NON-CANONICAL MARKING OF SUBJECTS AND OBJECTS

Edited by

ALEXANDRA Y. AIKHENVALD
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Volume 46

Alexandra Y. Aikhenvald, R.M.W. Dixon and Masayuki Onishi (eds.)

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In many languages the subject of an intransitive verb (S) is coded in the same way, for every intransitive verb. Similarly for the subject of a transitive verb (A) and the object of a transitive verb (O). However, there are a number of languages which employ a different strategy. For most intransitive verbs, S function is marked in a set way (called the canonical marking) whereas for a small set of verbs S is marked in one or more other ways — these are referred to as non-canonical marking. Similarly for A and O. For example, in a nominative–accusative language, S and A functions may be marked by nominative case for most verbs (the canonical marking) but by dative or genitive case for a small set of verbs (the non-canonical marking). In an absolutive–ergative language, A function will receive the canonical ergative marking with most transitive verbs, but may receive non-canonical locative or dative marking, with two small sets of verbs.

There have been a number of studies of non-canonical marking for subject and object in individual languages, but the present book is the first cross-linguistic study of the phenomenon. The Introduction sets out the theoretical questions which must be confronted in such a study. The first question concerns what are the defining properties of (intransitive and transitive) subject and of (transitive) object in each particular language, when these syntactic functions receive canonical marking. One then needs to investigate which of these properties apply to the various kinds of non-canonically marked subject and object. We here consider both morphological and syntactic properties of subjects and objects. These include case marking, verbal agreement, constituent order, constraints on coreferentiality, argument omission, relativisation, targets of valency-changing derivations, imperatives, pivot conditions and antecedent control over reflexive pronouns.
The second major question concerns the semantic basis for non-canonical marking. The verbs which receive a certain type of non-canonical marking tend to be semantically homogenous within a given language. Do these semantic classes, and kinds of non-canonical marking they relate to, correlate across languages? In the Introduction, Masayuki Onishi suggests that the types of verbs involved are, typically, those referring to physiological states or events, inner feelings (or psychological experiences); verbs of perception, cognition, liking, etc.; verbs with modal meanings of wanting, obligation, trying, etc.; predicates expressing happenings; and verbs of possession, existing and lacking.

Each of the eight individual contributors were sent an earlier draft of the Introduction, written by Masayuki Onishi on the basis of extended discussions with Alexandra Aikhenvald, R.M.W. Dixon and other colleagues in the Research Centre for Linguistic Typology. They followed the suggested guidelines, producing a homogenous volume in which a number of genetically and areally disparate languages are considered from a similar perspective. All of the chapters are in terms of basic linguistic theory, eschewing any of the formal theories which come and go with such frequency that anything cast in terms of them soon becomes antiquated. The final stage was for the Introduction to be revised in the light of results from the individual studies, setting out the conclusions that can presently be drawn, together with directions for further research on this topic. The tentative generalisations are significant. For example, if non-canonically marked subjects have grammatical property X then they will also show property Y; if verbs of semantic set A take non-canonical marking then so will verbs of semantic type B.

The contributors are leading specialists in their fields, each of whom has close knowledge of a particular language or linguistic area. We cover six language families or language isolates, picking out languages which are critically important for a cross-linguistic study of non-canonical marking. From the Indo-European family, Avery Andrews discusses Icelandic and Masayuki Onishi deals with Bengali (as an example of the kinds of non-canonical marking found in many languages from South Asia). Kristina Sands and Lyle Campbell discuss Finnish, while Martin Haspelmath presents a survey of what is found across the European linguistic area. There are two studies from different regions of South America—Gabriella Hamelon deals with Imbabura Quechua from the Andes, while Alexandra Aikhenvald discusses Tariana from the lowlands of Amazonia. John Roberts discusses non-canonical marking in Amele, from New Guinea, and Masayoshi Shibatani deals with Japanese.
This is a pioneering study, dealing with a topic that is of prime theoretical importance and will be of interest to linguists of many persuasions. Typologists are likely be fascinated by the parameters used, and will doubtless attempt alternative ways of interpreting them. The very fact of non-canonical marking, and its conditioning, poses a considerable challenge for formal theories, and linguists of these persuasions will need to study the volume, in order to account for the facts and generalisations presented. The cognitive implications of which types of verbs engender non-canonical marking (and how) calls out for study by psycholinguists.
Non-canonically marked subjects and objects: Parameters and properties

MASAYUKI ONISHI

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1. Introduction

This volume consists of eight case studies on ‘non-canonically marked subjects and objects’—or, more precisely, ‘non-canonically marked core arguments’—in languages from different language families and linguistic areas. They are: several European languages including Icelandic (Germanic) and Finnish (Baltic-Finnic), Bengali (Indic branch of Indo-European), Imbabura Quechua (Quechuan), Tarina (Arawak family in Amazonia), Amele (Papuan) and Japanese.

We start our investigations with the assumption that every language has transitive and intransitive clauses, and that those clauses function in terms of three core grammatical categories—A, O and S (cf. Dixon 1979, 1994). They are:

A the core argument of a transitive clause, which prototypically denotes the controller or initiator of the activity described by the verb;
O the other core argument of a transitive clause, which prototypically denotes the participant affected by the activity described by the verb;
S the sole core argument of an intransitive clause.

Almost every language also has ‘extended transitive (or ditransitive)’ clauses (typically involving ‘give’, and often some other verbs such as ‘show’ and ‘tell’) which require a third obligatory argument. The syntactic status of the two non-A core arguments of these verbs differs from language to language. Two basic patterns are commonly observed with regard to object identification of such verbs (Dixon 1994: 120; see also Dryer 1986):
Languages in pattern (a) include Latin, Russian, Warlpiri (Australian, Hale 1982) and Japanese. Those in pattern (b) include Huichol (Uto-Aztecan, Comrie 1982), Ojibwa (Algonquian, Rhodes 1976, cited by Dryer 1986: 812), Mandak (AN, Blansitt 1984) and Motuna (Papuan, Onishi 1994). There are languages which allow both patterns (e.g. English, Dyirbal, Dixon 1972). Some languages treat the two non-A arguments both as O (e.g. Bengali, Onishi this volume). Languages may show minor variations to the above patterns (cf. Newman 1996: 61ff.).

We use the symbol ‘E’ (standing for ‘Extension to core’) for the non-A, non-O argument of an extended transitive verb. Languages of type (a) typically use Dative case to mark E.

Languages sometimes also have ‘extended intransitive clauses’ (Dixon 1994: 122–3) which require a second obligatory (E) argument. Thus we can get four clause types, with arguments:

1. Plain transitive: A O
2. Extended transitive (ditransitive): A O E (or O)
3. Plain intransitive: S
4. Extended intransitive: S E

Different languages show diverse ways of marking A, O, S and E arguments. In some cases it is particularly difficult to decide whether the second NP argument of a two-place verb is O or E. In general, we need both morphological and syntactic criteria to determine which arguments should be regarded as A, O, S and E. There is no one-to-one relationship between grammatical categories (A/O/S/E) and semantic roles (Agent, Patient, Experiencer, etc.).

In case-marking languages we observe two major patterns of marking for A, O and S NPs (Dixon 1994: 56ff.). In one group of case-marking languages (which constitutes a majority) O is almost always in the marked case (Accusative) and A and S are almost always unmarked (for Nominative). In the other group of languages A is always in the marked case (Ergative) and O and S are almost always unmarked (for Absolutive). Thus:
We refer to Nominative and Accusative as canonical case markers for S/A and O functions, respectively, in the languages of the first group, and Absolutive and Ergative as canonical case markers for S/O and A functions, respectively, in those of the second group. In some languages of either group, however, a certain set of predicates requires a core NP to receive 'non-canonical' marking. This is the major topic which is discussed in the chapters in this volume.

We observe, furthermore, similar phenomena in languages where syntactic function is indicated by cross-referencing markings on verbs. For example, many Papuan languages mark A and S predominantly by verbal agreement. There are, however, certain predicates (called impersonal verbs by Papuanists such as Haiman 1980, Davies 1981, Roberts 1987 and this volume) which always take 3rd person singular A/S marking. Those verbs typically describe physiological states or psychological experiences, and the non-canonically marked argument refers to Patient or Experiencer. Whether those arguments should be treated as A, O, S or E is controversial. Investigation of such phenomena is also included in the scope of the volume.

Note that we regard A, O and S as prototypes rather than discrete entities in three different senses. Firstly, A and O (but not S) are defined partially as semantic prototypes, as shown in the definitions above. Secondly, within a language, there may be both 'prototypical' A/O/S arguments which satisfy all the morpho-syntactic criteria defining their core status, and 'atypical' ones which satisfy only a few of them. This is especially the case with the type of languages extensively dealt with in the chapters in this volume. In some cases we need to admit intermediate status between A and S, O and E, or S and E, when a particular argument shows conflicting evidence. Thirdly, among languages in the world, some may show many syntactic properties defining the core status of those arguments, while others may show only a few. In other words, there are strong and weak A/O/S both language-internally and cross-linguistically.

Our focus is mainly on the synchronic description of these phenomena across languages, but diachronic information is referred to wherever it is available, and relevant. It would be interesting to find out how canonical markings have developed from non-canonical markings, and, possibly, vice versa. However, due
to the scope of this volume, full investigation of such diachronic developments is left as a topic for future research.

This introductory chapter aims to give an overview of the phenomena and our strategies for dealing with them. This also embraces some of the important observations made in other chapters in the volume. It is organised as follows. In §2, we will look at ‘coding properties’ (Keenan 1976) of both canonically and non-canonically marked core arguments. In §3, we will discuss some of the major syntactic properties which are commonly used to determine A, O or S status of non-canonically marked arguments cross-linguistically. (We are not dealing with E because its core syntactic status is less clear than that of A/O/S.) In §4, predicates which typically require non-canonically marked arguments are organised into five major semantico-syntactic types. Such predicates often have corresponding predicates which require canonically marked arguments. We will show which types of predicates tend to have such ‘fluidity’, and what kind of semantic difference is observed between the canonically and non-canonically marked versions. §5 summarises the discussion in the previous sections and discusses the implications for further study.

2. Coding properties of canonically and non-canonically marked A/O/S

2.1 Overview

In general, A, O and S are established according to both ‘coding properties’ and various types of other syntactic properties (called ‘behavioural properties’ by Keenan 1976). ‘Coding properties’ distinguish canonically marked A/O/S from non-canonically marked A/O/S. They are of three types:

1. NP case markings;
2. verbal agreement; and/or
3. constituent order of core NPs.

In the following section, these properties are examined one by one. Other syntactic properties are discussed in §3.
2.2 Coding properties

2.2.1 NP case marking
As mentioned in §1, there are two major patterns in NP case marking—Nominative-Accusative and Absolutive-Ergative. Two systems often coexist in one language (cf. Dixon 1994: 70ff.). Nominative is the canonically marked (or unmarked) case for S and A, and Accusative for O, in Nominative-Accusative systems. In Absolutive-Ergative systems, Absolutive is the canonically marked (or unmarked) case for S and O, and Ergative for A.

Other oblique cases may exist in those languages. Among them:

a. Dative is prototypically used for the animate third argument (E) of verbs such as ‘give’, ‘tell’ and ‘show’, where the O is the Gift, Message or Thing shown, respectively.

b. Genitive is prototypically used to mark a Possessor within an NP.

c. Locative is prototypically the marker of a ‘Place of rest’.

These cases may also be used to mark core arguments. Dative is widely used to mark either A/S (e.g. Kannada (Dravidian, Sridhar 1979b, 1990), Italian (Perlmutter 1979), Japanese (Shibatani this volume)) or O (e.g. Icelandic (Andrews this volume)). Genitive and Locative are also used to mark A/S or O (e.g. Bengali (Onishi this volume)). Accusative, which is a canonically marked case for O, is sometimes used to mark A/S (e.g. Icelandic, Imbabura Quechua (Hermon this volume)). Other cases such as Benefactive, Instrumental and Ab- lative are also attested as the markers of A/S in some languages (e.g. Hua (Papuan, Haiman 1980), Hindi-Urdu (Indic, Kachru 1990)). We refer to these arguments ‘non-canonically marked A/O/S’.

There are also variations in canonically marked case patterns. A/O/S NPs, which otherwise would take canonically marked cases, could be marked differently when the whole clause shows low transitivity status in the sense defined by Hopper and Thompson (1980). This is mainly due to:

a. the referential status of such NPs (nonspecific, indefinite, inanimate, etc.); and/or

b. the overall clause type (in negative polarity, in imperfective aspect, in irrealis mood, stative, generic, etc.).

Finnish is a typical language which shows a complex pattern of case-marking variations of this type. A/S is marked by Partitive, or O by Partitive or Genitive,
if the clause as a whole is low in transitivity (with one participant, expressing
an existential state, in imperfective aspect, in negation, etc.) and/or the referent
of such NP is nonspecific/\'partial\'. See the detailed discussion on these phe-
nomena in Sands and Campbell (this volume). Bengali (Onishi this volume)
also shows variations in case marking for O NPs (those with inanimate and/or
indefinite referents tend to be unmarked) and A/S NPs (marked by Locative in
generic statement).

2.2.2 Verbal agreement
In head-marking languages syntactic functions are shown by bound pronominal
elements on the verb. There is a wide variation of such systems across lan-
guages. If, however, a language marks only one core argument, then it is most	often A and S. 8 This is predictable from the Nominal Hierarchy (Silverstein
1976)—even in languages with an Absolutive-Ergative pattern in NP case
marking, pronominal elements tend to show a Nominative-Accusative pattern.

In languages which have marginal Absolutive-Ergative systems (such as
Hindi-Urdu), Ergative NPs tend not to be marked on the verb. But they often
are in languages which consistently mark A NP by Ergative (e.g. Assamese
(Indic, Masica 1991)).9

Where a predicate argument is realised by an NP with non-canonical mark-
ing, it is generally not explicitly cross-referenced on the verb; the verb is likely
then to take an unmarked cross-referencing indicator, e.g. 3sg (see §2.2.4).

In many languages predicates cross-reference two core arguments. There are
three major patterns:

a. A/S are marked in the same way, and O differently.
b. O/S are marked in the same way, and A differently.
c. A and O are marked differently, with some S marked like A and other S
   like O (split-S and fluid-S—or active/inactive—systems).

Again type (a) is the commonest. Amele (Roberts this volume) is one of them.
Languages of type (c) are also well-attested—e.g. Acehnese (AN, Durie 1985),
Lakhota (Siouan, Mithun 1991a) and Cayuga (Iroquoian, Mithun 1991b, Sasse
1996). Compared to them, languages of type (b) are rare (e.g. Tzotzil (Mayan),
Aissen 1987, Selayarese (AN), Mithun 1991b, see also Dixon 1994: 42ff. for
other examples).

2.2.3 Constituent order
In some languages, constituent order is the major property in identifying syntac-
tic function, e.g. English and Tolai (AN, Mosel 1984). In other languages constituent order may partly depend on discourse factors such as definiteness and topicality, but will still make a contribution towards determining the syntactic status of the core arguments. In the latter type of language, the syntactic functions of core arguments must also be indicated by case markings and/or verbal markings; see the Barai examples discussed in §2.2.4.

2.2.4 Mixed markings

Most languages which have non-canonically marked arguments also show some degree of head-marking. They may mark core arguments by NP cases and/or constituent order, but they generally have verbal agreement as well. Verbs indicate the person and/or number of canonically marked argument(s); but they typically fail to show agreement with arguments marked by oblique cases or deviant constituent order.

The following Russian examples (Aikhenvald, p.c.) show typical marking patterns of languages with both NP cases and verbal agreement:

(4) a. Ja rabotaju.
   I+NOM work+PRES+1SG
   ‘I work.’

b. Mne rabotaet-s’a.
   I+DAT work+PRES+3SG+DETRANSLITIVISER
   ‘I can do the work.’ [Lit. ‘It works to me.’]

In (4a) the S NP ja is canonically marked by Nominative case and is cross-referenced by 1sg agreement on the verb. In (4b) the core argument mne is non-canonically marked by Dative case, and the verb takes an unmarked inflection (3SG). Note also that the verb in (4b) takes a detransitivising (middle) suffix, cf. §4.3.

There are some examples of a non-canonically marked A/S being cross-referenced on the verb. For example, in Japanese, the social status of a Dative/Nominative A/S (as well as of a canonically marked A/S in Nominative case) may be indicated by the honorific form of the predicate (Shibatani 1977, this volume).

A mixed pattern of constituent order and verbal agreement is illustrated by Barai (Papuan, Olson 1978). This language indicates core case relations by SV word order in the case of intransitive verbs, and AOV word order for transitive verbs if both A and O have equal referential status (e.g. both are definite). The verb usually marks the person or number of the O NP. In the case of a small set
of non-controlled predicates, however, A slot is filled by the dummy pronoun *ije* ‘it’, and the Patient or Experiencer occupies the O slot. It is then the O argument that is cross-referenced on the verb. In the following examples (Olson 1978), (5a) shows a canonically marked A and O, while (5b) shows a non-canonically marked pattern.

(5) a. *Fu na kan-ie.*
   he 1SG strike-1SG
   ‘He struck me.’
b. *Ije bu ised-ia.*
   it 3PL displease-3PL
   ‘They are displeased.’ [Lit. ‘It displeased them’.]

3. Syntactic properties of non-canonically marked A/O/S

3.1 Overview

As mentioned in §2.1, the status of non-canonically marked arguments (whether they are A, O or S) is determined according to various syntactic properties they exhibit. Those criteria include:

1. imperatives;
2. constraints on the coreferentiality of A/S/O in complementation;
3. targets of valency-changing derivations;
4. antecedent control over reflexive pronouns;
5. constraints on relativisation (e.g. types of arguments which can stand as heads of relative clauses);
6. conditions under which A/S or O/S ‘pivot’ of the two clauses are shared or not shared (e.g. ‘same subject conditions’ in switch-reference systems and other types of clause or predicate conjoining); and/or
7. coreferential deletion of the core argument (A/S or O/S ‘pivot’) shared by the two clauses.

Those in (1)–(4) are primarily relevant to intra-clausal syntax, and those in (5)–(7) to inter-clausal syntax, although criteria (2)–(4) may relate to inter-clausal syntax in some languages.

Not all criteria listed here are relevant to every language. And there are of course other criteria which are language-specific. In general, the importance of
each criterion differs from language to language. For example, in Tariana (Aikhenvald this volume), verb serialisation effectively covers the grammatical functions fulfilled by causativisation, complementation, reflexivisation and clause conjoining in other languages. In such a case criteria relevant to verb serialisation have far greater importance than other ones. Even in such cases, however, we often find criteria which functionally correspond to those just listed above.

In the following sections we will discuss the criteria listed here, and see what kind of observations are made in the literature as well as in our investigations in this volume. In §3.3 we will summarise those observations. The major question we ask in this section with regard to these syntactic criteria is: is there a cross-linguistic hierarchy (A, B, C, . . .) among these properties such that we can predict that if, for instance, non-canonically marked arguments show property C, then they will also show properties A and B?

3.2 Syntactic properties

3.2.1 Imperatives

In imperative constructions the speaker asks the addressee to exert control over the events/states expressed by the predicates. Thus they prototypically require canonically marked 2nd person A/S. This phenomenon is commonly found both in Nominative-Accusative and Absolutive-Ergative languages.

In languages where only 2nd person A/S is allowed in an Imperative, non-canonically marked A/S tend not to occur, since they basically refer to non-controllers. In some head-marking languages, however, predicates which require non-canonically marked A/S seem to marginally occur in this type of Imperative construction. In Hua (Haiman 1980: 359), the majority of ‘impersonal verbs’ (which require non-canonically marked (Possessor) A/S) do not take imperative inflections. But there are two verbs—\textit{auia}=\textit{hu}- ‘be ashamed’ and \textit{neki}- ‘forget’—which can occur in Imperative, even though they require a Possessor S:

\begin{align*}
(6) & \quad \textit{K-neki(o)!} \\
 & \quad \text{2SG+POSS-forget.it+-IMP(SG)} \\
 & \quad \text{‘Forget it!’}
\end{align*}

This, according to Haiman (1980: 360), may indicate the transition of these predicates into canonically marked ones.

Some languages have imperative constructions which allow A/S in any per-
son to occur. In such constructions, we sometimes find that predicates with non-canonically marked arguments occur with the verb inflected for unmarked person/number. They express ‘a wish or prayer to an unspecified controlling force’ (Sridhar 1976: 584), and as such the referent of A/S is not treated as a controller of the event. In Kannada predicates with non-canonically marked arguments can occur in a negative imperative with such a meaning:

(7) Nimage siTTu baruvudu bēDa.
    you+DAT anger come+NONPAST+GERUND NEG+IMP
    ‘May you not get angry!’

In Bengali (Onishi this volume) predicates with Genitive A/S which express ‘happenings’ occur in an imperative of this type. In Tariana (Aikhenvald this volume), only a small number of predicates with non-canonically marked S (‘S_o verbs’) denoting ‘physical conditions’ can occur in the same kind of imperative constructions.

3.2.2 Constraints on coreferential arguments in complementation

In many languages we find that verbs such as ‘see’, ‘tell’, ‘believe’ and ‘like’ optionally take complement clauses, while verbs such as ‘can’, ‘should’, ‘keep on’, ‘want’, ‘try’ and ‘begin’ require them. Dixon (1991) calls the verbs of the first type ‘Primary-B verbs’ and those of the second type ‘Secondary verbs’. (See also §4.1 and Dixon 1994: 134ff.) With these verbs we often find a constraint that requires the A/S of the complement clause to be coreferential with A/S or O of the main verb (depending on the meaning of this verb), with the former being suppressed or ‘raised’.

Meanings commonly expressed by Secondary verbs may be expressed in alternative ways. For example, ‘can’ and ‘want’ are often expressed by derivational affixes to another verb (cf. §4.2.3 and §4.3.3). In Japanese (cf. Shibatani this volume), the potential derivation demotes canonically marked (Nominative) A/S to non-canonically marked (Nominative/Dative) S and canonically marked (Accusative) O to E (Nominative). In Imbabura Quechua (Hermon this volume), the desiderative verb marked by -naya ‘want’ requires a non-canonically marked (Accusative) A/S. In Amele (Roberts this volume), the derived desiderative verb is an impersonal construction with a complement clause in Imperative mood. Other verbs such as ‘keep on’, ‘try’ and ‘begin’ may be expressed by serial verb or converb constructions. In Tariana (Aikhenvald this volume), all of these meanings—including ‘can’ and ‘want’—are expressed
by serial verb constructions, and there are some restrictions on the occurrence of stative intransitive verbs both with canonically and non-canonically marked arguments in such constructions.

The scope of such constraints depends on the semantics of the main predicate, and how tight the syntactic relationship is between the main predicate and the predicate in the complement or modifying clause. It is interesting to see how these constraints work with regard to non-canonically marked arguments if the main verb and/or the verb in the complement or modifying clause require them. In general, we find at least some predicates which control coreferential deletion or raising with regard to both canonically and non-canonically marked A/S of the complement or modifying clause. If we don’t find any predicates which control these processes, it is likely that such oblique arguments do not qualify as A/S. It is exactly the case with Dative arguments of Standard Average European such as German and Polish, as opposed to Dative arguments of Lezgian (Caucasian) which show strong A/S properties (Haspelmath this volume).

Some languages allow predicates with non-canonically marked A/S to occur both in the main clause and complement clause. For example, in Amele (Roberts this volume), some verbs which take canonically marked A/S (such as ‘try’, ‘begin’, ‘fear’) can take a complement clause with either canonically marked or non-canonically marked coreferential A/S—which, then, is suppressed. There are also verbs with non-canonically marked S (e.g. ‘be afraid’—the impersonal version of the active verb ‘fear’) taking a complement clause where a predicate with a canonically marked coreferential A/S occurs, and the latter, again, is suppressed. There are, however, no examples of a predicate with non-canonically marked A/S occurring in the latter case.13

In general, restrictions on the occurrence of predicates with non-canonically marked arguments are more likely to apply when they function as target of coreferential deletion (or raising) in the complement clause. For example, in Bengali (Onishi this volume), the predicate in the main clause may require either canonically or non-canonically marked (Genitive or Objective14) A/S for coreferential deletion, but the one in the complement clause is usually marked canonically. Nor can non-canonically marked A/S undergo subject-to-object raising. According to Kachru et al. (1976), Kachru (1990) and Bhatia (1990), in Hindi-Urdu, Punjabi, Kashmiri and Lahanda, Dative or Objective A/S can function either as controller (as in (8)) or target (as in (9)) of coreferential deletion, but cannot undergo subject-to-object raising (as in (10)). According to Wallace 1985 (cited by Masica 1991), Objective A/S can control, but cannot
undergo, coreferential deletion in Nepali. They can, on the other hand, undergo subject-to-object raising.

Hindi-Urdu (Kachru et al. 1976: 91):

(8) Siita-ko [vohã, jane] kii bat yad he.  
Siita-OBJ there go+VN of matter memory is  
‘Siita remembers going there.’

(9) Ram-ne [buukh lagn] kii bat botai.  
Ram-ERG hunger appear+VN of matter related  
‘Ram told of (himself) being hungry.’

I-ERG Ram-OBJ hunger appearing saw  
I saw Ram being hungry

In some languages, one class of predicates with non-canonically marked A/S may behave differently from other class(es) of such predicates. In Imbabura Quechua (Hermon this volume), for example, verbs such as ‘begin’ and ‘continue’ (with a canonically marked S) require a predicate with a canonically marked coreferential A/S to occur in the complement clause. Derived desiderative predicates with an Accusative A/S may also occur in the complement clause, but not lexical predicates denoting physiological states. On the other hand, non-canonically marked A/S can be target of ‘raising’ without any restrictions. Verbs with a canonically marked A (such as ‘believe’) can raise an Accusative A/S of either type of predicates to the main clause as O.

In Hindi-Urdu (Kachru 1990), while Objective A/S both control and become target of coreferential deletion as illustrated above, Genitive and Locative A/S can function as controller, but not as target, of this process. Instrumental NPs neither control nor undergo the process. So this test tells us which type of argument shows more A/S properties, and which shows less, in this language. Schematically:

3.2.3 Valency-changing derivations
Various kinds of valency-changing derivations target A/O/S arguments. Among them are passivisation, antipassivisation and causativisation.
Valency-reducing derivations such as passivisation and antipassivisation have prominence in reference-dominating languages such as English and Dyirbal with strong (canonically marked) A/O/S. Many languages with non-canonically marked A/O/S have various means of demoting canonically marked A/S to non-canonically marked A/S, and such derived constructions may effectively fulfill some of the important semantic and/or pragmatic functions fulfilled by passive constructions in other languages. In fact, some of the derived constructions of this type, ‘deagentivisations’, are often labelled ‘passives’ (Klaiman 1981, Sridhar 1990, Masica 1991 among others), but they differ from prototypical passives as defined by Dixon and Aikhenvald (1997) in a number of ways. Nevertheless we find some of the languages of the type discussed in this volume having productive passive derivations.

Passivisation typically applies to a transitive verb, moving A out of the core and placing the original O into S function. In some languages, it may also apply to intransitive verbs, demoting S and giving impersonal passives. Passivisation is important for identifying non-canonically marked A and O.

In Imbabura Quechua (Hermon this volume), transitive predicates with the desiderative -naya require a non-canonically marked (Accusative) A and a canonically marked (Accusative) O. When passivised, the Accusative O is promoted to a Nominative S, and the Accusative A is demoted to the periphery, occurring in the unmarked Nominative form. There is no way to test other lexical predicates denoting physiological states, because they are all intransitive. Imbabura Quechua doesn’t allow intransitive verbs to be passivised.

In Icelandic (Zaenen, Maling and Thráinsson 1985, Andrews this volume), transitive sentences with either a canonically marked (Accusative) or a non-canonically marked (Dative or Genitive) O can be passivised. In either case, the original A is deleted, and O is promoted to S. Accusative O becomes Nominative S, but a non-canonically marked O retains the same case in derived S function. In the case of intransitive verbs, however, only those with Nominative S can be passivised to form impersonal passives, while those with non-canonically marked S cannot.

In Tariana (Aikhenvald this volume), a periphrastic passive can be formed with both transitive and intransitive verbs with canonically marked A/S, but not with the ones with non-canonically marked S.

In every language that has a causative derivation this applies to intransitive verbs; it moves S to O status, and introduces a new A. In some languages it also applies to transitive verbs; in such cases it demotes the old A and introduces a
new A. Thus if a language has a syntactic causative derivation, we can test whether the predicates which require non-canonically marked arguments undergo causativisation or not. In general, predicates with non-canonically marked A/S tend not to be causativised, but there are exceptions.

Among the languages investigated in this volume, only Tariana seems to allow such predicates to be causativised. However, the scope of causativation of those predicates is restricted. Tariana has three different mechanisms for causativisation, and active intransitive ($S_A$) verbs with canonically marked S can occur with all of them, stative intransitive ($S_O$) verbs with canonically marked S with two or one, while those ($S_{IO}$ verbs) with non-canonically marked S with one or none.

Kannada (Sridhar 1979) gives an interesting example. In this language, both intransitive verbs and transitive verbs can be causativised. When intransitive verbs are causativised, the original Nominative S becomes an Accusative O and a new A is introduced. There are two ways in which transitive verbs are causativised: (a) the original (Nominative) A is demoted to Instrumental, the original (Accusative) O stays as is, and a new (Nominative) A is introduced; or (b) the original (Nominative) A is demoted to Dative, the original (Accusative) O stays as is, and a new (Nominative) A is introduced. The second type of causatives are formed from predicates (such as ‘drink’, ‘eat’ and ‘learn’) which refer to activities affecting the physical/mental state of the referent of the A (cf. Sridhar 1990: 218–19).

Now, when a verb which requires a Dative Patient/Experiencer argument is causativised, the Dative argument stays as is, and the other unmarked argument optionally acquires an Accusative marking in the causative version (Sridhar 1979: 111):

(12) a. *Nanage talenōvu bantu.*
    I+DAT headache came
    ‘I got a headache.’

b. *Nīnu nanage talenōvu(-annu) bariside.*
    you+NOM I+DAT headache(-ACC) come+CAUS+PAST
    ‘You made me get a headache.’

As discussed in Sridhar (1979: 112ff.), there are two ways of interpreting this phenomenon:

1. (12a) is an intransitive sentence with talenōvu ‘headache’ as Nominative S
and *nanage* ‘me’ as Dative E; S is moved to O which can take an optional Accusative marking.

2. *nanage* ‘me’ in (12) is a non-canonically marked A, which is moved out of the core in the causative version although case marking doesn’t change; *taleno¯vu* stays as O (and the optional Accusative marking in the causative version then has little significance).

The first interpretation is more consistent with the morphological facts; but at the same time the Dative argument shows important syntactic A/S properties such as control over coreferential deletion in complement clauses, reflexivisation, etc.

Note that in some languages (e.g. Bengali and Imbabura Quechua) a causative morpheme is used for promoting non-canonically marked A/S to canonically marked ones—although the scope of such derivation is much more limited than the ‘demotional’ derivations such as ‘deagentivisations’ mentioned above (cf. §4.2.1 and §4.3.1).

### 3.2.4 Antecedent control over reflexive pronouns

Anaphoric binding of the antecedent of a reflexive pronoun is another property which is often used to test the A/S (and sometimes O) status of core arguments. (No language has so far been found in which O, and not A, exclusively controls reflexivisation.) Here we are referring to a type of language in which transitive verbs can have a special pronoun in O slot to express the idea of reflexivity (cf. Dixon 1994: 138). Such a pronoun can go into a peripheral slot, or function as Possessor of the O or a peripheral argument.

In some languages the antecedent of a reflexive pronoun in those functions is always A/S. For example, in Japanese (Shibatani 1977, this volume), the antecedent conditions for the reflexive pronoun *zibun* define A/S. The antecedent may be canonically or non-canonically marked or a derived A/S within the same or a superordinate clause. In Amele (Roberts this volume), both in reflexive and reciprocal constructions, either canonically or non-canonically marked A/S can stand as antecedent. According to Zaenen, Maling and Thráinsson (1985), for some Icelandic speakers A/S control reflexivisation and for others A/S or O do so. Thus reflexivisation can be used effectively to determine both A/S status and O status of non-canonically marked arguments.

In other languages the situation is not so clear. If a language has different types of non-canonically marked arguments, they may behave differently even
within the same language. In the case of Hindi-Urdu, Dative, Genitive and Locative arguments control reflexivisation, but Instrumentals do not (cf. Kachru 1990: 62; see also §3.2.2).

3.2.5 Constraints on relativisation

Keenan and Comrie’s (1977) ‘NP accessibility’ predicts that in most languages the functions of common arguments in the relative clause may be restricted according to the hierarchy in such a way that only NPs in the functions in the left positions to a line drawn somewhere in the hierarchy would be relativised in a given language:

Subject > Object > Indirect Object > Object of Adposition > Possessor

In our view the term ‘subject’ should be replaced by ‘pivot’ (cf. Dixon 1994: 152ff. and §3.2.6) and ‘object’ by ‘non-pivot core argument’. ‘Pivot’ could be either A/S or O/S.

If a language has relative clauses, and a line is drawn between A/S and O, O/S and A, or A/O/S and other arguments in this hierarchy, this could be used as a criterion to define the core status of these arguments. We can then apply this criterion to non-canonically marked arguments. In the languages investigated in the volume, Amele defines NPs in A/S function as most accessible in relativisation. Non-canonically marked A/S behave in the same way as canonically marked A/S in this respect (Roberts 1997: 168).

We find other interesting examples in the literature. Samoan (AN) is a language with an Absolutive-Ergative case marking system. Apart from canonical transitive verbs with A marked by Ergative and O marked by Absolutive, it has ‘semi-transitive’ verbs denoting ‘communication’ (e.g. ‘ask’), ‘perception’ (e.g. ‘see’), ‘emotion and thinking’ (e.g. ‘love’, ‘think of’), and ‘want’ requiring an Absolutive and a Locative–Directional argument (Mosel and Hovdhaugen 1992: 730–5).20 According to Mosel and Hovdhaugen (1992: 638ff.) and Mosel (1993), the Locative–Directional argument is not qualified as O because they fail to satisfy several syntactic criteria, one of which is relativisation. In Samoan any of O, S, A or Locative–Directional arguments can be relativised, but there is a hierarchy. When O or S is relativised, it is never represented by a pronoun in the relative clause, as in (13). When A is relativised, it is optionally represented by a preverbal pronoun. A Locative–Directional argument, on the other hand, must be represented by an anaphoric pronoun in the relative clause, as shown in (14) (Mosel and Hovdhaugen 1992: 638, 641). This shows that
canonically marked O/S assumes the closest relation to the predicate, and the Locative–Directional argument the remotest.

(13) ‘Ae le iloa e nei tama le mea lea but not know erg these boys art thing that
[‘ua fai=a e Sina ma Tuiuea]RC.
PERF do=TRANSITIVE_2_SG ERM Sina and Tuiuea
‘But these boys did not know what [that thing that] Sina and Tuiuea had done.’

(14) So’o se mea [e te finagalo i ai]RC
any ART thing 2SG GENR want LD ANAPH
e fai=a lava e lenei Faleapolu.
PERF do=TRANSITIVE_2_SG ERM ENV this Faleapolu
‘Anything you want will be done by this fellow Faleapolu.’

Warlpiri, another language with an Ergative-Absolutive case marking system, has two types of two-place verbs with non-canonically marked arguments—one type (e.g. ‘look for’) requires an Ergative and a Dative argument, and the other (e.g. ‘wait for’) an Absolutive and a Dative. A Dative argument of the first type is cross-referenced by an O clitic while one of the second type requires a distinct Dative clitic, in the verbal auxiliary. This language has adjoined relative clauses where the O (but not A or S) of a main clause predicate can take a relative clause marked by the suffix -kurra if this O corresponds to the A/S of the verb in the relative clause. Dative arguments in both Ergative-Dative and Absolutive-Dative frames behave in the same way as canonically marked O in this subordination process (Simpson 1991: 319):

(15) Ngarrka ka-rla marlu-ku yura-ka-nyi,
man+ABS PRES-3+DAT kangaroo+DAT stalk-NPAST
[marna nga-rinja-kurra-ku]RC.
grass+ABS eat-INF-KURRA+DAT
‘The man is stalking the kangaroo (while it is) eating grass.’

This process, then, can be used as a criterion for defining the O status of Dative arguments in these two types of predicate.

3.2.6 ‘Same subject conditions’ and ‘pivot constraints’
There are many types of clause linking devices, both coordination and subordination. Some of them require that when the core arguments of the linked
clauses (either A/S, or O/S) are coreferential, one of them be deleted. This kind of requirement can be called ‘pivot constraints’ (Dixon 1994: 152ff.). Languages such as English and Dyirbal—which have clear syntactic derivations (passive and antipassive, respectively)—typically have pivot constraints, which apply to both underived and derived A/O/S. Languages such as Acehnese (Durie 1985, 1987)—in which semantic roles (Actor and Undergoer) dominate syntactic processes—typically lack such derivations, and do not have any syntactic constraints of this kind on clause linking.

Most languages with non-canonical A/S are in an intermediate status. They often have the means for linking two or more clauses, where the predicate(s) of non-finite clause(s) are marked by some kind of morpheme or inflection indicating dependency on the finite verb, which usually comes at the end of the sentence. Examples are ‘conjunctive participles’ in Indian languages, ‘participial absolutes’ in Italian, ‘gerunds’ in Russian and ‘(switch-reference) medial verbal chains’ in Papuan languages. These linking devices centre around A/S arguments.

There are two basic parameters involved in these constructions. First, to what extent and under what conditions they require the A/S of the two clauses to be shared (‘same-subject conditions’, SSC hereafter). And, second, under what conditions can canonically marked and non-canonical marked A/S be shared, or function as pivots, under SSC.

SSC differ considerably from language to language. In some languages (typically dependent marking) there are no such restrictions (e.g. Sinhala (Indic), Wijayawardhana et al. 1995). In other languages they are conditioned by semantic parameters such as ‘control’ and ‘animacy’, and/or pragmatic parameters such as ‘topic continuity’. For example, in Bengali (Onishi this volume), SSC hold when there is a predicate with a controlling semantics (always with a canonically marked A/S) either in the dependent clause (conjunctive participle) or the main clause.

In Papuan languages with switch-reference (SR, hereafter) medial verb chains, whether the medial clause and the finite clause share the same A/S or not is marked morphologically on the medial verbs—so basically there are no SSC. However, in some cases, clauses with non-coreferential A/S can be linked even if the medial verb marks Same Subject. There are various semantic and pragmatic conditions under which anomalies of this kind occur (cf. Roberts 1988).
The treatment of non-canonically marked arguments with regard to pivot constraints in SR system also differs greatly from language to language. According to Roberts (1997: 161–77), there are four types:

1. Only a canonically marked A/S can stand as pivot of a medial clause, and can also control pivot constraints.
2. A referentially most prominent core argument (A, O or S) stands as pivot of a medial clause and also controls pivot constraints.
3. Both a canonically marked and non-canonically marked A/S can stand as pivot of a medial clause, but only the former, and not the latter, can control pivot constraints.
4. Only a canonically marked A/S can stand as pivot of a medial clause, while both a canonically marked and a non-canonically marked A/S can control pivot constraints.

Among them, Type 4 is by far the commonest. In fact, only one language has been attested to represent Type 1, 2 and 3, respectively, among Papuan languages—Alamblak for Type 1, Barai for Type 2, and Hua for Type 3. Amele belongs to Type 4. Hua and Amele examples are given below to illustrate Types 3 and 4, respectively.

In Hua (Haiman 1980), when a predicate with a canonically marked A/S stands as a controlling (finite) verb, either a canonically marked or a non-canonically marked A/S of the medial verb can be treated as a pivot. This is illustrated in (16b), where the non-canonically marked Possessor S of the predicate go’=ro-‘feel scared’, and the canonically marked S of the main verb korihue ‘run away’ function as pivots:

(16) a.  
\[ D\text{-go’}r. \]
\[
1SG+POSS\text{-feel.scared}+3SG
\]
‘I feel scared.’

b.  
\[ D\text{-go’}ro-da korihue. \]
\[
1SG+POSS\text{-feel.scared}-SS+1SG+ANTICIP \text{ run.away}+1SG
\]
‘I felt scared and ran away.’ (Same Subject)

When, however, a predicate with non-canonically marked S stands as a controlling verb, a medial verb with a canonically marked A/S receives Different Subject marking even if it is coreferential with the non-canonically marked S of the controlling verb. This is illustrated in the following examples:
(17) a.  
*D-auiahie.*
1SG+POSS-be.ashamed+3SG
‘I am ashamed.’

b.  
*Korihu-ga-na d-auiahie.*
run.away-DS-3SG+ANTICIP 1SG+POSS-be.ashamed+3SG
‘I ran away and I am ashamed.’ (Different Subject)

Note that the medial verb in (17b) takes a 3rd person singular anticipatory inflection.

Amele (Roberts 1987, 1988: 94–9) shows a completely different pattern. In (18) the predicate *wen* *(doc)* ‘be hungry’ has Different Subject marking even though its non-canonically marked S (marked by an O suffix) is coreferential with the canonically marked S of the following controlling verb *qaj*(–ec) ‘cry’:

(18)  
Mel aid cajahi-ag eu wen do-co-b qaje-ce-b . . .
boy female friend-3sg that hunger 3SG.o-DS-3SG.A cry-DS-3SG.S
‘. . . that girl’s friend became hungry and cried . . .’

On the other hand, when a predicate that takes a non-canonically marked S stands as a controlling verb, a medial verb with either a canonically marked or non-canonically marked A/S takes Same Subject marking if it is coreferential with the non-canonically marked A/S of the controlling verb (Roberts 1987: 300):

(19)  
*Ija b-i-m-ig wen-te-i-a.*
1SG come.up-!SG.s-ss hunger-1SG.O-3SG.A-TODAY’S.PAST
‘I came up and became hungry.’

See Roberts (this volume) for further details.

The SR system of Imbabura Quechua (Hermon this volume) shows a mixed pattern. In this language, non-canonically marked S of a lexical predicate cannot stand as a pivot of the medial verb, while non-canonically marked A/S of the derived desiderative verb can (either SS or DS can be marked on it if the controlling verb has a canonically marked coreferential A/S). On the other hand, non-canonically marked A/S of either type of predicate is allowed to function as a pivot of the controlling clause (either SS or DS can be marked on the medial verb with a canonically marked coreferential A/S). By and large, this pattern could be seen as a variant of type (4).

This typology can be extended to the pivot constraints of other clause-linking devices. In Bengali (Onishi this volume), for example, both a canonically
marked and a non-canonically marked A/S can control pivot constraints, but only a canonically marked A/S can stand as a pivot of the ‘conjunctive participle’. Thus this belongs to type (4). It appears that other Indic languages such as Hindi-Urdu, Punjabi and Kashmiri also belong to type (4), while Nepali shows a different pattern (Kachru et al. 1976, Wallace 1985 cited by Masica 1991: 355). The following examples are from Hindi-Urdu (Kachru et al. 1976: 91):

(20) *Dost yad a-kər ləRke udas ho gya.
friends memory coming boy sad become
‘*Having remembered his friends, the boy became sad.’

In general, non-canonically marked A/S are more likely to control pivot constraints than to become a target of such constraints. That is, in many languages, when canonically marked A/S control pivot constraints, it defines the scope of pivot narrowly, but when non-canonically marked A/S controls such constraints, it defines both canonically and non-canonically marked A/S as one broad category.

Interestingly, this tendency seems to hold with regard to the constraints on the deletion of coreferential arguments in complementation as well. In this case, too, non-canonically marked A/S are more likely to control such constraints than to become a target. See the discussion in §3.2.2. See also a relevant discussion in Hermon (this volume).

3.3 Summary

Every language has its own syntactic profile, and accordingly, must employ a different set of criteria to determine the syntactic status of non-canonically marked arguments. The criteria discussed above are the most common and important ones.

Each of these syntactic criteria defines different things:

1. Imperatives test A/S status of non-canonically marked arguments.
2. Constraints on the coreferentiality of core arguments in complementation mainly define A/S.
3. Valency derivations define A, O and S separately.
4. Antecedent control over reflexive pronouns seems to be relevant to the hierarchy of grammatical relations. In some languages only canonically marked or underived A/S control reflexivisation. In others (some) non-canonically marked or derived A/S, in addition to the canonically marked or underived ones, may control it. In yet others O, in addition to A/S, may control it. Accordingly, it may be used to identify A/S, or A/S and O.

