GAIR, JAMES and JOHN C. PAOLILLO. 1998b. Action Involvement Categories in Colloquial Sinhala. *Studies in South Asian Linguistics: Sihnala and other South Asian languages*, ed. by James W. Gair and Barbara Lust. 25-43. New York: Oxford University Press.
- GIVON, TALMY. 1984. Syntax: A Functional-typological introduction Vol. I. Amsterdam: John Benjamins.
- KEENAN, EDWARD. 1976. Towards a universal definition of "subject". *Subject and Topic.* ed. by Charles Li. New York: AP.
- MASICA, COLIN. 1991. The Indo-Aryan Languages. 339-369. Cambridge: Cambridge University Press.
- PAYNE, THOMAS E. 1997. Describing morphosyntax: A guide for field linguists. Cambridge: Cambridge University Press.

University of California, Santa Barbara Department of Linguistics, 3607 South Hall Santa Barbara, CA 93106 cjany@umail.ucsb.edu