5. Relativisation seems to be relevant to the hierarchy of grammatical relations, too, but in a different way from (4). It may define A/S, O/S, O, or A/O/S.

6. There is a wide range of clause linking processes. Many of them centre around A/S, but there are other types which can be used to define O/S.

In general, criteria (1)–(4) relate to intra-clausal syntax, and follow accusative or active/inactive patterns reflecting semantic parameters such as ‘control’ and ‘agency’. They centre around canonically marked A/O/S but may extend such properties to include some, or many, non-canonically marked A/O/S, depending on language types. Some of them—e.g. criterion (4)—seem to be more sensitive to topicality at a clausal level, and as such tend to be more lenient to non-canonically marked A/O/S (see the discussion below). Criteria (5)–(6), on the other hand, relate to inter-clausal syntax, and follow either accusative, ergative, or mixed patterns, reflecting discourse parameters such as topic continuity. They tend to apply more broadly, usually include both canonically and non-canonically marked A/O/S at least as controllers of some of the clause linking devices.

The criteria to determine A, O and S status of non-canonically marked arguments, and a possible hierarchy among these criteria, can be summarised in the following way:

1. Syntactic criteria such as imperatives which allow only 2nd person A/S to occur, strictly syntactic derivations such as passives and causatives, and the target of coreferential deletion of A/S in tightly knit complement clauses (with main verbs requiring canonically marked A/S), all seem more likely to be restricted to canonically marked A/S than other criteria such as imperatives which allow A/S in any person to occur, reflexivisation, control over coreferential deletion, and pivot constraints. It is presumably because the former are more sensitive to the Controller/Agent status of A/S.

2. The scope of imperatives (which allow A/S in any person to occur) and reflexivisation differs a great deal from language to language.

3. In general, non-canonically marked A/S are more likely to function as con-
trollers over coreferential deletion in complementation and pivot constraints than to become targets of such constraints.

4. Control over pivot constraints and coreferential deletion seem to apply most broadly, even to those non-canonically marked arguments which can only marginally be regarded as A/S.

5. The O status of non-canonically marked arguments is sometimes difficult to determine. If the language is of Absolutive-Ergative type, we might first determine the status of the other core argument (if it is marked by Ergative then it is likely to be A, so this argument is likely to be O). Syntactic processes such as passivisation (and antipassivisation) and pivot constraints on relativisation or clause linking may be useful criteria if the language has them. Some other language-specific criteria which are sensitive to the core status of NPs can be used as well. These include reflexivisation in Icelandic (cf. §3.2.4) and quantifier floating in Italian (Perlmutter 1979) and Japanese (Shibatani 1991 and Jacobsen 1992).

6. The syntactic behaviour of non-canonically marked arguments might not be uniform with regard to different types of predicates. For example, in Imbabura Quechua (Hermon this volume), the A/S of desiderative verbs derived by -naya show more coding and syntactic properties than those of ‘lexical’ predicates which express physiological experiences. According to Cole and Jake (1978) and Hermon (this volume), this asymmetry indicates that the former are further in advance in the historical process whereby non-canonically marked arguments are acquiring canonical subjecthood. This example shows how important it is to categorise predicates with non-canonically marked arguments according to certain semantico-syntactic criteria (cf. §4), and to carefully check the behaviour of each class of predicates in terms of the syntactic properties discussed above.

4. Semantico-syntactic types of predicates which require non-canonically marked A/O/S

4.1 Overview

In this section, we will look at the major semantico-syntactic types of predicates which require non-canonically marked A/O/S. We will refer to the languages discussed in this volume wherever appropriate, but we will also draw examples
from other languages in the world. Our examples in this section are mostly taken from languages which indicate cases on NPs by affixes, clitics or inflections, often accompanied by a verbal agreement marking A/S. Non-canonically marked A/S in these languages are typically marked by cases such as Accusative, Dative and Genitive, and non-canonically marked O by Nominative, Dative and Genitive. Non-canonically marked A/S generally do not trigger verbal agreement—instead, the verb takes a neutral inflection, usually 3sg.

Certain types of predicate which take non-canonically marked arguments recur in different languages in the world. We categorise the major types of predicates according to the following criteria:

1. Overall semantico-syntactic type of the predicate.
2. Semantic roles of the non-canonically marked arguments.
3. Number of valencies.

We find that those predicates often have counterparts which require canonically marked arguments with some systematic meaning difference. Such ‘fluid systems’ are discussed separately in §4.3.

In general, we follow Dixon’s (1991: 88ff.) three-way categorisation of verbal predicates: Primary-A, Primary-B and Secondary. They are defined as follows:

a. Primary verbs are those which directly refer to some activity or state, and ‘can make up a sentence by themselves with appropriate NPs filling the various semantic roles.’ They are further divided into two types—Primary-A which never take complement clauses (e.g. ‘run’, ‘hit’, ‘eat’ and ‘give’) and Primary-B which may allow a complement clause to fill a core functional slot (e.g. ‘think’, ‘see’, ‘like’ and ‘surprise’).

b. Secondary verbs, on the other hand, provide ‘semantic modification of some other verb, with which they are in syntactic or morphological construction’. Secondary concepts may be realised as lexical verbs (e.g. *try* and *begin* in English), as modals (e.g. *may* and *be going to* in English), as elements of serial verb or converb constructions (e.g. *V-hazimeru* ‘begin ~ing’ and *V-te iru* ‘keep ~ing, be in the state of ~’ in Japanese) or as derivational affixes (e.g. desiderative suffix *-naya* ‘want’ in Imbabura Quechua and potential suffix *(r)eru* ‘can’ in Japanese).

Mainly according to criterion (1), predicates which take non-canonically marked A/S can be categorised into five major semantico-syntactic classes,
listed below. Note that those which are transitive may take non-canonically marked O instead of, or in combination with, non-canonically marked A. Verbs in Class II are most likely to behave in this way.

Class I: One- or two-place (Primary-A) verbs with affected S (or A), e.g. ‘be chilled’, ‘have a headache’, ‘be sad’, ‘be surprised’.

Class II: Two-place (Primary-A/B) verbs with less agentive A (or S)/ less affected O (or E), e.g. ‘see’, ‘know’, ‘like’, ‘look for’, ‘follow’, ‘help’, ‘speak to’, ‘resemble’.

Class III: Two-place Secondary verbs with modal meanings, e.g. ‘want’, ‘need’, ‘can’, ‘try’, ‘seem’.

Class IV: Intransitive/transitive verbs expressing ‘happenings’. (Usually have canonically marked counterparts with agentive meanings.)

Class V: Verbs of possession, existence and lacking.

The major question we ask with regard to these predicate types is: is there any cross-linguistic hierarchy among these predicates such that we can predict that if one class takes non-canonically marked core arguments, then so will the classes above it on the hierarchy?

In the following sections (§4.2.1–§4.2.5), the classes of predicates listed here are discussed one at a time.

4.2 Predicate types

4.2.1 Class I: one or two-place (primary-A) verbs with affected A/S

The predicates of this class express:

(Ia) physiological states/events; and

(1b) inner feelings/psychological experiences.

Syntactically they require at least one non-canonically marked NP which refers to the Patient/Experiencer. Some predicates also require an obligatory NP referring to a sensation, body part or natural force. If such an NP is unmarked, it could be regarded either as E or as a part of the whole intransitive verbal predicate. It often shows some S properties in which case its grammatical status is controversial. In some languages it is marked by Accusative (e.g. Tamil, see (23)), in which case it may show some O properties.

We classify those predicates into two subtypes because: (1) in some languages (such as Icelandic and Garifuna, see below) they may occur in different
case frames; and (2) in some languages only Class Ia predicates require non-canonicaly marked S (e.g. Tariana). The majority of languages, however, treat them in the same way without such morpho-syntactic distinction.

The first subtype (Class Ia) consists of predicates which refer to physiological states or events such as ‘be/become chilled’, ‘be/become hungry’, ‘be/become sick’, ‘sweat’, ‘tremble’ and ‘have a headache’. The non-canonically marked argument refers to the Patient who is physically affected by the state or event described by the predicate.

The second subtype (Class Ib) consists of predicates which refer to inner feelings or psychological experiences such as ‘be/become sad’, ‘be/become angry’, ‘be/become ashamed’ and ‘be/become surprised’.

Kannada (Sridhar 1979: 101):
(22) Maguvige bāyārke āgide.
child+DAT thirst has.happened
‘The child is thirsty.’

Tamil (Asher 1985: 105)
(23) Ennaku taley-e vali-kk-utu.
I+DAT head-ACC hurt-pres+3SN
‘I have a headache.’

Punjabi (Bhatia 1993: 170–1):
(24) a. Saa niūū gussaa aaiaa.
we+OBL DAT anger+M come+PAST+M
‘We became angry.’

b. Asīī gussaa kiitaa.
we+NOM anger+M do+PAST+M
‘We became angry (deliberately).’

The majority of the predicates of this class do not usually show fluidity in a systematic way, but we also commonly find a small number of predicates (especially of Class Ib) having counterparts with a canonically marked A/S in a language. The A/S arguments of the canonically marked versions (such as asīī ‘we’ in (24b)) typically refer to participants who exert a certain degree of control over the events. Amele has a few lexical pairs of this kind which express psychological and physiological experiences (Roberts this volume). In Imbabura Quechua and Bengali a causative morpheme is employed to derive a small number of predicates with canonically marked A/S which express phys-
iological events with controlling semantics (cf. §3.2.3 and §4.3.1). For example,

Bengali (Onishi this volume):

(25) a. \textit{Ama-r} \textit{ThaNDa leg-ech-e.}
\textit{1SG-GEN coldness be.attached-PERF-PRES+3ORD}
'I have caught a cold.'

b. \textit{Baire gi-e ami ThaNDa}
outside go-\textit{CP} \textit{1SG+NOM coldness}
\textit{lag-i-ech-i.}
be.attached-\textit{CAUS-PERF-PRES+1}
'I went outside and (as a result of this foolish act) have caught a cold.'

As mentioned above, languages sometimes distinguish between Class Ia and Ib by assigning different cases to their S arguments. For example, in Garifuna (Munro 1992), six predicates of Class Ia require a Dative or Instrumental S, while two predicates of Class Ib require a Benefactive one. In Icelandic (Andrews this volume), some predicates of Class Ia require an Accusative S argument, while those of Class Ib tend to take Dative S. Thus, in the following examples, (26b) expresses a psychological experience rather than a physiological state, which is expressed by (26a). These predicates have no counterpart with a Nominative S.

Icelandic (Andrews 1982: 461–2)

(26) a. \textit{Mig kelur.}
\textit{1SG+ACC is.freezing}
'I am freezing/getting frost-bitten.'

b. \textit{Mer kolnar.}
\textit{1SG+DAT is.getting.cold}
'I am getting cold.'

Presumably Accusative case in (26a) is associated with the Patient status of the argument (which undergoes direct impact on the body), while Dative case in (26b) is associated with the Experiencer status of the argument (which perceives psychological experience). According to Andrews (1982: 463): "Accusatives seem to appear with essentially physiological states (including intense desires and dreams), while the datives tend to be associated with psychological states . . . kala in (49e) [corresponding to (26a)—M.O.] suggests physical damage or difficulty, such as frostbite, whereas kolna in (50k) [corresponding to (26b)—M.O.] speaks merely of being cold.” See the discussion on the contrast
between Dative and Accusative associated with the predicates of Class IV in §4.2.4.

4.2.2 Class II: two-place (primary-A/B) verbs with less agentive A (or S) and less affected O (or E)

This class includes a variety of predicates which we tentatively classify into eight subtypes:

(Ila) verbs of perception, e.g. ‘see’, ‘hear’, ‘touch’.
(Ilb) verbs of cognition, e.g. ‘know’, ‘remember’, ‘think’.
(Ilc) verbs of liking, e.g. ‘like’, ‘hate’, ‘pity’, ‘miss’.
(Ild) verbs of searching/finding, e.g. ‘look for’, ‘find’.
(Ile) verbs of following/meeting, e.g. ‘follow’, ‘meet (with)’, ‘wait for’.
(Ilf) verbs of interacting, e.g. ‘help’, ‘obey’, ‘win’.
(Ilg) verbs of addressing, e.g. ‘speak to’, ‘call’, ‘shout to’.
(Ilh) verbs of resembling, e.g. ‘resemble’, ‘match’, ‘suit’.

Either or both of the arguments of these verbs may bear non-canonical marking. Their transitivity status is often controversial. They denote activities, events or states which differ from the activities described by prototypical transitive verbs with canonically-marked arguments (such as ‘break’ and ‘kill’) in a number of ways.

For example, the predicates of Class Iia–Iic describe perceptions, cognitive events/states and emotional events/states, respectively. The referents of A/S arguments may initiate or control such processes or events to some extent, but on the whole they remain, or are seen, as passive perceivers or experiencers; the referents of O/E arguments, on the other hand, are either the source or stimulus of such processes/events/states, not being affected by themselves. As such, it is quite natural that the predicates of these subclasses may require a non-canonically marked A/S, or a non-canonically marked O/E, or both at the same time. Non-canonical marking on A/S would presumably reflect the less ‘agentive’ or ‘controlling’ role of such an NP, while non-canonical marking on O/E would reflect its less ‘affected’ role.

In many Indic and Dravidian languages, the Perceiver of an attention verb such as ‘see’ and ‘hear’ is typically marked by an oblique case (such as Dative and Genitive), while the Object of perception is either in unmarked Nominative (as in (27a)) or Accusative. If the latter is unmarked, then the predicate usually
shows cross-referencing agreement with it. These languages often have canonically marked counterparts which describe controlled perception.

Punjabi (Bhatia 1993: 170–1):

(27) a. \( \text{Tuàà niüü shor sunaaii dittaa.} \)
   \( \text{you+OBL DAT noise+M hear give+PAST+M} \)
   ‘You heard the noise.’

   b. \( \text{Tusïï shor suNiaa.} \)
   \( \text{you+NOM noise+M listen+PAST+M} \)
   ‘You listened to the noise.’

There are also languages which mark the Object of perception in oblique case. In Polish, for example, the object of the verb ‘look at attentively/observe’ is marked by Dative (Rudzka-Ostyn 1996: 358). In Samoan, the verb ‘see’, as well as other verbs which belong to Class IIb, IIc and IIg (cf. §3.2.5) requires an Absolutive S and a Locative–Directional case-marked E, in contrast with canonical transitive verbs which require an Ergative A and an Absolutive O.

The sentence in (28a) is an example of a cognition verb, and (29) and (30) include verbs of the liking type, which require a non-canonically marked A/S. Note that in all these examples the verbs cross-reference the unmarked (Nom-inative) NPs which denote Object of cognition and liking. Example (28b) has a cognition verb with a canonically marked A or S (with an Object NP optionally marked by Accusative) with a controlling semantics.

Kannada (Sridhar 1979: 102):

(28) a. \( \text{Avanige ý suddi tiLiyitu.} \)
   \( \text{he+DAT this news became.known+NEUTER} \)
   ‘He came to know this news.’

   b. \( \text{Avanu ý suddi(-yannu) tiLiðukoNDanu.} \)
   \( \text{he+NOM this news(-ACC) knew+REFL+MASC} \)
   ‘He learnt this news.’

Italian (Perlmutter 1979: 277):

(29) \( \text{Gli piacciono le sinfonie di Beethoven.} \)
   \( \text{he+DAT like+3PL the symphonies of Beethoven} \)
   ‘He likes Beethoven’s symphonies.’

Garifuna (Munro 1992):

(30) \( \text{Gideme-ti-bu n-un.} \)
   \( \text{pity-LINKER-2SG.O 1SG-DAT} \)
   ‘I pity you.’
In Finnish, most verbs of Class IIc, as well as some of the verbs of Class IIb, IId and Ile, obligatorily mark the O NPs by Partitive case, signalling the less ‘affected’ status of these arguments.

In many languages we find verbs of Class IId–IIg requiring an O/E NP marked by Oblique case, typically by Dative. These verbs again denote activities/events which differ from typical transitive actions. They describe complex events or activities in which both the referents of A/S and O/E argument are involved. O/E arguments of these verbs are atypical in that they are potential agents or controllers of events which are part of the complex events described by the verbs; they are not passively affected participants (cf. Blume 1998).

In general, non-canonically marked NPs required by these verbs exhibit very few, if any, O properties, and thus such verbs tend not to qualify as transitive verbs. In Japanese, for example, verbs which belong to Class Ile–Ilg take an NP marked by Dative or Comitative (see examples in Shibatani this volume). European languages such as German (Blume 1998), Spanish (Delbecque and Lamiroy 1996) and Polish (Rudzka-Ostyn 1996) abound in such verbs. Polynesian languages such as Tongan and Samoan also have similar ‘semi-transitive’ verbs with Dative or Locative–Directional arguments (Chung 1978, Mosel and Hovdhaugen 1992).

In a number of Australian languages with ergative morphology, verbs of these classes may take non-canonically (typically Dative) marked Object NPs, some of which show O properties. In Djaru (Tsunoda 1981b), for example, some of the verbs of Class IId and Ile require an Ergative NP and a Dative NP. In Warlpiri (Hale 1982), some verbs of Class IId have the Ergative(A)-Dative(O) case frame (as in (31)), while some of Class IIC, Ile and IIg verbs require an Absolutive S and a Dative E (as in (32)). The verbs of Class IIA and IIB take canonically marked A (Ergative) and O (Absolutive).

(31) Karnta-ngku ka-jana kurdurdu-ku warri-rni.
    woman-erg pres-3pl.o children-dat seek-nonpast
    ‘The woman is looking for the children.’

(32) Kardu ka-ria ngarra-ku parda-rni.
    child+abs pres-3+dat man-dat wait-nonpast
    ‘The child is waiting for the man.’

Finally, verbs of Class IIIh describe the relationship of the state or property of one participant with that of the other. They are inherently stative. In many languages they are intransitive, marking either the Subject or the Object of
comparison by an oblique case such as Dative. An Icelandic example of Class IIh verb, which takes a Dative S, is given below (Andrews 1982: 463):

\[(32) \quad \text{Honum svipar til franda sins.} \]

\[\text{him.DAT resembles to cousin self’s (his)} \]

\[\text{‘He resembles his cousin.’} \]

4.2.3 Class III: two-place secondary verbs with modal meanings

The verbs of this class always require a clausal complement. They include the following subtypes:

- (IIIa) verbs of wanting, e.g. ‘want’, ‘expect’.
- (IIIb) verbs of necessity/obligation, e.g. ‘need’, ‘should’, ‘must’.
- (IIIc) verbs of capability/possibility, e.g. ‘can’, ‘may’, ‘be easy/difficult’.
- (IIId) verbs of trying/success/failure, e.g. ‘try’, ‘be successful’, ‘fail’.
- (IIIe) verbs expressing evidential meanings, e.g. ‘seem’, ‘be clear’.

These meanings may be expressed by lexical verbs, modal verbs, derivational suffixes/constructions, etc. When they are expressed by lexical verbs, it is often difficult to determine their transitivity status.

Wanting is commonly expressed by predicate(s) with non-canonically marked arguments. Sometimes the concept of ‘wanting’ is expressed by a derivational morpheme in combination with other verbs, and the whole desiderative verb thus derived may require a non-canonically marked A (or S). We often find two or more constructions depending on whether the O argument is an NP, a complement clause whose A/S argument is coreferential with the A argument of the main clause, or a complement clause with non-coreferential A/S.

Imbabura Quechua has a lexeme *muna* ‘want’ which requires a canonically marked (Accusative) O, and an A which can be either unmarked (Nominative) or marked non-canonically (in Accusative) (Hermon this volume):

\[(33) \quad \text{Nuka(-ta)-ka mishqui-ta muna-rka.} \]

\[\text{1SG(-ACC)-TOP candy-ACC want-3+PAST} \]

\[\text{‘I wanted candy.’ (with an O NP)} \]

This verb may take an O complement clause in subjunctive mood with an A/S either coreferential or non-coreferential with the one in the main clause. The preferred case for the A/S of the main clause is unmarked Nominative (Cole and Jake 1978):
Imbabura Quechua also has a derivational suffix -naya; in this case the A/S of the original verb must be coreferential with the A/S of the derived verb. The derived desiderative verb obligatorily requires an Accusative A/S (Hermon this volume):

(33) c. *Nuka-ta-ka* punu-naya-řka.
\[1SG-ACC-\text{TOP} \text{sleep-DESID-3+PAST}\]
‘I want to sleep.’ (with an O complement clause with a coreferential S)

Necessities and obligations (of doing something) may be expressed by modals or by biclausal constructions. They usually require complements with a coreferential A/S.

Hindi-Urdu (Masica 1991: 348):

(34) *Mujhe* jaanaa hε.
\[1SG+\text{OBJ go+VN COP+PRES+3}\]
‘I have to go.’

Finnish (Sands and Campbell this volume) has an impressive array of biclausal constructions with Genitive A/S expressing necessities and obligations.

The predicates of Class IIIc include those expressing capability and possibility, ‘being easy’ and ‘being difficult’. They may require complements with a coreferential A/S. For example, Japanese has two morphemes which express capabilities/possibilities. The verb *dekiru* ‘can’ takes a Nominative/Dative S and a Nominative E or a complement clause with a coreferential A/S (cf. (35a, b)). The morpheme -(r)eru derives potential verbs which require a non-canonically marked S (cf. (36a, b)).

(35) a. *Kare (ni) wa* sore ga deki-nai.
\[he DAT TOP that NOM can-not\]
‘He can’t do that.’

b. *Kare (ni) wa* [sore o suru koto] ga deki-nai.
\[he DAT TOP that ACC do COMPL NOM can-not\]
‘He can’t do that.’ (Lit. ‘It is not possible for him to do that.’)
(36) a. Kare wa sake o nomu.
He TOP wine ACC drink+NONPAST
‘He drinks Japanese wine.’

b. Kare (ni) wa sake ga nom-e nai.
He DAT TOP wine NOM drink-POT not
‘He can’t drink Japanese wine.’

In some languages potential meaning may come up with verbs with middle or reflexive inflections. See Russian example (4b).

Trying/success/failure may also be expressed by verbs or modals. Italian has the verb *riuscire* ‘succeed, manage’ which can take a Dative argument with a gerund introduced by the postposition *di* ‘of’ (Perlmutter 1979: 279):

(37) Mi riuscire di far-lo.
me+DAT succeed+3SG+FUT of do-it
‘I will succeed in doing it.’

Italian also has verbs *sembrare* ‘seem’, *parere* ‘appear’, *chiedo* ‘be clear’ and *evidente* ‘be evident’ which require a Dative argument and a complement clause, e.g.

(38) Mi sembrava talmente strano da non crederci.
me+DAT seem+PAST so strange to neg believe+INF
‘It seemed so strange to me that I didn’t believe it.’

These Dative arguments are regarded as S mainly because they function as controllers for a few clause-linking devices such as gerund construction and participial absolute.

4.2.4 Class IV: predicates expressing happenings
The predicates of this class describe ‘happenings’. There are usually alternative predicates or constructions with a canonically marked A/S. The former express uncontrolled non-volitional events while the latter express fully controlled (usually volitional) activities.

Bengali (Klaiman 1980b)

(39) a. Ami nek labh kore-chi.
1SG+NOM much profit do-PERF-PRES+I
‘I have made a lot of profit.’
   1SG+GEN much profit become-PERF-PRES+3ORD
   ‘I have profited a lot.’

Icelandic again shows an interesting pattern. First of all, it can have Dative arguments with inanimate referents associated with predicates denoting uncontrollable events or states:

(40) *Eldingu* slo niður i husið.
   lightning+DAT struck down into the.house
   ‘Lightning struck the house.’

Secondly, if the event described by the verb affects the referent of the argument gradually, over a period of time, then the argument is marked by Accusative as in (41b). In (41a), on the other hand, the argument marked by Dative undergoes a sudden momentary movement.

(41) a. *Batnum* hvolfdi.
   boat.the+DAT capsized
   ‘The boat capsized.’

b. *Batinn* rak a land.
   boat.the+ACC drifted to land
   ‘The boat drifted to land.’

These constructions may have transitive (causative) counterparts where A is marked by Nominative and the non-canonically marked argument corresponds to O marked by Dative or Accusative; (42a) and (42b) correspond to (41a) and (41b), respectively:

(42) a. *Eg* hvolfdi batnum.
   I+NOM turned.upside.down boat.the+DAT
   ‘I turned the boat upside down.’

b. *Stormurinn* rak batinn a land.
   storm.the+NOM drove boat.the+ACC to land
   ‘I drove the boat to land.’

4.2.5 Class V: verbs of possession, existence, and lacking
The predicates of this class express possession, (non-)existence and lacking, and being (in-)sufficient. Possession is commonly expressed by an existential copula. The predicates of this type require a Possessor marked by an oblique
case, and a Possessed which is always in unmarked or Nominative case. Both the Possessor and the Possessed may show some A/S properties. For example, the Possessor often controls pivot constraints, reflexivisation, etc., while the Possessed shows coding properties and some other syntactic properties of subjects. Thus in some languages it is difficult to decide whether the predicates of this type should be regarded as intransitive (with a non-canonically marked S and a Nominative E, or perhaps with an E and a Nominative S) or transitive (with a Nominative O).

Malayalam (Mohanan and Mohanan 1990: 45):

(43) KuTTik'kə d'aaLam paNam uNT.
    child+DAT plenty money+NOM have+pres
    ‘The child has a plenty of money.’

Icelandic has the predicate ‘lack’ with an Accusative A (Andrews 1982: 462):

(44) Drengina vantar mat.
    the.boys+ACC lacks food+ACC
    ‘The boys lacks food.’

In Russian, existence is expressed by a canonically marked case frame and non-existence by a non-canonically marked frame—which could be seen as a variation of canonical case marking pattern of Finnish type discussed in §2.2.1. The following examples (Aikhenvald, p.c.) illustrate this:

(45) a. Den’gi byl-i.
    money+PL be.PAST-PL
    ‘There was money.’

   b. Deneg ne byl-o.
    money+GEN+PL NEG be.PAST-NEUTER
    ‘There was no money.’

4.3 Fluid systems

In some languages non-canonically marked arguments are often associated with verbs marked with transitivity-reducing morphemes such as reflexive/middle (Russian, cf. (4b), and Icelandic, cf. Andrews 1982: 456–60), or syntactic derivations such as ‘deagentivisations’ (cf. §3.2.3). In some languages predicates show systematic voice alternations between active (with a canonically marked
A/S) and middle/passive (with a non-canonically marked A/S) (e.g. Sinhala, see Wijayawardhana et al. 1995). Languages which have complex verb constructions may show oppositions between a controlling predicate such as ‘do’ (with a canonically marked A/S) and a non-controlling predicate such as ‘be/become’ (with a non-canonically marked A/S) (e.g. Hindi-Urdu and Bengali, cf. (39a, b), repeated in §4.3.1). In yet other languages (e.g. Djaru and Warlpiri) there are a small number of predicates which enter into canonically marked and non-canonically marked case frames (with regard to A or O argument) with different modal meanings (cf. (48a, b) in §4.3.3). We often find two or more means of indicating such contrasts within a language (including some lexical pairs).26

Canonically and non-canonically marked versions usually do not differ in terms of the number of valencies, but they definitely differ in that non-canonically marked A/O/S show less (coding and syntactic) properties than do canonically marked A/O/S. There are also significant semantic differences in one or more of the following three areas. The meanings expressed by non-canonically marked versions correspond to those expressed by some of the predicates discussed in §4.2.

Table 1.

<table>
<thead>
<tr>
<th>Semantic parameters</th>
<th>Canonical</th>
<th>Non-canonical</th>
<th>Corresponding predicate types</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) control/volitionality</td>
<td>controlled/volitional</td>
<td>less or no control/non-volitional</td>
<td>IV</td>
</tr>
<tr>
<td>(ii) stativity</td>
<td>active</td>
<td>stative</td>
<td>I, V</td>
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<tr>
<td>(iii) modality</td>
<td>realis</td>
<td>irrealis</td>
<td>IIa</td>
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<td>neutral</td>
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<td>IIc</td>
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<td></td>
<td>neutral</td>
<td>potential/abilitative</td>
<td>IId</td>
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<td></td>
<td>neutral</td>
<td>attemptive</td>
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In this section we will briefly survey the semantic oppositions observed in different types of fluid systems across languages. We will not attempt to draw any definitive conclusions from the following discussion—we need more data on such systems to make any significant generalisations. This section is meant to be a sketch of the phenomena which require detailed future study.

4.3.1 Control/volitionality

If a language has an extensive system of opposition between constructions with
a canonically marked A/S and those with a non-canonically marked A/S, then 'control' is usually the main semantic factor distinguishing them. Canonically marked versions describe events which are controlled by the referents of A/S arguments (i.e. they are responsible for the occurrence or the result of the events in some way), while the non-canonically marked versions describe events which take place spontaneously or are less controlled. Class IV predicates which describe ‘happenings’ typically have canonically marked counterparts expressing ‘controlled events’ in such a system. To illustrate, Bengali examples (39a) and (39b) are repeated here:

(46) a.  
\[ \text{Ami } \text{\underline{\text{\varepsilon}n\text{e}k \text{labh k\text{or-}\text{e}ch-i.}}} \]
\[ \text{iSG+NOM much profit do-PERF-PRES+1} \]
'I have made a lot of profit.'

b.  
\[ \text{Amar } \text{\underline{\text{\varepsilon}n\text{e}k \text{labh h\text{o-}\text{e}ch-e.}}} \]
\[ \text{iSG+GEN much profit become-PERF-PRES+3ORD} \]
'I have profited a lot.'

The complex predicate with \( k\varepsilon r \) ‘do’ (with a Nominative S) in (46a) denotes a controlled action, while the one with \( h\varepsilon r \) ‘become’ (with a Genitive S) in (46b) represents an uncontrollable event. To express this kind of semantic contrast, Bengali employs various other strategies—use of complex predicates with other ‘simple verbs’ such as ‘get’, ‘come’, ‘be/exist’; deagentive derivations (cf. §3.2.3); attachment of the causative morpheme (see (47b)); and lexical oppositions.

Volitionality is another parameter which is often used to explain the semantic difference between two constructions of the type mentioned above (cf. Klaiman 1981, 1986). Volitionality and control are similar parameters, and in most cases they go together. However, as pointed out by Masica (1991: 350), while non-controlled actions/events/states are always non-volitional, controlled ones are not necessarily volitional.27 This becomes apparent when a language extends the opposition based on control/volitionality parameter to the types of predicates (especially Class Ia) which express inherently nonvolitional events or states. Again Bengali examples (25a, b) are repeated here to illustrate this point:

(47) a.  
\[ \text{Ama-r } \text{\underline{\text{ThaN\text{Da leg-e\text{ch-e.}}}}} \]
\[ \text{iSG+GEN coldness be.attached-PERF-PRES+3ORD} \]
'I have caught a cold.'
Neither canonical (47b) nor non-canonical version (47a) signifies a volitional activity. The semantic difference between these two versions pertains to the degree of control the Affected person might have over the event.

The pragmatic effects of the contrast based on control/volitionality are that non-canonically marked versions with non-controlling semantics sound less direct, more formal and politer than canonically marked ones with controlling semantics. Languages often exploit such effects and use the non-canonically marked versions in a formal, literary or scientific style.

4.3.2 Stativity

There is often an aspectual contrast between canonically and non-canonically marked constructions—most commonly, canonical marking indicates an active meaning and non-canonical marking a stative meaning.

This active-stative opposition may show up quite systematically in a language. Bengali has two types of ‘deagentive’ derivations requiring Genitive S/A. The first type, \( hɔ\) ‘become’ deagentivisation, expresses ‘non-control’, while the second type, \( ach\) ‘be/exist’ deagentivisation, expresses resultative ‘state’. Some transitive achievement verbs in Bengali can enter either type of derivation; in such a case they make a three-way distinction based on control/non-control and active/stative parameters (Onishi this volume).

If a language has pairs which express psychological or physiological states/experiences, then the contrast between canonically marked and non-canonically marked predicates may be based on active/stative parameter, in addition to control/noncontrol parameter. Such seems to be the case with Amele and Imbabura Quechua. Amele has a few lexical pairs of impersonal verbs and active verbs which include: ‘be sleepy’ vs ‘sleep’ (Class Ia) and ‘be afraid’ vs ‘fear’ (Class Ib). In Imbabura Quechua, the desiderative verb derived from ‘eat’ expresses an uncontrollable state (‘be hungry’) with an Accusative S, while the one with a Nominative S (the verb being marked by a causative morpheme) expresses a controllable desire to perform an action (‘desire to eat’).

Another striking example of this contrast is verb-adjective pairs expressing
emotions in Japanese (Shibatani this volume). Verbs in such pairs occur in Nominative-Accusative frame, while the corresponding adjectives in Dative/Nominative-Nominative frame. They seem to show the same type of contrast based on both control/noncontrol and active/stative parameters—controllable emotions are expressed by verbs (e.g. ‘hate’, ‘enjoy’, ‘like’), while less controllable emotional states are expressed by corresponding adjectives (e.g. ‘be hateful’, ‘be happy’, ‘be fond of’).

4.3.3 Modality (irrealis)
Modal meanings represented by Class III predicates have one common component; they all express ‘irrealis’ modality.

These predicates—especially those of the first three subclasses—are very often expressed by derivational processes. In §4.2.3 we have already discussed in some detail the first three types of derivations—desiderative (IIIa), necessive (IIIb) and potential/abilitative (IIIc).

We are not aware of any derivational processes which express ‘attemptive’ meaning represented by the predicate ‘try’. We find, however, some predicates in Australian languages such as Warlpiri and Djaru which express such meaning when they occur in non-canonically marked frames. In Djaru (Tsunoda 1981: 149), at least four perception verbs can occur in both canonically marked (Ergative—Absolutive) and non-canonically marked (Ergative—Dative) case frames. The non-canonically marked versions indicate that the aimed perceptions have been attempted but not yet been realised. They are: *njang-* ‘see’ vs ‘search’; *buRa njang-* ‘hear’ vs ‘try to listen to’; *wara gang-* ‘watch’ vs ‘watch out for’; and *bad*-*bad*-*man-* ‘touch’ vs ‘try to touch’, e.g.:

\[
\begin{align*}
\text{(48) a.} & \quad \text{Mawun-du (nga) njang-an djadji.} \\
& \quad \text{man-\text{erg} catalyst see-pres kangaroo+abs} \\
& \quad \text{‘A man sees a kangaroo.’}
\end{align*}
\]

\[
\begin{align*}
\text{b.} & \quad \text{Mawun-du nga-la njang-an djadji-wu.} \\
& \quad \text{man-\text{erg} catalyst-3sg+dat see-pres kangaroo-dat} \\
& \quad \text{‘A man looks for a kangaroo.’}
\end{align*}
\]

Warlpiri also has a small number of verbs denoting perception and goal-oriented action which show a similar semantic and case frame contrast. They include (Hale 1982: 249–50): *nya-nyi* ‘erg see abs’ vs ‘erg look about in search of dat’; *karla-mi* ‘erg dig up abs (as yams)’ vs ‘erg dig in search of dat (e.g. yams)’; *luwa-rni* ‘shoot’ vs ‘shoot at’; and *paka-rni* ‘strike’ vs ‘strike at’.
To conclude this section, we will give an example of another type of modality which occasionally comes up in the lexical pairs denoting emotions vs emotive actions.

Kalam (Papuan, Pawley 1975, cited by Foley 1986)

(49) a. Swk yp ow-p.
    laughing 1SG+ACC come PERF 3SG
    ‘I feel like laughing.’
b. Yad swk a(g)-jp-yn.
    1SG+NOM laughing do PROG 1SG
    ‘I am laughing.’

In the above examples, the canonically marked version (49b) describes a potentially controllable emotive activity or event, while the non-canonically marked version (49a) expresses a state of feeling which might cause such activity/event. Here again the semantic contrast between these two versions seems to be based on irrealis/realis—in addition to stative/active—parameter.

4.4 Summary

In some languages, the majority of predicates listed in §4.2 require non-canonically marked arguments. In other languages, only one or two of them do. In some languages just one oblique case marking, and in others two or more different oblique case markings are associated with various types of predicates. Some languages have only non-canonically marked A and/or S, some have non-canonically marked O, and others have both A/S and O.

The predicate types found in six languages investigated in this volume are listed in Table 2. Five out of six languages with non-canonically marked A/S have Class Ia predicates—in fact, Tariana is found to have only this class of predicates (S_0 verbs) which are associated with non-canonically marked S. The second commonest predicates attested in those languages are Class III—particularly IIIa represented by ‘want’. In fact, Imbabura Quechua and Amele have only Class I and IIIa predicates which mark A/S non-canonically. Class V predicates expressing possession/lacking also occur quite commonly, attested in three out of six languages. Among Class II predicates, IIa–IIc with non-canonically marked A/S are found in two or three languages. IIId–h, associated with non-canonically marked O in some languages, are not commonly found in the languages investigated in this volume (except that in Japanese those
<table>
<thead>
<tr>
<th>Verb Class</th>
<th>Icelandic</th>
<th>Bengali</th>
<th>Japanese</th>
<th>Imbabura Quechua</th>
<th>Amele</th>
<th>Tariana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia e.g. ‘be sick’</td>
<td>Dat/Acc S</td>
<td>Gen S</td>
<td>(Nom E)</td>
<td>Acc S</td>
<td>Impersonal S</td>
<td>none</td>
</tr>
<tr>
<td>Ib e.g. ‘be sad’</td>
<td>Dat S</td>
<td>Gen S</td>
<td>(Nom E)</td>
<td>Acc S</td>
<td>Impersonal S</td>
<td>none</td>
</tr>
<tr>
<td>IIa e.g. ‘see’</td>
<td>Dat A</td>
<td>Gen A</td>
<td>(Dat/Nom S, Nom E)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIb e.g. ‘know’</td>
<td>Acc A</td>
<td>Gen A</td>
<td>(Dat/Nom S, Nom E)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Ic e.g. ‘like’</td>
<td>Dat A (Nom O)</td>
<td>Gen A</td>
<td>(Nom E)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIId e.g. ‘look for’</td>
<td>(Gen O)</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIe e.g. ‘follow’</td>
<td>Dat/Gen O</td>
<td>none</td>
<td>(Dat/Comit E)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIIf e.g. ‘help’</td>
<td>Dat O</td>
<td>none</td>
<td>(Dat/Comit E)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIg e.g. ‘speak to’</td>
<td>none</td>
<td>none</td>
<td>(Dat E)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIh e.g. ‘resemble’</td>
<td>Dat S</td>
<td>Gen/Obj S</td>
<td>(Dat E)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIIa e.g. ‘want’</td>
<td>Acc A</td>
<td>Gen S</td>
<td>(Nom E)</td>
<td>Acc A/S</td>
<td>Impersonal S</td>
<td>none</td>
</tr>
<tr>
<td>IIIB e.g. ‘need’</td>
<td>Acc A</td>
<td>Gen A/S, Obj S</td>
<td>Dat/Nom S, Nom E</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIIc e.g. ‘can’</td>
<td>none</td>
<td>none</td>
<td>Dat/Nom S, Nom E</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIIId e.g. ‘try’</td>
<td>none</td>
<td>Gen S</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IIIe e.g. ‘seem’</td>
<td>Dat A, Nom O</td>
<td>Gen S</td>
<td>Dat/Nom S</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>IV e.g. ‘happen’</td>
<td>Dat/Acc A/S</td>
<td>Gen A/S</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>V e.g. ‘have’</td>
<td>Acc A</td>
<td>Gen S</td>
<td>Dat/Nom S, Nom E</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>
predicates frequently take Dative/Comitative E). Class IV occurs only in
Icelandic and Bengali.

In many Indic and Dravidian languages the predicates which require non-
canonically marked A/S cover most of our classes, and many of them have
canonically marked counterparts as well (e.g. Bengali and Kannada). Some
European and Slavic languages such as Icelandic and Russian also have most
of our classes of predicates requiring non-canonically marked A/S, and some-
times O. Cases used for marking such arguments vary, but Dative, Accusative
and Genitive are the ones most commonly used.

Predicates with non-canonically marked arguments in Papuan languages
concentrate on Class I, with some languages adding Classes IIIa ‘want’ and V
‘have’. This seems to be a widespread pattern, found in many head-marking
type languages. Impersonal verbs, and intransitive verbs with S marked by
O-type agreement, usually fall in these classes (e.g. Amele, Tariana).

Class IV predicates most often occur in languages which have productive
fluid system(s) such as Bengali and Sinhala.

Predicates of Class IId–h frequently take Dative E in many languages (e.g.
SAE languages such as German and Spanish, and Japanese). In some Australian
languages, and possibly in some Polynesian languages, such Dative arguments
show some O properties.

It is evident that there is wide cross-linguistic variation both with regard to
the distribution of predicates with non-canonically marked arguments and with
regard to non-canonically marked case markings. Furthermore, in languages
with extensive non-canonical marking, the case marking(s) and/or syntactic
behaviour of the types of predicates may vary. Nevertheless, the tendency
shown in Table 2 seems to hold quite well: Class Ia predicates seem to occur
most widely, then Class Ib and IIIa, followed by Class V, Class IIIb, c, e and
Class IIa–c—although languages may differ in selecting a particular class of
predicates as their favourites.

Based on the data given in Table 2 and observations on the data from differ-
ent languages mentioned above, we will tentatively make the following
generalisations with regard to the question asked at the beginning of this
section:

1. If a language has Class IV predicates requiring non-canonically marked A/S,
then it also has Class Ia–b, Class IIa–c, Class IIIa–b and Class V predicates
requiring non-canonically marked A/S or O.
2. Class IIIa and Class Ib predicates cooccur in a language.
3. If a language has Class IIIa/Ib predicates requiring non-canonically marked A/S, then it also has Class Ia predicates requiring non-canonically marked A/S.

5. Conclusion

The aim of this chapter, as stated at the beginning, is to give an overview of the whole phenomena and our strategies for dealing with them. The results of our survey in the literature and investigations in this volume are by no means conclusive. Nevertheless we can reach some interesting generalisations with regard to the major questions concerning non-canonically marked core arguments across languages.

In general, oblique case markings on core arguments reflect low transitivity status of the whole clause which may have its source in one or more of the following factors at three different levels:

1. valency of predicates which determine the number and semantico-syntactic roles of core (A/O/S)/outer-core (E) NPs;
2. referential status of NPs;
3. overall clause types with respect to aspect, mood, polarity, genericity, etc.

These factors are intricately related to each other. The discussion in this volume—and in this introductory chapter—mainly focuses on (1), because it is the most important factor for determining the transitivity status of the clause.

We don’t regard variations in case-marking exclusively due to (2) and/or (3) as ‘non-canonical’. As mentioned in §2.2.1, Sands and Campbell (this volume) mainly deals with (2) and (3) which determine Nominative-Partitive alternations of S and O markings in Finnish. Shibatani (this volume) assumes a global approach—integrating all the three levels in his discussion.

In the course of our discussion we posed two major questions in §3.1 and §4.1. They are repeated here:

A. Is there a cross-linguistic hierarchy (A, B, C, …) among the syntactic properties shown by non-canonically marked arguments, such that we can predict that if, for instance, non-canonically marked arguments show property C, then they will also show properties A and B?
B. Is there any cross-linguistic hierarchy among the classes of predicates that
take non-canonical marking of their arguments, such that we can predict
that if one class takes non-canonically marked core arguments, then so will
the classes above it on the hierarchy?

With these questions in mind, we investigated the following points in our
survey:

1. What kind of coding properties do non-canonically marked arguments have
   in the given language (cf. §2)? Which coding properties go with which
   semantico-syntactic classes of predicates (cf. §4.1 and §4.2)? How large is
each class of predicates that take non-canonical marking? If a particular
coding property (especially case marking) is associated with a certain type
of predicate, is there a semantic explanation for this?
2. What kind of syntactic properties do non-canonically marked arguments
   have in the given language (cf. §3)? This should be checked with each type
   of predicate listed in §4.1. and §4.2.
3. Do predicates taking non-canonically marked arguments also occur with (or
   have corresponding predicates that occur with) canonically marked argu-
   ments? If so, what is the semantic difference (cf. §4.3)?

It is difficult to find clear answers to these questions in the literature. In this
volume we have tried to do exactly that, and we have been able to make a num-
ber of interesting observations with regard to the questions (A) and (B) as a
result of such investigations. They are summarised as follows:

A. Our generalisations with regard to the hierarchy of syntactic properties for
determining A/S are:

   1. Control over pivot constraints in clause conjoining and control over
coreferential deletion in complementation apply most broadly.
   2. Syntactic criteria which are sensitive to controller/agent status of A/S
      apply most narrowly. They are: (a) imperatives which allow only 2nd
      person A/S to occur; (b) passive and causative derivations; (c) target of
      coreferential deletion of A/S in tightly knit complement clauses (with
      main verbs requiring canonically marked A/S).
   3. The scope of imperatives (which allow A/S in any person to occur) and
      reflexivisation differs a great deal from language to language.

We could not draw any significant conclusions with regard to the hierarchy
of criteria determining non-canonically marked O, due to scarcity of data. Our further observation is that the syntactic behaviour of non-canonically marked arguments might vary with regard to different types of predicates, and this asymmetry may give some clue to the historical process whereby non-canonically marked arguments are acquiring canonical subjecthood.

B. Our generalisations with regard to the hierarchy among the classes of predicates that take non-canonical marking of their arguments are:

1. If a language has Class IV predicates requiring non-canonically marked A/S, then it also has Class Ia–b, Class IIa–c, Class IIIa–b and Class V predicates requiring non-canonically marked A/S or O.
2. Class IIIa and Class Ib predicates cooccur in a language.
3. If a language has Class IIIa/Ib predicates requiring non-canonically marked A/S, then it also has Class Ia predicates requiring non-canonically marked A/S.

To make our observations more valid cross-linguistically, we obviously need to investigate more languages of different typological profiles (ergative languages and head-marking languages) and from different linguistic areas (Africa, Caucasia, Australia, East/Southeast Asia and North America) which are not covered in our survey in this volume. Besides, we are aware that due to the scope of the volume we were unable to fully investigate some of the points listed above, which include: (1) semantic and syntactic functions of different types of coding properties (especially different case markings) which are associated with A/S/O marking; and (2) semantico-syntactic and pragmatic characteristics of different types of fluidity systems. We also need to investigate the historical and areal sources which contributed the development of non-canonical markings. All these topics are left for future research.

This, then, concludes our overview. We hope that the investigations we made in this volume would make contributions to the future research in the areas just mentioned above—and, in general, to a typological study in transitivity and related phenomena across languages.

Notes

1. The earlier versions of this introductory chapter have been discussed and commented on by the colleagues/visiting scholars of the Centre for Linguistic Typology at the Australian National University
over the past four years. Many ideas in this chapter, indeed, were nurtured in the stimulating research environment of the Centre during this period. My sincere thanks are due to R.M.W. Dixon and A.Y. Aikhenvald, co-editors of this volume, who allowed me to work together, first as a colleague, and then as a visiting fellow, at the Centre. I also thank other colleagues of the Centre and all the contributors to this volume for their useful comments/suggestions. Needless to say, I alone am responsible for all the shortcomings of the chapter. The following abbreviations are used: \textit{abs} = absolutive; \textit{acc} = accusative; \textit{AN} = Austronesian; \textit{anaph} = anaphoric pronoun; \textit{anticip} = anticipatory; \textit{art} = article; \textit{caus} = causative; \textit{compl} = complementizer; \textit{cp} = conjunctive participle; \textit{dat} = dative; \textit{desid} = desiderative; \textit{ds} = different subject; \textit{emph} = emphatic particle; \textit{erg} = ergative; \textit{fut} = future; \textit{gen} = genitive; \textit{genr} = general tense–aspect–mood particle; \textit{imp} = imperative; \textit{inf} = infinitive; \textit{ld} = locative–directional; \textit{m} = masculine; \textit{neg} = negative; \textit{nom} = nominative; \textit{npast} = nonpast; \textit{obj} = object; \textit{obl} = oblique; \textit{ord} = ordinary; \textit{perf} = perfect; \textit{pl} = plural; \textit{poss} = possessive; \textit{pot} = potential; \textit{pres} = present; \textit{prog} = progressive; \textit{refl} = reflexive; \textit{sg} = singular; \textit{ss} = same subject; \textit{top} = topic; \textit{vn} = verbal noun.

2. Languages which have ‘give’, ‘tell’ and ‘show’ as extended transitive verbs usually treat the two non-A arguments in a parallel way as indicated here, but there are exceptions. See Dixon (1994: 120).

3. Case-marking languages discussed in this volume all belong to the first (Nominative-Accusative) group.

4. Amele is the only exclusively head-marking language in this volume, but the majority of case-marking languages also have a similar pattern in verbal markings. cf. §2.2.2. and §2.2.4.

5. Cole and Jake (1978) and Cole \textit{et al.} (1980) deal with the diachronic development of non-canonically marked A/S into canonically marked ones in a number of languages (cf. §3.4). Allen (1995) discusses the development of canonical marking on Experiencer NPs of some experiential verbs in Middle English. We are not aware of any discussion of development in the reverse direction. See a relevant discussion on this point by Haspelmath (this volume). See also Hermon (this volume) and Onishi (this volume).

6. We prefer (following Pāṇini) to restrict the term ‘case’ to the marking of the syntactic function of a clause constituent. On this principle Genitive, which marks function within an NP, is not a case in its prototypical function. (However, the Greek-based tradition is to call Genitive a case and we would not wish to make an issue of what is essentially a terminological point.) In some languages (such as Bengali), Genitive has secondary use as a case, non-canonically marking A and S.

7. See a relevant discussion in Haspelmath (this volume).

8. One exception to this is Barai (see §2.2.4).


10. We are not concerned about languages in which word order is totally dependent on discourse factors.

11. This order is reversed when A is indefinite and O definite. See Olson (1978: 140–2).

12. Whether the potential verb derived from a transitive verb should be regarded as a transitive verb (with a Dative/Nominative A and a Nominative O) or an extended intransitive verb (with a Dative/Nominative S and a Nominative E, or with a Dative/Nominative E and a Nominative S) is controversial. Its intermediate status is discussed in detail by Jacobsen (1992). The Nominative argument shows certain S properties, but does not show any O properties (such as Accusative marking and target of passivisation). We tentatively treat it as E. See examples (36a, b) in §4.2.3.
13. Haspelmath (this volume) gives a Lezgian example where a main predicate with a Dative subject allows another predicate with a Dative subject to occur in the complement clause, the latter being suppressed.

14. We use the term ‘Objective’ for the case marking which comprises Accusative and Dative functions. In general, there is no Accusative-Dative differentiation in most Indic (New Indo-Aryan) languages such as Hindi-Urdu and Nepali (cf. Masica 1991: 239). We consistently use this term in the discussion and examples of these languages in this chapter, even if it is labelled ‘Dative’ in the original examples.

15. At least one other criterion—reflexivisation—follows this hierarchy. Objective, Genitive and Locative NPs, but not Instrumental NPs, control reflexivisation. See §3.2.4.

16. The most important difference between deagentsives and passives is that in the former the O argument of the original transitive verb stays as is even after the derivation, rather than being promoted to S status. See Onishi (this volume).

17. Antipassivisation demotes O out of the core and places the original A in S function. Thus, if a language has non-canonically marked A/O and an antipassivisation device, the grammatical status of those arguments can be easily tested. Unfortunately we have not yet found any clear example of this in the literature, so we do not pursue this derivation any further here.

18. The same phenomenon is observed in many Indic languages including Hindi-Urdu and Bengali. See a discussion in Klaiman (1980a). See also Onishi (this volume).

19. In the examples given in Sridhar (1990), the argument referring to a sensation is not marked by (optional) Accusative marking. It is not clear whether or not this is an error on the part of the writer. Note that in Kannada, as in most Indian languages, Accusative marking is usually not included on O NPs with inanimate referents.

20. The latter is labelled ‘Dative’ and is regarded as a core argument (O) by Chung (1978). See also a discussion on the types of predicates listed here in §4.2.2.

21. See the discussion and examples (31) and (32) in §4.2.2.

22. Blume (1998) calls the verbs listed here ‘interaction verbs’ and divides them into three subclasses: (1) verbs of communication/social gesture (corresponding to (Ig)); (2) ‘motion verbs’ (corresponding to (Id) and (Ie)); and (3) ‘obey’ verbs (partially corresponding to (Ii)). Blume characterises interaction verbs with nominative/dative case frames as expressing ‘complex events that involve two agents; and the activity of the nominative participant never manipulates or affects the activity of the dative participants.’ We contend, however, that ‘interaction’ implies that the activity of one person ‘affects’ the activity of the other person at least to some extent (i.e. the activity of one participant influences, and inevitably changes, the activity of the other participant, and vice versa, in the course of interaction). We do not call verbs in subclasses (Id), (Ie) and (Ii) ‘interaction verbs’ precisely because they do not imply that the activities denoted by those verbs do not affect the activities of the other participant.

23. See a discussion on Samoan examples in §3.2.5. Chung (1978) calls them ‘middle verbs’ which is not an appropriate term to characterise them.

24. See the discussion on the O status of the Dative arguments in Warlpiri in §3.2.5.

25. The following examples and generalisations are taken from Andrews (1982: 461–3).

26. Another possibility is a pair of transitive verbs and stative predicates such as adjectives, cf. §4.3.3.

27. See a further discussion on this point in Onishi (this volume).
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Delbecque, Nicole and Beatrice Lamiroy. 1996. “Towards a typology of the Spanish dative”. In van Belle and van Langendonck (eds), 73–117.


Kachru, Yamuna. 1990. “Experiencer and other oblique subjects in Hindi”. In: Verma and Mohanan (eds), 59–76.


1. Introduction: European linguistic unity

Giving an overview of non-canonical argument marking in European languages is not an easy task, but it is made easier by the surprising structural unity of a large part of European languages. In recent years more and more linguists have come to accept the view that there exists a European *Sprachbund* (or linguistic area), much like the Balkan, Meso-American and South Asian areas. This linguistic area may be conveniently called *Standard Average European*, following Whorf (1956) (cf. Dahl 1990, Lazard 1990, van der Auwera 1998, Haspelmath 1998a, Haspelmath 1999). The core members of this *Sprachbund* are the Continental West Germanic and Gallo-Romance languages (especially Dutch, German, French), but it also comprises the other Romance and Germanic languages and the Balkan languages as well as the Slavic languages (particularly West Slavic). Peripherally also the western Finno-Ugrian languages (Finnish, Hungarian) and Maltese may be said to belong to this area.

Some salient properties of Standard Average European (SAE), which justify setting up a linguistic area, are: definite and indefinite articles, participial passives, ‘have’ possession, dative external possessors, anticausative prominence, ‘A and-B’ conjunction, resumptive-introductory relative pronouns, particle comparatives, relative-based equatives (see Haspelmath 1998a for more discussion of these features). For most of these features we have sufficient
evidence to show that they are not only not typical of the Indo-European family in general (because they are not found in the Asian branches of the family), but also fairly rare world-wide. That the European linguistic area is not just a reflection of Indo-European genetic unity can also be seen from the fact that most of the Europeanisms cannot have been inherited from Proto-Indo-European (cf. again Haspelmath 1998a), and that the (Indo-European) Celtic languages in the west clearly do not belong to the SAE area. Furthermore, some non-Indo-European languages of Europe, especially Hungarian and the Balto-Finnic languages, clearly share some of the defining features of SAE. In addition to the most salient features mentioned above, there are a fair number of further commonalities (such as AVO/SV constituent order, sentence-initial interrogative pronouns, widespread syllable-initial consonant clusters) which are less characteristic because they are not unique to SAE languages, though they do differentiate them from their western and/or eastern neighbors.

Against this background, it becomes meaningful to ask what the properties of argument marking, and more particularly non-canonical argument marking, are in European languages (i.e. in Standard Average European). Space limitations do not allow me to go into great detail, but these languages are so well known that it will be sufficient to characterize them in their broad outlines, highlighting the contrasts with non-SAE languages. The purpose of this chapter is to present the data from European languages in such a way that they are comparable to the facts of the less well known languages described in this volume.

Argument marking patterns in SAE languages show a lot of internal diversity, but also many commonalities that become salient only once we consider European languages against the background of the world-wide situation. The following four features are the most important features found throughout SAE, though not without exceptions (cf. Lazard 1990). (However, these are not defining features of SAE in the sense that they hardly occur elsewhere in the world.)

(i) SAE languages are accusative (contrasting with ergative Basque in the west, and many ergative languages in the Caucasus and in Indo-Iranian in the east).

(ii) The verb shows person-number agreement with the S/A (or subject) argument. An exception is mainland Scandinavian, which lacks verb agreement. Furthermore, in some languages (especially in the Balkans) weak pronouns “double” the O (direct object) under certain circumstances, thus effectively creating a new object agreement (e.g. Spanish
Lo veo a Juan [him see.1sg acc Juan] ‘I see Juan’, Bulgarian Ivan ja prodade kolata [Ivan it.f sold.3sg car[f].the] ‘Ivan sold the car’). By contrast, European non-SAE languages like Basque, Kartvelian and Abkhaz-Adyghean (western Caucasian) languages consistently show A, S/O and E (recipient) agreement in person/number, and many Nakh-Daghestanian (eastern Caucasian) languages only show S/O agreement in gender. (However, exclusive S/A person/number agreement is also found in nearby Turkic languages and in many Uralic languages.)

(iii) In recipient-theme combinations, the theme occupies the O slot and the recipient is an E argument (i.e. SAE languages have a direct/indirect object contrast, not a primary/secondary object contrast, in Dryer’s 1986 terms).

(iv) The subject comprises a wide variety of semantic roles, i.e. SAE subjects go far beyond the agent role, expressing also experiencers (as in I like her), possessors (as in I have it), even recipients (I got it) and locations (The hotel houses 400 guests). In Foley and Van Valin’s (1984: 123) terminology, SAE languages tend to be reference-dominated, contrasting with role-dominated languages in the west (Celtic, cf. Lazard 1990: 247) and Caucasian languages in the east.

In addition to these common features, we of course also find a fair amount of internal diversity within SAE. Most prominently, there is a clear difference between two kinds of languages: case-marking languages and configurational languages. The former, in which case-marking plays an important function for identifying arguments, are found in the central and eastern regions (German, Slavic, Hungarian, and the Balkan languages), while the latter, in which word order is much more important for distinguishing arguments, are mainly found in the west and the north (western and central Romance, English, Scandinavian).

In the next section, we will see to what extent non-canonical argument marking is represented in SAE languages.

2. Kinds of conditions for non-canonical argument marking

Before we look at non-canonical marking of S/A (henceforth, subject) and O (henceforth, (direct) object), let us summarize the canonical marking patterns:
(a) Case-marking languages (German, Polish, etc.): The subject is in the nominative case and triggers verb agreement, the object is in the accusative case.

(b) Configurational languages (English, French, etc.): The subject precedes the verb and triggers verb agreement, the object follows the verb. Pronominal objects and pronominal subjects do show case distinctions, however, and in the Romance and Balkan languages weak object pronouns typically precede the verb.

Now there is a wide variety of conditions under which subject and object marking deviates from this general schema. These can be divided into three classes: (i) reference-related conditions, (ii) clause-related conditions, and (iii) predicate-related conditions. In each case, the factors involved can be related to one of the transitivity parameters of Hopper and Thompson (1980). Deviations from canonical argument marking occur if transitivity is particularly high or particularly low.

One reference-related condition is the high degree of individuation of the object or its high position on the animacy/definiteness hierarchies. In this circumstance, many languages show special case-marking on the object (to distinguish it clearly from the subject, cf. Comrie 1989: §6.2.2), even when the object is completely unmarked otherwise. This kind of non-canonical marking is called differential object marking (cf. Lazard (2001) for an overview, Bossong (1998a) for a comparative study of the phenomenon in European languages). Examples are shown in (1)–(2).

(1) Spanish
   a. Ayer vi tu libro.
      yesterday saw.1sg your book
      ‘Yesterday I saw your book.’
   b. Ayer vi a tu hermana.
      yesterday saw.1sg acc your sister
      ‘Yesterday I saw your sister.’

(2) Maltese (Comrie 1982: 286)
   a. Marija qatlet far.
      Marija killed.3sg.f rat
      ‘Marija killed a rat.’
   b. Marija qatlet lill-far.
      Marija killed.3sg.f acc the-rat
      ‘Marija killed the rat.’
Differential object marking may also be head-marking, i.e. verb agreement. For example, in Spanish strong-pronoun direct objects, which are at the top of the animacy hierarchy, require object agreement, whereas this is optional with (non-pronoun) animate objects. In Macedonian, definite direct objects require object agreement, whereas this is impossible with indefinite objects.

(3) Spanish
   a. *Me miraron a mí.
      me looked ACC me
      ‘They looked at me.’
   b. *(La) miraron a Conchita.
      her looked ACC Conchita
      ‘They looked at Conchita.’

(4) Macedonian (cf. Rehder 1991: 43)
   a. *Ja čitam kniga-ta.
      it.F read.1SG book[DET] the
      ‘I am reading the book.’
   b. *(Ja) čitam kniga.
      it.F read.1SG book[DET]
      ‘I am reading a book.’

Another reference-related condition is the situation when an indefinite direct object is only partially involved in or affected by the action, i.e. when transitivity is low. In some European languages (especially in Slavic), the direct object may be in the genitive case in this situation:

(5) Polish (Holvoet 1991: 9)
   Zjadłem sobie ciast-a.
   ate.1SG self.DAT cake-GEN
   ‘I ate some cake.’

A clause-related condition that affects the transitivity of the construction is its negative/affirmative status. In several European languages, the direct object in negated sentences is in the genitive or partitive case. In French and Basque, this is true of all and only indefinite direct objects (cf. 6–7(b)). In the Slavic languages, sometimes even definite direct objects are in the genitive case in negative clauses (cf. 8).
(6) French
a. *J’ai vu des fourmis.*
   I have seen art ants
   ‘I saw some ants.’
b. *Je n’ai pas vu de fourmis.*
   I neg have not seen gen ants
   ‘I didn’t see any ants.’

(7) Basque (Saltarelli 1988: 32)
a. *Ez ditut lore-ak erosio.*
   neg I have them flower-pl.abs bought
   ‘I haven’t bought the flowers.’
b. *Ez dut ogi-rik erosio.*
   not I have it bread-ptv bought
   ‘I did not buy any bread.’

(8) Russian
*Jane ljublu ètogo goroda.*
I not love this gen town gen
‘I don’t like this town.’

A further example of a clause-related condition is the role of aspectuality in determining object case marking in Finnish. In this language, the O argument is in the accusative case when a perfective reading is intended, but in the partitive case when an imperfective reading is intended, as shown in (9) (cf. Tommola 1986: Ch. 3).

(9) Finnish (Tommola 1986: 77)
a. *Luin kirjan.*
   read.past.1sg book.acc
   ‘I read the book.’
a. *Luin kirjaa.*
   read.past.1sg book.ptv
   ‘I was reading the book.’

The third kind of condition for non-canonical argument marking concerns neither the reference of the argument NP nor the clause, but the meaning of the (generally verbal) predicate. This is probably the most important condition for non-canonical marking, and we will be concerned with this kind of condition
in the remainder of this paper. For example, in many languages some two-argument verbs with two human participants do not take canonical nominative-accusative (or subject-direct object) marking, but use dative or oblique marking for the second participant if this is not a typical patient, but shows some semantic features of agents. These verbs could be called “interaction verbs” (cf. Blume 1998). Some examples are given in (10), mostly from Blume’s study. In German, Polish and Hungarian, there is a dative case, so all the verbs in (10) have dative arguments.

(10) German Polish Hungarian
a. ‘answer someone’ antworten odpowiadać felel
b. ‘wave to someone’ winken machać integet
c. ‘congratulate someone’ gratulieren gratulować gratulál
d. ‘thank’ danken dziękować
e. ‘threaten’ drohen zagrać z
f. ‘obey’ gehorchen engeldelmeskedik
g. ‘serve’ dienen służyć
h. ‘help’ helfen pomagać segít

Blume (1998) compares the verb classes that take a second dative argument with the class of “middle verbs” in Polynesian languages, which also show special case-marking. Dative-governing verbs in other European languages are described in some detail in the contributions to Van Belle and Van Langendonck (1996).

3. Arguments of experiential predicates

The most interesting semantic class of predicates showing non-canonical marking patterns is the class of experiential predicates (often called “psychological predicates”). There is a rich linguistic literature on the peculiarities of experiential predicates in various languages, and only a general overview of the phenomena in European languages can be given here.

Non-canonical marking in experiential predicates is due to their special meaning compared to causative action predicates such as ‘wash’, ‘break’, ‘pull’. As has been noted by Croft (1991: 212) and Lazard (1994: 41), canonical marking of transitive clauses in all languages is based on such prototypical action verbs. Verbs with other meanings which do not fit the prototype of transitive
verbs have to be assimilated in some way or other to the prototypical verbs, and
here we find extensive cross-linguistic variation. Three important types are
what we may call the agent-like experiencer, the dative experiencer, and the
patient-like experiencer, respectively.

In the agent-like experiencer construction (often called “experiencer-
subject” construction), the experiential predicate is treated like a normal trans-
sitive predicate, with the experiencer as A (as if it were an agent), and the
stimulus as O (as if it were a patient). This is illustrated in (11).

(11) a. English Sergio hates his teacher.
    b. Polish Bożena nienawidzi nauczyciela.
       Bożena hates teacher.acc
       ‘Bożena hates the teacher.’
    c. Italian Rudi odia il suo insegnante.
       Rudi hates the his teacher
       ‘Rudi hates his teacher.’

In the dative-experiencer construction, the experiencer appears in the dative
or a similar case (or marked by a dative preposition), while the stimulus
behaves like an S in that it agrees with the verb and bears nominative case in
case-marking languages. Examples are shown in (12).

(12) a. German Mir gefällt dieses Buch.
       me-dat pleases this book
       ‘I like this book.’
    b. French Ce livre lui plaît.
       this book him-dat pleases
       ‘He likes this book.’
    c. M. Greek Tu arési afiò to vivliò.
       him-dat likes this the book
       ‘He likes this book.’

Finally, there is a third type in which the experiencer is treated like an O and
the stimulus is treated like an A (i.e. this is the mirror image of the first type). This
type will be called patient-like experiencer here, and it is illustrated in (13).

(13) a. English This problem worries me.
    b. German Dieses Problem beunruhigt mich
       mich.acc
    c. Italian Questo problema mi preoccupa.
Of these patterns, at first blush only the second (the dative-experiencer pattern) appears to show non-canonical marking. However, we will see below (§5.5–5.6) that the patient-like experiencer construction shows some peculiarities as well. Furthermore, there is some overlap between the dative experiencer and the patient-like experiencer: In languages lacking any accusative-dative distinction, the two cannot be distinguished.

Let us now ask how these three patterns are represented in the European languages. One of the salient properties of SAE languages is their predilection for agent-like experiencer constructions, which in many cases contrast with dative-experiencer or patient-like experiencer constructions in neighboring non-SAE languages, especially in Celtic in the west and in Finno-Ugrian and in Caucasian languages in the east. This is of course just a special case of the generally high degree of reference domination of SAE that was noted in §1.

The predilection for agent-like experiencers in SAE is one of the clear results of Bosson’s (1998b) thorough study of experiencer subject constructions in 40 European languages, both SAE and non-SAE languages. Some examples of the contrast are shown in (14)–(17). In (14)–(15), we see the monovalent verb ‘be cold, freeze’, and in (16)–(17), we see the bivalent verb ‘like’.

(14) SAE: agent-like experiencer (‘I freeze, I am cold’)
   a. Swedish  jag fryser [I freeze.pres]
   b. Modern Greek krióno [freeze.1sg]
   c. Hungarian fázom [freeze.1sg]

(15) Non-SAE: dative experiencer (‘I am cold’, lit. ‘is cold to me’)
   a. Udmurt mynym kežyt [I.dat cold]
   b. Lezgian zazmeq’i-da [I.dat cold-cop]
   c. Irish tá mé fuar [is me cold]

(16) SAE: agent-like experiencer (‘I like X’)
   a. Portuguese gosto de X [like.1sg of X]
   b. Norwegian jeg liker X [I like.pres X]
   c. French j’aime X [I love.1sg X]

(17) Non-SAE: dative/oblique experiencer (‘X pleases me’, lit. ‘to me’)
   a. Irish is maith liom X [is good with.1sg X]
   b. Latvian X man patīk [X me.dat pleases]
   c. Georgian X mo-m-c’ons [X prev-1sg.dat-pleases]
Of course, there is no clear-cut borderline between SAE and non-SAE languages, so the examples in (14)–(17) give an idealized picture. Furthermore, different predicates behave differently: For instance, ‘like’ has a strong preference for the dative experiencer and shows it also in some SAE languages (e.g. Dutch he bevalt mij [it pleases me] ‘I like it’), while ‘remember’ has a strong preference for the agent-like experiencer and shows it also in some non-SAE languages (e.g. Udmurt mon todam vožiško [I that remember] ‘I remember it’). Despite these “noise” factors, the areal generalization is very striking, as is also clear from Figure 1 (see also Haspelmath 1998a).

As one might expect, the different behavior of different classes of experiential verbs is not accidental (this is noted by Bossong 1998a: 261, but he does not investigate this question systematically). Bossong’s data lend themselves easily to a demonstration of this point: He lists translations of ten experiential predicates in 40 languages: three cognition predicates (‘see’, ‘forget’, ‘remember’), four sensation predicates (‘be cold’, ‘be hungry’, ‘be thirsty’, ‘have a headache’), and three emotion predicates (‘be glad’, ‘be sorry’, ‘like’). In order to make the various constructions of different languages roughly comparable, he divides them into two broad classes, which he calls “generalized” (= agent-like experiencer) and “inverted” (=dative/patient-like experiencer), and he assigns scores between 5 and 3 to each attested predicate (5 for a prototypical
Table 1. Distribution of experiencer predicates over two broad construction types

<table>
<thead>
<tr>
<th>Predicates</th>
<th>Agent-like experiencer</th>
<th>Object-like experiencer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognition predicates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘see’</td>
<td>195.0</td>
<td>14.0</td>
</tr>
<tr>
<td>‘forget’</td>
<td>178.5</td>
<td>26.5</td>
</tr>
<tr>
<td>‘remember’</td>
<td>155.5</td>
<td>31.0</td>
</tr>
<tr>
<td><strong>Sensation predicates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘be hungry’</td>
<td>120.5</td>
<td>65.5</td>
</tr>
<tr>
<td>‘be thirsty’</td>
<td>113.5</td>
<td>69.5</td>
</tr>
<tr>
<td>‘be cold’</td>
<td>92.0</td>
<td>86.0</td>
</tr>
<tr>
<td>‘have a headache’</td>
<td>56.5</td>
<td>129.5</td>
</tr>
<tr>
<td><strong>Emotion predicates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘be glad’</td>
<td>114.0</td>
<td>106.0</td>
</tr>
<tr>
<td>‘be sorry’</td>
<td>83.0</td>
<td>101.0</td>
</tr>
<tr>
<td>‘like’</td>
<td>55.0</td>
<td>169.0</td>
</tr>
</tbody>
</table>

verb, 4 and 3 for increasing deviations from the prototype, e.g. adjectival constructions, reflexive verbs, prepositional object government, etc.). An ideal SAE language would thus have a score of 50:0 (10 × 5 scores for agent-like (“generalized”) experiencer constructions, none for object-like (“inverted”) experiencer constructions), but in fact most languages have a mixture (for instance, Portuguese has a score of 36:5, Norwegian has 42:5, English has 43:0). The most radical non-SAE language in Bossong’s sample is Lezgian, with a score of 0:46, but again the other languages show a mixture (Georgian 13:40, Russian 17.5:42, Icelandic 14:32). By arbitrarily dividing the languages into those showing predominant agent-like experiencers (ratios between 0.0 and 0.8) and those showing predominant dative/patient-like experiencers (ratios between 0.8 and 5.0), we arrive at the geographical tripartition shown in Figure 1. The languages in the center correspond fairly precisely to the Standard Average European Sprachbund (though the place of Turkish within the center is exceptional; with respect to other features, Turkish is clearly non-SAE).

After having seen the preferences of languages for one of the two main construction types across predicates, we can now use Bossong’s scores to determine the preferences of individual predicates across languages. The result of this count is given in Table 1, where I have given percentages in addition to the score sums.

Despite all the “noise” introduced by complicating factors, a clear picture emerges from Table 1. Cognition predicates show the strongest affinity with the
agent-like experiencer construction, while emotion predicates are the most likely to be expressed by an object-like experiencer construction, and sensation predicates (with the exception of ‘have a headache’) are intermediate between cognition and emotion. It is perhaps not surprising that cognition concepts, i.e. the more rational aspects of our mental life, should be assimilated most easily to the transitive prototype of volitional causation, while emotion concepts, i.e. the most irrational aspects of our experience, are the most likely to have the experiencer in object position. But it is unclear whether anyone could have predicted these results before looking at the data. And we should be cautious at this stage: The scores of Table 1 only reflect data from 40 European languages, and we must investigate experiencer constructions on a world-wide scale before we can be certain that the generalization is not caused by areal bias (however, since about half of the 40 languages are not SAE, their typological diversity is fairly great).

4. Non-canonical marking of experiencer predicates in SAE

After the general overview of experiencer predicates and constructions in the preceding section, let us now look in greater detail at the construction patterns that we find in SAE languages. In addition to the marking of the experiencer argument, which can be treated as either subject or direct/indirect object, we should also look briefly at the form of the verb and of the stimulus argument, which may be non-canonical as well.

A typical feature of SAE experiencer constructions is the use of the verb ‘have’, which indicates that the subject is not an agent but is affected by the situation (as in possessive constructions), e.g.

(18) a. French  *j'ai froid*  
    ‘I am cold’  
    [I have cold]

b. Spanish  *tengo hambre*  
    ‘I am hungry’  
    [I have hunger]

c. German  *hab Mitleid mit uns*  
    ‘have mercy upon us’  
    [have compassion with us]

d. Italian  *ho bisogno di te*  
    ‘I need you’  
    [I have need of you]

e. English  *I have a headache*
Another characteristic feature of SAE languages is the widespread use of grammaticalized reflexive pronouns in anticausative (or “middle”) constructions (cf. Haspelmath 1993b, 1998a). This is particularly common in emotion predicates of the type ‘be amused’, ‘be bored’, ‘be amazed’ (i.e. Levin’s 1993: 189 amuse verbs). For instance, in Italian we have pairs like *arrabbiare* ‘make angry’/ *arrabbiarsi* ‘get angry’, *divertire* ‘entertain’/ *divertirsi* ‘have fun’, etc. In addition, SAE languages typically have a resultative (or “stative passive”) form consisting of the copula plus the passive participle of these verbs, e.g. English *be amused, be bored*, etc. While English, which lacks anticasatives, only allows two constructions (*Stimulus Vs Experiencer* and *Experiencer is Ved prep Stimulus*), the other Germanic languages, the Romance and the Slavic languages very often have all three constructions: the transitive construction, the resultative construction, and the reflexive construction, e.g. German *begeistern* ‘fill with enthusiasm’, *begeistert sein von* ‘be enthusiastic about’, *sich begeistern für* ‘be enthusiastic about’. The preposition or oblique case governed by the reflexive or resultative verb is not predictable, and maybe different in the reflexive and resultative construction. Some examples from German, French and Polish are given in (19). As in other cases, English turns out to be a less typical SAE language in this respect.

<table>
<thead>
<tr>
<th>(19)</th>
<th>English</th>
<th>German</th>
<th>French</th>
<th>Polish</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. amaze</td>
<td>be amazed</td>
<td>verwundert sein (über)</td>
<td>être étonné</td>
<td>dziwić</td>
</tr>
<tr>
<td></td>
<td>(at)</td>
<td></td>
<td></td>
<td>być zdziwionym</td>
</tr>
<tr>
<td>b. interest</td>
<td>be interested</td>
<td>sich verwundern (über)</td>
<td>s’étonner (de)</td>
<td>dziwić się (DAT)</td>
</tr>
<tr>
<td></td>
<td>(in)</td>
<td>interessieren</td>
<td>intéresser (par)</td>
<td>interesować (byźainteresowanym)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sich interessiert sein</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(an)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>s’intéresser (à)</td>
<td>interesować się (INSTR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. (anger)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(be angry)</td>
<td>verärgert sein (über)</td>
<td>être fâché</td>
<td>być rozgniewanym</td>
</tr>
<tr>
<td></td>
<td>(get angry)</td>
<td>sich ärger (über)</td>
<td>se fâcher</td>
<td>gniewać</td>
</tr>
<tr>
<td>d. sadden</td>
<td>be sad(dened)</td>
<td>betrüben</td>
<td>être désolé</td>
<td>być znariwionym</td>
</tr>
<tr>
<td></td>
<td></td>
<td>betrübt sein (über)</td>
<td>se désolé (de)</td>
<td>martwić</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sich betrüben</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. worry</td>
<td>be worried (about)</td>
<td>beunruhigen</td>
<td>être préoccupé</td>
<td>być zaniepokojonym</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>se préoccuper</td>
<td>niepokoić</td>
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<td></td>
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</tbody>
</table>
There are some lexical idiosyncrasies and gaps in this array, but on the whole it shows a remarkable consistency and symmetry. There is a large number of further verbs in each language that display a comparable behavior. In some cases, cognition verbs also follow a similar pattern (e.g. Italian ricordarsi ‘remember’, cf. ricordare ‘remind’).

The structure of the predicates is relevant for argument marking because reflexive and resultative predicates are intransitive and thus cannot have direct-object marking of the stimulus argument. The stimulus is therefore marked by a preposition (mostly ‘about’, but also ‘of’, ‘with’, ‘at’, ‘in’) or an oblique case (e.g. dative or instrumental in Polish).

While the patient-like experiencer construction is very widespread in SAE languages and occurs with a large number of verbs, the dative-experiencer construction appears to be much more restricted in most of the languages. A list of emotion predicates taking dative experiencers in some languages is given in (20). There are not many more such verbs in each language (cf., e.g., Melis 1996: 53 for French).

(20) French Italian German Polish

| 'please (X)' | plaire | piacer | gefallen | podobać się |
| 'be useful (for X)' | servir, servire | servire | nützen, bekommen | nytzen, przydjąć się |
| 'be sufficient (for X)' | suffire | bastare | genügen | wystarczać |
| 'be harmful (for X)' | nuire | nuocere | schaden | szkodzić |
| 'be fitting (for X)' | convenir, aller | convenire, andare | passen | odpowiadać |
| 'I am sorry' | mi spiacere | es tut mir leid | żal mi |

Among sensation predicates, older German had cases such as mich hungert [me.acc hungry] ‘I am hungry’, mich friert [me.acc freezes] ‘I am cold’, but these are disappearing from the modern language. The dative is still found in adjectival constructions, e.g. mir ist schlecht ‘I am sick’, mir ist kalt ‘I am cold’. The Polish equivalents are, e.g., zimno mi [cold me.dat] ‘I am cold’, niedobrze mi [unwell me.dat] ‘I am sick’. In the Romance languages, sensation predicates occur with the agent-like experiencer construction.

Another small class of predicates that can be classified as experiential are modality predicates, i.e. predicates of possibility (‘can’, ‘may’) and belonging. These show dative experiencers in a few cases:
Finally, a few verbs of propositional attitude take dative experiencers (e.g. *seem*, French *sembler*, Italian *sembrare*, German *scheinen*, Polish *wydawać się*), as well as some verbs of happening (e.g. German *mir passiert* X ‘X happens to me’, Italian *X mi succede*, French *X m’arrive*).

Several of the dative-experiencer predicates just considered have (near-) equivalents with agent-like experiencers in the same language or in a closely related language. Sometimes the stimulus is then marked non-canonically, especially by genitive case or a genitive preposition. Some examples of this phenomenon are given in (22).1

(22) a. Italian  
   S manca a E  
   ‘E lacks S’  
   E manca di E

b. German  
   Snom fehlt/mangelt E_dat  
   ‘E lacks S’  
   Enom erlangt S_gen

c. Polish  
   Sgen trzeba E_dat  
   ‘E needs S’  
   Enom potrzebuje S_gen

d. French  
   S profite à E  
   ‘S benefits E’  
   E profite de S

e. Spanish  
   S gusta a E  
   (Portuguese: ) E gosta de S  
   ‘E likes S’

5. Behavioral properties of dative experiencers

So far in this paper we have primarily looked at the marking patterns of some special predicate classes (especially experiencer predicates) which deviate from those of prototypical action verbs, i.e. volitional causative verbs (cf. Croft 1991). But do these represent cases of non-canonical marking of S, A, and O? This depends on how one analyzes a sentence like German *Mir gefällt das Buch!/Italian *Mi piace il libro* ‘I like the book’. One possibility is that the dative
experiencer is A and the nominative stimulus is O. On this analysis, our languages would show non-canonical marking of both A (which normally is not in the dative case) and O (which normally is not in the nominative case or controls verb agreement). Another possibility is that dative-experiencer constructions are not analyzed as transitive clauses, but as extended intransitive clauses, and that the experiencer argument corresponds to the E argument of Onishi (this volume). Most linguists would make the choice among these alternatives dependent on the behavior of the experiencer and stimulus arguments with respect to a set of “behavioral subject properties”, i.e. the behavior in special contexts such as complement-clauses with implicit subject, valency-changing derivations, imperatives, control of reflexive pronouns, and various interclausal switch-reference conditions.

Unfortunately, in the case of European languages, many of these tests are often inapplicable, and others give inconclusive results. On balance it seems that dative-experiencer constructions should be regarded as intransitive, i.e. not as “dative-subject constructions” (cf. also Dixon’s 1994: 122 view on German). However, it is still interesting to examine the evidence. If one admits only two possibilities—either transitive (A/O), or intransitive (S/E)—then the results of this section might appear problematic. However, if one allows the possibility of intermediate stages between intransitive and transitive, then languages can be seen as occupying a particular point on the continuous transitive–intransitive scale.

Let us now examine the individual subject properties.

5.1 Word order

Most SAE languages show the basic clausal constituent order AVO (for transitive clauses) and SVE (for extended intransitive clauses). In strictly configurational languages, this word order is changed only in highly special circumstances. However, English is not a typical SAE language, and few SAE languages are as strictly configurational as English. Thus, it is not surprising that Italian and Greek, for instance, allow both stimulus-experiencer word order and experiencer-stimulus order, as can be seen in (23–24)(a–b). (The situation is very similar in German and probably in other SAE languages as well.)
(23) Italian
a. *La sua nuova bici piace a Livia.*
   ‘Her new bike pleases Livia.’
b. *Livia piace la sua nuova bici.*
   ‘Livia likes her new bike.’

(24) Modern Greek (Anagnostopoulou 1999: 69)
a. *To krasí tu arési tu Pétru.*
   ‘The wine pleases Petros.’
b. *Tu Pétru tu arési to krasí.*
   ‘Petros likes the wine.’

The fact that the (b) sentences show a relatively usual, unmarked word order might serve as an argument that this construction represents a transitive AVO construction, but under such a view the order in the (a) sentences is difficult to account for. If we start from the (diachronically primary) SVE analysis, then the order in the (b) sentences could be attributed to the topical/animate nature of the experiencer argument. However, non-experiential verbs do not allow both word orders as unmarked orders, even when the $S$ argument is inanimate and the $E$ argument is animate, as shown in (25b) for Italian.

(25) a. * Questa statua somiglia a Cleopatra.*
    b. (marked:) *A Cleopatra somiglia questa statua.*

Thus, experiential predicates seem to constitute a class of their own with respect to word order, intermediate between normal extended intransitive and transitive verbs.

5.2 Implicit argument in complement clauses to modal and phasal predicates

This criterion is clearly fulfilled by a dative-subject language like Lezgian (Haspelmith 1993a), but it is clearly not fulfilled in SAE languages. Example (26a) shows an impeccable Lezgian example with the dative-experiencer verb *akun* ‘see’, and (26b–c) show two totally ungrammatical SAE examples with the dative-experiencer verb ‘like’.

(26) a. Lezgian (Haspelmith 1993a: 296)
   *Gadadi-z Ø ruš akwa-z k’an-zawa.*
   boy-DAT [Ø(DAT) girl(ABS) see-INF] want-IMPF
   ‘The boy wants to see the girl.’
Thus, this is an argument in favor of the subject status of the experiencer in Lezgian, but against its subject status in SAE languages.

### 5.3 Valency-changing derivations

The problem with this criterion is that dative-experiencer constructions are stative and non-volitional, and predicates of this semantic type are generally difficult to passivize and to causativize, so we can hardly draw any conclusions from the fact that dative-experiencer verbs in SAE languages cannot be passivized and are difficult to causativize.

However, at least in German causativization is marginally possible, and in these constructions it is clearly the stimulus argument that appears as the O of the causative predicate (cf. 27a). Sentences in which the experiencer is treated as the O (as in 27b) are completely ungrammatical.

(27) a. *Gott ließ ihm seinen Auftrag gelingen.
   ‘God made him succeed in his task.’

b. *Gott ließ ihm seinen Auftrag gelingen.

If we assume that the O status in a derived causative construction is an argument for A status in the basic construction, then the difference between (27a) and (27b) can serve as an argument against the A status of the experiencer argument.

### 5.4 Imperatives

In Lezgian, dative-subject verbs such as akun ‘see’ allow the dative subject to be the imperative addressee, e.g. akut ‘see!’ (Haspelmath 1993a: 283). In SAE languages, this is completely impossible. It is unclear to what extent this can be regarded as an argument for the non-subject status of the experiencer, because stative non-volitional predicates generally cannot be used in the imperative.
5.5 Control of reflexive pronouns

In the simplest case, i.e. in sentences like ‘Anna likes herself’, it is clearly the stimulus, not the experiencer, that controls reflexivization:

(28) a. Italian
   *Anna piace a sé stessa.*
   ‘Anna likes herself.’

b. Polish
   *Anna* _nom_ *się podoba sobie* _dativ_.
   ‘Anna likes herself.’

c. German
   *Anna* _nom_ *gefällt sich* _dativ_.
   ‘Anna likes herself.’

The reverse pattern, which we find, e.g., in Lezgian (Hасpelmath 1993a: 409), is completely impossible in SAE—in case-marking languages it is not even possible to construct examples with a dative experiencer controlling a reflexivized nominative stimulus, because they lack nominative forms of reflexive pronouns.

However, with those few verbs that have a dative experiencer and an oblique stimulus argument, the dative experiencer may control reflexivization in German (cf. Seefranz-Montag 1983: 167):

(29) a. *Peter* _dativ_ *graut vor sich selbst.*
   ‘Peter is horrified at himself.’

b. *Meiner Tante* _dativ_ *liegt an sich selbst.*
   ‘My aunt is interested in herself.’

And when the reflexive pronoun is the possessor of the stimulus argument, the experiencer argument may control it (this cannot be illustrated from German or French, because these languages do not have a reflexive/non-reflexive distinction in possessive pronouns):

(30) a. Italian (Belletti and Rizzi 1988: 315)
   *I propri, genitori gli, sembrano i più simpatici.*
   ‘His own parents seem to him the nicest.’

b. Polish
   *Mojemu przyjacielu, się udał swój, największy sukces.*
   ‘My friend had his biggest success.’
These facts could be taken as an argument that the experiencer is a subject at least at some level of analysis (cf. Perlmutter 1983, who takes the dative experiencer to be an underlying ("initial") subject that is demoted to indirect-object status at a later level of representation). But it seems to me that the facts of reflexivization do not carry as much weight as they have sometimes been given. Notice that the direct-object experiencer may show the same kind of reflexive control, also in English:

(31) a. Italian (Belletti and Rizzi 1988: 312)
   *Questi pettegolezzi su di sé, preoccupano Gianni, più di ogni altra cosa.*
   ‘These gossips about himself worry Gianni more than anything else.’

b. Polish
   *Te pogłoski o siebie, niepokoję Jana, więcej niż co kolwiek innego.*
   ‘These gossips about himself worry Jan more than anything else.’

c. English
   *Pictures of himself, worry John.*

To account for these cases, one might propose that the experiencer in patient-like experiencer verbs, too, is a subject at an underlying level (see Cresti 1990 for this approach). But in addition, experiencers may serve as antecedents of reflexives even if they are marked with a preposition rather than with dative case, as in (32) (Belletti and Rizzi 1988: 316). Presumably nobody would advocate a subject analysis of the English to-experiencer in (32).

(32) *Replicants of themselves, seemed to the boys, to be ugly.*

These data make it quite doubtful whether reflexive control should be associated with subject status at all. Perhaps an analysis in terms of semantic and/or pragmatic properties of the controlling argument is more realistic.

5.6 Interclausal coreference restrictions

The final criterion to be considered here is the phenomenon of pivot constraints in looser clause combinations such as coordination and adverbial subordination. In coordination, this criterion is clearly negative: Sentences like German *Gabriel, gefielen die Blumen und kaufte sie* (‘Gabriel liked the flowers and bought them’) are always ungrammatical in SAE languages.

However, the situation is more complex in converbal and infinitival adver-
bial clauses, which typically have an implicit (= non-expressed) subject controlled by an argument of the superordinate verb. Often there are restrictions on this control relation such that the subject, but not the direct object of the superordinate clause may be the controller, cf. (33) from German. (In the examples of this subsection, the implicit subject of the adverbial clause is indicated by Ø with a referential index.)

(33)  
Schulz, rief seine Chefïn, an, um Øi/*j die Ankunftszeit mitzuteilen.  
‘Schulz called up his boss to tell (her) the time of arrival.’

When the superordinate clause contains an experiential predicate with a dative experiencer, the dative argument may be the controller as well as the nominative argument.

(34)  
a.  
Diese Blumen gefallen mir, zu gut, um Øi* zu kaufen.  
‘I like these flowers too much not to buy them.’

b.  
Diese Blumen, gefallen mir gut, ohne Øi mich zu begeistern.  
‘I like these flowers a lot, but I am not crazy about them.’

Similar patterns can be found in other languages. (35a–b) shows French converbal clauses (Legendre 1990: 111), and (36a–b) shows Italian infinitival clauses (Perlmutter 1983).

(35)  
a.  
Cette femme, lui plaît [tout en Øi, ne correspondant pas tout à fait à son idéal féminin].  
‘This woman is pleasing to him while not corresponding exactly to his feminine ideal.’

b.  
Que la France lui, plaise [tout en Øi, n’y ayant jamais mis les pieds], toi, ça te surprend?  
‘That France is pleasing to him without ever having set foot there, is it surprising to you?’

(36)  
a.  
Giorgio, mi pareva talmente nervoso da Ø, non poter dormire.  
‘Giorgio seemed so nervous to me that he was unable to sleep.’

b.  
Giorgio mi, pareva tanto nervoso da Ø, volerlo far visitare da uno specialista.  
‘Giorgio seemed so nervous to me that I wanted to have him examined by a specialist.’

For (37) from Modern Greek, Anagnostopoulou (1999: 70) reports that only the
experimenter may be the controller, but probably examples analogous to (35a) and (36a) can also be constructed.

(37)  \[\text{Akúghondas } \Omega_3^a \text{ tin istoría}, \text{ tis Mariás}\]

hearing the story the Mary.DAT

árxise na min tis arési o Pétros.

began sbjv not her.DAT pleases the Petros.NOM

‘While she was listening to the story, Maria started not liking Petros.’

A Polish example of a dative experimenter controlling an implicit converb subject is cited by Weiss (1977: 280):

(38)  \(\Omega_i\)Śluchaj/aogonek2 cg o, wstyd mi \(i\) było za niego.

‘Listening to him, I felt ashamed for him.’

The situation in English is discussed in detail by Kortmann (1991), cf. the following example:

(39)  \(\Omega_i\) It has seemed to me, lately, \(\Omega_1\) watching you with a father’s eye, that you have shown signs of being attracted by Algernon Fripp.

Particularly within Relational Grammar (e.g. Perlmutter 1983, Legendre 1990, Cresti 1990), these control possibilities have been taken as evidence for subject status (at least at some level) of the experimenter argument. But the problem with this criterion is that the conditions seem to be much more complex, and pragmatic considerations of discourse salience seem to be relevant in most languages as well. For instance, Cresti (1990: 75) notes that the dative experiencer in Italian must be preverbal to be able to control the implicit infinitival subject, so that (40b), where the experiencer (a mio marito) is postverbal, is ungrammatical, unlike (40a).

(40)  a. \(A\ mio marito, è talmente piaciuta una compagna d’ufficio da \(\Omega_1\), lasciarci tutti quanti e andare a vivere con lei.

‘My husband liked an office colleague so much that he left us all and went away to live with her.’

b. *Una compagna d’ufficio è talmente piaciuta a mio marito, da \(\Omega_1\), lasciarci tutti quanti e andare a vivere con lei.

‘An office colleague was so pleasing to my husband that he left us all and went away to live with her.’

This word order difference is presumably relevant because only the preverbal
experiencer is sufficiently topical, and topicality is a requirement for control. When the right semantic-pragmatic conditions are present, even participants that are not even core arguments of the superordinate verb may be controllers, as in Kortmann’s (1991: 43) English example Ø, Looking out for a theme, several crossed his, mind. The issue of implicit-subject control is discussed for converbal constructions in Haspelmath (1995: 29–37), where it is shown that simple syntactic conditions are in general insufficient. Thus, it is difficult to derive an argument for the subject status of the experiencer from these data.

Let us now summarize this section on behavioral properties of the dative experiencer: Dative experiencers in SAE languages do not behave as subjects with respect to the three criteria of (i) implicit argument of complement clauses, (ii) valency-changing derivations, (iii) imperatives, but these tests are difficult to apply because they require a volitional, or at least non-stative, predicate. The criteria of (iv) reflexive control, and (v) interclausal implicit-subject control give mixed results, but it is quite doubtful whether these can be employed as tests for subject status, because the conditions seem to involve crucially pragmatic factors (at present ill-understood) such as discourse salience. Thus, it seems clear that clauses with dative experiencers in SAE languages cannot be regarded as transitive clauses with non-canonically marked A and O, but must be considered as extended intransitive clauses with canonically marked S and E.

However, there is a diachronic tendency for intransitive S-E clauses to change into transitive A-O clauses, which is very relevant in this context. This will be the topic of the next section.

6. From oblique experiencer to non-canonically marked S/A

While dative experiencers in modern SAE languages exhibit few (if any) behavioral subject properties, it might well be that they will acquire some in the future. There is a well-established diachronic tendency for oblique experiencer arguments to acquire behavioral subject properties, which has been described for various languages by Cole et al. (1980). The best-documented language in which this change has been attested is English (cf. Allen (1995) for a comprehensive treatment). Below I will briefly summarize the facts of English, before presenting some new data that suggest that a very similar change is currently ongoing in another European language, Maltese.

Old English had a fairly large number of experiential verbs with non-standard
case-marking patterns, some of which are listed in (41) together with their modern English equivalents (cf. Allen 1995: 68–85 for complete lists).

(41)  

<table>
<thead>
<tr>
<th>hyngrian</th>
<th>feel hunger</th>
<th>lystan</th>
<th>wish</th>
</tr>
</thead>
<tbody>
<tr>
<td>langian</td>
<td>long</td>
<td>eglian</td>
<td>bother, ail</td>
</tr>
<tr>
<td>lician</td>
<td>like</td>
<td>laþian</td>
<td>feel loathing</td>
</tr>
<tr>
<td>þyncan</td>
<td>think</td>
<td>ofhreowan</td>
<td>feel pity, regret</td>
</tr>
</tbody>
</table>

There were a number of different case-marking patterns, but in the present context we are only interested in those verbs that show dative- or accusative-marked experiencers (the stimulus was variously coded in the nominative or genitive). Two examples are given in (42) (cited from Allen 1995: 68 and Harris and Campbell 1995: 83).

(42)  

a.  
\[ \text{he.dat felt.sorry the.gen man.gen} \]

‘He felt sorry for the man.’ (Ælc. Th. I. p. 192.16)

b.  
\[ \text{the.dat woman.dat those.nom words.nom well liked.3pl} \]

‘The woman (dat) liked those words (nom) well.’ (Beowulf 639)

By the time of late Middle English, most of these verbs had either disappeared from the language or undergone a drastic change in the grammatical relations and marking patterns: In Modern English, verbs such as like, loathe, long, think, rue occur primarily with a (‘‘nominative’’) subject experiencer. A traditional popular explanation of this change invokes reanalysis due to surface ambiguities that arose after case distinctions had been reduced in Middle English (schematically: the wife\textsubscript{dat} liked\textsubscript{sg} the words\textsubscript{nom} is reanalyzed as the wife\textsubscript{subj} liked\textsubscript{sg} the words\textsubscript{obj} (e.g., Van der Gaaf 1904, Lightfoot 1979, Harris and Campbell 1995, among many others).

However, the change certainly did not happen as abruptly as is suggested by the reanalysis scenario. On the contrary, Allen’s (1995) thorough study confirms Cole et al.’s (1980) view according to which we have here a gradual change starting with original experiencers lacking subject properties, which gradually acquire behavioral subject properties and finally even coding properties such as case-marking and agreement. Allen (1995: 442) writes: ‘‘. . . such evidence as is available suggests that the preposed accusative and dative Experiencers of the Experiencer verbs played the role of subject, rather than object, even in Old English, and the evidence becomes stronger in Middle
English.” For example, the accusative experiencer of hunger could be omitted in coordinate constructions, as in (43) from Middle English (cited from Seefranz-Montag 1983: 133).

(43)  
I wat at þou has fasted lang and Øi hungres nu.
I know that you have fasted long and Ø(acc) hungers now
‘I know that you have fasted for a long time and are now hungry.’
(14th c., Curs. Mundi 12943)

Seefranz-Montag (1983: 132–4) mentions quite a few further behavioral subject properties which experiential constructions displayed already in older English at a time when the case-marking and agreement showed few traces of subject behavior of the experiencer. Thus, older English experiencer constructions are good examples of non-canonically marked A-O constructions which had presumably arisen from earlier S-E constructions. After acquiring behavioral subject properties, the experiencer argument gradually acquired coding properties of subjects as well, i.e. nominative case and triggering verb agreement. We find examples such as (44)–(45) (cited from Harris and Campbell 1995: 85), in which the experiencer does not have all the coding properties yet (only nominative case-marking in (44), only agreement in (45)). These show that the change is a gradual one, not an all-or-nothing reanalysis (cf. also Haspelmath 1998b).

(44)  
Preieþ þanne first for þouresilf as ze þenkip moost spedeful.
‘Pray for yourself as you (nom!) think (3sg!) most beneficial.’
(The Chastising of God’s Children 224, 20)

(45)  
Sum men þat han suche likynge wondren what hem ailen.
‘Some men who have such pleasure wonder what ails (3pl!) them (dat1).’ (The Chastising of God’s Children 103, 15)

In Maltese, an offshoot of Arabic that has been in close contact with European languages (Sicilian, Italian, English) for many centuries, a similar change appears to be going on at present. Verbs like irnexxielu ‘regret’ were originally dative-experiencer verbs of the SAE type, and at one time a sentence such as (46) must have been possible (the star in front of (46) can be taken to mean ‘reconstructed’).

(46)  
*Irnexxa l-it-ti afla t-itfa’ il-ballun.
succeed.pf.3sg to-the-girl [she-throw.ip the-ball]
‘The girl managed to throw the ball.’
In contemporary Maltese, however, this sentence is completely impossible (so the star can also be taken to mean "ungrammatical"). The experiencer argument must precede the verb, and the verb must show a suffixed indirect-object marker agreeing with the experiencer in person/number/gender, as in (47). This is thus a kind of left-dislocation construction which has become obligatory.4

(47) \[ L\text{-}it\text{-}tifla\text{ rmxie\text{-}lha\text{ titfa'}\text{ il-ballun}}. \]
    to\text{-}the\text{-}girl\ succeed\text{-}PF\text{ to\text{-}her\ [she\-throw\text{-}1P\ the\text{-}ball]} \]
    ‘The girl managed to throw the ball.’

Now there are signs that the preverbal experiencer is acquiring subject status, i.e. that the construction is gradually shifting from an intransitive S-E structure to a transitive A-O structure with non-canonical marking. Most importantly, the dative case-marking of the preverbal experiencer is not obligatory, and we may have nominative case as well, so that (48) is a perfectly acceptable alternative to (47).

(48) \[ It\text{-}tifla\text{ rmxie\text{-}lha\ text{-}titfa’\ il\text{-}ballun}. \]
    the\text{-}girl\ succeed\text{-}PF\text{ to\text{-}her\ [she\-throw\text{-}1P\ the\text{-}ball]} \]
    ‘The girl managed to throw the ball.’

The experiencer argument does not have all the behavioral properties of subjects yet (cf. Haspelmath and Caruana to appear for details). But there is little doubt that what we see here in Maltese is not unlike the change that has been described for Middle English and other languages, i.e. from a non-subject experiencer to a subject experiencer. This is not a change which happens through cataclysmic reanalysis (pace Lightfoot 1979), but a gradual change in which the experiencer acquires subject properties (both behavioral and coding) one at a time. This kind of gradual change in grammatical relation is surprising in some frameworks, but it fits well into a theory in which grammatical relations are not a set of given fixed points, but prototypical clusterings of diverse features (Givón 1997, Croft 2001).

Onishi (this volume) asks “how canonically marked markings have developed from non-canonically marked markings, and, possibly, vice versa”. The general mechanism seems to be the following: The experiencer is increasingly placed in topic position because it refers to a definite human participant, and since most human topics are subjects, it is gradually assimilated to subjects with respect to its morphosyntactic behavior. The reverse change is impossible because there is no motivation for putting an experiencer subject in a non-topical
position, or a stimulus object into a topical position. But why do experiencers appear in non-subject positions in the first place? The reason is simple: Experiential verbs normally arise metaphorically from concrete verbs, e.g. verbs of motion or physical force transmission, e.g. English *worry* < ‘strangle, seize by the throat’, *preoccupy* < ‘seize beforehand’, *stun* < ‘deprive of consciousness with a blow’, *fascinate* < ‘cast a spell over’. These were originally used as normal transitive verbs with human agentive subjects, but once the metaphorical sense becomes more frequent than the literal sense (and ultimately the literal sense gets lost), the tendency for the experiencer to acquire subject properties will assert itself, eventually resulting in non-canonical subject marking. Since concrete meanings commonly turn into abstract experiential meanings but not vice versa, the process is unidirectional.

7. Conclusion

In this paper I have examined possible cases of non-canonical argument marking in Standard Average European languages. As I noted in §2, non-canonical marking of core arguments occurs in three kinds of circumstances: (i) reference-related, (ii) clause-related, and (iii) predicate-related. While European languages do exhibit a fair amount of non-canonical marking under the first two types of conditions, I conclude that they do not show a great amount of predicate-related non-canonical marking. On the one hand, SAE languages tend to be reference-dominated, i.e. their subject-object relations are not determined so much by semantic roles as by topicality and related pragmatic factors. That is, many verbs which are non-cannically marked in other languages are simply canonically-marked transitive verbs in these languages, e.g. English *have, need, like*, etc. (In this they contrast both with their western and their eastern neighbors.)

On the other hand, dative experiencers generally do not show a large number of subject properties in these languages, so that clauses with dative experiencers cannot be regarded as transitive, and experiencer clauses do not count as non-canonical marked. However, the detailed discussion of possible subject criteria in §5 has shown that European dative-experiencer arguments are not completely unlike “dative subjects” either, because they tend to behave like subjects with respect to word order, reflexivization, and interclausal coreference in non-finite adverbial clauses. Diachronically, there is a clear tendency for dative experiencers to turn into (non-cannically marked) subjects. If we
conceive of grammatical relations as continua rather than given fixed points, then European languages clearly contribute to the typology of non-canonical marking, even though such view of grammatical relations also means that the concept of non-canonical marking itself becomes less sharp.

Notes

1. Polish and German, the languages that have retained the old Indo-European genitive case, also show this genitive in verbs such as Polish *oczekiwać* 'expect', *chcieć* 'want', *pragnąć* 'wish for', German *harren* 'wait for'. The following abbreviations are used: **abs** = absolute; **acc** = accusative; **art** = article; **cop** = copula; **dat** = dative; **gen** = genitive; **f** = feminine; **imf** = imperfect; **inf** = infinitive; **instr** = instrumental; **ip** = immediate past; **neg** = negation; **nom** = nominative; **pf** = perfect; **pl** = plural; **pres** = present; **prev** = preverb; **ptv** = partitive; **subj** = subjunctive; **sg** = singular.

2. The same issue arises with respect to the “interaction verbs” that were mentioned in §2 (cf. (10)). For these verbs, it is even more difficult to say whether the dative argument is an E or an O because languages generally have far fewer O-properties than A-properties.

3. A converb is a non-finite form specialized for adverbial subordination. Language-particular terms for converbs are “gerund” (Romance linguistics), “adverbial participle” (Slavic linguistics), “absolutive”, “conjunctive participle” (Indian linguistics), and others. See Haspelmath and König (1995) for a detailed cross-linguistic treatment of converbs.

4. The obligatoriness of the construction is reflected in the fact that the morphological form *imexxa* does not occur, at least not as a form of this lexeme—indirect-object agreement is also morphologically obligatory.

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Noncanonical A/S marking in Icelandic

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Non-canonically marked (non-nominative) A/S in Modern Icelandic are unusual in at least two respects. One is the extremely large number of pivot properties they possess. In many languages, there are only two or three grammatical properties singling out A/S or any other kind of grammatical pivot, and sometimes none at all (Dixon 1994: 29–35). But in Icelandic, the last 20 years of research have turned up at least 13 distinct grammatical properties that group non-canonically marked A/S with regular nominatively case-marked ones, an unusually large number. The other is what one can call their ‘lexicality’: they clearly involve a capacity of verbs to idiosyncratically specify a specific case on some argument, rather than either invariant relations between cases and semantic roles, or clause-level constructions that mandate specific case-frames (Davies 1988).

In the first section I will present a few of the criteria for identifying noncanonical A/S in Icelandic, and make a suggestion as to why they are found in Icelandic but not, it would appear, in the related language German, which is similar in many respects (but different in one that is very important, I propose). In the second section I will discuss their lexicality, and some consequent issues. Finally, in the third section I will consider some implications for the notions of A, S and O, arguing that while A and O seem well-supported as cognitive prototypes that receive consistent expression in the grammatical structures of languages, the status of S is less certain.
1. Motivation for ‘non-nominative subjects’

Icelandic is somewhat unusual in having a reasonably rich case-marking system, with inflectionally marked Nominative, Accusative, Genitive and Dative cases, together with a system of word-order which, although more flexible than that of English, seems to be substantially constrained by grammatical relations.

1.1 Canonical A/S (Subjects)

The usual case for A and S is nominative, and for O accusative. A/S group together opposed to O and other grammatical functions with respect to a very wide range of grammatical phenomena in addition to case-marking. The most obvious are agreement (A/S agree with main clause verbs in person and number), and word-order. Although Icelandic would be traditionally described as having ‘SVOX’ (A/SVOX) basic word order, this basic option is supplemented by an extremely complex system of variants, which has been the subject of much recent work within the GB/Minimalist framework, recently surveyed by Jónsson (1996), with further interesting discussion by Thráinsson and Bobaljik (1998). One of these variants is ‘inverted’ word-order, where some constituent (almost anything, but especially place and time adverbials) is preposed to initial position, and the verb goes second followed by A/S, yielding a PA/SVOX pattern, where ‘P’ represents the preposed constituent (this is traditionally referred to as a ‘topicalization’, although its actual discourse function is elusive, and has not been adequately described):

(1) a. *Einu sinni í fyrndinni bjó ríkur bóni í Síðumúla í Hvítársíðu.*
   ‘Once upon a time in the old days there lived a rich farmer at Sidhumula in Hvitarsidha.’

b. *Hann átti dóttur eina vaena.*
   ‘He had a good-looking daughter.’

Although the ability to put almost anything first in inverted word order provides considerable flexibility, the possibilities are still constrained. For example AOV
order doesn’t seem to occur in texts, and is rejected by informants as ungrammatical.

Another major variant is that an indefinite A/S\(^1\) can be placed after the verb, with the initial position occupied by the expletive það:

\[
(2) \quad \text{það saw many this film} \\
\text{‘Many people saw this film.’}
\]

An especially informative variant of these word-orders is when there is an auxiliary verb. Then, in the normal inverted order, the auxiliary comes in second position (after the preposed constituent), then the A/S argument, and then the main verb, followed by objects and other constituents.\(^2\) So in these constructions, A/S are distinguished from O in that only the former can appear preverbally (they can also appear after the main verb, as we will discuss later):

\[
(3) \quad \text{það have many seen this film} \\
\text{‘Many people have seen this film.’} \\
*\text{það have many seen this film}
\]

In addition to this order-based distinction, there are very many more properties picking out S/A and opposing them to O, extensively discussed in the literature on ‘oblique subjects’, to which we now turn.

1.2 ‘Oblique subjects’

In addition to ‘canonical’ verbs with an ordinary nominative A/S argument, Icelandic has a considerable variety of verbs with either no nominative argument, or with one that seems to appear in a non-A/S position in the word-order, after the verb. In place of the expected nominative in preverbal position, an oblique nominal is usually found instead (there are also however verbs which take no preverbal nominal at all). To avoid prejudging what these obliques are, they are sometimes called ‘preverbal oblique nominals’ (PVONs).

PVONs are found with verbs with either or two arguments, in a substantial variety of case-frames, illustrated below:
The first set of examples shows the three possibilities for one-argument verbs. (a) and (b) are quite common, with quite a number of verbs taking dative and accusative sole arguments, while (c) is much more restricted: of basic lexical verbs only geta and geta ‘be mentioned’ appear to take a genitive sole argument (Sigurdhsson 1989: 201). In the second set of examples are two-argument verbs with either no nominative or one in postverbal rather than preverbal position. The A–A pattern of (a) is somewhat restricted, appearing with a number of verbs of lacking and a few others, while the D–N pattern of (b) is extremely common. A–G and A–N are on the other hand extremely rare, occurring with these verbs alone as far as I know (Yip, Maling and Jackendoff 1987: 230). The pattern of (d) appears furthermore to be idiomatic, so that A–N is not a productive pattern with free choice of preverbal accusative and postverbal nominative.

Although the preverbal obliques in these examples are appearing in a position that is appropriate for subjects, this fact alone is not very impressive, because
on the basis of the word-order in these simple examples alone, they could also
be some kind of object, appearing initially in an inverted word-order construc-
tion like those of (1a). But there is a truly remarkable range of evidence that
these PVONs are in some sense subjects. Andrews (1976) adduced four argu-
ments; by the time of Zaenen et al. (1985) there were eight, Sigurdhsson (1989)
brought the total to eleven, while Jónsson (1996) adds two more to give a grand
total of thirteen known to me at the moment. There is no reason to believe that
there aren’t more. I am not aware of any other area in grammatical theory where
there has been such a relentless accumulation of evidence for a non-obvious
point of analysis. Since the subject-status of these PVONs has been discussed
so extensively in the literature, I will here present only three of the many argu-
ments that have been presented, from word order, obligatory subject omission,
and reflexivization.

The word-order argument is based on the fact that when an auxiliary is pres-
ent in the inverted and subject-postposing orders, the preverbal oblique
nominals appear after it and before the main verb, just like ordinary nominative
A/S, and unlike accusative O:

(6) a. það hefur einhverjum þótt Ólafur leiðinlegur.
    it has someone:DAT found Olaf:Nom boring.
    ‘Someone found Olaf boring.’

b. Ólafur hefur henni alltaf þótt leiðinlegur.
    Olaf:Nom has her:DAT always found boring
    ‘She has always found Olaf boring.’

Sentence (6a) has an expletive in the normal subject position, while (b) has the
nominative topicalized and the dative in the position between the auxiliary and
the main verb, a position forbidden to ordinary objects. The Experiencer dative
in these examples can appear in the regular subject position between the auxil-
iary and the main verb, while the Object-of-experience nominative cannot, in
spite of its case-marking. So the grammatical behavior is treating the dative
like an A/S, and the nominative like an O. Sentences showing this phenome-
on don’t seem to be all that common in Icelandic writing at least, but it is
possible to find them, such as the following from Thorsteinsson (1965: 102)
(the search started on p. 7, the first page of real text, but I could have missed
some in between):
Here the conditional clause is triggering inversion of the auxiliary around that dative subject (which is a promoted dative object of a passivized verb).

The next evidence I will present comes from infinitives. Icelandic infinitives obey a very strong regularity that can be formulated by saying that their subjects are always omitted: there is nothing like the for-to construction of English. For verbs with ordinary default case-marking, this omitted argument is simply the nominative, but for verbs with preverbal obliques, it’s the preverbal oblique that is suppressed:

(8) a. Ég vonast til að vanta ekkki peninga.
   ‘I hope toward to lack not money’
   (I hope not to lack money.)
   b. Jón vonast til að líka þessi bók.
   John:nom hopes toward to like this book
   ‘John hopes to like this book.’

Note especially that in (b) it is the nominative argument that survives in the clause, with the Experiencer suppressed, which would be dative in a main clause:

(9) Jóni líkar þessi bók.
    John:dat likes this book:nom
    ‘John likes this book.’

It worth pointing out that infinitives with missing preverbal obliques are extremely rare in texts (in reading five novels, I only found one), and somewhat impaired in acceptability, relative to those with missing non-controversial nominative subjects. Being somewhat uneasy about their status, I did some questionnaire work (Andrews 1990), and they seemed to come up unequivocally acceptable. Many Icelandic native speaker linguists have also written on the topic and found them to be acceptable.

The final argument I will consider here is based on reflexivization. For many
speakers, the antecedent of a reflexive pronoun must be a subject (some speakers have exceptions to this), while there is also a very solid regularity that a non-nominative third person pronoun coreferential to the subject of its clause must be reflexive:

(10) a. Sigga barði mig með dúkunni sinni/*hennar.
    Sigga:nom hit me:acc with doll self’s/her
    ‘Sigga, hit me with her, doll.’
    (Hennar OK if not referring to Sigga)

b. Ég barði Siggu með dúkunni hennari/*sinni.
    I:nom hit Sigga:acc with doll her/*self’s
    ‘I hit Siggai with heri doll.’

c. Siggu barði ég með dúkunni hennari/*sinni
    Sigga:acc hit I with doll her/*self’s

The (c)-example shows that putting the O into initial position makes no difference for Reflexivization.

Dative PVONs then are seen to behave like subjects in requiring third person pronouns in their clauses to be reflexive:

(11) Henni þykir bróðir sinni/*hennar leiðinlegur.
    her:dat thinks brother:nom self’s/her boring
    ‘Shei findsher i brother boring.’
    (Hennar OK if it refersto a different pers on than henni)

One significant feature of the construction above is while several of the two-argument verbs with PVONs have a typically animate and a typically inanimate argument, with the animate coming first, with the construction above it is quite common for both arguments to be animate; however the Experiencer still regularly comes first. Treating these PVONs as subjects explains these and many other of the properties they have been found to have.

Icelandic makes an interesting contrast with German. It has often been pointed out that German has sentences which look like they might involve non-nominative subjects:

    me:acc hungers
    ‘I’m hungry.’
However, as discussed most recently by Jónsson (1996: 127–8), in these German constructions the PVONs fail all known tests for being subjects (and German word-order rules as presently understood will put them into their initial position regardless of whether they are subjects or not). Since German and Icelandic share a common origin and various typological similarities (such as flexible word order, frequent preposing of topics, a four-case system), it is an interesting question why they seem to differ with respect to oblique subjects.

I suggest that it might be a matter of basic word-order. Icelandic is basically an SVO language, where auxiliaries can move forward to bracket a subject between themselves and a main verb. German on the other hand seems to be an SOV language where the topmost verb moves into second position, giving word-order contrasts such as these:

(13) a. German: *Ich habe den Mann gesehen.*
   I have the:ACC man seen
   ‘I have seen the man.’

b. Icelandic: *Ég hef séð karlmanninn.*
   I have seen the man
   ‘I have seen the man.’

The overt word-orders of German clauses thus provide no clear motivation for oblique subjects, since the final position of the verb when an auxiliary is present doesn’t provide subjects with a position that is discernably different from that of objects. And while examples illustrating the appearance of PVONs in this position, such as (7), are not immensely common, it certainly does not require heroic measures to find them.3

Therefore I conjecture that in Icelandic, the overt word-order patterns provide the basic evidence to learners that PVONs are subjects, causing them to acquire grammars which impart to the PVONs a wide range of subject-properties, many of which would be extremely difficult to observe without elicitation.

Indeed, the evidence causing learners to analyse PVONs as subjects (and therefore causing them to acquire harder-to-see properties such as susceptibility to Complement Subject Deletion, might be even closer to hand than the position of PVONs in inverted word order. German can be described as a ‘fake SVO’
language, in which an underlying SOV order is masked by a process putting the 
a finite verb into second position in main clauses. In subordinate clauses, even 
finite verbs appear in final position (this kind of argument was first made by 
Koster 1975 for Dutch):

(14) \( \text{Ich weiss, dass er das Buch gekauft hat.} \)  
\( \text{I know that he that book bought has} \)

Icelandic on the other hand, is a genuine SVO language where the verb retains 
its position between subject and object in a wide variety of environments, such 
as subordinate clauses, even when there is a preposed wh-word:

(15) a. \( \text{Ég veit að hann hefur keypt bókina.} \)  
\( \text{I know that he has bought the book} \)  
‘I know that he bought the book.’

b. \( \text{Ég veit ekki, hvers vegna hann hefur keypt bókina.} \)  
\( \text{I know not, why he has bought the book} \)  
‘I don’t know why he bought the book.’

PVONs appear reasonably often in the position immediately between a clause-
introducer and the verb:4

(16) \( \text{Hann vildi ekki láta Sigurjón heyrða að honum væri} \) \( \text{he:nom wanted not let Sigurjón:acc hear that him:dat was} \) \( \text{ekki saman.} \) \( \text{not same} \)
‘He didn’t want Sigurjón to hear that it didn’t matter to him.’

It could be that in a language with genuine SVO order, appearance of an 
oblique case nominal in the subject position of subordinate clauses will be taken 
by learners as evidence for oblique subjects.

Regardless of how these conjectures fare, we can certainly say that the 
PVONs in Icelandic are in some sense subjects (treated similarly to A/S) in the 
graham of the language), though of course there is an issue of in exactly what 
sense, Note in particular that not only are they not nominative in case, but the 
verb does not agree with them, so they lack the two properties traditionally 
most strongly associated with subjects. But to procede further with such 
definitional issues, we would need to decide what we really mean by ‘subject’, 
a difficult matter and perhaps one that cannot be resolved without some arbi-
trary decisions.
2. Lexicality

Davies (1988) showed that in many languages, non-nominative (non-canonical) subjects could be regarded as an aspect of a specific clause-level ‘dative subject’ construction. In Icelandic however it is clearly a property not of the clause as a whole, but a feature of the specification that particular verbs impose on particular arguments, including primary and secondary objects as well as subjects. This is one form of ‘lexicality’, but Icelandic non-nominative subjects are also lexical in another sense: although in many cases the choice of non-nominative case can be predicated from the meaning, there appear to be genuine exceptions to the regularities, whose exceptionality is revealed by the existence of trends for them to be regularized. By contrast, the semantics of non-nominative subjects in many other languages (Mohanan 1994, Onishi this volume) seems to be much more regular.

2.1 Evidence for lexicality

One indicator of lexicality is that although the examples I have given of oblique subjects so far all involve verbal predicates, they also appear with adjectival and nominal ones. Adjectival predicates (reasonably numerous) take only dative subjects, while nominal ones appear with either dative or genitive, although they are few and idiomatic:

\[(17) \quad \begin{align*}
    \text{a. } & \textit{Mér er kalt.} \\
    & \text{me:dat is cold} \\
    & \text{‘I am cold.’} \\
    \text{b. } & \textit{Þess er enginn kostur.} \\
    & \text{that:gen is no choice} \\
    & \text{‘That is not an option.’} \\
    \text{c. } & \textit{Honum er vorkunn.} \\
    & \text{him:dat is pity} \\
    & \text{‘He is to be pitied.’}
\end{align*}\]

More important to the issue of lexicality is that in addition to noncanonically-marked A/S, Icelandic also has non-canonical marked O and double-O constructions.

For normal transitive verbs, A is nominative and O accusative, but there are a substantial number of verbs with dative O, and some with genitive:
(18) a. *Hann kastaði steinum í ljósastaur.*
   he threw rock:DAT at lightpost
   ‘He threw a rock at the lightpole.’
   
   b. *Ég vænti skipsins.*
   I expected the ship:GEN
   ‘I expected the ship.’

There is evidence too that these postverbal non-accusatives are in some sense direct objects, although nowhere near as much as for the subjecthood of the pre-verbal non-nominatives.

One indication is that they can be passivized:

(19) a. *Steininum var kastað.*
   the stone:DAT was thrown
   ‘The stone was thrown.’
   
   b. *Skipsins var vænt.*
   the ship:GEN was expected
   ‘The ship was expected.’

In these examples, as extensively shown in the literature, the ‘derived’ prenominal obliques show all the usual properties of ‘basic’ oblique subjects; for example they are obligatorily suppressed in infinitive constructions.

Other evidence for the object-hood of these nominals is that they have the same range of positional possibilities as ordinary direct objects. A major topic of recent work in Scandinavian syntax, starting with Holmberg (1986) and recently surveyed by Jónsson (1996), is a phenomenon of ‘Object Shift’ whereby, in clauses without an auxiliary, a direct object can be placed either before or after a negative or certain adverbs, all of these appearing after the verb, which is in second position (or third, in embedded clauses with a complementizer or preposed Wh-word):

(20) a. *Jón las ekki þessa bók.*
   John read not this book
   ‘John didn’t read this book.’
   
   b. *Jón las þessa bók ekki.*
   John read this book not
   ‘John didn’t read this book.’
   
   c. *Jón hefur ekki lesið þessa bók.*
   John has not read this book
   ‘John has not read this book.’
(a) and (b) illustrate the two positions of the negative versus the object in clauses with no auxiliary; (c) illustrates the only (non-inverted) order when there is an auxiliary, while (d) and (e) illustrate that the negative can’t be moved after the main verb nor the object moved before it, when there is an auxiliary.

The O-hood of postverbal nonaccusative NPs is evidenced by the fact that they show up in the same range of positions in the same circumstances, for example Object-Shifted to in front of the negative, which is not possible for PPs:

(21) a. *Börnin sökuðu foreldranna ekki.
    John has the children missed parents-the:GEN not
    ‘The children didn’t miss their parents.’

b. Jóni líkaði þessir sokkir ekki.
    John:DAT liked these socks:NOM not
    ‘John didn’t like these socks.’

c. Jón las ekki um bókina.
    John read not about the book
    ‘John didn’t read about the book.’

d. *Jón las um bókina ekki.
    John read about the book not

These positional characteristics of O will also be relevant to the discussion of ditransitives immediately below.

We have seen so far that the four cases can be assigned to A, S and O in a wide variety of combinations; even more variety appears when we look at ditransitives, verbs that take two unmarked NP’s, obligatorily postverbal (unless topicalized) when there is an auxiliary present. Cross-linguistically, such constructions seem to divide into two types, ‘asymmetric’, where the apparent O’s differ significantly in their grammatical properties, so that it seems appropriate to regard one of them as the real O, and ‘symmetric’ (first extensively exemplified for Kinyarwanda by Kimenyi 1980), where the apparent O have most properties in common. Icelandic ditransitives fall into two groups. One is clearly asymmetric, while the other gives a superficial appearance of being somewhat
The apparently symmetric construction is by far the commonest, semantically characterized by having a Theme and a Recipient, grammatically by having the Recipient normally come first as a dative NP, the Recipient second as an accusative, but with the alternate order available as a marked option:

(22) a. *Hann* gaf *Jóni* þessa sokka.
   He:Nom gave John:Dat these socks:Acc
   ‘He gave John these socks.’

b. *Hann* gaf þessa sokka *Jóni*.
   he:Nom gave these socks:Acc John:Dat

The two orders are not free variants; the dative-second order requires that the dative be focussed. Corresponding to these two active orders are two passives, with the same focussing requirements on the dative if it is final (and now the sole postverbal argument):

(23) a. *Jóni* voru gefnir þessir sokkar.
   John:Dat were given these socks:Nom
   ‘John was given these socks.’

b. *Þessir sokkar* voru gefnir *Jóni*.
   these socks:Nom were given John:Dat
   ‘These socks were given to John.’

As extensively discussed in the literature, the preverbal NP in each of these examples shows grammatical subject properties, except for case-marking and agreement in (a), where the auxiliary and the passive participle are both agreeing with the postverbal nominal, which is on the present analysis a kind of second object.

The existence of two passives, and two orders for the active, suggest this is a ‘symmetric’ double-object construction, where both of the two objects have access to object properties (although the focus restriction somewhat impairs the appeal of this), but closer examination shows that this impression is false.

Rögnvaldsson (1982) shows that the constructions are not actually symmetric, but that the object that comes first has different properties (somewhat more subject-like ones, such as, for some speakers, the ability to antecede reflexive pronouns), and more recent investigations such as those of Holmberg and
Platzack have borne this out. If we think of passivizability as an indicator of O- 
hood, then the conclusion is that with these double-object verbs, there is a 
choice as to which postverbal NP is the actual O, the unmarked choice being 
the Recipient, but the Theme being able to be the O (with passivizability or 
immediate postverbal position) if the Recipient is focussed.

The second class is much more diverse in the case-frames it involves, which 
are four: AD, AG, DD and DG. On the other hand the grammatical behavior is 
more uniform: the order is not freely variable (except via Heavy NP Shift, 
which has its own distinctive properties), and only the first nominal may be 
preposed in the Passive:

(24) a. Jón leyndi börnin sannleikanum. 
    ‘John concealed the truth from the children.’

b. Olafur spurði konuna margra spurninga. 
   ‘Olaf asked the woman many questions.’

c. Þeir skiluðu Maríu bókinni.  
   ‘They returned Mary the book.’

d. Sigga óskaði mönnunum góðar ferðar. 
   ‘Sigga wished the people a good journey.’

For these verbs there is no choice of O; it must be the human Recipient/Looser 
rather than the Theme that is O.

The facts presented above reveal clearly that noncanonical case in Icelandic 
is associated with specific semantic roles of specific predicates, rather than 
grammatical relations, or global properties of the sentence, such as modality or 
negation. The Recipient of gefa ‘give’ will for example be dative whether it is 
an O, a ‘second object’, or an S (via passivization).

I now turn to discussing some further aspects of lexicality, first the semantic 
concomitants of noncanonical A/S, and secondly its interaction with valence-
changing operations.

2.2 Semantic Concomitants

Andrews (1982) made some general statements about the semantic correlates
of oblique subjecthood in Icelandic. The most important observation is that it does not occur with arguments that one might describe as the semantic prototype of ‘Agent’, that is volitional actions whose outcome is under the control of the doer (regardless of whether the verb is transitive or intransitive, that is whether the Agent is an A or an S). It is also observed that dative tends to be associated with psychological states, accusative with more physiological ones, although there doesn’t seem to be fully predictive principle here (gruna ‘suspect’ takes an accusative subject as the Suspector, for example).

There seems to have been relatively little subsequent work on the semantics of the noncanonical cases, with the exception of an analysis of diachronic trends by Smith (1994, 1996), and a recent study (written in Icelandic) by Jónsson (1998), which provides a fairly comprehensive listing of verbs that take oblique subjects along with some classification of the semantic roles they occur with and related observations (including numerous semantic classes of verbs which never take noncanonical subjects).

Perhaps the most important regularity is that non-nominative subjects are never true Agents. There are certain verbs with non-nominative subjects that are in some sense ‘active’:

(25) Honum mæltist vel.
    he:DAT spoke well
    ‘He spoke well.’

But it is a crucial feature of these verbs that they involve outcomes that are not truly under the control of the subject: one might call them ‘verbs of fortune’. Jónsson establishes this point clearly by showing that they can’t co-occur with adverbs that imply volitionality:

(26) *Honum talaðist vel fúscala.
    He spoke well eagerly

A further observation he makes (pg. 24) is that Icelandic seems to make no use at all of oblique case-marking for distinctive marking of non-volitionality. As in English, there are verbs that can take either volitional or nonvolitional ‘Agents’:

(27) Jón/hamarinn braut riðuna.
    John/the hammer broke the window

But there are no verbs at all that mark such a difference in use by putting the
subject into an oblique case when it is not volitional (one might call this ‘fluid A’ marking). Thus, in spite of the restriction that non-nominative subjects can’t be volitional, from a typological point of view Icelandic does not seem to be a language that marks volitionality.

The other main regularity is that there is a strong association between the dative case on subjects and the Experiencer semantic role. This association is manifested in two main ways. First, although there are both verbs with accusative and ones with dative (and also with either) case on their Experiencer subjects, there are many more dative ones (and only the dative appears with adjectives and fixed expressions). Secondly and more interestingly, Experiencer and only Experiencer accusative subjects suffer from an affliction called ‘Dative Sickness’ whereby they are often converted to datives, both as a long-term diachronic trend, and also as a contemporarily observable ‘error’/change-in-progress (depending on one’s view of such things). So we have:

(28) a. Mig/mér langar að fara.  
   me:ACC/DAT longs to leave  
   ‘I long to depart.’

b. Mig/mér vantar hníf.  
   me:ACC/DAT lacks knife:ACC  
   ‘I don’t have a knife.’

Non-Experiencer accusative subjects don’t get replaced by datives:

(29) a. Tröllskessuna/*Tröllskessunni dagðist uppi.  
   the troll-woman:ACC/*/DAT ‘got dayed-up’  
   ‘The troll-woman got caught by daylight (and therefore turned to stone).’

b. Bátinn/*bátum rak á land.  
   the boat:ACC/*/DAT drifted to land  
   ‘The boat drifted to land.’

Instead they tend to be replaced by nominatives (Svavarsdóttir 1982: 22), which can also happen to dative subjects, a phenomenon called ‘nominative replacement’. This gives us examples like these alongside of the more traditional oblique subject versions above:

(30) a. Ég langa að fara heim.  
   I: NOM long to go home
So what we find is that noncanonical case on subjects in Icelandic can be what one might call ‘doubly irregular’. The first level of irregularity is that oblique case on subjects is a minority, marked option in the first place. There is no known semantic category that requires an oblique case on its subject, although there are several that forbid it. The second level is a possibility for verbs whose non-nominative subject is an Experiencer. If these participate in the first level of irregularity by taking a non-nominative, there is a further regularity they can obey or override; obeying it they take a dative, overriding an accusative. Icelandic is thus clearly a major challenge for theories that require case-marking to be predictable from either semantic roles or basic syntactic configurations.

2.3 Valence Change

Icelandic has various valence change effects which interact in different ways with noncanonical case. On a fairly superficial view these include Passive, which we’ve already discussed to a certain extent, a ‘Middle Voice’ formation process, and morphologically unmarked transitive/intransitive relationships.

We have already made the essential observation about the passive, which is that noncanonical case on the O is always preserved. But there is another interesting fact, which is that noncanonical case on the subject inhibits the passive. This is illustrated nicely in these examples from Van Valin (1991: 190–1):

(31) a. Það var talð í kirkjunni.
   it was talked in the church
   ‘There was talking/speaking in church.’
 b. Honum mæltist vel í kirkjunni.
   him:DAT spoke well in the church
   ‘He spoke well in church.’
 c. *Það var mælst vel í kirkjunni.
   it was talked well in the church
(32) a. Það oft mikíð sofí í tímanun hér.
   it is too much slept in class-the here
   ‘There is too much sleeping in this class.’
b. *Hana dreymdi um hafið.
   her:acc dreamed about sea-the
   ‘She dreamed about the sea.’

c. *það er oft mikið dreymt í tímanun hér.
   it is too much dreamed in class here

The verbs *dreyma and *maelast vel take accusative and dative noncanonical subjects, respectively while the semantically somewhat similar verbs *sofa and *tala take nominative ones. The latter can be (impersonally) passivized, but the former can’t. Van Valin shows that no explanation can be found in the obvious factors such as the ‘middle’ morphology in (31) and the non-volitionality of the verb in (32), leaving the case-marking itself, or some close structural correlate, as the apparent conditioning factor (there are various possibilities; sorting them out is beyond the scope of this paper).

A contrast with the passive are detransitivized ‘middle’ verbs, which end in a suffix -st, diachronically derived from the reflexive pronoun *sík. With these verbs, middle-Formation strips noncanonical case from a Theme or Patient O, so that the resulting S is canonical in its case-marking (Sigurdhsson 1989: 269–70):

(33) a. Ég týndi úrinu.
   I lost the watch:DAT
   ‘I lost the watch.’

b. Úrinu var týnt.
   the watch:DAT was lost
   ‘The watch was lost (by someone).’

c. Úrð týdist.
   the watch:nom lost.mid
   ‘The watch got lost.’

Sigurdhsson notes that the Icelandic passive implies agency much more strongly than the English, as indicated by the ‘by someone’ in the glosses. The middle on the other hand does not seem to indicate an attribution of Agency. On this basis, it might be possible to construct a structural, synchronic account of the case-marking difference between the passive and the middle, but a simple diachronic explanation is also a possibility.

This would be in terms of the idea that these noncanonical subjects might
have emerged as consequences of a fixing of word-order patterns from an earlier stage of considerable flexibility (similar to Greek, Latin and Sanskrit) to a more limited SVO pattern for basic clauses, with a ‘Verb Second’ constraint in marked clauses with a preposed (‘topicalized’) nonsubject constituent. The passives would have originally been genuine impersonal passives, as found in German, with the oblique nominal a nonsubject, later reanalysed as a subject as a side-effect of appearing initially in the topicalization construction. The middle construction on the other hand is historically a reflexive; in the case of the detransitivizing middles the overt NP argument corresponds diachronically to the nominative subject; this nominative case has been preserved as a property of the construction.

Unfortunately, it is not possible to be certain exactly when these constructions entered the language. Old Norse had similar although somewhat more extensive non-canonical case-marking of arguments, and apparent PVONs, but there doesn’t seem to be any really solid evidence that the Old Norse PVONs are truly subjects in any sense. Bardhdal (1997) argues from word-order that they are, but convincing demonstrations from further subject properties seem to be lacking (see also Rögnvaldsson1996).

Icelandic finally has many cases where verbs can be used either transitively or intransitively; the intransitive counterparts often show the O-case non-canonically on the S:

(34) a. *Þeir hvolfa bátum.*
   they capsize the boat:DAT
   ‘They capsize the boat.’

b. *Bátum holfvdi.*
   the boat:DAT capsized
   ‘The boat capsized.’

c. *Þeir fylla bátinn.*
   they fill the boat:ACC
   ‘They fill the boat.’

d. *Bátinn fyllir.*
   the boat:ACC fills
   ‘The boat fills.’

On the other hand other intransitives associated with transitives take nominative on their S, and a few allow variation:
While Sigurdhsson enumerates many of these types and makes some formal proposals for sorting them out, it is not clear that these proposals go significantly beyond a simple relabelling of the phenomena, without relating them in a clear way to independently observable behavior. So the true nature of these unmarked transitivity alternations remains mysterious. It is also worth pointing out that in many cases there are idiosyncracies in the semantic relationships between the transitive and intransitive members of the pairs, for example transitive reka means ‘drive’, while when intransitive with an accusative subject it means ‘drift’.

Jónsson (1998) also points out that the ‘bare’ intransitive verbs with oblique subjects tend to have narrower meanings than the corresponding middle verbs with nominative ones. For example fylla with an accusative subject can only refer to a boat filling with water, while fyllast with a nominative can be a boat, bathtub or anything else that is fillable.

At present then, valence alternations don’t seem to show very much about noncanonical case-marking other than that it must in some sense be associated with semantic roles rather than for example with grammatical relations per se, although they do provide an interesting illustration of the limitations of purely synchronic analysis conducted in ignorance of potential historical explanations for patterns in the data.
3. A, S and O reconsidered

The A and O categories seem to be straightforward and well-supported in Icelandic. We have observed that O is confined to a position after the verb (unless of course it is preposed by some operations such as Topicalization or Wh-Movement), while the normal position of A is before it. Furthermore, with ditransitive verbs, one of the two NP complements seems to be clearly distinguished as the O, as indicated by positional properties and susceptibility to passivization. And in terms of canonical form of expression, nominative case (and agreement on the verb) is clearly the default for A, and accusative case the default for O, since these are the cases found on active, intentional Agents of a two-participant event, and usually, on Patients of such events that undergo a change of state (but there are some systematic near exceptions: participants that are caused to move by for example being thrown are normally in the dative. Noncanonically marked A and O on the other hand normally diverge from the semantic prototype for A and O, although I am aware of some exceptions in the case of O; the verb bana ‘slay’ for example takes a dative object, however the more prosaic drepa ‘kill’ takes accusative.

The situation with S on the other hand seems to be significantly more obscure. In terms of marking, the canonical case for S is clearly nominative. But there is a difficulty with the S notion in that it is not clear that there is any canonical position for S. Rather there seem to be different positions available for A-like and O-like S.

To develop this point we need to say more about the possible positions for A. Thráinsson (1986) argued that there was in Icelandic an important difference between sentences with and without an auxiliary, in that the former, but not the latter, had a VP containing the verb and its subcategorized complements. Part of the evidence for this is that there are various elements that can appear between the main verb and one of its complements when an auxiliary is absent, but not when one is present (although some of these elements can however shift all the way to the end of the sentence). Amongst the things that behave like this are transitive subjects, that is, A (Thránsson and Bobaljik 1998: 56):

(36) a. Pað hefur einhver köttur étið mýsnar.  
    it has some cat eaten the mice  
    ‘A cat has eaten the mice.’
b. *það hefur étid einhver köttur mýsnar

Such a subject can also appear after the verb and its other complements if it is ‘heavy’ (Rögnvaldsson 1982).

The standard interpretation of these phenomena is that auxiliaries take some kind of VP or clause-like complement that appears in overt structure, whereas clauses without auxiliaries either lack such a complement at all levels (Sells 1998) or lose it via some kind of process of ‘VP-disintegration’, assumed to be associated with movement of V out of the VP into a higher functional projection.

It can then be said that A can therefore be described as appearing externally to the VP, while O appears within it. The behavior of S is however mixed. Some instances of S, which we can describe as A-like, have to be external to the VP, while others, which we can describe as O-like, may appear within it or outside of it (see Thráinsson and Bobaljik 1998 for discussion of the semantic effects):

(37) a. það höfðu komið gestir í heimsokn.
   'Guests have come for a visit.'
   b. það hafa verið settir þrír diskará borðið.
   'Three plates have been set on the table.'

(38) a. Gestir höfðu komið í heimsokn.
   'Guests have come in visit'
   b. þrír diskar hafa verið settir á bordið.
   'Three plates have been set on the table.'

Maling (1988) observes that the VP-internal position is possible only for an S that is a Theme or Patient (moved or affected entity) rather than for example a Goal or Experiencer.

(39) a. ?Pað var hjálpað gamalli konu med farangurinn.
   'An old woman was helped with her luggage.'
b. *Það hafði leiðst mörgum börnin.
   *it has bored many children:DAT
   ‘Many children were bored.’

  c. *Það hafði vantað marga stúdenta payinga.
   *it has lacked many students:ACC money:ACC
   ‘Many students lacked money.’

All of the examples of (39) can be rendered acceptable by shifting the immediately postverbal NP one word to the left, to a position between the auxiliary and the main verb.

This would seem in fact to be an instance of the ‘split S’ phenomenon, wherein S seems to divide into two types, an Sa type with behavior similar to A, and an So type with behavior similar to O. Such behavior appears in a particularly obvious form in the Austronesian language Acehnese, as described by Durie (1985), in which Agentive S have almost the same grammatical treatment as A (there are slightly different NP-marking possibilities), while Pati entive S have identical treatment to O, but many languages show some form of split S effect, as discussed generally by Dixon (1994: 71–83).

Such behavior in Western European languages was first noted by Perlmutter (1983) for Italian (see also Burzio 1986), and Icelandic resembles Italian in that the O-like properties are relatively cryptic and hard to observe, rather than being clearly manifest in the morphology (however in Italian there has been considerably more evidence amassed about different grammatical behavior of Sa and So).

In Icelandic (and in Italian) we in fact have a twofold problem with S, first the familiar problem of the existence of a lexical split in grammatical behavior of S between A-like and O-like, and the other a structural split in the realization of the semantically O-like one, either in a normal A or a normal O position. Discussing other cases of such ‘split S’ phenomena, Dixon (1994: 75) says that ‘careful study of the grammars of split-S languages shows that they do work in terms of a unitary S category, without this being subdivided, for certain grammatical purposes, into Sa and So’. However in the cases I am familiar with, the shared properties are always shared with either A or O, or sometimes both. In Acehnese, for example (Durie 1985), Sa and So share certain core argument properties (such as the ability to appear preverbally with both A and O), while in Icelandic, the two kinds of S both share with A the property of being nominative by default (unless lexically specified as otherwise), and, if they are
nominative, of having person and number agreement with the verb. What seems to be missing are cases where S<sub>o</sub> and S<sub>n</sub> share properties that are not shared by either A or S.

In terms of grammatical behavior, S<sub>a</sub> seems to share virtually all of its grammatical behavior with A, even to the point of undergoing (impersonal) passivization. The relation between S<sub>o</sub> and O is however less clear. Jónsson (1996) observes that S<sub>n</sub> has the ‘downstairs’ (O-like) property of allowing a negative determiner to be licenced by the negation marker ekkí, which is not possible for NPs in the subject positions (however it is not clear to me that linear order couldn’t be the relevant factor here; this would be quite unexpected in the framework Jónsson is applying, but not necessarily in others):

(40) a. *Neinn tölva var ekkí kepyt.
   any computer was not bought
b. *Það var neinn tölva ekkí kepyt.
   it was any computer not bought
c. Það var ekkí kepyt neinn tölva.
   it was not bought any computer
   ‘No computer was bought.’

On the other hand S seem to also have certain ‘upstairs’ (A-like) properties, such as the ability to licence infinitival adjuncts:

(41) a. *Þeir kusu einhvern leikara til forsetaembættis,
   their elected some actor:acc to presidency
   Prátt fyrir að vera algört fifl. despite for to be complete fool
b. Það var kosinn einhver leikari til
   it was elected some actor to
   Forsetaembættis, þrátt fyrir að vera algjört fifl. presidency, despite for to be complete fool
   ‘Some actor was elected president, in spite of being a complete fool.’

In Icelandic, S therefore appears to show a complex combination of A and O properties.

What I would instead suggest is that S is not actually a primitive concept of syntactic structure. Rather syntax involves a number of interacting but distinct subsystems, responsible for linear order, case-marking, ellipsed argument construal, etc. A and O are then grammatico-semantic primitives in the sense
that they are based on semantic concepts which are given a consistent treatment by the syntactic systems of any language (although different languages of course treat them differently, and this consistent treatment may involve systematic options, such as the split between Actor and Patient Focus constructions in Philippine languages).

A and O are then techniques used by grammars to express the Acting and Acted-upon participants in a class of event that humans find especially interesting (actions with a Doer and a Done-to), and therefore tend very strongly to be expressed in a consistent way in their languages, but they also function as major ‘poles of attraction’ for the expression of arguments that don’t fit the core semantic characterization for A and O (such as the ‘hearer’ and ‘heard’ arguments of the verb \textit{hear}). Amongst the attractees, I suggest, are sole core arguments (traditional S), which then wind up sharing features with A, O or both, subject to complex conditions that vary with the language.

Regardless of how this issue is resolved, the last 25 years of work on Icelandic reveals how close study of a language of a supposedly familiar type can turn up a range of ‘exotic’ phenomena with considerable typological relevance.

Notes

1. More precisely, ‘weakly quantified’ in the sense of Barwise and Cooper (1981). The following abbreviations are used: \textsc{acc}=accusative; \textsc{dat}=dative; \textsc{gen}=genitive; \textsc{mid}=middle voice; \textsc{nom}=nominative.
2. There are however constructions in which quantified objects precede the main verb, obligatorily if they are negatively quantified (Rögnvaldsson 1987), but Jónsson (1996: 82–6) shows in considerable detail that this is not a basic word-order, but a kind of ‘extraction’ phenomenon.
3. Are they unexpectedly rare? I don’t have adequate evidence about this, but the thirteen-page story of the 100 or so that I looked at to find (7) (constituting the story \textit{Dagsönn við Ána}, Thorsteinsson 1965: 7–19) contains about 390 clauses, twenty of which have inversions caused by initial adverbial material, and seven of which have oblique subjects. So one in 100 of these pages does not seem too much rarer than would be expected, but bigger numbers would be needed to draw solid conclusions. Several inversions per page, and one oblique subject for every two or three pages seems about right for the whole sample.
4. This example turned up seven pages into the story discussed in the preceding notes.
5. All finites and some infinitives.
6. This formulation is due to Holmberg and Platzack (1995), based on earlier work by Ottóson (1991).
7. In Jónsson’s lists, 36 with the accusative, 133 with the dative, counting as Experiencer-subject verbs his categories of \textit{tilfönningsagnar} (feeling verbs), \textit{likamssagnar} (corporeal verbs, such as ‘be/feel cold’), and \textit{hugsunar} and \textit{skynjumarsagnar} (thought and feeling verbs).
8. See Anderson (1990) for a survey of the various kinds of \textit{-st}-verbs and their properties.
9. For example when nominative replaces oblique case, the phenomenon is described as ‘externaliza-
tion of the Patient theta role’, whereas when the oblique case is preserved it is ‘promotion in the syntax’, but this difference in mechanism doesn’t seem to explain any further phenomena.


References


Non-canonically marked S/A in Bengali

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1. Introduction

Bengali is the easternmost language of the Indo-Aryan family. It is spoken by the majority of people in West Bengal (68 million in 1991) of India and in Bangladesh (over 120 million). The data in this paper is based on the standard dialect of West Bengal which is commonly spoken by intellectuals in Calcutta.

Typologically, Bengali is a Nominative-Accusative language with agglutinative (mostly suffixing) morphology. The basic order of clausal constituents is SV/AOV, and within the NP, all the modifiers (demonstrative, possessor, adjective, numeral, nonfinite relative clause) precede the head. Case is marked on the head.

Like many other Indian languages, Bengali has a large class of predicates which require S and A marked by non-canonical, typically Genitive, case. It has also three syntactic processes (‘deagentive derivations’) which demote Nominative S/A to Genitive S/A or zero. Objective case is also used to mark S/A in certain constructions. In addition, S/A with indefinite referents in general statements can be marked by Locative case.

This paper is organised as follows. In §2 I look at general properties of canonically and non-canonically marked arguments occurring with various types of predicates in Bengali. §3 categorises all types of predicates discussed in §2 and discusses the semantic difference between those which take Genitive S/A and those which take Nominative S/A. Syntactic properties of non-canonically marked S/A and the ways they differ from canonically marked ones are
discussed in §4. The summary of the discussion on syntactic properties is given in §4.7. Conclusions are drawn in §5.

2. Defining S, A and O

2.1 Canonically marked S and A

In general, person/status of canonically marked S/A are obligatorily cross-referenced on the predicate. They are usually marked by Nominative case (cf. §2.1.1), but they may also be marked by Locative (cf. §2.1.2).

2.1.1 Properties of nominative arguments

Nominative is the unmarked case for nouns, and receives a distinct inflection in the case of pronouns. In either case, it is formally distinguished from other cases such as Objective, Locative and Genitive. A Nominative NP is in A function if its predicate requires another NP argument in O function; otherwise it is S.

An O NP is obligatorily marked by the Objective case suffix -ke if it has a definite human referent. Otherwise -ke marking is optional. O is usually unmarked if it has an inanimate referent, or an indefinite animate (nonhuman) referent. In the case of ditransitive verbs (both underived verbs such as ‘give’ and ‘tell’, and derived causative verbs such as ‘teach’ and ‘show’), the third ‘animate’ argument (the Recipient, the Addressee, the person taught or shown, etc.) is always marked by -ke. Ambiguity arises between the two O’s if they both have a human referent. Word order does not give a clue either. Context or cultural assumption tells which is which. For example, in the following sentence, both readings are possible, but generally the first reading is preferred due to the cultural rule of the Bengali society. (Two O’s can be placed in reverse order without any change in meaning.)

(1)  

| 2ORDSG+NOM | 2ORDSG-GEN | wife-OBJ | once | 1SG-GEN | friend-OBJ | see-CAUS-INF | can-PRES+2ORD |
| [tumi]$_{\lambda}$ | [toma-r]$_{\sigma}$ | stri-ke$_{\sigma}$ | eakbar | [ama-r]$_{\sigma}$ | bondhu-ke$_{\sigma}$ | dekh-a-te | par-o. |

(i) ‘You (ordinary, sg) can show your wife to my friend.’
(ii) ??‘You (ordinary, sg) can show my friend to your wife.’
The person/status of Nominative S/A are marked on the verb, as shown in the above example where the second person ordinary status of the A argument is marked on the verb *par- ‘can’. Second person inflection distinguishes three statuses (intimate, ordinary and honorific) and third person two (ordinary and honorific). First person has only one form. Number is not distinguished on the verb.

2.1.2 Properties of locative S/A arguments
Locative case is marked either by a suffix -e/-te/-y which is attached to a noun with an inanimate referent, or by a postposition *kache* which follows a noun with an animate referent or a personal pronoun in Genitive case. However, nouns with indefinite animate referents may take a Locative suffix (instead of the unmarked Nominative form) to function as S/A. No pronoun, however, can function as Locative S/A presumably because it has always a definite referent.3

Almost any predicate can occur with its animate S/A argument marked either by Nominative or Locative case. The semantic difference is predictable; the Locative argument has always indefinite and generic reference.

(2) a. *Kalke baRi-te ɔnek lok es-ech-en.*
   *one.day.removed house-L many people come-perf-pres+2/3HON*
   ‘Yesterday many people (honorific) came to my house.’

   b. *Kalke chilo robibar ɔnek-e-i baRi-te*
   *one.day.removed be+past+3ord Sunday many-L-exc house-L chilen.*
   be+past+2/3HON
   ‘Yesterday was Sunday. (Therefore) many (honorific) were at home.’

(3) a. *Goru-ra ghas kha-cch-e.*
   *cow-pl grass eat-imperf-pres+3ord*
   ‘The cows are eating grass.’

   b. *Goru-te ghas kha-y.*
   *cow-L grass eat-pres+3ord*
   ‘Cows eat grass.’

In the above examples, the versions with a Nominative S and A, as in (2a) and (3a), respectively, describe specific events. The Locative versions refer to general facts which everyone knows, as in (3b), or describe a typical activity or state of indefinite unspecified referents, as in (2b).
Locative S/A show verbal agreement, as shown by the honorific second/third person inflection of *chil*- (the past stem of the existential copula *ach-*) in (2b). They behave basically in the same way as Nominative S/A with respect to all the syntactic criteria discussed in §4. The only exception is Future Imperative and Compulsion constructions which always require a second person S/A, and Cohortative constructions which always require a first person S/A (cf. §4.4). Since Locative cannot be marked on a pronoun, it cannot occur in these constructions.

As mentioned above, Locative S/A can potentially occur with any predicates which require Nominative S/A. Thus I will not discuss the semantics and syntax of predicates requiring Locative S/A any further. Their syntactic behaviour is summarised in Table 4 in §4.7.

2.2 Non-canonically marked S/A

There are two types of non-canonically marked S/A in Bengali—Genitive S/A and Objective S. Genitive S/A occur most frequently, with a wide range of predicates and also in derived constructions. Objective S occurs only with three types of predicates—one of which is a derived construction.

2.2.1 Genitive S/A

2.2.1.1 Overview. Bengali has a wide range of predicates which require a core NP in Genitive, not Nominative, case. Such an NP exhibits syntactic S/A properties, notably Possessor-marked S/A of nominalised clauses, control in coreferential deletion of S/A arguments in complement clauses, reflexivisation and pivot control in ‘conjunctive participle constructions’ (cf. §4.6). I will treat them as S/A according to these criteria. They, however, may not have other properties which characterise canonically marked S/A. For example, they do not trigger verbal agreement. There are constraints on the ways coreferential deletion operates. They also cannot form causatives. See §4 for a detailed discussion.

Predicates which require a Genitive S/A are typically complex verbs which consist of a verb (such as *hɔ*- ‘become’, *kɔr*- ‘do’ and *pa*- ‘get’) and another obligatory element which could be an unmarked noun, as in (4), an adjective, as in (5), a noun in Locative case, as in (6), an adverb, or an onomatopoeic word. These constructions are traditionally called ‘conjunct verb’ constructions.
in the literature (Masica 1991: 368–9). Verbs used in these constructions are a kind of predicator verbalising the preverbal elements (cf. Sarkar 1975: 20ff.). Those verbs constitute a closed set. Preverbal elements, on the other hand, are an open class. I will call the former ‘simple verbs’, the latter ‘coverbs’, and the whole verb complexes ‘complex verb constructions’ hereafter. (The first two terms are used to describe similar constructions in Australian languages, cf. Dixon forthcoming.)

Simple verbs and coverbs are separate phonological words. In that respect we cannot distinguish them from a normal combination of a non-complex verb and its NP argument(s). There is, however, some syntactic evidence which shows that a coverb and a simple verb are more tightly linked than an ordinary NP argument and a non-complex verb. For example, nominal coverbs cannot take attributes as freely as normal NP arguments can. Instead, an adverbal element often precedes and modifies the whole construction. (It cannot usually be inserted between a coverb and a simple verb.) Nominal coverbs do not show any of the syntactic properties shared by canonically marked S, A or O. In general, complex verb constructions tend to be less transitive or intransitive, even if they have simple verbs such as pa- ‘get’ and dhɔr- ‘hold’ (cf. (4)) which function as plain transitive verbs when used independently.

The following are the examples of intransitive complex verb constructions which require a Genitive S argument. They always take a neutral third person ordinary inflection regardless of the person/status of the Genitive argument.

(4) [Ama-r]₃₅ matha dhɔr-ech-e.
    1SG-GEN head   hold-PERF-PRES+3ORD
    ‘I have a headache. [lit. It head-holds of me.]’

(5) [Ama-r]₃₅ bhalo lag-ch-e.
    1SG-GEN good  be.attached-IMPERF-PRES+3ORD
    ‘I am feeling good. [lit. It is attached good to me.]’

At first glance the Genitive ama-ᵣ in (4) looks like the Possessor of the following noun matha ‘head’. This analysis certainly explains the historical source of this kind of construction (cf. §3.2), but in Modern Bengali Genitive arguments occurring in complex verb constructions, in general, are not the Possessors. Phonologically there is a fall in pitch in the first syllable of the word immediately following the Genitive NP which signals that the latter is an independent syntactic element. Syntactically, it can be placed quite freely after the predicate
for focus or for conveying additional information, which would not be possible if it is the modifier of *matha* ‘head’.

Some complex verb constructions require an O NP in Objective case. The Genitive core argument in such a case is regarded as A. The verb again takes a third person ordinary inflection.

(6) \[Ama-r\]A \[toma-ke\]O mon-e poR-be.
    1SG-GEN 2ORDSG-OBJ mind-l fall-FUT+2/3ORD
    ‘I shall remember you.’

(7) \[Ama-r\]A \[ca\]O bhalo lag-e.
    1SG-GEN tea good be.attached-PRES+3ORD
    ‘I feel good about tea.’

In general, we cannot determine whether the unmarked NP with a nonhuman referent is E (in unmarked Nominative case) or O (in Objective case), unless we can replace it with a noun/pronoun with a definite human referent and see whether it takes the Objective suffix -ke or not. In (7), *ca* ‘tea’ is in Objective case because *toma-ke* ‘2ORDSG-OBJ’ in (8) occupies the same slot.

(8) \[Ama-r\]A \[toma-ke\]O bhalo lag-e.
    1SG-GEN 2ORDSG-OBJ good be.attached-PRES+3ORD
    ‘I feel good about you.’

In the following construction expressing Possession, the copula verb *ach-‘have’* takes a Nominative argument and cross-references its person/status.

(9) \[Ama-r\] \[baba\] achen.
    1SG-GEN father be/have+PRES+2/3HON
    ‘I have a father. [lit. Father is to me.]’

The status of the Genitive and Nominative arguments in (9) is controversial. See the discussion in Klaiman (1981: 27–9) and Shibatani and Pardeshi (1999). The Genitive argument of this construction shares some syntactic properties with other Genitive S/A (see the discussion in §4.2 and §4.6), while the Nominative one shares morphological properties with canonical S/A (but not O). I regard the Genitive argument as S and the Nominative argument as E in this construction, but their status is not as clear-cut as in the case of other Genitive constructions where the second element functions either as a coverb (in which case the Genitive NP is S) or an O argument (in which case the Genitive NP is A).
2.2.1.2 Syntactic types of predicates—fluid systems and hɔ-deagentivisation.

Verbal predicates of Bengali which require Genitive S/A can be classified into several types according to the following criteria:

1. Whether they are complex or non-complex.
2. Whether or not they have corresponding predicates which require canonically marked (Nominative/Locative) S/A.
3. If they have, what kind of correspondence there is between the Genitive and canonically marked versions in terms of their syntactic structure. Are the former derived from the latter? Are they lexical pairs?
4. What is the transitivity status of the predicate with a canonically marked S/A, and of the predicate with a Genitive S/A?

A small number of predicates requiring Genitive S/A have no corresponding canonically marked versions. They can be either non-complex or complex. Ach-‘have’ in Example (9) is a non-complex predicate of this kind, while (4) and (5) represent complex ones. They are mostly intransitive, but some verbs can function transitively (cf. bhalo lag- ‘feel good (about)’ in (5) and (7)). 7

Predicates with a non-canonically marked S/A can be derived from predicates with canonically marked S/A in the following ways:

a. One is underived, and the other is derived by ‘hɔ- deagentivisation’.

b. Both are complex verb constructions: one contains the simple verb hɔ- ‘become’, and the other, kɔr- ‘do’. 8

c. The two are lexical pairs.

‘hɔ- deagentivisation’ 9 is a derivational process where the original Nominative S/A argument is demoted to Genitive, and the verb is nominalised and followed by the auxiliary hɔ- ‘become’. Examples (10a) and (11a) show underived versions of type (a) predicates with a canonically marked S/A. Their non-canonically marked counterparts are illustrated with (10b) and (11b). The predicate with a canonically marked S/A can be non-complex, as in (10a), or complex, as in (11a). It can be either intransitive, as in (10a), or transitive, as in (11a); in either case the corresponding predicate with a Genitive S/A maintains the same transitivity value. If the original verb is transitive, the O NP is not affected by this derivation, as (11b) shows.

(10) a. [Tumi] okhane ge-le na kæno?
20RDSG+NOM there GO-PAST+2ORD NEG why
‘Why didn’t you go there?’ (Assumed that you changed your mind.)
b. [Toma-r]$_s$ okhane ja-wa ho-lo na kano?
2ORDSG-GEN there go-VN become-PAST+3ORD NEG why
‘Why didn’t you go there?’ (Assumed that it is due to some external cause.)

(11) a. [Tumi]$_s$ [bondhu-ke]$_o$ Teliphon kor-ech-a?
2ORDSG+NOM friend-OBJ telephone do-PERF-PRES+2ORD
‘Have you made a telephone call to your friend?’
b. [Toma-r]$_s$ [bondhu-ke]$_o$ Teliphon kor-a
2ORDSG-GEN friend-OBJ telephone do-VN
ho-ech-e?
become-PERF-PRES+3ORD
‘Have you finished your telephone call to your friend?’

In the predicates of type (b), complex verb constructions with ho- ‘become’ and kor- ‘do’ as a simple verb constitute a non-canonically marked and canonically marked pair. They could be both intransitive, as in (12a) and (12b), both transitive, as in (13a) and (13b), or transitive and intransitive, as in (14a) and (14b), respectively.10

(12) a. [Ami]$_s$ apis-e ta-r sōngne dekh-a
1SG+NOM office-L 3ORDSG-GEN with see-VN
do-PERF-PRES+1
‘I met him in the office (by appointment).’
b. [Ama-r]$_s$ rasta-y ta-r sōngne dekh-a
1SG-GEN street-L 3ORDSG-GEN with see-VN
ho-ech-e.
become-PERF-PRES+3ORD
‘I met with him on the street (by accident).’

(13) a. [Ami]$_s$ [toma-ke]$_o$ khub pachondo kor-i,
1SG+NOM 2ORDSG-OBJ very liking do-PRES+1
‘I like you very much.’ (According to my own criteria.)
1SG-GEN 2ORDSG-OBJ very liking become-PRES+3ORD
‘I like you very much.’ (According to some (socially) set criteria.)
Non-canonically marked S/A in Bengali

(14) a. \[Tini\]_{3} \[ama-ke\]_{1}, khub hingga ko\-
\-ren. 
3HONSG+ NOM 1SG- OBJ very jealousy do-PRES+3HON
‘He/she (honorific) is very jealous of me.’ (Simply describing
his/her personal reaction to my achievement.)
b. \[Tã-r\]_{3} ama-r opor khub hingga ho-y.
3HONSG- GEN 1SG- GEN on very jealousy become-PRES+3ORD
‘He/she (honorific) becomes very jealous of me.’ (He/she cannot
overcome the jealousy because he/she is incapable of doing what I
can do.)

Verbs such as \textit{pa-} ‘get’ and \textit{kɔr-} ‘do’ may also be used as simple verbs in
canonically marked and/or non-canonically marked versions.

(15) a. \[Tumi\]_{3} ato bôjja
2ORDSG+ NOM that.much hesitation
kor-ch-opa-cch-o kao? 
do-IMPERF-PRES+2ORD/get-IMPERF-PRES+2ORD why
‘Why are you hesitating so much?’ (You can do whatever you like!)
b. \[Ama-r\]_{3} [bhasur-er sôngge \textit{kõtha bol-\textit{te}}]_{COMPL}
1SG- GEN brother-in-law-GEN with words say-INF
bôjja kɔr-\textit{elho-y}.
hesitation do-PRES.3ORD/become-PRES.3ORD
‘I hesitate to talk with my brother-in-law.’ (This is a semi-tabooed
relationship.)

Predicates of type (c) are lexical pairs one of which requires a canonically
marked S/A and the other a non-canonically marked S/A. They could be intrans-
itive or transitive, but usually both predicates have the same transitivity value.

(16) a. \[Tini\]_{3} hās-ch-en.
3HONSG+ NOM laugh-IMPERF-PRES+2/3HON
‘He/she (honorific) is laughing.’
b. \[Tã-r\]_{3} hâsí pa-cch-e.
3HONSG- GEN laugh get-IMPERF-PRES+3ORD
‘He/she (honorific) is feeling like laughing.’

(17) a. \[Ami\]_{1} [jinis-Ta]_{0} ca-i.
1SG+ NOM thing-DEF want-PRES+1
‘I want (to have) that thing.’
b. \([\text{Ama-}r]_1 \text{[jinis-Ta]}_0 \text{cai}\).  
\(1SG\text{-GEN} \text{thing-DEF need}\)  
‘I need that thing.’

In the above examples, (16a) describes a controllable activity, while (16b) expresses a state. (17a) expresses a (controllable) wish, while (17b) indicates a necessity. Note that the Present suffix \(-i\) of \(ca-i\) in (17a) cross-references the first person A, while \(cai\) in (17b) is a non-inflecting predicate requiring a Genitive A.

To sum up, non-canonically marked predicates which require a Genitive S/A can be classified as set out in Table 1, according to the syntactic criteria mentioned in the first part of this section.

<table>
<thead>
<tr>
<th>Predicates</th>
<th>S/A</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) (h)--deagentive</td>
<td>non-complex verb</td>
<td>(10)</td>
</tr>
<tr>
<td>(ii) (h)--deagentive</td>
<td>complex verb (typically with (k)--)</td>
<td>(11)</td>
</tr>
<tr>
<td>(iii) complex verb (typically with (h)--)</td>
<td>complex verb (typically with (k)--)</td>
<td>(12)–(15)</td>
</tr>
<tr>
<td>(iv) complex verb</td>
<td>non-complex verb</td>
<td>(16)</td>
</tr>
<tr>
<td>(v) non-complex verb</td>
<td>non-complex verb</td>
<td>(17)</td>
</tr>
<tr>
<td>(vi) non-complex verb</td>
<td>none</td>
<td>(9)</td>
</tr>
<tr>
<td>(vii) complex verb</td>
<td>none</td>
<td>(4), (5), (7), (8)</td>
</tr>
</tbody>
</table>

### 2.2.2 Objective S

NPs in Objective case function as S in the following constructions.

1. Complex verb constructions consisting of a causative verb \(dekh-a\) ‘show’ + an adjectival coverb with the meaning ‘look ~’. They are intransitive. (18) illustrates the construction with a coverb \(sund\) ‘beautiful’.

\[
\begin{align*}
\text{Oi jama-Ta por-e [ta-ke]}_s \text{ khub sund} & \text{ that clothes-DEF wear-CP 3ORDSG-OBJ very beautiful} \\
\text{ dekh-a-cch-e.} & \text{ see-CAUS-IMPERF-PRES+3ORD} \\
& \text{‘He/she (ordinary) looks very beautiful wearing those clothes.’}
\end{align*}
\]

In the above example, the Objective \(ta-ke\) is the only core argument this
complex verb construction requires. This Objective argument shows a syntactic S property. It is coreferential with the A of the conjunctive participle por-e, and thus functions as the pivot of the two clauses (cf. §4.6).

2. The non-complex verb mana- ‘suit’ also takes an Objective S.

(19) Oi jama-Ta por-le [ta-ke]₃₃ khub mana-y.

that clothes-DEF wear-COND 3ORDSG-OBJ very suit-PRES+3ORD

‘When he/she (ordinary) wears those clothes he/she looks very attractive.’

3. A predicate which requires a canonically marked S/A can occur as an infinitive complement of the auxiliary hɔ- to constitute an obligation construction. The S/A of the original predicate occurs as a derived S in Objective case. (Verbs which require a Genitive S/A cannot occur as infinitives.)

(20) [Ama-ke]₃₃ nije [kaj-Ta kor-te]COMPL

1SG-OBJ EMPH work-DEF do-INF

ho-ech-e.

become-PERF-PRES+3ORD

‘I had to do the work by myself.’

The S argument in Objective case in any of the constructions above has fewer S/A syntactic properties than S/A arguments marked by Genitive case. See the discussion in §4.

3. Predicates with non-canonically marked S/A and semantics of fluidity

3.1 Semantico-syntactic classification of predicates with non-canonically marked S/A

Table 2 presents the list of non-canonically marked predicates according to the semantico-syntactic classification discussed in the introductory chapter of this volume. Each class of verbs is checked with regard to fluidity and the syntactic types discussed in §2.3.

Some predicates in Class I–IV require subordinate structures involving complementation, nominalisation and derivation. One type is the derived
<table>
<thead>
<tr>
<th>Predicate class</th>
<th>Types of non-canonically marked S/A</th>
<th>Corresponding canonically marked S/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia ('physiological states')</td>
<td>Gen S ('feel hot', 'feel good', complex (vii) none</td>
<td>Gen S ('be chilled', 'be sick', 'tolerate') complex (iii) complex</td>
</tr>
<tr>
<td>Ib ('psychological states')</td>
<td>Gen S ('be afraid', 'be jealous', 'be proud') complex (iii) complex (tr)</td>
<td>Gen S ('hesitate', 'be piqued', 'be angry') complex (iii) complex (intr)</td>
</tr>
<tr>
<td>IIa 'see'</td>
<td>Gen A ('see') complex (iv) non-complex</td>
<td>IIb 'know'</td>
</tr>
<tr>
<td>IIc 'like'</td>
<td>None</td>
<td>IIe 'follow'</td>
</tr>
<tr>
<td>IIId (wanting)</td>
<td>Gen S ('hope', 'wish') complex (iii) complex</td>
<td>IIId (trying/success/failure)</td>
</tr>
<tr>
<td>IIId (capability/possibility)</td>
<td>Possessor of VN ('be possible', 'be natural', 'be easy', 'be difficult') No overt S/A</td>
<td>IIId (evidence)</td>
</tr>
<tr>
<td>IV (happenings)</td>
<td>Gen S ('be late', 'profit', 'meet') complex (iii) complex</td>
<td>Gen S/A</td>
</tr>
<tr>
<td>V (possession/existence/lacking)</td>
<td>Gen S ('have', 'suffice') non-complex (vi) none</td>
<td></td>
</tr>
</tbody>
</table>
‘obligation’ construction (Class IIIb) which consists of an Objective S/A, an infinitive verbal clause and the auxiliary hɔ- (cf. §2.2.3(3)). See the discussion on other types in §4.1.2 and §4.2.

Non-canonically marked verbs derived by deagentivisations are discussed in §2.2.1.2 and note 9. Hɔ- deagentives usually require a Genitive S/A,11 while ja-deagentives (expressing possibility) do not have an overt S/A.

3.2 Semantic fluidity

Klaiman (1980b, 1981) argues that the semantic parameter which crucially distinguishes canonically marked from non-canonically marked S/A constructions in Modern Bengali is ‘volitionality’. She tries to prove this by contrasting the behaviour of canonically marked predicates with that of corresponding non-canonically marked predicates in a number of syntactic environments (Klaiman 1981: 37–46). These tests certainly establish that non-canonically marked predicates denote nonvolitional states/activities. However, they fail to prove that canonically marked predicates always denote volitional activities.12

For example, observe the following:

(21) a. [Tren-Ta]₄ bhison deri kor-ech-e.
    train-DEF terribly late do-perf-pres+3ORD
    ‘The train has been terribly late.’

b. [Tren-Ta-r]₄ bhison deri ho-ech-e.
    train-DEF-gen terribly late become-perf-pres+3ORD
    ‘The train has been terribly late.’

It is difficult to argue that difference between (21a) and (21b) lies in the presence or absence of volitionality on the part of ‘the (driver of the) train’. (21a) is uttered when the speaker thinks that the delay of the train could have been avoided, or at least minimised, if proper care had been taken (i.e., in the speaker’s view, the driver of the train is in some way responsible for the delay). (21b), on the other hand, is uttered when the speaker thinks that the train came late due to some uncontrollable circumstances (i.e., in the speaker’s view, the driver of the train is not responsible for the delay). Note that the choice between (a) and (b) depends on how the speaker sees the whole situation. It may be that (21a) is merely an expression of frustration on the part of the speaker, and in reality the delay was caused by an unavoidable accident.

The semantic feature which distinguishes the two versions is better labelled
as ‘control’. Typically in the case of predicates of Class IV, the canonically marked version describes an event as something which can be controlled, at least to some extent, by the main participant in the event, while the non-canonically marked version describes it as something uncontrollable. This semantic contrast of control and noncontrol is either indicated by the opposition of the two simple verbs—*kɔr* ‘do’ and *hɔ* ‘become’—as in the above examples, or by an agentive verb and its deagentivised version. Note that the non-canonically marked version often implies perfective aspect which seems to be related to the semantics of the auxiliary *hɔ* ‘become’—cf. (11b).

*Hɔ*- deagentivisation probably comes diachronically from a construction where the Genitive argument (denoting the Agent of the event described by the verb) functions as the Possessor of the nominalised verbal clause, and the whole Possessed clause stands as S of the predicate *hɔ* ‘become/happen’ (cf. Chatterjee 1975, Klaiman 1981):

Genitive NP + Verbal Noun Clause + become/happen

This Genitive NP acquired the status of S/A at some stage. Some of the *hɔ*-versions as opposed to *kɔr*- with a nominal coverb may be the variant of a deagentive, having been formed by deleting the verbal noun *kɔr-a*.

Deagentivisation has become productive relatively recently in the history of the Bengali language. In Middle Bengali, inflected passive was used more frequently. The development of deagentivisation parallels the demise of inflected passive in Modern Bengali. One of the main semantic differences between inflected passive of Middle Bengali and deagentive constructions of Modern Bengali is that in the inflected passive noncontrol predicates such as ‘die’ and ‘be lost’ could be passivised (cf. Klaiman 1981: 84), while such predicates cannot be deagentivised in Modern Bengali. The semantic parameter of ‘control’, therefore, was not articulated in the grammar of Middle Bengali as clearly as it is in that of Modern Bengali.

Genitive S/A constructions of the predicates which express physiological and psychological experiences (Classes Ia and Ib), and mental activities (Classes Iib and Iic), have a much longer history. In Middle Bengali, NPs in Genitive, Locative and Objective cases could occur as S/A of the predicates denoting those ‘subjective’ experiences (Klaiman 1981: 46ff.). Among them, the most common pattern was:

Genitive NP + body part (L) + sensation/feeling (NOM) + be/become/happen
The Genitive argument of this type seems to have referred originally to the inalienable Possessor of the body part. The Experiencer/Patient status of the Possessor was then focussed on, and acquired S/A status at some stage. In modern Bengali, some predicates still preserve a Locative noun referring to a body part, as in (6). Other predicates don’t require it, as in (13b), (14b) and (15b) where the presence of a Locative noun *mon-e* ’in (my) mind’ is expected. This Genitive construction eventually got generalised, and started being used instead of all the other oblique subject constructions with ‘subjective’ predicates in Middle Bengali.

Thus, in Modern Bengali, we identify at least two major types of Genitive constructions which have distinct origins and belong to different semantic fields.

Note that many of the ‘subjective’ predicates of Class Ia, Ib, IIb and IIc have corresponding predicates with a canonical S/A. Semantic difference between the two versions of these predicates, however, is not so transparent as that of Class IV predicates.

In the case of those which express emotional attitudes such as ‘like’ (13), ‘be jealous’ (14) and ‘hesitate’ (15), the canonically marked version seems to indicate that the Experiencer has more freedom in initiating or expressing his/her emotion, while the non-canonically marked version indicates that he/she is merely a passive Experiencer of the feeling. In the case of those which express physiological experiences, the canonically marked version either describes a controllable activity itself rather than a sensation caused by a physical state as in (16a), or describes a process as if it is somehow controllable in analogy to Class IV predicates, as (33b) and (34b) in §4.3.2 exemplify.

4. Syntactic properties

In this section, I will examine the syntactic properties of canonically marked and non-canonically marked S/A in some detail.

In general, canonically marked S/A show the following syntactic properties:

1. They control or undergo deletion of S/A in the complement clause which is coreferential with the S/A in the main clause.
2. They can stand as Possessor-marked S/A of nominalised clauses.
3. The predicates which require canonically marked S/A can be causativised if they are mono-syllabic roots.
4. They can stand as S/A in Imperative constructions.
5. They can stand as an antecedent of a reflexive pronoun.
6. They can function as a pivot in conjunctive participle constructions.

4.1 Coreferential deletion of S/A in complement

4.1.1 Predicates requiring canonically marked S/A with a clausal complement

Verbs such as ca- ‘want’ (Class IIIa), as exemplified in (17a), par- ‘can’ (Class IIIc, expressing controllable abilities), pa- ‘get’ (Class IIIc, expressing inherent abilities), ceSTa kor- ‘try’ (Class IIId) and suru kor- ‘begin’ (Class IV) require a canonically marked S/A. They all take an infinitive verbal clause as a complement.\(^{13}\) Infinitive verbs which occur in the complement clause of those verbs always require a canonically marked, and not Genitive or Objective, S/A argument which must be deleted under identity with the S/A of the main verb. This is only expected since those predicates imply control over the activity described by the complement. e.g. (Compare the following with (16a), (16b) and (18), respectively):

\[(22)\]

a. \(\text{Tini [hãs-te]compl ceSTa kor-ch-en.}\)
   \(\text{3HONSG+NOM laugh-inf efforts do-IMPERF-PRES+2/3HON}\)
   ‘He/she (honorific) is trying to laugh.’

b. \(*\text{Tini [hãsi pe-te]compl ceSTa kor-ch-en.}\)
   \(\text{3HONSG+NOM laugh get-inf efforts do-IMPERF-PRES+2/3HON}\)
   ‘*He/she (honorific) is trying to feel like laughing.’

c. \(*\text{Tini [sundor dæk-a-te]compl ceSTa}\)
   \(\text{3HONSG+NOM beautiful see-CAUS-INF efforts kor-ch-en.}\)
   \(\text{do-IMPERF-PRES+2/3HON}\)
   ‘*He/she (honorific) is trying to look beautiful.’

The canonically marked verb b3l- ‘tell’ takes two O’s—which refer to an Addressee and a Message, respectively—and an infinitive complement clause may fill the Message slot. The S/A of the complement must always be canonically marked (referring to a Controller), and be coreferential with the O (and be deleted). This is again expected because the verb indicates that the O referent does something on his/her own initiative. For example, compare the following with (12a) and (12b):
The verb de- ‘give’ expressing permission also takes an O NP and an infinitive complement. Exactly the same constraint applies to this verb and its arguments.

Two perception verbs—dekh- ‘see’ and son- ‘hear’—take an O, and optionally an infinitive verbal clause. This construction describes the spontaneous perception of an ongoing activity. Again, the infinitive requires a canonically marked controller S/A which must be deleted under identity with the O of the main verb.

In all the cases discussed in this section, predicates which require a canonically marked S/A delete a canonically marked S/A in the complement clause under identity. Predicates which require non-canonically marked S/A cannot occur in the complement clause of this type.

4.1.2 Predicates requiring non-canonically marked S/A with a clausal complement

There are quite a few predicates which require both a non-canonically marked S/A and a clausal complement. They all belong to Class Ib and III.

Some of the Class Ia intransitive predicates such as bijja ho-kor- ‘hesitate’, as in (15), bhoy ho-kor- ‘be afraid’, and bhalo lag- ‘feel good’, as in (5), can optionally take an infinitive complement. In either case, the infinitive verb requires a canonically marked S/A which must be coreferential with the Genitive A of the main clause.
The non-canonically marked predicates *iccha kɔr- ‘wish’* and *iccha (ach-) ‘have a wish’* (Class IIIa) also take a clausal complement. The former takes an infinitive clause, and the latter a verbal noun clause in Genitive case (which functions as the Possessor of the coverb *iccha ‘wish’*). In both cases the complement clause requires a canonically marked S/A coreferential with the Genitive S of the main clause.

(26) 

\[
\begin{array}{c}
Tā-r \\
S \\
toma-r sängekɔtha bɔl-a-r \text{COMPL}
\end{array}
\]

3HONGS-GEN 2ORDSG-GEN with words say-VN-GEN

\[
\begin{array}{c}
hub iccha (ache).
\end{array}
\]

very wish be+pres+3ORD

‘He/she (honorific) has a strong wish to have words with you (ordinary singular).’

The Class IIIb predicates which require a Genitive S/A show various subordinating strategies. Among them, the non-inflecting transitive verb *cai ‘need’*, as exemplified in (17b), can take a verbal noun clause in O slot. The S/A of the verbal noun occurs as its Possessor if it is non-coreferential with the Genitive A of *cai*, but it is deleted if it is coreferential. The S/A of the verbal noun must be canonically marked. (See the discussion on the rest of the (nominal and adjectival) predicates in §4.2 below.)

Another non-inflecting verb *ucit ‘should’* requires a Genitive S and a verbal noun complement. In this case, interestingly, a predicate with a Genitive (coreferential) S/A is marginally allowed to occur as a complement. In the following example, *lojja pa-* is a predicate requiring a canonically marked S, while *lojja ho-* requires a Genitive S (cf. (15)). Possessor-marked NP *toma-r*, then, corresponds to the Nominative/Locative and Genitive S, respectively, of these predicates:

(27)  

\[
\begin{array}{c}
Toma-r \\
| \text{SUBJECT ucit.}
\end{array}
\]

2ORDSG-GEN hesitation get-VN/become-VN should

‘You should feel hesitated/ashamed.’

To conclude, when coreferential deletion occurs in Bengali, the main predicate may require either a canonically marked or a non-canonically marked S/A. The S/A in the complement clause (which is deleted under identity with the S/A of the main clause), on the other hand, is usually marked canonically, although predicates with a non-canonically marked S/A are marginally allowed in some case.
4.2 Possessor-marked S/A of nominalised clauses

Some adjectives function as predicates of Class IIIb and IIIc. They include: dɔrkar 'necessary', sɔmbhob 'possible', sabhabik 'natural' and koTHin 'difficult'. They require a nominalised clause in their subject slot. Such a nominalised clause is preceded by a Possessor-marked NP (in Genitive case) which corresponds to the S/A of the original verb.

In (28a), the copula ach- 'have' requires a Genitive Possessor, and a Possessed NP in Nominative case (cf. (9)). In (28b), the nominalised form of the copula thak-a occurs as the subject of the adjectival predicate sabhabik 'natural'. The original Genitive NP stands as the Possessor-marked NP preceding the whole nominalised clause. This shows that in the original construction (28a), the Genitive Possessor tã-r, and not the Nominative Possessed argument stri 'wife', shows an S (or A) property.

(28) a. Tã-r stri achen.
    3HONSG-GEN wife have+pres+2/3HON
    ‘He has a wife.’

b. Tã-r [ei bɔys-e stri thak-a-i]SUBJECT sabhabik.
    3HONSG-GEN this age-L wife have-vn-exc natural
    ‘It is only natural for him (honorific) to have a wife in his age.’

Note, however, that neither deagentivised verbs nor predicates which require an Objective S can stand as nominalised subjects. Compare the following with (18):

(29) *E-ʁkom bhalo jama por-le tã-r [sundɔr this-kind good clothes wear-cond 3HONSG-GEN beautiful
dekh-a-no-i]SUBJECT sabhabik.
    see-caus-vn-exc natural
    ‘*As he/she (honorific) wears such good clothes, it is only natural
    for him/her to look beautiful.’

In sum, both canonically marked S/A and underived Genitive S/A can stand as the Possessor-marked NP when the original verbal predicate is nominalised.

4.3 Causativisation

Bengali has no passives and applicatives (as defined by Dixon and Aikhenvald
1997). ‘Deagentivisations’, which demote the Nominative S/A to Genitive, are
discussed in §2.2.1.2. In this section, causativisation is discussed.

Causative verbs are derived from both intransitive and transitive verbs requir-
ing canonically marked S/A, by attaching the suffix -a -i to them. The root of
such a verb must be monosyllabic. Verbs with polysyllabic roots cannot be
causativised.

In the case of intransitive verbs, S becomes O and a new A is introduced.

(30) a. [jɔl]₈ phuT-ech-e.
   water boil-perf-pres+3ord
   ‘The water boiled.’

   1sg+nom water boil-caus-perf-pres+1
   ‘I boiled the water.’

In the case of transitive verbs, there are two types according to the status of
the demoted A.

1. In the first type, the original O stays as it is, the original A is demoted to an
   Instrumental (expressed by a postpositional phrase consisting of an Objective
   NP + die ‘by’ or a Genitive NP + dara ‘by’), and a new A is introduced. E.g.:

   3honsg+nom letter-def read-fut+2/3hon
   ‘He/she (honorific) will read the letter.’

tā-ke die/tā-r dara [ciTHi-Ta]₀
   1sg+nom 3honsg-obj by 3honsg-gen by letter-def
   psR-a-bo.
   read-caus-fut+1
   ‘I will make him/her (honorific) read the letter.’

2. In the second type, the original O stays as is, the original A becomes another
   O, and a new A is introduced. Verbs which belong to this class describe activi-
ties which affect the physical or mental state of the referent of A (cf. Klaiman
1981a). They include kha- ‘eat/drink’, pr– ‘wear’, bojh- ‘understand’, dekh-
‘see’ (cf. (1)), etc.

   boy-def meal eat-perf-pres+3ord
   ‘The boy had a meal.’
b. \[\text{[Ami]}_{\text{nom}} \quad \text{[chele-Ta-ke]}_{\text{obj}} [\text{bhat}]_{\text{nomin}} \text{ kha-i-ech-i.} \]
\[1SG+NOM \text{ boy-DEF-OBJ meal} \text{ eat-CAUS-PERF-PRES+1} \]
‘I assisted the boy in having a meal./ I treated the boy with a meal.’

In general, verbs which take a Genitive S/A cannot be causativised. There are, however, a few apparent exceptions. The predicate \text{}THaNDa lag- ‘be chilled’ which requires a non-canonically marked S, exemplified in (33a), has a form with a causative marker \text{}THaNDa lag-a- which occurs with a Nominative S, as in (33b). The same pattern is observed with \text{}nak Da- ‘snore’, as in (34a), and \text{}nak Da-a-, as in (34b). Note, however, that versions (b) have no causative meanings. Moreover, even the transitivity value of the predicates (b) remains the same as that of the predicates (a).

(33) a. \[\text{[Ama-r]}_{\text{gen}} \quad \text{THaNDa leg-ech-e.} \quad \text{1SG-GEN coldness be.attached-PERF-PRES+3ORD} \]
‘I have caught a cold.’

b. \[\text{Baire gi-e [ami]}_{\text{nom}} \quad \text{THaNDa} \quad \text{outside go-CP 1SG+NOM coldness lag-i-ech-i.} \]
‘I went outside and (as a result of this foolish act) have caught a cold.’

(34) a. \[\text{Ghumo-le-i [tã-r]}_{\text{gen}} \quad \text{nak Da-e.} \quad \text{sleep-COND-EXC 3HONSG-GEN nose call-PRES+3ORD} \]
‘He/she (honorific) snores whenever he/she sleeps.’

b. \[\text{[Tini]}_{\text{gen}} \quad \text{nak Da-a-ech-en.} \quad \text{3HONSG+NOM nose call-CAUS-IMPERF-PRES+2/3HON} \]
‘He/she (honorific) is snoring.’

\text{}THaNDa ‘coldness’ and \text{}nak ‘nose’ in the above examples are coverbs, as defined in §2.2.1.1. The semantic contrast between (a) and (b) is analogous to the one between the predicate which requires a non-canonically marked S/A and the one which requires a canonically marked S/A (cf. §3.2). The versions (a) express spontaneous processes/states which are totally uncontrollable. The versions (b), on the other hand, describe processes as if they are partially controllable by the affected participants.
4.4 Imperatives

Simple Imperative verbs can have a canonically marked S/A in any person/number. With a first or third person S/A, they express a hortative meaning:

   2ORDSG+NOM work-DEF do-IMP+2ORD
   ‘You (ordinary sg) do the work.’

b. Ami kaj-Ta kor-i.
   1SG+NOM work-DEF do-IMP+1
   ‘Let me do the work.’

(36) a. Tomra ekhane es-o.
   2ORDPL+NOM here come-IMP+2ORD
   ‘You (ordinary sg) come here.’

b. Ta-ra ekhane as-uk.
   3ORD-PL+NOM here come-IMP+3ORD
   ‘Let them (ordinary) come here.’

In general, predicates with a Genitive S/A and an Objective S/A cannot enter into imperative constructions.

(37) a. *Toma-rlama-rta-der ThaNDo
cold(ness)
   2ORDSG-GEN/1SG-GEN/3ORDPL-GEN cold(ness)
   lag-uk.
   be.attached-IMP+3ORD
   ‘*May you/I/they have a cold!’

   2ORDSG-OBJ beautiful see-CAUS-VN become-IMP+3ORD
   ‘*May you look beautiful!’

The only exception are the predicates of Class IV. Some of them can occur in Imperative with a third person ordinary inflection, and the whole construction expresses a wish on the part of the speaker:

(38) Ebare toma-der ranna ho-k.
   this.time 2ORD-PL+GEN cooking become-IMP+3ORD
   tar pORE amra kha-bo.
   that-GEN after 1PL+NOM eat-FUT+1
   ‘Let your cooking be finished. After that we will eat.’
Deagentivised verbs can also occur in Imperative, but in this case the derived Genitive S/A do not occur:

(39)  
\[
\text{Ebare} \ (\text{*ama-der}) \ \text{ta-ke} \ \text{Taka-Ta} \ \text{de-wa}
\]
\[
\text{this.time} \ 1\text{-PL+GEN 3ORDSG-OBJ money-DEF give-VN}
\]
\[
\text{ho-k.}
\]
\[
\text{become-IMP+3ORD}
\]

‘Let him be given the money (*by us) this time!’

Apart from Simple Imperatives, Bengali has Future Imperatives, Compulsion Forms and Cohortatives. Future Imperatives and Compulsion Forms can occur only with a second person S/A. Cohortatives occur only with action verbs. Non-canonically marked predicates, either derived or underived, cannot occur with any of these forms. Locative S/A cannot occur in these constructions either, as mentioned in §2.1.2.

4.5 Antecedent of reflexive pronoun

Bengali has a reflexive/emphatic pronoun \textit{nij} ‘self’. Reflexive meaning is not very often expressed by filling the O slot of a transitive verb by this reflexive pronoun, but this does occasionally occur. In such a case, either a canonically marked or a non-canonically marked A is the antecedent.

(40)  
\[
\text{Se} \ [\text{nije-ke-i}] \ O \\
\text{bɔRο mon-e kɔr-e.}
\]
\[
\text{3ORDSG+NOM self-OBJ-EXC big mind-L do-PRES+3ORD}
\]

‘He/she (ordinary) thinks highly of only himself/herself.’

A far more common strategy, however, is for a transitive verb to take a body part nominal in O slot.

(41) a.  
\[
\text{Tusar} \ ayna- \ [\text{mukh}] \ dekh-ch-e.
\]
\[
\text{‘male.name’ mirror-L face see-IMPERF-PRES+3ORD}
\]

‘Tushar is looking at (his own/someone else’s) face in the mirror.’

As shown above, the inalienable Possessor of a noun is often not overtly expressed in Bengali. The referent of the unexpressed Possessor of the O nominal in this case is potentially ambiguous, as indicated in the gloss. Alternatively, the Possessorn may be expressed by the Genitive form of a personal and/or reflexive pronoun.
(41) b. \([Tusar]\_A ayna-y [ta-r mukh]_O\)  
‘male.name’ mirror-L 3ORDSG-GEN face  
dekh-ch-e.  
see-imperf-pres+3ord  
‘Tushar is looking at his/her face in the mirror.’

c. \([Tusar]\_A ayna-y [(ta-r) nij-er mukh]_O\)  
‘male.name’ mirror-L 3ORD.SG-GEN self GEN face  
dekh-ch-e.  
see-imperf-pres+3ord  
‘Tushar is looking at (his) own face in the mirror (and not other person’s).’

In (41b) ta-r ‘his/her’ can refer to Tushar himself or a third person other than Tushar, but it is usually an expression of a reflexive action, unless specified otherwise. In (41c), the antecedent of the reflexive Possessor nij-er is unambiguously the Nominative A NP of the verb dækh- ‘see’. This sentence expresses a contrastive meaning as indicated in the brackets.

In the case of predicates with a non-canonically marked A, the antecedent of the reflexive Possessor of O is again always the non-canonically marked A in the same clause.

(42) \([Nij-er chele-ke-i]_O to [ta-r]_A bhɔɔy\)  
self-GEN son-OBJ-EXC even 3ORDSG-GEN fear  
bhɔɔ-y.  
become-pres+3ord  
‘He/she (ordinary) fears his/her very son.’

The foregoing discussion suggests that both canonically marked and non-canonically marked S/A function as the antecedent of a reflexive pronoun in O or Possessor function.14

4.6 Pivot in conjunctive participle construction (CPC)

Klaiman (1981: 87) defines CPC as a construction where ‘one or more clauses are reduced, leaving un/reduced a single clause whose predicate serves as the main verb of the entire sentence. The predicates of the reduced clauses take a particular nonfinite shape known as the conjunctive participle or CP.’

In general, CPC of Indian languages operates around both canonically
marked and non-canonically marked arguments which are categorically called ‘subjects’ by many linguists. We need to examine the following points (as suggested in the Introductory chapter of this volume):

1. What kind of S/A of the CP and that of the main clause are required to be coreferential (called ‘same subject conditions’, hence SSC); and
2. Under this SSC, what kind of S/A is deleted (‘pivot conditions’, hence PC).

Klaiman (1981) argues that Genitive and Objective arguments of Bengali are ‘subjects’ on the basis of PC, i.e. all the core arguments marked by Nominative, Locative, Genitive or Objective case can stand as the Controller of PC. As regards (1), she notes that ‘the SSC applies to clauses which express volitional activity, and not to clauses which express nonvolitional activity’ (Klaiman 1981: 120). She specifies the constraints on Modern Bengali CPC as follows: ‘Any specified, volitional subject in a CPC tends to be interpreted as the subject of each subjoined clause.’ (Klaiman 1981) This generalisation seems to hold (except that I would use the term ‘controlling S/A’ instead of ‘volitional subjects’), as we will see below. But, then, SCS is crucially controlled by a Nominative/Locative S/A with a Controller referent, and not by those with a Noncontroller referent, especially Genitive/Objective S/A. This suggests that although Nominative/Locative S/A and Genitive/Objective S/A can be grouped together with regard to coreferential deletion or pivot conditions, there is also a crucial difference between them with regard to the formation of CPC.

In Bengali a CP is marked by the suffix -e which is attached directly to the verb stem. One can chain as many CP’s as one likes, if they have a coreferential S/A. A typical example of Bengali CPC is given below:

(43)   Ami baRi phir-e snanser-e bhat khe-e
       1SG+NOM home return-CP bath finish-CP meal eat-CP
       bichana-y su-ech-i.
       bed-lie PERF-PRS+1
‘I returned home, finished taking a bath, had a meal and lay in bed.’

The Nominative NP ami ‘I’ can be placed anywhere, but this NP is required by the finite verb su-ech-i, and not by the CP’s. This is proved if either a CP or the main verb has a coreferential Genitive or Objective argument:

(44)   ThaNDa leg-e ami bichana-y su-ech-i.
       coldness be.attached-CP 1SG+NOM bed-lie PERF-PRS+1
‘I caught a cold (got chilled) and lay in bed.’
In (44), the CP requires a Genitive Argument *ama-r* (1SG-GEN) which is coreferential with the Nominative *ami* of the main verb *so-* ‘lie’. Only *ami* is allowed as an overt NP. In (45), the CP requires a Nominative *A* *amra* ‘we’ and the main verb the Genitive *ama-der*. Only the latter is allowed. Note that in either case the overt NP can be placed in sentence-initial position or after the main verb. (See also (18) where the Objective S in the main clause, and not the Nominative A of CP, stands as an overt NP.)

Two clauses may have a coreferential Genitive S/A:

(46) *ThaNDa leg-e ama-r jɔr*  
coldness be.attached-cp 1SG-GEN fever  
*ho-ech-e.*  
become-perf-pres+3ord  
‘I got chilled and caught a fever.’

The same principle applies to (derived) Objective S/A, e.g., Genitive (CP) + derived Objective (main):

(47) *Bhɔy ho-e ama-ke pali-e as-te*  
fear become-cp 1SG-OBJ escape-cp come-inf  
*ho-ech-e.*  
become-perf-pres+3ord  
‘I became afraid and had to escape and come here.’

Possible combinations of two clauses are listed in Table 3.

<table>
<thead>
<tr>
<th>CP</th>
<th>Main clause</th>
<th>Overt NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) canonical (NOM/L)</td>
<td>canonical (NOM/L)</td>
<td>canonical (NOM/L)</td>
</tr>
<tr>
<td>(ii) Genitive</td>
<td>canonical (NOM/L)</td>
<td>canonical (NOM/L)</td>
</tr>
<tr>
<td>(iii) canonical (NOM/L)</td>
<td>Genitive/Objective</td>
<td>Genitive/Objective</td>
</tr>
<tr>
<td>(iv) Genitive</td>
<td>Genitive/Objective</td>
<td>Genitive/Objective</td>
</tr>
</tbody>
</table>
The patterns (i) and (iii) are most commonly observed. In each case, the canonically marked S/A of a CP typically refers to a Controller. As mentioned earlier, a canonically marked S/A denoting a Controller, if it exists, is the single most important factor of discourse organisation in Bengali. For this reason, there are some restrictions in the patterns (ii) and (iv).

In general, non-canonically marked predicates requiring Genitive S/A can occur as CP’s only if they have no corresponding canonically marked controlling predicates. If there is a choice between canonically marked and non-canonically marked versions with clear semantic contrast (control vs. non-control), it is always the former which is chosen as a CP. Observe the following:

(48)  
\[
\text{Ami toma-ke pachondo kor-e-i ho-e-i} \\
\text{1SG+NOM 2ORDSG-OBJ liking do-CP-EXC/become-CP-EXC} \\
\text{bie kor-ech-i.} \\
\text{marriage do-PERF-PRES+1} \\
\text{‘I married you because I liked you.’}
\]

(49)  
\[
\text{Ama-r derikor-e ho-e ekhane as-a} \\
\text{1SG-GEN late do-CP/become-CP here come-VN} \\
\text{ho-ech-e.} \\
\text{become-PERF-PRES+3ORD} \\
\text{‘I came here late (lit. my coming here took place late).’}
\]

In (48) the Nominative A ami ‘I’ of pachondo kor- ‘like’ in CP is deleted under identity with the Nominative ami of bie kor- ‘marry’ in the main clause. Similarly, in (49), the Nominative S ami of deri kor- undergoes deletion under identity with the Genitive S ama-r of the deagentive verb as-a ho-. The Genitive version with ho- is not allowed as a CP in either case.

This means that the predicates with a non-canonically marked S/A which can occur in CP position mostly belong to Class I (and marginally to Class IIg and V, as exemplified in (50) below). Indeed, some Class I predicates can occur as CP’s even if they have canonically marked counterparts. Note that THaNDa lag- ‘be chilled’, as in (46), and bhɔy ho- ‘become afraid’, as in (47), have canonically marked versions THaNDa lag-a-, as in (33b), and bhɔy pa-, respectively. Any of these can occur as CP’s. This probably indicates that the canonically marked versions of these predicates do not really express ‘control’—they are developed in analogy to Class IV predicates, to add some nuance to the core meanings of uncontrollable subjective feelings.
In the case of Possessive construction with a Genitive and Nominative argument, the Possessor in Genitive case can function as the pivot in CP in a set expression exemplified below (compare this with (9)):

(50) \[ \text{Ama-r } baba \text{ thek-e } ki \text{ labh } ho-lo? \]
    \[1SG-GEN \text{ father be/have-CP what profit become-PAST+3ORD} \]
    ‘What do I gain by having a father? (He might as well be dead.)’
    (Klaiman 1981: 26)

The above example gives another piece of evidence (in addition to the one discussed in §4.2) that the Genitive argument, and not the Nominative argument, functions as S (or A).

When there is no Controller argument in either CP or the main clause, SSC does not hold. The most obvious case is when the Nominative S/A of the conjunctive verb have an inanimate referent. This construction is possible only when the speaker sees the events described by the CP and the main verb as parts of a whole event either in terms of temporal, spatial, and/or causal relationship.\(^{16}\)

(51) \[ \text{Ghor-e briSTi-r jol Duk-e s\={o}b bichana} \]
    \[\text{room-l rain-GEN water enter-CP all bed} \]
    \[\text{bhij-e } ga-lo. \]
    get.wet-CP go-PAST+3ORD
    ‘The rain water entered the room and all the beds got wet.’

The main clause may have a Genitive argument, as in (52a), or a canonically marked S/A denoting Noncontroller, as in (52b):

(52) a. \[ \text{Taks beR-e gi-e \={o}nek-er koSTo} \]
    \[\text{tax increase-CP go-CP many-GEN difficulty} \]
    \[\text{ho-ech-e.} \]
    become-PERF-PRES+3ORD
    ‘Taxes have increased and it became difficult for many people.’

b. \[ \text{Taks beR-e gi-e \={o}nek-er koSTo pe-ech-e.}\(^{17}\) \]
    \[\text{tax increase-CP go-CP many-l difficulty get-PERF-PRES+3ORD} \]
    ‘Taxes have increased and many have fallen into difficulties.’

On the other hand, if the canonically marked S/A of the main clause is a Controller, it demands SSC, so the following sentence is ungrammatical.
(53) *BrîSTî poR-e casi-ra labh kor-lo.
    rain fall-CP farmer-PL profit do-PAST+3ORD
    ‘*Rain fell and the farmers profited.’ (Klaiman 1981: 113)

Note that even if an S/A of a CP has an animate referent different from that of the main verb, CPC may be allowed—under the conditions that S/A of the two clauses denote Noncontrollers, and the two events are semantically very closely related:

(54) BhuTTom-a gi-e ta-r stri bidhoba
    Bhutto die-vN go-CP 3SG-GEN wife widow
    ho-lo.
become-PAST+3ORD
    ‘Bhutto died and his wife became a widow.’ (Klaiman 1981: 115)

The foregoing discussion on Bengali CPC highlights the following points:

1. Both canonically marked and non-canonically marked S/A can function as the pivots of CPC. However, their behaviour is not uniform due to (2) and (3) below.
2. Controller S/A (which are always canonically marked) have a special status in the thematic organisation of Bengali discourse. The predicate which has a Controller S/A must be chosen as a CP when a particular predicate has both a controlling and a non-controlling version. A controlling predicate also demands SSC when it occurs as a main predicate.
3. Non-controlling predicates including ‘subjective’ predicates requiring Genitive S/A (Class I) and some predicates requiring canonically marked S/A (such as marâ ja- ‘die’) do not demand SSC. They can freely stand as CP’s and main predicates without maintaining SSC.

4.7 Summary

In sum, canonically marked and non-canonically marked S/A in Bengali show the following properties set out in Table 4 (√ indicates that the criterion in that row is satisfied by the type of the predicate in that column). Note that Locative cannot occur on pronouns, as discussed in §2.1.2.

As shown above, Nominative and Locative S/A contrast with Genitive and Objective S/A in their morphological and syntactic behaviour. Among them, Objective occurs only with three types of predicates (cf. §2.2.3). Locative
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Nominative</th>
<th>Locative</th>
<th>Genitive</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case marking</td>
<td>canonical</td>
<td>canonical</td>
<td>non-canonical</td>
<td>non-canonical</td>
</tr>
<tr>
<td>Verbal Agreement</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Coreferential Deletion (a)</td>
<td>as main predicate</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Possessor-marked S/A</td>
<td>only underived ones</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Causative (iv)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Simple Imperative (v)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Antecedent of Reflexive (vi)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CPC</td>
<td>SSC (Controller)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Controller) pivot in main clause</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Controller) pivot in CP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 4
is used only occasionally as an alternative marking for Nominative (§2.1.2).

Among the predicates which require Genitive S/A, those which express physiological and mental experiences (Class Ia, Ib, IIb and IIc) and those which express uncontrollable activities (Class IV) are numerous. Structurally, most of the first type are complex predicates which have a different types of simple verbs, and coverbs including body part nominals and/or nouns/adjectives/onomatopoeic words denoting sensations. The latter, on the other hand, often have ʃɔ- ‘become’ as a simple verb, and show a systematic opposition with predicates with ʃɔr- ‘do’ as a simple verb with a canonically marked S/A, denoting controllable activities.

As shown in the Table 4, different classes of predicates requiring Genitive S/A show different syntactic properties. The reason why derived (deagentivised) predicates cannot occur as nominalised clauses with a Possessor-marked S/A (cf. syntactic property (ii) in Table 4) is simply due to the fact that derived structures involve nominalisation. Differences in behaviour in Simple Imperative and CPC formation, on the other hand, centre around the major semantic (and historical) division among the predicates with a Genitive S/A, namely those which express ‘subjective experiences’ and those which express ‘uncontrollable activities’.

5. Conclusion

In this paper I discussed the syntactic properties of non-canonically marked S/A, and the types of predicates which require them. The following hierarchies have been established:

1. Syntactic properties. Three properties—control over coreferential deletion in complement clauses, control over reflexivisation, and pivot control—are the strongest. They apply to all types of S/A. Other criteria are restrictive. Among them, Possessor-marking of S/A of nominalised clauses applies to both canonically marked and underived Genitive S/A (but exclude derived Genitive S/A and Objective S/A). Causativisation, Imperatives and SSC in clause linking, on the other hand, clearly distinguish between canonically marked and non-canonically marked S/A.

2. Predicate types. Bengali has most syntactico-semantic types of predicates requiring non-canonical S/A discussed in my introductory chapter in this volume. The only exceptions are two-place predicates belonging to Class
They particularly concentrate on two classes—Class I (and IIb, c) and Class IV. The former class is historically older. The latter has been developed quite recently, but are now dominant in the grammatical system of Bengali. One consequence of this is that all the predicates of Class IV have corresponding canonically marked versions with fairly systematic marking and clear semantic contrast (non-control vs control), and many of Class I and IIb/c predicates have developed a similar contrast via analogy with irregular forms and less clear semantic contrast.

3. Correlations between predicate types and syntactic properties. Genitive S/A show more S/A properties than Objective S/A. Among the predicates which require Genitive S/A, those of Class I which refer to physiological states can function as pivot in CP, while those of Class IV can be used in Simple Imperative. The fact that the S/A of a Class IV predicate cannot function as a pivot in CP is due to the fact that the ‘Controller’ is preferred as a pivot, and Class IV predicates have always alternative controlling predicates. However, the fact that only Class IV predicates can occur in Simple Imperative may be significant. It may indicate that Genitive S/A of Class IV are gradually acquiring the properties shown by canonically marked S/A.

We have seen that Bengali can use four cases for marking S/A arguments: Nominative, Locative, Genitive and Objective. These arguments display different sets of S/A properties. In general, Nominative arguments show all the S/A properties, Locative a little less (in that they cannot occur on pronouns), Genitive show some of them and Objective only a few. Schematically this hierarchy can be shown in the following way:

\[
\begin{array}{cc}
\text{More A/S properties} & \text{Less A/S properties} \\
\text{Nominative} & \text{Locative} & \text{Genitive} & \text{Objective} \\
\leftarrow \text{Canonical} & \rightarrow \text{Non-canonical}
\end{array}
\]

Notes

1. I dedicate this paper to Shri Keshab Chandra Sarkar who initiated me in Bengali in 1976 and has been a source of inspiration for my study since then. Some of the points in this paper emerged during the discussion with him in Calcutta. I am grateful to Shrimati Shephari De and Shri Siddharta De for carefully checking the examples given in this paper. I am also grateful to Professor Pabitra Sarkar for kindly providing me with a copy of his valuable unpublished dissertation. Ordinary disclaimers apply.

The following abbreviations are used: caus = causative; cl = classifier; compl = complement clause;
2. Even in this case, however, -ke marking may occasionally be used for emphasis. See the discussion and examples in Masica (1980: 22–3).

3. The only exception is an archaic construction where first and second person singular pronouns in Locative case are juxtaposed to express reciprocal activities.

4. Genitive arguments in core function are often called ‘Dative subjects’ (e.g. Klaiman 1980b) following Masica 1976. The term is confusing. I simply call them Genitive S/A.


6. See Sarkar (1975: 27ff.) for semantic criteria used to define complex verb constructions.

7. Mon-ekɔr- ‘come to mind’ in (6) has a canonical version mon-ek ‘remember’.

8. See §3 for the discussion on the semantic-syntactic classification of these predicates, and particularly on the semantic difference between canonical and non-canonical versions.

9. This is traditionally called ‘passive’ (cf. Chatterjee 1975, Klaiman 1981), but this differs from a prototypical passive in that O is not affected by the derivation (for the definition of ‘passives’, see Dixon and Aikhenvald 1997).

There are two other ‘deagentivisations’ in Bengali:

1. ‘Ja- deagentivisation’ which expresses possibility; and

2. ‘Ach- deagentivisation’ which expresses resultative states.

In ja- deagentivisation, the original Nominative S/A is obligatorily deleted, and the verb is nominalised and is followed by the auxiliary ja- ‘go’ which again takes a third person ordinary form.

The original O is not affected. For example:

(a) Ækhon ki [bhat]O pa-wa ja-be?
      now qu meal get-VN go-FUT+2/3ORD
‘Is it possible to have meals now?’

Ach- deagentive expresses a resultative state. It consists of a nominalised verb + the auxiliary ach- ‘be’ in third person ordinary inflection. Only transitive achievement verbs can undergo this derivation. The original Nominative A is either deleted or demoted to a Genitive (as in (b)). In either case the original O again stays as it is.

(b) [Toma-ke]S [ama-r]A cen-a ache.
      2ORDSG-OBJ 1SG-GEN know-VN be+PRES+3ORD
‘I have a thorough knowledge of you.’

10. Note that some complex verbs with kɔr- requiring canonically marked S/A may have either a deagentive verb, or a simple verb with hɔ- in place of kɔr-, as a non-canonical version. e.g.

(a) [Amra]S ranna kɔr-ech-i.
      1PL+NOM cooking do-PERF+PRES+1
‘We have done cooking.’

(b) [Ama-der]S ranna (kɔr-a) ho-ech-e.
      1-PL+GEN cooking do-VN become-PERF+PRES+3ORD
‘Our cooking has been done.’
11. If they are used in journalistic reports, scientific articles, etc. stating facts from a neutral point of view, Genitive S/A are not overtly expressed. cf. Klaiman 1981.

12. This is pointed out by Masica (1991: 350) in the following way: ‘… It is not that Direct (i.e. canonical, M.O.) constructions are necessarily volitional, but rather that they are unmarked as to volitionality and thus may be (where the contrast is present, may even tend to be) volitional, whereas the Dative construction is definitely nonvolitional.’

13. Among them, those which have a nominal coverb (such as ceSTa kɔr- ‘try’ and suru kɔr- ‘begin’) can alternatively take a verbal noun as a complement. The verbal noun may be in Genitive case functioning as the Possessor of the nominal (e.g. ceSTa ‘efforts’), or may be unmarked occupying the O slot of the whole VP (e.g. suru kɔr- ‘begin’). The complement verbal noun must also have a coreferential canonical S/A which is deleted.

   Semantically, an infinitive complement describes an action or event which (is supposed to) take(s) place immediately, while a verbal noun complement doesn’t indicate any temporal relation. Note that ses kɔr- ‘finish’ can take only a verbal noun clause as a complement.

14. I tried to apply this test to the construction expressing Possession with a Genitive and Nominative argument (cf. (9)). Unfortunately, no arguments can possibly have nij-er as Possessor in this construction. For example, when it takes a peripheral NP indicating a location, the whole construction is altered to a locational one. The location nominal cannot take nij-er.

   BaRi-te tã-r æk-jon kaka achen.

   house-3hon.sg-gen  one-cl.human father’s.brother be+pres+2/3hon

   ‘One of his paternal uncles is at (his) house.’

Thus this test fails to apply to the above construction.

15. As discussed in §2.2.1, Locative is simply a variable marking for Nominative. The syntactic behaviour of Locative S/A is almost the same as that of Nominative S/A. They are not discussed separately for this reason.

16. The following examples (51), (52a) and (52b) are taken from Klaiman (1981: 111, 113 and 114) with a slight modification.

17. Klaiman (1981: 113) states that the canonical version of this predicate—i.e. ksTo pa—is not allowed to occur as a main verb here. My informants allowed both canonical and non-canonical versions in this particular case, presumably because they belong to Class Ib denoting uncontrollable mental experiences.

References


1. Introduction

Quechua is a language family of about six million speakers spoken in the Andean Highlands. The data in this paper are from Imbabura Quechua (IQ), a dialect of Northern Highland Ecuadorian Quechua (one of the Quechua II languages per Torero 1964). Imbabura is spoken by some thirty to fifty thousand speakers in the province of Imbabura in Northern Ecuador. IQ is a Nominative-Accusative language which exhibits many of the morphological and syntactic characteristics associated with OV languages (Greenberg 1963). The basic order of clausal constituents is SV/AV, although the verb final-property is more strictly observed in embedded clauses than in main clauses:

(1)  Juan llama-ta randi-rka.
    Juan.NOM sheep-ACC buy-PAST.3
    ‘Juan bought a sheep.’

(2)  Maria kay-pi ka-shka-ta ya-ni.
    Maria-NOM here-in be-NOMIN.PAST-ACC think-PR.1
    ‘I think that Maria was here.’
Within the NP, all the modifiers precede the head N, and (as in most verb-final languages) relative clauses are also head final (although internally headed relative clauses are also common, see Cole 1982):

(3) [Juan randi-shka] llama.
   Juan-nom buy-past.3 sheep-nom
   ‘The sheep which was bought by Juan.’

Case is typically marked on the right of the whole NP (which in (3) coincides with the head position). In IQ, nominative case is not overt and is marked by a null morpheme. Both S and A typically receive the null (nominative) case, as in examples (4)–(5). Note also that the topic marker -ka frequently appears on subject NPs. There is independent evidence, however, that this marker is not a nominative marker, since it can also attach to non-canonically marked S/A (S/A which are marked by an accusative case marker, as shown in (9)).

IQ also has overt case marking: the O typically receives the accusative case -ta, while indirect objects receive the dative case -man. Genitive NPs are marked with the postposition -paj.4

(4) Ñuka-ka Juzi-man aycha-ta kara-rka-ni.
    1sg-nom-top Jose-dat meet-acc serve-past-1
    ‘I served meat to Jose.’

(5) Wawa-ka puñu-rka.
    baby-nom-top sleep-past.3
    ‘The baby slept.’

(6) Ñuka-paj churi
    1sg-ben son-nom
    ‘my son’

Like many of the Quechua languages, IQ has predicates which require a non-canonically marked core argument S/A. In IQ the case marker which marks such non-canonical S/A is the accusative marker -ta, and hence the non-canonically marked S/A is often referred to in the literature as an ‘accusative subject’.5

In this paper, I would like to describe the general properties of non-canonically marked S/A. In §2, I review the range of predicates which require an accusative rather than nominative core NP (S/A). Two types of such predicates are discussed: lexical predicates and the predicates formed with desiderative suffix -naya. §3 describes the coding properties associated with canonically and non-
canonically marked S/A in IQ, while §4 describes the syntactic properties of canonically and non-canonically marked S/A. §5 presents a general summary and concluding remarks.

2. Predicates which require non-canonically marked S/A in IQ

As mentioned above, in IQ certain predicates select an S or A which is not marked with the (null) nominative case typical of S/A (nominative marking was illustrated in 4–5 above). The predicates selecting non-canonically marked subjects typically express a physiological state or event, and therefore can be viewed as Class Ia predicates (see the typology in the introductory chapter to this volume). The non-canonically marked S/A refers to a patient who is physically affected by the state or event described by the predicate:

(7)  
nanana ‘to hurt’
rupana ‘to be hot’
chirina ‘to be cold’
yarjana ‘to be hungry’

An example of a non-canonically marked S is illustrated below:

(8)  
Ñuka-ta chiri-wa-rka-mi.
    me-acc cold-om-past.3-val
‘I was cold.’

Although most of these verbs are intransitives, at least the verb ‘hurt’ seems to appear in a transitive frame:

(9)  
Ñuka-ta-ka uma-ta nana-wa-n-mi.
    me-acc-top head-acc hurt-om-pres.3-val
‘My head hurts me.’

The non-canonically marked core argument refers to an experiencer/patient who is physically affected by the event described by the predicate. We will refer to these predicates as lexical experiencers, since they select for an experiencer S/A which is non-canonically marked.

In IQ, Class (II) verbs of perception or cognition do not select for a non-canonically marked S/A. For example, the verb gushta ‘like’ (most likely a borrowing from Spanish gustar) selects a canonically marked nominative A in IQ:
IQ, however, does possess some Class III two-place secondary verbs which select non-canonically marked A. One such verb is the verb *muna* ‘want’ which is transitive:

(11)  \( \text{Ñuka-ta-ka} \ aycha-ta \ muna-rka. \)

me-ACC-TOP meat-ACC want-PAST.3

‘I wanted meat.’

In the above example, the verb *muna* takes an O NP argument and the A shows up with accusative case. As discussed in §3, the verb *muna* also selects a nominative A/S. In the example below, the O argument is a complement clause in the subjunctive mood:

(12)  \( \text{Ñuka-ka} \ [__ pay-paj \ mama-ta \ riku-ngapaj] \ muna-ni. \)

1SG-NOM-TOP his-poss mother-ACC see-SUBJ want-PR.1

‘I want to see his mother.’

There is also a very productive Class III derivational suffix, which can attach to any verb (either transitive or intransitive). This is the suffix *-naya*-. The derived desiderative verb has to select an accusative A or S:

(13)  \( \text{Ñuka-ta-ka} \ puñu-naya-rka. \)

1SG-ACC-TOP sleep-DESID-PAST.3

‘I want to sleep.’

(14)  \( \text{Ñuka-ta-ka} \ aycha-ta \ miku-naya-rka. \)

1SG-ACC-TOP meat-ACC eat-DESID-PAST.3

‘I want/desire to eat meat.’

Even though predicates like ‘sleep’ and ‘eat’ do not select an accusative S or A in IQ, they do so when they appear followed by the derivational suffix expressing desire. I will assume that the desiderative suffix actually selects the accusative S or A and then deletes the subject of the clause under it via a coreferential S/A deletion process. I will refer to the non-canonically marked A in this construction as a desiderative experiencer. A limited number of nouns in IQ can also add the desiderative suffix to form a desiderative verb:
In conclusion, IQ has a restricted range of predicates in Classes I and III which require non-canonically marked S/A. In addition, IQ has a very productive derivational process which allows the desiderative suffix -naya to attach to a verbal (and sometimes) nominal base. The derived predicate requires a non-canonically marked S/A in the accusative case.

As discussed below, even though there appears to be no difference between the A/S selected by lexical experiencer verbs and the A/S selected by desiderative experiencer verbs with respect to the coding properties, there are some differences when we examine the syntactic properties associated with the S/A in these two groups. It will be shown that, as far as syntactic properties are concerned, subjects of verbs created with the desiderative suffix of Class III are more similar to canonically marked S/A than the S/A selected by the verbs in Class Ia.

3. Coding properties of S/A/O

3.1 Canonically marked arguments

3.1.1 Word order

There are a number of morphological properties which distinguish between canonically marked S/A and O in IQ. First of all, as far as word order is concerned, as mentioned before, A/O typically appear on the left edge, and O is closest to the verb, which is typically clause final. However, since IQ allows null subjects (and also a fair amount of NP scrambling, as described in Cole 1984 and Hermon 1985), word order can not be used as a reliable test for subjecthood. In IQ, both canonically marked and non-canonically marked A/S can appear in front of the verb. This is, however, not a clear test for subjecthood. For example, (13) could have a structure with a null subject pronoun (a dummy subject), followed by a canonically marked object:

(16) Structure for (13)  
[(null A) Ñuka-ta-ka punu-naya-rka]  
1sg-acc-top sleep-desid-past.3  
‘There is sleep desired to me.’
With transitive verbs which select a non canonically marked subject, this NP typically is placed on the left edge (before the O), as was illustrated in (9) and in (14) above. Since subjects typically appear on the left edge, this word order may be due to the experiencer NP being treated as a subject.

3.1.2 Case marking
A more reliable test is case marking. IQ is a Nominative-Accusative language, and canonically marked subjects are marked with a null nominative case marker in simple sentences:

(17)  
Juan / (*ta) llama-ta randi-rka.  
Juan-NOM / (*ACC) sheep-ACC buy-PAST.3  
‘Juan bought a sheep.’

Objects, on the other hand, are case marked with the accusative marker -ta, while indirect objects (receivers) and goals are marked with the postposition -man:

(18)  
Ñuka-ka Juzi-man aycha-ta kara-rka-ni.  
!sg-nom-top Jose-DAT meet-ACC serve-PAST-1SG  
‘I served meat to Jose’

3.1.3 Cross-referencing on the verb
There are two major patterns for indicating cross-reference (agreement) with arguments on the verb in IQ. A/S are marked by an obligatory suffix, which appears following the tense marker on the verb. As in other Quechua languages, tense and subject agreement markers are sometimes fused together and appear as portmanteau morphemes. This is true in the present and future tenses in IQ. For example, -ni indicates 1 person present (singular) S/A, while -sha indicates 1 person future (singular):

(19)  
(Ñuka) puñu-ni.  
1SG-NOM sleep-PR.1

(20)  
(Ñuka) puñu-sha.  
1SG-NOM sleep-FUT.1

In the past tense, however, the subject marking suffixes are distinct from the tense markers, and appear after the tense markers, as illustrated below:
(21) (Ñuka) puñu-rka-ni.
    1SG-NOM sleep-PAST-1

Many non-Ecuadorian Quechua languages (like Ancash Quechua and Cuzco Quechua) have a complicated paradigm of transition markers, which mark both subject and object agreement. For example, in Ancash the transition marker -shaq marks the verb as referring to a first person subject and second person object (future tense):

(22) Maqa-shaq ‘(I) will hit (you).’

In IQ, however, objects are cross-referenced by a distinct marker, which precedes the tense marker. IQ only marks first person objects, using the -wa clitic:

(23) Kan ñuka-ta maka-wa-rka-ngi.
    you-NOM me-ACC hit-OM-PAST-2
    ‘You hit me.’

Note that canonically marked subjects are never cross-referenced with the -wa-clitic and canonically marked O is never cross-referenced with the subject marker:

    1SG-NOM you-ACC hit-OM-PAST-2
    (I hit you.)

3.2 Coding properties of non-canonically marked S/A

3.2.1 Word order
As discussed above, even though the non-canonically marked S/A appears typically at the beginning of the clause this is not a reliable indicator for subject coding.

3.2.2 Case marking
Case marking of non-canonically marked S/A is an indication that these arguments are not being treated as subjects in IQ. In clauses with both simple and derived predicates, the non-canonically marked NP is marked obligatorily with the accusative case marker -ta, which is typical of canonically marked O in this language. This was shown in (8) and (13) above.

The one exception is the verb munana ‘to want’. This verb takes an accusa-
tive A in simple clauses, as shown in (11) above. However, *muna* can also take canonically marked (nominative) A, without any clear shift in meaning.

(25) \( Ñu\-ka \ aych\-ta \ muna\-rka. \)  
\( 1SG\-NOM\-TOP \ \text{meat-ACC} \ \text{want-PAST.3} \)  
'I wanted meat.'

Verbs like *munana* typically select a subjunctive complement, indicated by the marker *-ngapaj*. As discussed before, in this case the preferred case marking is nominative:

(26) \( Ñu\-ka \ [miku\-ngapaj] \ muna\-ni. \)  
\( 1SG\-NOM\-TOP \ \text{eat-SUBJ} \ \text{want-PR.1} \)  
'I want to eat.'

In addition, there also exists a derivational suffix *-chi- in IQ. This suffix can be added to any of the predicates which select a non-canonically marked S/A, but the subject of the *V+chi* construction is canonically marked. For example note the following doublets:

(27) a. \( Ñu\-ka\-ta\-ka \ chiri\-wa\-rka\-ni. \)  
\( 1SG\-ACC\-TOP \ \text{cold-OM-PAST.3-VAL} \)  
'I was cold.'  
b. \( Ñu\-ka \ chiri\-chi\-rka\-ni. \)  
\( 1SG\-NOM\-TOP \ \text{cold-PERSON-PAST-1} \)  
'I was cold.'

(28) a. \( Ñu\-ka\-ta\-ka \ puñu\-naya\-rka. \)  
\( 1SG\-ACC\-TOP \ \text{sleep-DESID-PAST.3} \)  
'I want to sleep.'  
b. \( Ñu\-ka \ puñu\-naya\-chi\-ni. \)  
\( 1SG\-NOM\-TOP \ \text{sleep-DESID-PERSON-PR.1} \)  
'I want to sleep.'

In general, *-chi-* is a causative suffix in IQ and it increases the valence of the verb. For example, adding it to a typical transitive verb like the verb *tushuna* 'dance', we get a causative meaning:

(29) \( (Ñu\-ka) \ warmi\-ta \ tushu\-chi\-rka\-ni. \)  
\( 1SG\-NOM\-TOP \ \text{woman-ACC} \ \text{dance-CAUS-PAST.1} \)  
'I made the woman dance.'
There are arguments, however, that the suffix -chi- in examples (27)–(28) above is not a causative marker. First of all, there is no causative meaning involved. Moreover, a true causative -chi- can be used in addition to the -chi- suffix observed in (28):

(1SG-NOM-TOP) sleep-CAUS-DESID-PERSON-PR.1  
‘I desire to cause somebody to sleep.’

I will therefore gloss the suffix which attaches to experiencer verbs as a personalizing suffix. Note that the causative suffix in the above example, appears before, rather than after, the -naya- suffix. Predicates marked with the -chi- suffix and which select the canonically marked S/A seem to have a slightly different meaning, in that they express more control over the situation. While the a-versions in examples (27)–(28) emphasize that the subject is overcome by the desire to sleep (or by a feeling of being cold) the b-versions indicate that the subject actually wants to sleep or has a low body temperature (although it is hard to imagine how one could have control over physical events, such as being cold or thirsty or tired). In any case, speakers seem to feel that the version with -chi- expresses more control. A good example is the following pair:

(31)  a.  Miku-naya-wa-n-mi.  
eat-DESID-OM-PR.3-VAL  
‘I am hungry.’  

eat-DESID-PERS-PR.1  
‘I desire to eat.’

In the b-version, the speaker stresses the fact that she/he wishes to perform a certain action (eating), while in the a-version the speaker is feeling an uncontrollable physical emotion (hunger). This kind of meaning shift has been noted in many other languages which allow such doublets.

3.2.3 Cross-referencing on the verb
Non-canonically marked S/A are never cross-referenced on the verb with a subject agreement marker. In (32) and (33), the verb appears with the third person subject marker for past tense (-rka), even though the S is a first person. I interpret this as lack of agreement. Moreover, the first person S triggers object
coding on the verb (the -\textit{wa} clitic, which was shown above to cross-reference the canonically marked O):

(32) $\hat{N}u\text{ka}-ta$ \textit{}\textit{chiri}-wa-r\textit{ka}-mi. \\
1SG-ACC cold-OM-PAST.3-VAL \\
‘I was cold.’

(33) $\hat{N}u\text{ka}-ta-ka$ pu\textit{nu}-naya-wa-r\textit{ka}. \\
1SG-ACC-TOP sleep-DESID-OM-PAST.3 \\
‘I want to sleep.’

This seems to indicate, that as far as coding properties are concerned non-canonically marked S/A are simply treated as canonically marked O. To explain the third person subject marking, we have to assume that in addition to the first person non-canonically marked S, there is a dummy, third person canonically marked S in such sentences. There is independent evidence that in IQ a null (dummy) subject typically triggers third person agreement, as seen below:

(34) Tamya-\textit{n}. \\
(it) rain-PR.3 \\
‘It rains.’

In contrast, as discussed above, when the personalizing suffix -\textit{chi} is added, the canonically marked S/A now are cross-referenced as subjects (and not as object) as was shown in (27b) and (28b).

4. Syntactic properties of canonically and non-canonically marked S/A

In this section, I will examine various properties in IQ which are associated with canonically marked S/A and O. Some of these properties relate to inter-clausal syntax and specify the conditions under which the S/A of two clauses can be deleted or shared in IQ, while others relate to valency changing rules. The ‘tests’ for subjecthood in IQ are listed here:

1. A condition which specifies when the S/A of the clause can show up as the S of the matrix clause (traditionally referred to as Subject-to-Subject Raising);
2. A condition which specifies that the S/A of the complement clause can be deleted under identity with the S/A of the main clause (the coreferential de-
letion of the core argument for infinitival and subjunctive embedded clauses, EQUI or obligatory control constructions);
3. The ‘same subject condition’ for Switch Reference clauses, which specifies that both the controller and the target in this constructions be an S/A;
4. A condition which specifies when the S/A of the embedded clause can raise to the object position of the matrix clause (traditionally referred to as Subject-to-Object Raising);
5. A condition which bans Wh-movement of NPs which originate as the S/A of a complement clause, but allows Wh-movement of an O out of a complement clause (the so called ‘that-trace’ effect of Chomsky 1981).
6. A derivation relevant to verbal valency changing (passive) which specifies that the O of certain passive verbs show up as the S, while the original A is ‘demoted’ and marked with a null case marker.

I will show that in IQ non-canonically marked S/A with a Class III verbal derivation (so called ‘desiderative experiencers’) behave differently with respect to these criteria from non-canonically marked S/A with Class I verbs (so called ‘lexical experiencers’).

4.1 Subject as a target of raising in SSR

In order to use subject raising as a test, it has to be shown that only canonically marked S/A (but not a canonically marked O) can undergo subject to subject raising. Under certain verbs (such as yarina ‘seem’), which can be construed as having a non-theta marked subject position in their argument structure, the S or A of the embedded clause can appear as the subject of the main clause. While canonically marked S can participate in this construction, canonically marked O can not:

(35) Canonically marked S as subject of a raising verb
    Kan puñu-y yari-ngi.
you-nom sleep-INF seem-pr.2
‘You seem to be sleeping.’

(36) No subject raising with embedded canonically marked objects
    *Kan-ka [Maria maka-y yari-ngi]
you-nom-top Maria-nom hit-inf seem-pr.2
(‘You seem (for) Maria to hit (you)’.)
Subject raising verbs like *yarina*, treat the experiencer NP of complement clause as canonically marked O rather than a canonically marked S and do not allow raising of this NP under SSR:

(37)  *Kan-ka [__ yarja-y] yari-nga
      you-NOM-TOP hunger-INF seem-PR.2

      (‘You seem to be hungry.’)

In contrast, desiderative experiencer verbs (verbs created by adding the desiderative suffix -*naya-*) are treated like canonically marked subjects under these same matrix verbs:

(38)  Kan-ka [__ puñu-naya-y] yari-ngi
      you-NOM-TOP sleep-DESID-INF seem-PR.2

      ‘You seem to want to sleep.’

4.2 Target of coreferential subject deletion (EQUI)

Another construction, which distinguishes canonically marked subjects from objects involves verbs like *kallarina* ‘to begin’ and *katijuna* ‘to continue’. These verbs (also called EQUI verbs, since they allow equivalent subject deletion) select an object complement clause which allows canonically marked subjects to be missing under identity with the main clause subject:

(39)  Ńuka-ka [__ miku-y-ta] kallari-rka-ni
      1SG-NOM-TOP eat-INF-ACC begin-PAST-1

      ‘I began to eat.’

The canonically marked O in the infinitival clause can not be deleted in this construction under identity with the matrix subject:

(40)  *Ńuka-ka [Maria __ maka-y-ta] kallari-rka-ni
      1SG-NOM-TOP Maria-NOM hit-INF-ACC begin-PAST-1

      (‘I began (for) Maria to hit (me).’)

One can find morphological evidence that the verbs in this construction are indeed control (EQUI) verbs rather than (subject) raising verbs: the complement clause embedded under verbs like *kallarina* ‘to begin’ and *katijuna* ‘to continue’ has to be marked with the accusative case marker -*ta*. In contrast, in the subject raising examples in 4.1, the clause out of which the NP is raised is not marked with accusative case.
As far as non-canonically marked subjects are concerned, lexical experiencers are again different from desiderative experiencer NPs: lexical experiencers cannot be the target of EQUI, while desiderative experiencers can, indicating that only the latter are treated like canonically marked subjects:

(41) **Lexical Experiencers as target of Subject EQUI**  
\[ *ñuka-ka \quad [ \_ \_ yarja-\_y-\_ta] \quad kati-ju-\_rka-\_ni \]  
1SG-NOM-TOP hunger-INF-ACC continue-PROGR-PAST-1  
(I continued to be hungry.)

(42) **Desiderative Experiencers as target of Subject EQUI**  
\[ Ñuka-ka \quad [ \_ \_ puñu-naya-\_y-\_ta] \]  
1SG-NOM-TOP sleep-DESID-INF-ACC  
kati-ju-\_rka-\_ni continue-PROGR-PAST-1  
(I continued to desire to sleep.)

4.3 **Target of ‘same subject’ deletion in the Switch Reference construction**

Switch Reference is a construction which requires that the canonically marked subject of a temporal or purpose adverbial clause be deleted under identity with the matrix subject (see Cole 1983 and Hermon 1985 for a description of the conditions on Switch Reference in Quechua). In general, the same subject (SS) markers -shpa and -ngapaj are used in adverbial and in subjunctive embedded clauses if the subject of the embedded clause is identical to the subject of the main clause, and the markers -jpi and -chun are used to mark non-coreference between the subjects of the two clauses.

(43) **SS used for identical subjects**  
\[ [ \_ \_ Kitu-\_pi \_ \_ \_ ka-shpa-\_ka] \_ \_ kan-da \_ riku-\_rka-\_ni \]  
Quito-in be-SS-TOP you-ACC see-PAST-1  
(‘When I was in Quito, I saw you.’)

Crucially, canonically marked objects cannot appear with the SS marker, even when they are identical to the matrix subject:

(44) *\[ [ \_ \_ Kitu-\_pi \_ \_ \_ ka-shpa-\_ka] \_ \_ Juan \_ riku-wa-\_rka \]  
Quito-in be-SS-TOP Juan-NOM see-OM-PAST-3  
(‘When I was in Quito, Juan saw me.’)
Example (44) is only grammatical if interpreted as: ‘When Juan was in Quito, Juna saw me’. In order to express the intended reading ‘When I was in Quito, Juan saw me’ the non-coreference (different subject) marker -jpi must be used. In this case, the subject of the adverbial clause may also appear overtly:

(45) \[ (\text{Ñuka}) \quad \text{Kitu-pi ka-jpi} \quad \text{Juan} \quad \text{riku-wa-rka.} \]
\[ 1\text{SG-NOM Quito-in be-DS} \quad \text{Juan-NOM see-OM-PAST.3} \]
‘When I was in Quito, Juan saw me.’

With non-canonically marked subjects, we again find a difference between lexical and desiderative experiencers. With lexical experiencer verbs, the non-canonically marked S/A can not be deleted under identity with a matrix canonically marked subject and the SS marker can not be used:

(46) *\[ (\_ \_ \_ nana-shpa) \quad \text{doktur-paj-man ri-rka-ri} \]
\[ \text{hurt-SS} \quad \text{doctor-poss-to} \quad \text{go-PAST.1} \]
‘When I hurt, I went to the doctor’s.’

Only the DS marker is acceptable in this case:

(47) \[ (\text{Ñuka-ta}) \quad \text{nana-jpi} \quad \text{doktur-paj-man ri-rka-ri}. \]
\[ \text{1SG-ACC hurt-DS} \quad \text{doctor-poss-to} \quad \text{go-PAST.1} \]
‘When I hurt, I went to the doctor’s.’

With desiderative experiencer verbs, however, the non-canonically marked subject can be deleted under identity with the canonically marked main clause subject and the SS Switch reference marker is used inside the time adverbial clause:

(48) \[ (\_ \_ \_ \_ \_ \_ \_ \_ miku-naya-shpa) \quad \text{aycha-ta randi-rka-ri}. \]
\[ \text{eat-DESID-SS} \quad \text{meat-ACC buy-PAST.1} \]
‘When I desired to eat, I bought meat.’

It is interesting, however, that in addition to the SS marker a DS marker is also acceptable (for some speakers) with desiderative experiencer verbs:

(49) \[ (\text{Ñuka-ta}) \quad \text{miku-naya-jpi} \quad \text{aycha-ta randi-rka-ri}. \]
\[ \text{1SG-ACC eat-DESID-DS} \quad \text{meat-ACC buy-PAST.1} \]
‘When I desired to eat, I bought meat.’

A similar distribution is found with the SS markers inside purpose adverbial (subjunctive) clauses: lexical experiencers do not allow their non-canonically
marked subjects to be deleted under identity with the matrix subject and do not allow the use of the SS suffix -ngapaj, while desiderative experiencer verbs allow the deletion of their non-canonically marked subjects under identity with the matrix subject and use this suffix (as discussed in Hermon 1985:115):\textsuperscript{12}

\begin{align*}
(50) & *[AMA \_
\text{chiri-ngapaj}] \text{nina-ta rura-rka-ni.} \\
& \text{not cold-SS fire-ACC make-PAST-1} \\
& \text{('In order not to be cold, I made a fire.'})
\end{align*}

\begin{align*}
(51) & [_\text{puñu-naya-ngapaj}] \text{pastilla-ta ufya-rka-ni.} \\
& \text{sleep-DESID-SS pill-ACC drink-PAST-1} \\
& \text{('In order to desire to sleep, I took a pill.'})
\end{align*}

We will now turn to the syntactic phenomena which seem to treat both types of non-canonically marked experiencer subjects as canonically marked subjects.

\subsection*{4.4 Control of same subject in the Switch Reference system}

It was shown that in the Switch Reference system it is also crucial for the matrix NP (the controller) to be a subject and that canonically marked objects do not function as controllers. This was illustrated in (48) above. The SS marker can not be used when the controller is a matrix (canonical) object:

\begin{align*}
(52) & \text{Canonically marked object as controller} \\
& *[\text{Kitu-pi ka-shpa-ka}] \text{kan-da riku-rka-ni.} \\
& \text{Quito-in be-SS TOP you-ACC see-PAST-1} \\
& \text{('I saw you when you were in Quito.'})
\end{align*}

Non-canonically marked subjects of both lexical and desiderative experiencer verbs can function as controllers in the SS Switch Reference construction:

\begin{align*}
(53) & \text{Lexical non-canonically marked subject as controller} \\
& [_\text{yaku-pi ka-shpa-ka}] \text{chiri-wa-rka-mi.} \\
& \text{water-in be-SS TOP cold-OM-PAST.3-VAL} \\
& \text{('When I was) in the water, I was cold.'}
\end{align*}

\begin{align*}
(54) & \text{Desiderative non-canonically marked subject as ss controller in the SR construction} \\
& [_\text{trabaja-shpa-ka}] \text{miku-naya-wa-rka-mi.} \\
& \text{work-SS TOP eat-DESID-OM-PAST.3-VAL} \\
& \text{('When I was) working, I had to desire to eat.'}
\end{align*}
If structural considerations are the relevant factor in choosing the controller then both lexical and desiderative non-canonically marked experiencer subjects behave like canonically marked subjects with respect to control in Switch Reference. The data is more complicated though. While with canonically marked identical subjects only a structure using the SS markers can be used, with non-canonically marked experiencer subjects the DS Switch reference markers are also possible. Thus in addition to (53)–(54), parallel examples exist in which the DS marker -jpi is used, indicating that the matrix non-canonically marked subject is not considered a subject which is identical to the (canonical) subject of the adverbial clause:

   (1sg-nom) water-in be-DS-top cold-om-past.3-val
   ‘Being in the water, I was cold.’

(56) [(Ñuka) trabaja-jpi-ka] miku-naya-wa-rka-mi.
   (1sg-nom) work-DS-top eat-desid-om-past.3-val
   ‘Working, I had to desire to eat.’

The upstairs verb in these cases selects for a non-canonically marked subject (which could be deleted, since IQ allows null pronouns). The upstairs verb can also select the DS marker, indicating that the subject of the adverbial clause is not identical to the subject of the main clause. This is possible, under an analysis in which the non-canonically marked subject in the main clause is not being treated like a subject, since a DS marker is selected under identity with the subject of the adverbial clause.

These examples then show that speakers treat these non-canonically marked subjects as either parallel to canonically marked (nominative) subjects (as in (53)–(54) above) or as canonically marked objects which are not potential controllers in the SS Switch Reference construction (as in examples (55)–(56)).

4.5 Target of Subject to Object Raising

Under certain verbs, the embedded canonically marked S/A can raise and move into the main clause, where it is treated as an object (see Cole and Hermon 1981, for a discussion of tests for the rule of subject to object raising).
(57) Canonic ally marked A can raise to main clause under sor verb

\[ Ñuka tayta chay wagra-ta kri-n \]

my father-NOM that cow-ACC believe-PR.3

\[ [ __ sara-ta miku-shka-ta] \]

corn-ACC eat-NOMIN-ACC

“My father believes the cow ate the corn.”

(58) Canonically marked O can not raise under sor

\*Ñuka tayta chay wagra-ta kri-n.

my father-NOM that cow-ACC believe-PR.3

\[ Ñuka Otavalo-pi __ randi-shka-ta \].

1SG-NOM Otavalo-in buy-NOMIN-ACC

(‘My father believes I bought that cow in Otavalo.’)

With SOR verbs, both lexical and desiderative experiencers can be moved in front of the matrix ‘raising’ verb:

(59) Lexical Experiencer as target of sor

\[ Jari Ñuka-ta kri-n \]

man-NOM me-ACC believe-PR.3
cold-NOMIN-ACC

‘The man believes me to have been cold.’

(60) Desiderative Experiencer as target of sor

\[ Jari kan-da kri-n \]

man-NOM you-ACC believe-3 eat-DESID-NOMIN-ACC

‘The man believes you want to eat.’

From the above examples, it can be concluded that in these constructions both lexical and desiderative experiencer NPs are treated like canonically marked subjects, which optionally raise to matrix object position.

4.6 Wh-movement of S/A from a complement clause

Even though IQ is an OV language, it allows overt Wh-movement to the beginning of the clause, as described in detail in Cole (1982), Hermon (1985), and Cole and Hermon (1994). As discussed in these works, wh-phrases can also undergo long distance Wh-movement out of complement clauses. There is, however, one case in which a wh-phrase can not be moved out of a complement clause: canonically marked subjects can not be directly questioned via long
distance movement out of the complement clause, while canonically marked O can be long distance moved.

(61) Questioned subordinate subject

\[ *\text{pi-taj } \text{Maria-ka} \quad [\text{__ chayamushka-ta}] \]
who-NOM-WHQ Maria-NOM-TOP arrive-NOMIN-ACC
kri-n?
believe-pr.3
(‘Who does Maria believe (that) has arrived?’)

(62) Questioned subordinate object

\[ \text{ima-taj } \text{Maria-ka} \quad [\text{Juzi } \text{__ mikushta-ta}] \]
what-ACC-WHQ Maria-NOM-TOP José-NOM eat-NOMIN-ACC
kri-n?
believe-pr.3
(‘What does Maria believe (that) José ate?’)

Non-canonically marked subjects selected by both lexical and desiderative experiencers behave like the canonically marked subjects in that they can not be questioned directly by extraction from the subordinate clause (even though they have overt accusative case):

(63) Questioned subordinate non-canonically marked S (lexical experiencer)

\[ *\text{Pi-taj } \text{Juan} \quad [\text{__ yarja-j-ta}] \]
who-ACC-WHQ Juan-NOM hunger-NOMIN-ACC
villa-wa-rka?
tell-OM-PAST.3
(‘Who did Juan tell me is hungry?’)

(64) Questioned subordinate non-canonically marked S (desiderative experiencer)

\[ *\text{Pi-taj } \text{Juan} \quad [\text{__ půnu-nayashka-ta}] \]
who-ACC-WHQ Juan-NOM sleep-DESID-NOMIN-ACC
villa-wa-rka?
tell-OM-PAST.3
(‘Who did Juan tell me desires to sleep?’)

In sharp contrast, the canonically marked O of the embedded desiderative experiencer verb can be directly questioned, indicating that it is indeed the
subjecthood rather than the case of the wh-moved non-canonically marked subject which somehow prevents the wh-question from being grammatical:

(65) Questioned canonically marked object of subordinate clause with experiencer predicate

\[ Pi-ta-taj \ [Juan-da \ maka-naya-shka-ta] \]
\[ who-ACC-WHO \ Juan-ACC \ hit-DESID-NOMIN-ACC \]
\[ villa-wa-rka-ngi? \]
tell-OM-PAST-2
‘Who did you tell me Juan desired to hit?’

4.7 Valency changing derivations: Passivization

As discussed in Cole and Jake (1978) passive verbs in IQ promote a canonically marked object to passive subject and demote the canonically marked A. Typically, a nominative canonically marked A in an active sentence will still appear as a nominative in the passive counterpart, while the accusative marked canonical O of the active will appear as a nominative marked canonical S in the passive:13

(66) \[ Ñuka-ka wawa-ta miku-chi-rka-ni. \]
\[ 1SG-NOM-TOP child-ACC eat-CAUS-PAST-1 \]
‘I fed the child.’ (Cole and Jake, 27)

(67) \[ Wawa-ka ñuka miku-chi-shka ka-rka. \]
\[ child-NOM-TOP 1SG-NOM eat-CAUS-PASS be-PAST.3 \]
‘The child was fed by me.’ (Cole and Jake, 28)

As illustrated in Cole and Jake (1978), examples (29)–(30), non-canonically marked lexical and desiderative experiencer NPs fail to undergo promotion to subject in the passive construction:

(68) \[ *Ñuka-ka chirš-shka ka-rka-ni. \]
\[ 1SG-NOM-TOP cold-PASS be-PAST-1 \]
(‘I was colded.’)

(69) \[ *Ñuka-ka puñu-naya-shka ka-rka-ni. \]
\[ 1SG-NOM-TOP sleep-DESID-PASS be-PAST-1 \]
(‘I was desired to sleep.’)
It is, however, doubtful that the failure to passivize in the above examples is due to the status of the non-canonically marked subject. Since the experiencer verbs in the above examples are arguably intransitive verbs which do not take a canonically marked object, the passive rule can not apply. We therefore need to look for examples in which an experiencer verb is transitive. Such examples exist with the desiderative suffix -naya-, which can attach to both transitive and intransitive verbs. In the example below, the canonically marked object of the desiderative experiencer is promoted via passive, and the non-canonically marked subject in this case acts like a canonically marked subject under passive: it is demoted and appears with nominative case:

(70) Mishki-ka ñuka miku-naya-shka ka-rka.
candy-NOM-TOP 1SG-NOM eat-DESID-PASS be-PAST.3
'The candy was desired to be eaten by me.'
(Cole and Jake, 31c)

5. Conclusions

We will consider two issues in this section. The first question is how one could account for the differences between lexical and desiderative non-canonically marked subjects in terms of their syntactic coding as canonical subjects. A second (related) issue addresses the question of whether we observe any hierarchies among the properties which treat these NPs as canonical subjects.

5.1 Summary of syntactic coding properties

Canonically and non-canonically marked S/A in IQ show properties set out in (71). Table (71) provides clear evidence that the two types of non-canonically marked subjects differ in their syntactic properties. Semantically, these S/A belong to different classes (as described in §2.1 above) and the S/A of desiderative verbs are selected by the derivational suffix -naya and are part of a complex verbal structure. What is interesting is the fact that the S/A selected by desideratives seem to have more subject properties than the S/A selected by the other class of predicates. Thus we observe a correlation between predicate types and syntactic properties.
Summary of properties of canonically and non-canonically marked NPs in IQ

<table>
<thead>
<tr>
<th>Criteria</th>
<th>NOM</th>
<th>ACC LEX</th>
<th>ACC DESID</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coding properties</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case marking</td>
<td>Canonical</td>
<td>Non-canonical</td>
<td>Non-canonical</td>
</tr>
<tr>
<td>Verb agreement (S/A)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Verb agreement (O)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Syntactic properties</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-S raising</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Coref.equi deletion</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Target of deletion (SR)</td>
<td>Yes</td>
<td>No</td>
<td>Yes/no</td>
</tr>
<tr>
<td>Controller in SR</td>
<td>Yes</td>
<td>Yes/no</td>
<td>Yes/no</td>
</tr>
<tr>
<td>Target of SOR</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ban on WH-qu</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Passivization</td>
<td>Yes</td>
<td>??</td>
<td>Yes</td>
</tr>
</tbody>
</table>

5.2 Hierarchies as a result of diachronic change

In the framework of Keenan (1976), A, S, and O are established according to morphological coding properties and syntactic behavioral properties. The subjecthood tests can then be applied to distinguish between canonically and non-canonically marked S/A. Coding properties such as NP case marking, verbal agreement, and, possibly, constituent order of core NPs provide tests for subjecthood and objecthood. Various syntactic properties also pick out canonically marked S/A. The question in this framework is whether there exists a hierarchy among these properties; i.e., is it the case that if non-canonically marked S/A show property X then these NPs will also show properties higher on the hierarchy? Moreover, is the hierarchy universal or does it only hold in certain languages?

Let us first examine whether a particular hierarchy is observed in IQ. The clearest difference seems to be between morphological and syntactic properties. In IQ, both lexical and desiderative experiencers show some syntactic properties, but neither class shows any canonical S/A morphological coding properties. This seems to go along with what we know about the behavior of non-canonically marked S/A in other languages, and may be a consequence of how diachronic change affects these NPs. As discussed in Cole et al. (1978),
morphological properties seem to be late acquired (diachronically), when a non-
canonically marked S/A is reanalyzed as a canonical S/A. In other words, one
could claim that non-canonically marked experiencer NPs in IQ are in the pro-
cess of being reanalyzed from a non-subject to a subject. While the syntactic
properties have been affected by this change, the morphological coding proper-
ties are still that of a non-subject.

Having established that morphological coding is lower on the hierarchy than
syntactic properties for IQ, let us next turn to the question of whether certain
syntactic properties are ranked lower than others. In essence, ordering proper-
ties in a hierarchical fashion predicts that if an NP exhibits a property ranked
low on the hierarchy, all higher ranked properties also hold for the NP in
question.

In IQ certain syntactic properties are ranked below others. For example, be-
ing the victim (or target) of a coreferential deletion rule is a property which
appears to be ranked lower than being the controller in constructions involving
same subject deletion. As summarized in the table presented in (71), lexical
experiencers, can (optionally) be controllers for the subject deletion rule in the
Switch Reference construction (the rule which deletes the subject of the SR
clause under identity to the subject of the main clause), but they can not be the
target of this rule. Nor can they be the target of other coreferential subject dele-
tion rules (such as EQUI) or the target of SSR. We could then conclude that at
least control is a property which is very high on the hierarchy and thus an ‘easy’
subject property to acquire in the course of diachronic change, while morpho-
logical coding properties are the lowest on the hierarchy and therefore will not
be properties which non-canonically marked S/A can exhibit:

(72) Hierarchy for S/A properties for non-canonically marked S/A
  b. Target of Switch Reference deletion/Coreferential EQUI deletion/
target of SSR.
  c. Morphological Coding.

Lexical experiencers are treated as canonical subjects only by the top portion
of the hierarchy (part a), while desideratives are treated as subjects by both
parts a and b of the hierarchy. Neither is treated as a subject by the very bottom
of the hierarchy (part c). The data from IQ do not allow us to distinguish be-
tween the properties which treat both lexical and desiderative NPs as subjects,
i.e., we can not establish a hierarchy internal to the properties listed in (72a).
In order to refine the hierarchy in (72), one may want to examine the behavior of non-canonically marked S/A in other closely related languages. It may also be possible to learn more about diachronic development by comparing different Quechua languages. Such data are available from Huanca Quechua.

Huanca is a Quechua I language spoken in Central Peru in the Department of Junin.16 Like IQ, Huanca has two types of non-canonically marked S/A: one very productive paradigm which uses the desiderative suffix -naa (cognate to IQ -naya) and a second more limited class of Class Ia verbs which express physiological states (such as ‘be cold’ and ‘hurt’). As in IQ, both lexical and desiderative experiencer S/A are marked with object coding properties:

In these examples, the experiencer NP yaqa-kta is case marked with accusative case and does not trigger subject-verb agreement. Instead the experiencer triggers first person object agreement, like a canonical O.17

As far as syntactic properties are concerned, however, Huanca differs from IQ. In Huanca, neither class of non-canonically marked NPs has any syntactic properties of canonical S/A, except for the property related to the ban on Wh-movement from an embedded subject position. This is illustrated for desiderative (Class III) verbs below. Similar examples with lexical experiencers are also available and are cited in Hermon (1985: 195–9).18

Experiencer can not be target of coreferential deletion (EQUI)

*Yaqa muna-a-chu [__ mika-na-y-ta].
    1-NOM want-PR.1-NEG eat-DESID-INF-ACC
    (‘I don’t want to desire to eat.’)

Experiencer can not be target of deletion in Switch Reference

[*__ kasara-na-la-l], alli wamla-kta ashi-lla-a.
    marry-DESID-STAT-SS good girl-ACC look for-affective-PR.1
    (‘When I desire to marry, I will look for a good girl.’)
Experiencer cannot be controller in Switch Reference construction

(77) *[__ trakla-qaq-traw trabaja-yka-l], mika-na-ykaa-ma-n.

field-def-in work-progr-ss eat-desid-progr-om-pr.3

(‘When working in the field, I desire to eat.’)

The only subject property which treats experiencers like subjects is the ban on long distance Wh-movement for subjects (which can be shown to hold in Huanca for canonically marked S/A but not for canonically marked O):

(78) *

Mayqan-ta-taq Rosa ni-shu-lqa-nki

who-acc-who Rosa-nom say-3-past-2 om

[__ karu-kta lanti-naa-na-n-ta].

car-acc buy-desid-fut nomin-3-acc

(‘Who did Rosa tell you will want to buy a car?’)

To summarize, in Huanca Quechua all non-canonically marked subjects are treated as objects syntactically. The only exception is the non-canonically marked subject in the wh-question construction. Pooling the data from Huanca and IQ argues for refining the hierarchy in (72) in the following way:

(79) a. Ban on Wh-movement
b. Switch Reference controller/SOR/Passive
c. Target of Switch Reference deletion/Coreferential EQUI deletion/target of SSR
d. Morphological Coding

One may also wish to speculate on whether the situation in Huanca represents an older stage of Quechua, thus arguing that in IQ experiencer NPs are at a more ‘advanced’ stage in their historical development, since these NPs have acquired subject properties lower on the hierarchy than the NPs in Huanca. For example, Cole and Jake (1978) conclude that experiencers in IQ are in the midst of a change from objecthood to subjecthood and that this change is simply more advanced in desiderative experiencer construction. We can thus view the situation in IQ as an innovation, which has stopped short of changing coding properties for desideratives. Such a change, from canonical object to canonical subject, is actually observed in other languages, proving that even though morphological coding properties seem to uniformly treat experiencers of all kinds as canonical O in Quechua, even this could change with time, if all other syntactic properties (higher on the hierarchy) have already changed from O to
S/A. Harris (1976) cites an example from Modern Georgian in which a genitive marked experiencer is beginning to control agreement like a canonically marked subject. Another striking example, cited in Butler (1976), is Middle English. In ME experiencers occurring with a number of psychological predicates, such as *liken* and *dremen*, are treated as subjects by certain syntactic processes but receive accusative case and do not trigger verb agreement. In late ME, however, a significant change seems to occur. The experiencer still retains accusative case, but (optionally) begins to trigger S/A verb agreement:

(80)  
*Sum men pat han suche likynge wondren what hem ailen.*  
‘Some men that have such pleasures wonder what ails them.’  
(*c*1450, The Chastizing of God’s Children: 103, 15)

Butler points out that the verb *ail* takes a subject in the accusative case (*hem*), which triggers plural verb agreement (the -*en* plural suffix on the verb). These examples clearly represent a transitional stage (from *c*1400–1500) for English. By about 1500, most verbs which selected for non-canonically marked S/A switched to selecting canonically marked S/A. It would be interesting to investigate whether the opposite situation is also encountered: that is, are there any languages in which canonically marked subjects become non-canonically marked?20

Notes

1. *This work was supported in part by the National Science Foundation, #SBR-9121167, INT-9423291 and #SBR-9729519. The research was completed while I was a visiting scientist at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. I would like to thank Bernard Comrie and his staff at the Institute for providing me with such a superb research environment.

2. The following abbreviations are used in this paper: acc=accusative; ben=benefactive; caus=causative; dat=dative; desid=desiderative; do=direct object; ds=different subject; fut=future; inf=infinitive; io=indirect object; neg=negative; nom=nominative; nomin=nominalizer; om=object marker; pass=passive; pers=personalizing suffix; poss=possessive; pr=present; progr=progressive; ss=same subject; stat=stative; subj=subjunctive; top=topic marker; val=validator; whq=wh-question. Note that nom case is a null affix IQ. I will mark canonical S as nom, even though no overt case is visible.

3. IQ has been described in various pedagogical grammars, most notably Stark and Carpenter (1973), and Ross (1963). In the generative framework, various aspects of IQ have been discussed in Muysken (1977), Cole (1982), Hermon (1985), and Jake (1985). Hermon (1985) deals specifically with the issue of how to account for non-nominative subjects in IQ in the framework of the Principles and Parameters theory of Chomsky (1981).
4. The distinction between case markers and postpositions is not always clear as IQ employs such postpositions as the benefactive -paj and instrumental/comitative -wan (among others). Since the focus of this paper is non-canonically marked S/A, we will ignore the issue of postpositions and concentrate on possible case markers for S/A only (which are nominative and accusative).

5. See for example, Cole and Jake (1978).

6. Two remarks are in order here. In general, IQ is a language which prefers null pronouns in subject position (at least in main clauses). Therefore, the non-canonically marked NP usually does not show up at all. Secondly, the verb muna ‘want’ also optionally allows a nominative (canonically marked) A, and this form is actually preferred when the verb selects for a sentential object, as in the example shown here.

7. Cole and Jake (1978) claim that the S/A in this construction may also optionally appear in the nominative case. According to the informants I consulted, this is not the case. Desideratives obligatorily select an accusative A/S.

8. The object marker -wa is actually not obligatory in IQ, even with canonically marked objects. It can be used, however, as a test for objecthood when it appears, but its lack of appearance can not be used as an indication for the lack of objecthood.

9. Unlike English, IQ does not allow deletion of complement S/A under identity with the main clause object (see Hermon 1985).

10. Comrie (1998) presents an interesting functional analysis of Switch Reference, which he considers to be a sub-case of reference tracking.

11. In this case, the subject of the adverbial clause can also be deleted, since IQ allows null subject pronouns.

12. In these examples, the use of the SS is again optional for desiderative experiencers. That is, we can also find the DS marker -chun in these examples.

13. As discussed before, NOM surfaces as a null affix in IQ. I am not claiming that the passive agent does not get demoted to a non-term in IQ, just that its case marking remains NOM.

14. It is hard to find a lexical experiencer verb which takes a canonically marked object in addition to the experiencer subject so one can test passivization. The verb muna ‘want’ takes an accusative non-canonically marked subject and a canonically marked object, which according to Cole and Jake can passivize. The problem is that this verb also optionally allows a canonically marked (nominative) subject, so it is impossible to tell whether in the passive below the nominative agent was a canonically or non-canonically marked subject in the active counterpart:

(i) Mishki-ka ñuka muna-shka ka-rka.
   candy-NOM TOP 1SG-NOM want-PASS be-PAST.3
   ‘Candy was wanted by me.’ (Cole and Jake 32b)

15. How desiderative experiencer NPs could be treated as both subjects and non-subjects (in the SR construction) is very hard to explain synchronically.

16. See the description of this dialect in Cerrón-Palomino (1976).

17. As discussed in Hermon (1985), it can be argued that in Huanca the experiencer is an indirect rather than a direct object.

18. Canonically marked S/A in Huanca behave the same way as the equivalent NPs in IQ. Hence, it can be argued that the fact that the experiencers fail to be the target and controller of identical subject deletion rules in various constructions proves that in Huanca these are like canonical O. I do not have the data available to test the behavior of experiencers as targets of SSR, SOR or in the passive construction.
19. As described in Cole (1982) IQ (and Ecuadorian Quechua in general) differs in a number of ways from other Quechua languages. It has undergone morphological simplification (the loss of all object agreement other than first person agreement, the loss of possessive nominal suffixes, and the loss of subject verb agreement in subordinate clauses). Unlike IQ, Huanca Quechua has retained all of these Proto Quechua features. It thus could be argued that Huanca, in general, is closer to Proto Quechua than IQ.

20. A number of synchronic accounts have been proposed for the split behavior of non-canonically marked NPs across languages in other generative frameworks. In the framework of Relational Grammar (see the account in Perlmutter 1983), it was suggested that experiencer NPs are universally generated as subjects. Subsequently, some (but not all) such NPs undergo a rule of demotion (labeled “Inversion”) to a direct or indirect object (see also Cole and Jake 1978, and Jake 1985). Syntactic rules which treat these NPs as canonical subjects then have to refer to a notion of ‘initial subject’ (a status shared by both nominative and experiencer NPs), but other ‘rules’ (which usually determine morphological coding) refer to ‘final subject’, a property not shared by experiencer NPs (which are final IOs in this framework). A different account was proposed in the GB framework in Hermon (1985). Experiencer predicates are analyzed as subcategorizing for an experiencer object and an empty subject position. The experiencer NPs are treated by case marking and verb agreement as objects. In the derivation, these NPs are moved to the empty subject position and thus have to be treated as canonical subjects by rules which apply after the NP movement. This type of account then relies in effect on rule ordering to account for why experiencer NPs are not treated as subjects by all rules referring to subjects.

References


1. Introduction

Every language has intransitive and transitive clauses which function in terms of the three universal syntactico-semantic categories—S, A and O (cf. Dixon 1994; Onishi Introduction to this volume). S, in particular, is defined as the sole core argument of an intransitive clause.

The North Arawak languages—Tariana, Baniwa, Bare and Warekena—distinguish the following verb classes:

(i) transitive verbs, the A of which is marked with cross-referencing prefixes; in some languages the O is marked with cross-referencing enclitics (Baniwa, Warekena), while in others it is not (Tariana, Bare);

(ii) active intransitive verbs, with the S marked with cross-referencing prefixes; these include verbs of motion and are termed here $S_a$ verbs;

(iii) stative intransitive verbs, with the $s$ marked in the same way as O, either with cross-referencing enclitics (Baniwa, Warekena), or not marked on the verb at all (Tariana, Bare); these include stative verbs and are termed here $S_o$ verbs.

All these languages have an additional closed class of intransitive verbs, the unique argument of which is never cross-referenced on the verb, and is marked differently from any other type of S. In Tariana it is marked with a non-subject
case; in Baniwa, Warekena and Bare it is marked with a dative adposition. These verbs which we label \( S_{in} \) typically refer to physical and mental states (‘be hungry’, ‘be thirsty’, etc.). They are similar to \( S_{a} \) and \( S_{o} \) intransitive verbs in some ways, and different in other ways.

Here I propose a comparative analysis of the three classes of intransitive verbs (\( S_{in}, S_{a} \) and \( S_{o} \)) in Tariana, demonstrating that \( S_{in} \) is indeed a distinct grammatical function. Grammatical relations in Tariana can be shown to be clearly mapped onto morphological verb types; that is, there is sufficient evidence for postulating at least three types of \( S \) (\( S_{in}, S_{a} \) and \( S_{o} \)) as distinct subtypes which share a varied number of characteristics—definable as ‘subject’ properties—with the A function.

In §2, I consider verb types and the marking of grammatical relations in Tariana. In §3 I compare the syntactic properties of A, \( S_{a} \) and \( S_{o} \). The syntactic properties of \( S_{in} \) are looked at in §4. The last section of the paper, §5, contrasts the properties of A and the three subtypes of S in Tariana and summarises the results.

2. Verb types and the marking of grammatical relations in Tariana

Similarly to most North Arawak languages, Tariana is predominantly head-marking and polysynthetic; it also has dependent case-marking. There are three open word classes—nouns, verbs and adjectives. Besides simple verbs, Tariana has productive verb serialisation.

Verbs divide into two large classes, prefixed and non-prefixed. Prefixed verbs can be transitive or active intransitive (\( S_{a} \) type); they take a cross-referencing prefix for the A/\( S_{a} \) argument. Most of the non-prefixed verbs—which take no cross-referencing—are stative intransitive (\( S_{o} \) type) (see Dixon 1994: 70–83, for the discussion of \( S_{a} \) and \( S_{o} \)). As we will see below, the \( S_{o} \) type verbs share numerous properties with the A/\( S_{a} \) (prefixed) type.

Prefixed verbs have just one prefix position, so that when the prefixed negator \( mo- \) is used, personal cross-referencing prefixes are omitted, and person, gender and number distinctions are neutralised.

All transitive (as well as ditransitive) verbs in Tariana can be used intransitively (they can thus be considered ambitransitive: Dixon 1994: 18; 54). Most ambitransitive verbs in Tariana are of the \( S=A \) type. (1) illustrates the transitive
use of the verb -hña ‘eat’. The same verb employed intransitively is illustrated in (2).

(1)  
A:si nu-hña-ka.  
pepper 1SG-eat-rec.p.vis  
‘I have eaten pepper.’

(2)  
Nu-hña-ka.  
1SG-eat-rec.p.vis  
‘I have eaten.’

Besides cross-referencing, Tariana also uses case-marking of the accusative type (see Aikhenvald 1994). In a straightforward transitive clause, a pronominal NP with an animate referent in a function other than A, S₀ or S₁, is marked with the suffix -na. Any NP, nominal or pronominal, which is not in A, S₀ or S₁ function, may optionally take a topicalising enclitic -nuku. (Thus, a free pronoun with an animate referent can take both -na and -nuku). If a subject NP (A, S₀ or S₁), whether nominal or pronominal, is in contrastive focus, it is marked with an enclitic -ne ‘agentive.’

The -na case is used to mark direct and indirect objects, i.e. both ‘gift’ and ‘recipient’ in a ditransitive clause. Example (3) is ambiguous, and its ambiguity is typically resolved by context. (The case-marked forms are underlined.)

(3)  
Nuha pi-na di-na nu-a-mhade.  
I 2SG-obj 3SGNF-OBJ 1SG-give-fut  
‘I will give you to him.’ or ‘I will give him to you.’ (e.g. talking to, or about, a baby)

The S₀-type verbs mark their sole core argument in the same way as transitive and active intransitive verbs (termed A/S₀ verbs), that is, by zero. Example (4) illustrates a prefixless S₀ verb keru ‘be angry’.

(4)  
Nuha keru-mha.  
I be.angry-pres.non.vis  
‘I am angry.’

S₀-type verbs are a large open class, semantically rather homogenous. They denote properties, mental and physical states and involuntary results of processes, e.g. karu ‘be afraid’, keru ‘be angry’, makale ‘be out of breath’, hama ‘be tired, fed up’, lama ‘burn, get burnt’, leka ‘split’, hiku ‘appear’.
Similarly to A/S\_2 verbs, they cannot be used as arguments or modifiers without being nominalized.

There is another, closed, subtype of prefixless stative intransitive verbs which includes mostly predicates of physical states. Their only argument takes the -na case if expressed with a pronoun—unlike A/S\_2 and S\_o constituents; if it is topical it can take -nuku. That is, the sole argument of these predicates is a kind of S marked in the same way as the object of a transitive verb. Consider (5).

(5)  
\[ \text{Sõme di-na unina-pidana.} \]
\[ a.lot \text{ 3SGNF-OBJ be.thirsty-REM.P.REP} \]
\[ \text{‘He was very thirsty.’ (Lit. ‘To him a lot of thirst.’)} \]

The S\_o-type verbs fall into three subgroups:

A. S\_o predicates par excellence. These are: unina ‘be thirsty’, inasua ‘be lazy, debilitated’, and inu, inuna ‘be unwilling’. They cannot be used as arguments; only inasua can be nominalized with classifiers (see Chapter 3 of Aikhenvald 2000b, for nominalizing functions of classifiers in Tariana and elsewhere), e.g. inasua-peri (be.lazy-PL.ANIM) ‘lazy ones’, inasua-peri (be.lazy-CL.COLL) ‘laziness’.

B. S\_o predicates which can occur as arguments without being nominalized. These include dai ‘be sleepy, sleepiness’, mapisi ‘be ominous, ominousness’, mhaisiki ‘be hungry, hunger’, khenolena ‘be nauseous, nausea’, amiri ‘be drunk, drunkenness’, yari ‘be tipsy, tipsiness’ and about ten names for illnesses, e.g. adaki ‘be feverish, fever’, duplic ‘be sick, sickness’, tsuri have diarrhoea, diarrhoea’ and wesi ‘have a flu, flu’. Sentence (6) illustrates amiri as an S\_o predicate. The same item as the argument of a subordinate clause is illustrated in (7); in this example amiri is in the function of the S\_o of an active intransitive verb -sisa ‘end’.

(6)  
\[ \text{Amiri-ka-mha du-na.} \]
\[ \text{be.drunk(S\_o)-DECL-PRES.NON.VIS 3SGNF-OBJ} \]
\[ \text{‘She is drunk.’} \]

(7)  
\[ \text{Amiri di-sisa-ka, wa-sape-mhade.} \]
\[ \text{drunkenness 3SGNF-END(S\_o)-SEQ 1PL.speak(S\_o)-FUT} \]
\[ \text{‘When drunkenness is over (i.e. when people sober up), we will talk.’} \]

C. S\_o predicates which can be used as S\_o predicates with a change in meaning. These include ma\_fa ‘be good’, ma\_fi ‘be bad’, hamu ‘be hot’, sakamu ‘be
warm', *hape* ‘be cold’ and *we* ‘be itchy’. When used as *S_o* they describe a physical condition of a participant, as illustrated in (8). When used as *S_o* they describe the participant’s property—see (9).^9^  

(8)  
\[
\text{Wa-na ãı ma:ţi-ma-naka.}
\]
\[
\text{1PL-OBJ here be.\text{bad}(S_o)-\text{EXC-PRES.VIS}}
\]
\[
\text{‘We are here in a very bad way.’ (Lit. ‘Here it is bad to us.’)}
\]

(9)  
\[
\text{Waha ma:ţi-ma-naka wa-numa sewite.}
\]
\[
\text{we be.\text{bad}(S_o)-\text{EXC-PRES.VIS 1PL-mouth quick+CL:ANIM}}
\]
\[
\text{‘We are bad and gossipy.’ (Lit. ‘We are bad and our mouth is quick.’)}
\]

We have seen that *A* and *S_a* in Tariana are cross-referenced on the verb, while *S_o* and *S_o* are not. While the *S_o* constituent is marked in the same way as a non-subject constituent, the *A*, *S_a* and *S_o* are coded in the same way. For this reason, we consider *S_o* ‘non-canonically marked’ since this constituent receives the same surface case-marking as the object.

The arguments *A* and *S_a* share almost all the subject properties. Below we will compare them with *S_o* (§3) and then with *S_o* (§4).

### 3. Syntactic properties of *A/S_a* and *S_o*

The properties shared by *A*, *S_a* and *S_o*—which allow us to group them under the notion of ‘subject’—are discussed in §3.1. In §3.2 we analyse the properties shared by *A* and *S_a* but not by *S_o*. Then, in §3.3 we discuss those properties which are different for *A*, *S_a* and *S_o*. A summary is given in §3.4.

#### 3.1 Syntactic ‘subject’ properties shared by *A*, *S_a* and *S_o*

Shared ‘subject’ properties of *A*, *S_a* and *S_o* form a subset of the typical syntactic properties of subjects as described in the Introduction to this volume. They cover the universal syntactic phenomena dependent on ‘subject’ as defined by Dixon (1994: 131).^10^ Two of the properties discussed below—Imperatives (§3.1.1) and the Same Subject constraint in serial verb constructions (§3.1.2)—relate to an intraclausal universal property of subjects. One property—Switch-reference control in clause joining (§3.1.3)—is the only interclausal subject property.
As we have mentioned in §2, the $S_o$, A and $S_a$ arguments acquire the same ($\emptyset$) case-marking.

Constituent order in Tariana provides little information concerning ‘subjecthood’: it is free, with just a tendency towards a verb final order. There are no pivot restrictions; that is, if two clauses which share core arguments are coordinated, any coreferential core arguments can be deleted provided they can be retrieved from the discourse context (see Aikhenvald in prep. and Aikhenvald 1995b).

3.1.1 Imperatives

A, $S_a$ and $S_o$ can be targets of imperatives. Examples (10) and (11) illustrate $S_a$ and $S_o$ as targets of the detrimental imperative.\(^{11}\)

(10)  \[ \text{Ahi} \ di-swā-tupe. \]
     \[ \text{here 3SGNF-lie(S$_a$)-IMPV:DETR} \]
     \[ ‘\text{Let him lie here (to his own detriment).’} \]

(11)  \[ \text{Tara}d-a-tupe. \]
     \[ \text{live(S$_o$)-IMPV:DETR} \]
     \[ ‘\text{Let (her) live (to her detriment, since her mother is dead).’} \]

Examples (12) and (13) illustrate $S_a$ and $S_o$ as targets of prohibitive.

(12)  \[ \text{MHāida pi-a.} \]
     \[ \text{PROH 2SG(S$_a$)-go} \]
     \[ ‘\text{Don’t go!’} \]

(13)  \[ \text{MHāida karu.} \]
     \[ \text{PROH be.afraid(S$_o$)} \]
     \[ ‘\text{Don’t be afraid!’} \]

3.1.2 Same Subject constraint in serial verb constructions

Transitive and intransitive verbs often appear in serial verb constructions. The main criterion for a serial verb is the Same Subject constraint (see Aikhenvald 1999c). That is, two or more verbs can only form a serial verb construction if their A or S argument is the same. For transitive and $S_a$ verbs this implies identical cross-referencing on all the components. The serial verb construction in (14) consists of transitive -thuka ‘break’, active intransitive -uka ‘arrive’ and transitive -pe ‘leave, let’. The verbs are underlined.
Example (15) illustrates a modal serial verb construction with a verb of wanting. Both verbs are transitive.

(15) *I-na-mha i-eme.*
2PL-want(A)-pres.non.vis. 2PL-sniff(A)
‘You want to sniff (snuff).’

If a serial verb construction includes an S_o-type verb, then the S_o of one verb and the A or S_o argument of the other verb(s) must have the same referent—see (16) where the S_i verb cross-references the person-number-gender of the subject of the construction.

(16) *Pedale-pe-miki-se keru-ma-pidana*  
old-pl-nom.past:pl-contr be.angry(S_o)-exc-rem.p.rep

*na-yã-nhi.* 3pl-stay(S_o)-ant
‘The old ones were angry.’

Serial verb constructions are very widely used. They often correspond to complement clauses in other languages, in particular, those used with Primary-B verbs and Secondary verbs (Dixon 1991) (see Introduction: §3.2.2). This means that in Tariana, unlike in the other languages mentioned in §3.2.2 of the Introduction, deletion of coreferential arguments in complement clauses with verbs like ‘want’ or ‘try’, ‘finish’ or ‘begin’ cannot be an independent criterion of subjecthood; rather, it is a case of the application of same subject constraint in a serial verb construction (cf. note 10 and §5 below).12

3.1.3 Switch-reference
Tariana has a well-developed system of switch-reference in clause combining; that is, the choice of clause-chaining clitics which refer to a temporal sequence of events is determined by whether the conjoined clauses share A, S_i and S_o (i.e. have ‘same subject’) or not. The list of these clitics is given in Table 1.
Table 1. Switch-reference sensitive enclitics in Tariana

<table>
<thead>
<tr>
<th>Meaning</th>
<th>SS</th>
<th>DS</th>
</tr>
</thead>
<tbody>
<tr>
<td>After</td>
<td>-hyume</td>
<td>-kañami</td>
</tr>
<tr>
<td>During</td>
<td>-nikhe</td>
<td>-nisawa</td>
</tr>
</tbody>
</table>

The following examples illustrate how switch-reference works in Tariana. Example (17) shows the same subject enclitic -hyume ‘after, because’ on two transitive predicates (underlined). The second one is a serial verb construction (in square brackets).

(17) \(Di-a\)-hyume \(di-\nu\)  
3SGNF-say(A)-AFTER:SS 3SGNF-go.up(S\(_a\))  
di-a-\(di\)-ka\(_a\) \(di\)-a-pidana \(di\)-a.  
3SGNF-go(S\(_a\))-REM.P.REP 3SGNF-go(S\(_a\)) 3SGNF-see(A)  
‘After having said (this) he went up to see (what was happening).’

Example (18) shows how the same subject enclitic is used in a combination of clauses: one of these contains a serial verb construction consisting of an intransitive serial verb (with two S\(_a\)-type verbs) and the other contains just an S\(_a\) predicate. The clause boundary is shown with a comma; the switch-reference marking enclitic is underlined. The serial verb construction is in square brackets.

(18) \([D\(u\)-a \(du\)ka], h\(a\)ra\(m\)e-hyume.  
3SGF-go(S\(_a\)) 3SG+arrive(S\(_a\)) get.frightened(S\(_a\))-AFTER:SS  
‘She arrived, after she got frightened.’

A different subject enclitic, -kañami, is used if the subjects (A, S\(_a\) or S\(_o\)) have different referents. (19) illustrates different A and S\(_a\).

(19) \(Di\)-pana-kañami \(di\)-ha \(k\)an\(a\).  
3SGNF-plant(A)-AFTER/BECAUSE:DS he maize  
di-tawina-pidana.  
3SGNF-grow(S\(_a\))-REM.P.REP  
‘After he planted (the field), the maize grew.’

Example (20) shows different A and S\(_o\).

(20) \(K\(a\)-na-ni-nisawa \(k\)adawa.  
so-3PL-do(A)-AFTER:DS become.dark(S\(_o\))  
‘After they did so, it became dark.’
3.2 Properties shared by A and S_a but not by S_o

Properties shared by A/S_a but not by S_o include: the applicability of the valency reducing reciprocal derivation and of the argument manipulating derivation (§3.2.1), and serializability (§3.2.2). Transitive verbs, S_a and S_o intransitive verbs must be nominalized, to be used as arguments.

3.2.1 Reciprocal and argument manipulating derivations

Tariana has a reciprocal derivation marked with a suffix -kaka (alongside serial associative constructions which can have a reciprocal meaning), e.g. na-inu (3PL-kill) ‘they killed’, na-inu-kaka ‘they killed each other’. Only A/S_a verbs, but not S_o verbs, can form reciprocals (see Aikhenvald forthcoming), e.g. na-inu-kaka (3PL-kill(A)-REC) ‘they kill each other’ and na-nalita-kaka (3PL-quarrel(S_o)-REC) ‘they quarrel with each other’.

There is also an argument manipulating derivation (marked by a suffix -ni on the verb) which signals that a constituent other than A/S_a is more topical than the A/S_a constituent, as is the case in (21) but not in (22) (see discussion in Dixon and Aikhenvald 1997:92–3). This derivation cannot be applied to S_o verbs.

(21) Ha-hipe nu-phu-ni-hipe-sika pi-na.
‘I sold this (land) to you.’ (‘land’ is highly topical)

(22) Ha-hipe nu-phu-sika pi-na.
DEM:INAN-CL:LAND 1SG-sell-PRES.INFR 2SG-OBJ
‘I sold this land to you.’

3.2.2 Serializability

We have seen that transitive, S_a and S_o verbs can be serialized. There are no restrictions on serializability of transitive verbs and S_a verbs. Restrictions on serializability of S_o verbs go along the following lines:

1. A serial verb construction cannot consist just of S_o verbs.
2. S_o verbs can be used only in serial verb constructions of some semantic types but not in others (see Aikhenvald 1999c, on the types of serial verbs in Tariana). They are typically used as ‘modifiers’ to the semantically main
verb. This is illustrated with (23) where the serial verb construction (in square brackets) means ‘give openly’. A modifier verb (‘be open’) is semantically similar to a manner adverb (‘openly’).

(23) \[ Diha diha hipatu [hiku-pana
di-a-pidana]. \]
\[
\text{he the snuff be.open(So)-all}
\text{3SGNFINFLGIVE(A)-REM.P.REP}
\]
‘He (the traditional God) gave all (people) the snuff openly.’

S\textsubscript{o} verbs can also be used in serial constructions with aspectual meanings (as in (16)); but not in modal serial verb constructions. (24) is ungrammatical.

(24) \*Nu-na-mha mafa.
\[
1SG\text{-want(A)-PRES.NONVIS be.well(So)}
\]
‘I want to be well.’

When serial verb constructions containing a transitive verb or an S\textsubscript{a} or S\textsubscript{o} intransitive verb are negated, the negation marker goes onto the first component—see §4.4.2.

3.3 Properties which distinguish A, S\textsubscript{a} and S\textsubscript{o}

The A, S\textsubscript{a} and S\textsubscript{o} differ as to the applicability and the semantic effect of two valency changing mechanisms: passive (discussed in §3.3.1), and causative (discussed in §3.3.2).

3.3.1 Passive
Tariana has a productive passive (expressed by a complex predicate—see Aikhenvald 2000a). A, S\textsubscript{a} and S\textsubscript{o} can be targets of passive. However, the semantic effects of the passive are different with transitive verbs, S\textsubscript{a} verbs, and S\textsubscript{o} verbs.

The passive of a transitive verb is straightforward—see (25), for the passive of the transitive verb -thuka ‘break’. The passive of an intransitive active S\textsubscript{a} verb has impersonal meaning, as shown in (26), while the passive of an intransitive stative S\textsubscript{o} verb in (27) has habitual connotations.

paddle 3SGNFINFLBREAK(A)-PASS 3SGNFINFLAUX
‘The paddle was broken.’
3.3.2 Causative
Causativization operates differently for transitive, $S_a$ and $S_o$-type verbs (see further details in Aikhenvald 2000a). Tariana has three mechanisms of forming causative constructions: (1) morphological causatives (marked with -ita, or -i and, optionally, -ta), (2) periphrastic causative with a verb of causation -ni and optional or obligatory dependency-marking -ka, and (3) causative serial verb constructions. Scheme 1 shows the distribution of causativizing mechanisms.

<table>
<thead>
<tr>
<th>I</th>
<th>Morphological or periphrastic (verb of causation -ni ‘make’ and obligatory -ka)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Morphological (-i)</td>
</tr>
<tr>
<td>Stative verbs ($S_o$) referring to changeable properties</td>
<td>$S_o$ remains:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$S_o$ becomes $S_a$:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II</th>
<th>Morphological causative or periphrastic causative (verb of causation -ni ‘make’ and obligatory dependency-marking -ka) or serial verb constructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Morphological (-i)</td>
</tr>
<tr>
<td>active intransitive ($S_a$) and some transitive verbs</td>
<td>forceful causer</td>
</tr>
<tr>
<td></td>
<td>unwilling causer</td>
</tr>
<tr>
<td></td>
<td>direct causation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III</th>
<th>No morphological causative, only periphrastic (verb of causation -ni ‘make’ and optional dependency-marking -ka)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stative verbs ($S_o$) referring to unchangeable properties</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IV</th>
<th>No morphological causative, only causative serial verb constructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most transitive verbs</td>
<td></td>
</tr>
</tbody>
</table>

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(26) *Wha ita-whya-misini-nuku*
we canoe-cl:canoe-too-top.non.a/s
cana-kana-de na.
NEG+sleep($S_o$)-PASS-NEG 3PL+AUX
‘On our canoe, too, one does not sleep.’ (Lit. ‘It is not slept.’)

(27) *Ita-whya leka-kana-nihka.*
cana-cl:canoe break($S_o$)-PASS-ANT+REC.P.Vis
‘The canoe got broken (as usual).’
depending on the verb type—whether it is a transitive verb, an \( S_a \) verb, or an \( S_o \) verb. Note that transitive verbs share most properties with \( S_a \) verbs, while the \( S_o \) verbs clearly form a separate class.

3.4 Properties of \( A, S_a \) and \( S_o \)  

Table 2 summarises the properties of \( A, S_a \) and \( S_o \) discussed in this section. It shows that we have sufficient evidence in Tariana to group \( A, S_a \) and \( S_o \) together under the notion of ‘subject’ which corresponds to a subset of universal properties of subject (properties a, b and d in Table 2). However, there are enough interclausal and intraclausal properties to distinguish \( A/S_a \) on the one hand and \( S_o \) on the other as ‘subjects’ of different kinds (properties f to j). Properties k and l are the ones in which transitive, \( S_a \) and \( S_o \) verbs behave differently; note that as far as the mechanisms of causativization are concerned, \( A \) and \( S_a \) verbs show more properties in common with each other than with the \( S_o \)-type.

Table 2. Syntactic properties of \( A, S_a \) and \( S_o \), a summary

<table>
<thead>
<tr>
<th>Property</th>
<th>( A )</th>
<th>( S_a )</th>
<th>( S_o )</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Target of imperative</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Same subject constraint in serial verb constructions</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Placement of negation in serial verb constructions</td>
<td>first</td>
<td>component</td>
<td></td>
</tr>
<tr>
<td>d. Same subject constraint in switch reference</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Use as arguments (without nominalizing)</td>
<td>no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Case-marking</td>
<td>unmarked form</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Target of reciprocal</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>h. Target of topic-advancing derivation</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>i. Serializability: restrictions on cooccurrence of same verb types</td>
<td>no</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>j. Serializability: restrictions on serial verb construction types</td>
<td>no</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>k. Semantics of passive</td>
<td>passive</td>
<td>impersonal</td>
<td>habitual</td>
</tr>
<tr>
<td>l. Causative formation</td>
<td>See Scheme 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Properties of \( S_o \)

The \( S_o \) argument shares some properties with \( A/S_a \) and \( S_a \) arguments, and some properties with just the \( S \), or just the \( S_o \) argument; however, it differs from all
of these in other properties. The properties which \textsubscript{S\textsubscript{i}} shares with \textsubscript{S\textsubscript{a}} and \textsubscript{S\textsubscript{o}} apply to all the three subclasses of \textsubscript{S\textsubscript{i}} verbs (mentioned in §2) and so do the the ones shared with \textsubscript{S\textsubscript{a}} and the ones shared with \textsubscript{S\textsubscript{o}}. See discussion in §§4.1–4.3. The three subclasses of \textsubscript{S\textsubscript{i}} verbs do show some differences as to the properties specific just for \textsubscript{S\textsubscript{i}} verbs. These are considered in §4.4.

4.1 Property of \textsubscript{S\textsubscript{i}} shared with \textsubscript{A}, \textsubscript{S\textsubscript{a}} and \textsubscript{S\textsubscript{o}}

The \textsubscript{S\textsubscript{i}} argument shares just one subject property (see §3.1.2) with \textsubscript{A}, \textsubscript{S\textsubscript{a}} and \textsubscript{S\textsubscript{o}} arguments: the Same Subject constraint in Serial Verb constructions. If the first verb in a serial verb construction is of \textsubscript{S\textsubscript{i}}-type then the second verb has to be active intransitive (\textsubscript{S\textsubscript{a}})-type, as in (28), or \textsubscript{S\textsubscript{i}}-type, as in (29).

The serial verb construction in (28) consists of \textit{dai} (\textsubscript{S\textsubscript{i}} verb) and \textit{-ima} (\textsubscript{S\textsubscript{a}} verb) ‘be.sleepy-close.eyes’ (this is a typical way of saying ‘be asleep’). The shared subject is the third person plural cross-referenced on the \textsubscript{S\textsubscript{a}} verb. Note that in this example the pronominal subject \textit{naha} ‘they’ is unmarked for case (as is normal for \textsubscript{A}, \textsubscript{S\textsubscript{a}} or \textsubscript{S\textsubscript{o}} subject), and cannot take the non-subject case marker -\textit{na} (as it would have done, if the \textsubscript{S\textsubscript{i}} verb \textit{dai} were used by itself, e.g. \textit{dai na-na} (be.sleepy 3\textsubscript{PL}-obj) ‘they are sleepy’—see Scheme 1).

(28) \textit{Naha dai nema na-swa.}
\textit{naha be.sleepy 3\textsubscript{PL}+close.eyes 3\textsubscript{PL}-lie}
‘They lay asleep.’

4.2 Property of \textsubscript{S\textsubscript{i}} shared with \textsubscript{A} and \textsubscript{S\textsubscript{a}} but not with \textsubscript{S\textsubscript{o}}

We noted in §3.2.3 that a serial verb construction cannot consist of just two \textsubscript{S\textsubscript{o}} verbs. But it can consist of just \textsubscript{S\textsubscript{i}} verbs—in this respect, \textsubscript{S\textsubscript{i}} verbs resemble \textsubscript{A} and \textsubscript{S\textsubscript{a}} verbs rather than \textsubscript{S\textsubscript{o}} verbs. (29) illustrates a serial verb construction which consists of two \textsubscript{S\textsubscript{i}} verbs. Note that the pronominal subject ‘I’ takes the -\textit{na} case as required by \textsubscript{S\textsubscript{i}} verbs.

(29) \textit{Nu-na dai kai-pu-mha.}
\textit{1SG-OBJ be.sleepy ache-aug-pres.non.vis}
‘I am very sleepy.’ (Lit. ‘I am (so) sleepy I ache.’)
4.3 Properties of $S_\omega$ shared with $S_\nu$ but not with $A$ or $S_\sigma$

Similarly to the $S_\sigma$ argument, the $S_\omega$ cannot be the target of reciprocal or topic-advancing derivation (see §3.2.1).

Similarly to $S_\nu$ verbs (§3.2.2), $S_\omega$ verbs can only occur in serial verb constructions of a limited number of semantic types. But unlike $S_\sigma$ verbs—which typically occur in modifier-like constructions, and in aspectual constructions—they may be used as the first component of serial verb constructions with the semantics of cause-effect, as illustrated in (29) above and in (30).

(30)   *Yuwapiku mhaisiki di-ñami-pidana
di-a-nha.

'some.time be.hungry(S_\omega) 3SGNF-die/faint(S_\sigma)-REM.P.REP
3SGNF-go(S_\nu)-PAUS
'Some time later he felt hungry enough to faint.' (Lit. 'He felt hungry (and) fainted.')

Similarly to $S_\nu$ verbs they cannot be used in modal serial verb constructions (see (24)); (31) is ungrammatical.

(31)   *Nu-na-mha dai

'I want to be sleepy'???

4.4 Properties of $S_\omega$ not shared with either $S_\nu$ or $S_\sigma$ or $A$

Unlike $A/S_\sigma$ or $S_\nu$ verbs, $S_\omega$ verbs (see §3.3.1) cannot be passivized. There are a number of other properties which some, or all, $S_\omega$ verbs do not share with verbs of other types. Of these, $S_\omega$-argument specific properties, switch-reference (§4.4.1) and placement of negation in serial verb constructions (§4.4.2) are shared by all the three subgroups of $S_\omega$ verbs. Other properties—imperatives (§4.4.3) and causativisation (§4.4.4)—operate differently for the verbs of the three subgroups. Two further properties are characteristic just of subgroup B (§4.4.5).

4.4.1 Switch-reference

Unlike $A$, $S_\sigma$ and $S_\nu$ arguments, $S_\omega$ predicates trigger the use of a different-subject enclitic in clause combining, even if the referent of the $A$, $S_\sigma$ or $S_\nu$ in the conjoined clause is the same, as in (32). The use of the same-subject enclitic would be ungrammatical.
4.4.2 Placement of negation in serial verb construction

$S_o$ verbs differ from other verb types in how they are negated in serial verb constructions. A serial verb construction in Tariana can contain just one negation marker (note that the components cannot be negated separately). If a serial verb construction does not contain an $S_o$ verb the negation marker goes on the first verb in the series, as shown in (33) (with an $S_o$ verb and a transitive verb) and (34) (with an $S_o$ verb and an $S_o$ verb). Note that negation is marked with a prefix $(ma-)$ and a suffix $(kade)$ with a prefixed verb, as in (33), and with just a suffix $(kade)$ with a prefixless verb, as in (34).

(33)  
\[
\text{Mema-kade-pidana di-keta.} \\
\text{NEG+close.eyes($S_o$)-NEG-REM.P.REP 3SGNF-find(A)} \\
\text{‘He couldn’t sleep.’ (Lit. ‘He didn’t find sleep.’)}
\]

(34)  
\[
\text{Halia-kade-pidana di-swa.} \\
\text{be.light($S_o$)-NEG-REM.P.REP 3SGNF-lie($S_o$)} \\
\text{‘It didn’t get light.’}
\]

If a serial verb construction contains an $S_o$ verb, the negation marker goes on the second component, as in (35), with an $S_o$ verb of the subgroup B, and in (36), with an $S_o$ verb of the subgroup C. Verbs of subgroup A behave in exactly the same way.

(35)  
\[
\text{Ihya nu-enipe mhaisiki ma-ñami-kasu.} \\
\text{2PL 1SG-children be.hungry($S_o$) NEG-faint/die($S_o$)-INT} \\
\text{‘You, my children, are not going to die of hunger.’}
\]

(36)  
\[
\text{Mağa ma-rena-kade-mha.} \\
\text{be.good($S_o$) NEG-feel($S_o$)-NEG-PRES.NON.Vis} \\
\text{‘(We) don’t feel well.’}
\]

4.4.3 Imperative

Unlike A, $S_o$, and $S_o$ arguments, the $S_o$ argument of the verbs of A and B sub-
groups cannot be the target of any imperative. (37), which contains an S_o verb of subgroup B, is ungrammatical (cf. (10)–(13) for examples of S_p and S_o as targets of imperative).

(37) *Mhaisiki-tupe
    ‘Let him be hungry’?

However, if an S_o-type verb of subgroup B forms part of a serial verb construction, any imperative is perfectly grammatical, as in (38), with a detrimental imperative, and (39), with a prohibitive.

(38) Mhaisiki di-ñami-tupe.
    be.hungry(S_o) 3SGNf-die/faint(S_o)-IMPV.DETR
    ‘Let him die of hunger.’

(39) Mhãida mhaisiki pi-ñami.
    PROH be.hungry(S_o) 2SG-die/faint(S_o)
    ‘Do not die of hunger.’

The S_o verbs of subgroup C (that is, the ones which can also be used as S_o verbs), can cooccur with detrimental imperative, as illustrated in (40), and with imperative ‘by proxy’ (see note 11), as shown in (41).

(40) Na-na ma-ta-shlig-a-tupe.
    3PL-OBJ good(S_o)-IMPV.DETR
    ‘Serves them right.’ (Lit. ‘Let it be good on them to their detriment.’)

(41) Ma-ña pida na-na.
    good(S_o)-IMPV.BY.PROXY 3PL-OBJ
    ‘Let it be good for them.’ (following another person’s order)

They cannot cooccur with prohibitive, or any other imperative; (42) is ungrammatical.

(42) *Mhãida maña.
    PROH be.good(S_o)
    ‘Do not be in a good way’?

4.4.4 Causativization of S_o verbs
Mechanisms employed for causativizing the S_o verbs of the three subgroups are different from those used for causativizing transitive, active intransitive and
stative verbs shown in Scheme 1. Table 3 presents the distribution of causativizing mechanisms for the three subgroups of $S_o$ verbs. Numbers of examples illustrating every causative type are given in brackets on the first line.

Table 3. Causativizing mechanisms available for $S_o$ verbs

<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Morphological causative (43)</th>
<th>Serial causative constructions with the transitive verb -eme ‘put’ (44)</th>
<th>Periphrastic causative with the transitive verb -ni ‘do’ (45)</th>
<th>No causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subgroup of $S_o$ verbs</td>
<td>Subgroup A: only inasu 'be lazy, debilitated'</td>
<td>Subgroup B: all verbs</td>
<td>Subgroup C: all verbs</td>
<td>Subgroup A:</td>
</tr>
</tbody>
</table>

(43) *Isa nu-na inasueta-mahka.*

wound 1SG-OBJ be.lazy,debilitated-REC.P,NON.VIS

‘The wound made me debilitated (or lazy).’

(44) *Di-na yema-ne dai neme-ta.*

3SGNF-OBJ cigar-INS be.sleepy 3PL+PUT+CAUS-COMpletely

‘They made him really fully asleep with a ritual cigar (with its magic powers).’

(45) *Kare hape di-ni-mahka nu-na.*

wind cold 3SGNF-DO-REC.P,VIS 1SG-OBJ

‘Wind made me cold.’

The use of serial causative constructions with the transitive verb -eme ‘put’ is unique to the $S_o$ verbs of subgroup B. A periphrastic causative with the transitive verb -ni ‘do, make’ is employed with $S_o$, $S_s$ and transitive verbs; the dependency marker -ka is optional with the $S_o$ verbs as it is with the $S_e$-type (see Scheme 1). Morphological causatives are employed to causativize $S_o$, $S_s$ and some transitive verbs; *inasua* ‘be lazy, debilitated’ is the only $S_o$ verb which allows a morphological causative.

4.4.5 Special properties of the $S_o$ verbs of subgroup B

All the verbs of the B subgroup of $S_o$ verbs can be used as predicate arguments without being nominalized—see (7) above.
They can also appear in two kinds of alternative structures. Firstly, they can cooccur with the existential $S_o$ verb *alia* as in (46). There appears to be no semantic difference between clauses with *alia*—such as (46) and those without it—such as (47); possible pragmatic differences require further investigation.

(46) $Mhaisiki$ *(alia-mha)* *nu-na.*

hunger/be.hungry exist($S_o$)-pres.non.vis 1sg-obj

‘I am hungry.’ (Lit. ‘Hunger exists to me.’)

(47) $Mhaisiki$ *mha nu-na.*

hunger/be.hungry($S_o$)-pres.non.vis 1sg-obj

‘I am hungry.’

The clause type in (46) is structurally similar to a possessive clause illustrated in (48).

(48) $Nu-na$ *finu alia-ka.*

1sg-obj dog exist($S_o$)-rec.p.vis

‘I have a dog.’

However, possessive clauses and clauses with an $S_o$ verb and the existential verb are different in that

a. the existential verb usually cannot be omitted from a possessive clause, while it is optional in a clause like (46);

b. a possessee in a possessive clause comes from an open class of nouns (e.g. ‘dog’ in (48)), while an $S_o$ verb—such as *mhaisiki* in (46)—belongs to a closed class;

c. a possessive clause can be rephrased using the transitive verb of possession -de ‘have, hold’, cf. *nuha finu nu-de-ka* (I dog 1sg-have(A)-rec.p.vis)

‘I have a dog’, but one with a subgroup B verb cannot be;

d. clauses like the one in (46) have an inchoative version with the $S_o$ verb -nu ‘come, arrive’ illustrated in (49); if (48) is rephrased with the verb -nu, it does not have an inchoative meaning—see (50).

(49) $Amiri$ *di-nu-ka nu-na.*

drunkenness 3sgnf-come($S_o$)-rec.p.vis 1sg-obj

‘I became drunk.’ (Lit. ‘Drunkenness came to me.’)

(50) $Tfinu$ *di-nu-ka nu-na.*

dog 3sgnf-come($S_o$)-rec.p.vis 1sg-obj

‘A/the dog came up to me.’ (Not: *‘I started having a dog.’)
Secondly, these \( S_o \) verbs allow alternative constructions of yet another kind. To emphasize the temporary character of a state, an \( S_o \) verb can occur with instrumental case, as in (51); while to refer to a more prolonged state, a construction like the one in (52) is used. Note that if an \( S_o \) verb takes instrumental case, it behaves like a non-verbal predicate, and this is why the subject, \( nuha \) ‘I’, is unmarked for case in (51). In contrast, (52) contains an \( S_o \) verb and its subject takes the -\( na \) case.

(51) \[ Nuha \ adaki-ne-mha. \]
    I be.feverish/fever-ins-pres.non.vis
    ‘I am feverish.’ (right now, for a short time)

(52) \[ Adaki-mha \ nu-na. \]
    be.feverish(\( S_o \))-pres.non.vis 1sg-obj
    ‘I have been feverish.’ (over a lengthy period of time)

5. Conclusions and discussion

We have seen that \( A \) and \( S_a \) share most syntactic properties in Tariana. An explanation for this could be provided by the fact that every transitive verb in Tariana can be also used intransitively, as an active intransitive verb (i.e. is ambitransitive of type \( S_o=A \)—see note 5).

The \( S_o \), \( A \) and \( S_a \) arguments share three syntactic properties, besides the case-marking for the core constituents—the same subject constraint in serial verb constructions, operation of switch reference, and imperative; these justify their status as ‘subject’. \( S_o \), \( A \) and \( S_a \) can be targets of passive. At the same time, \( S_o \) verbs have a few properties that set them apart from \( A/S_a \) (see Table 2, and the subsequent discussion). The properties of \( A \), \( S_o \), \( S_a \) and \( S_o \) predicates in Tariana are summarized in Table 4 (the numbers of the properties are the same as in Table 2, for ease of reference).

The only property all \( S_o \)-type verbs share with \( A \), \( S_a \) and \( S_o \) is same subject constraint in serial verb constructions (property b in Table 4). The \( S_o \)-type verbs differ from transitive, \( S_o \) and \( S_o \)-type verbs in that they require object case marking for their only \( (S_o) \) argument (property f). The \( S_o \) verbs share one property with \( A \) and \( S_o \) but not with \( S_o \); there are no restrictions on cooccurrence of these verbs in one type of serial verb construction (Property i in Table 4). Similarly to \( S_o \)-type predicates, the \( S_o \) predicates display restrictions on what serial
Table 4. Properties of A, S_o, S_i, S_o: a summary

<table>
<thead>
<tr>
<th>Property</th>
<th>A</th>
<th>S_o</th>
<th>S_i</th>
<th>S_a</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Target of imperative</td>
<td>yes</td>
<td>no</td>
<td>limited</td>
<td></td>
</tr>
<tr>
<td>b. Same subject constraint in serial verb constructions</td>
<td></td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Placement of negation in serial verb constructions</td>
<td>first component</td>
<td>second component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Same subject constraint in switch reference</td>
<td>yes</td>
<td>no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Use as arguments</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>f. Case-marking</td>
<td>unmarked form</td>
<td>marked form</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Target of reciprocal</td>
<td>yes</td>
<td>no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Target of topic-advancing derivation</td>
<td>yes</td>
<td>no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Serializability: restrictions on cooccurrence of same verb types</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>j. Serializability: restrictions on serial verb construction types</td>
<td>no</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Applicability of passive</td>
<td>yes</td>
<td>no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Causative formation</td>
<td>See Scheme 1</td>
<td>See Table 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Alternative constructions</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
</tbody>
</table>

constructions they can occur in (Property j in Table 4); however, these restrictions are rather different for each of the types. Properties g and h are also shared by the S_o and the S_o-types, but not by A and S_a.

The properties f, k, d and c distinguish S_i verbs from the other verb types. These properties are shared by all the three subgroups of the S_i verbs. Thus, they constitute the main argument in favour of the S_i verbs as a separate class. Then, the three subgroups show certain differences as to how the properties a, e, l and m operate.

Property a sets the C subgroup of the S_o-type verbs apart from the rest: only the verbs of the subgroup C (the ones which can also be used as S_o verbs) can form imperatives of some kind. Property l has different values for all the three subgroups of the S_o-type verbs. The verbs of group B share properties e and m:
they can be used as arguments, and can also appear in possessive-like con-structions and in constructions with instrumental case. This can be explained by the fact that the subgroup B verbs of the S_{io}-type are the most ‘nominal-like’ ones of all the S_{io} verbs.

All the verb types show differences in what mechanisms of causative forma-
tion is applicable to them (Property 1); we have seen, however, that the S_{io} verbs of the subgroup C are closer to the S_{o}-type in how they form causatives (see Scheme 1 and Table 3).

Special properties of the three groups of S_{io} verbs can be partly accounted for by their origin. The group B verbs are the most nominal-like (this is why they can be used as predicate arguments without being nominalized). The group C verbs overlap with S_{o} verbs in at least two properties (imperative and causative formation)—this is easy to understand since all of them are also used as S_{o} verbs. The group A verbs are the most unusual of all, in that they do not share any specific properties (a, e, I or m) with any other verbs, or with nouns.

The shared properties of A, S_{o}, S_{a}, and S_{io} verbs are sufficient to justify the category of ‘subject’. The S_{io} verbs might appear to be somewhat ‘problematic’ since of all the subject properties they only have ‘the same subject constraint’ in serialisation. However, in many languages (see Introduction to this volume) the ‘strongest’ subject properties include control over coreferential deletion in complement clauses, control over reflexivisation, and pivot control: they tend to be retained by non-canonically marked A/S more frequently than other properties. Serial verbs in Tariana cover the functional domain of complement clauses in other languages (e.g. constructions like ‘want to do something’, or ‘try to do something’, or ‘begin to do something’ are rendered by serial verbs). The main strategy for reflexives is also serial verb constructions. Keeping in mind that Tariana has no pivot constraints (see §3.1), this implies that the same subject constraint does indeed cover the same functional domain as a number of other cross-linguistically ‘strong’ subject properties.

A comparative study of transitive, intransitive active (S_{a}) and intransitive stative (S_{o}) verbs with a non-canonically marked subject shows that the S_{io} argument of the S_{io}-type verbs can indeed be treated as a distinct subtype of S as part of the grammatical relation ‘subject’. The data of Tariana show, however, that the behavioural properties of the S_{io} argument of the three distinct subgroups of the S_{io}-type verbs may provide evidence in favour for a possibility of further ‘splitting’ of the category of S_{io}.
Notes

1. Tariana is spoken by about 100 adults in the Vaupés area (see Aikhenvald 1999a); it has undergone a heavy areal impact from the neighbouring East-Tucano languages—see Aikhenvald (1996). Bare is now extinct (Aikhenvald 1995a), while Warekena is spoken by about 20 old people in the Xié river basin (Aikhenvald 1998). Baniwa of Ícana (which forms a dialect continuum with Kurripako) is spoken by over 3,000 people. Abbreviations used here are: ag = agentive; anim = animate; ant = anterior; aug = augmentative; aux = auxiliary; caus = causative; cl = classifier; coll = collective; contr = contrast; decl = declarative; dem = demonstrative; detr = detrimental; ds = different subject; exc = excessive; f, fem = feminine; fut = future; impv = imperative; inan = inanimate; ins = instrumental; int = intentional; neg = negative; nf = nonfeminine; nom, past = nominal past; obj = object case; pass = passive; paus = pausal; pl = plural; pres, infn = present inferred; pres, non, vis = present non-visual; pres, vis = present visual; proh = prohibitive; rec = reciprocal; rec, p, non, vis = recent past non-visual; rec, p, vis = recent past visual; rem, p, rep = remote past reported; seq = sequential; sg = singular; ss = same subject; top, adv = topic-advancing voice; top, non, a/s = topical non-subject case marker.

2. This division of verbs goes back to proto-Arawak (Aikhenvald 1999b). We have no data about the status of the fourth class in proto-Arawak. Cross-referencing and the properties of ‘dative’ subjects in Bare, Warekena and Baniwa are discussed at some length in Aikhenvald (1995a, 1995b, 1998).

3. Ultimately, this argument is against the uniformity of the S as a grammatical relation.

4. This division roughly corresponds to the morphological distinction between active and stative intransitive verbs inherited from Proto-Arawak (see Aikhenvald 1999b).

5. Transitivity classes in Tariana are described in detail in Aikhenvald (2000a).

6. Tariana is almost unique among Arawak languages in having case-marking. I have shown elsewhere (Aikhenvald 1996) that case marking in Tariana is most probably the result of areal diffusion from East-Tucano languages.

7. For nouns, but not for pronouns, it is homophonous with instrumental marker; see further discussion in Aikhenvald (1994).

8. The verbs we consider here are primary-A verbs (according to the classification by Dixon 1991). One S₁ verb, inuna ‘be unwilling’, can be used as a primary-A verb, and also as a secondary verb of modal type. There are three more secondary verbs of modal type (Dixon 1991: 88) which require that the A/S argument of the verb they ‘modify’ should take the -na ‘non-subject case’: the verb of obligation (ira ‘need’), manhina ‘be difficult’ and mahyuna ‘be impossible, difficult’. These verbs are idiosyncratic in other ways (see Aikhenvald in prep.); they won’t be discussed in this paper due to limitations of space.

9. A similar semantic distinction is found in the closely related Warekena, where any S₀ verb can be used as an S₁ type verb: a predicate used as S₁ denotes a temporary state, or condition (e.g. ‘I am hungry (just now)’, while the same predicate used as S₀ denotes a permanent, or prolonged state (e.g. ‘I am hungry (permanently, or over a continuous time-span)’) (see examples 620 and 621 in Aikhenvald 1998).

10. The universal phenomena characteristic for ‘subjects’ suggested by Dixon (1994: 131–41) include imperatives and constituents with ‘can’, ‘try’, ‘begin’ and similar verbs—this is covered by the Same Subject constraint in serial verbs in Tariana. See §5 and note 12, for the analysis of ‘control in reflexive’ as a subject property in Tariana; causatives are discussed in §3.3.
11. Tariana has the following types of positive imperatives: simple (unmarked), proximate (‘do here’), distal (‘do there’), by proxy (order on someone else’s behalf), preceptive (‘please do’), cohortative (‘let’s do’), directional (‘do in that direction’), and detrimental (‘do to your own detriment’). There are only two possibilities for the imperative in the negative: the general prohibitive, and the negative imperative ‘by proxy’.

12. Tariana employs serial constructions to express reciprocal and reflexive meanings (Aikhenvald 1999c and forthcoming). Thus, unlike many other languages, antecedent control over reflexive pronouns cannot be used as a meaningful criterion for subjects in this language; the same subject constraint in serial verbs covers it.

References

Impersonal Constructions in Amele

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1. Introduction

In this article I describe and analyse the syntax and semantics of so-called impersonal verb constructions in the Amele language of Papua New Guinea (PNG), especially with regard to the argument structure of these constructions. A typical example of such an impersonal construction is given in (1).

(1) *Ija wen *t-ei-a.*

1SG hunger 1SG.DO-3SG.SU-TODP

‘I was hungry.’

There is a free pronoun *ija ‘I’* which corresponds to the subject pronoun in the English translation. However, in the Amele form this pronoun is cross-referenced on the verb as direct object (DO). The subject (SU) of the impersonal verb is, in fact, cross-referenced as third person singular (3SG) but the reference is anonymous, so it is unclear what the subject nominal is of such an impersonal verb. Indeed part of the defining characteristics of an impersonal verb in Amele is that the subject agreement (SU Agr) is always 3SG. Such impersonal constructions normally express a physiological or psychological experience.

Contrast (1) with an active verb form such as (2). Here the pronoun *ija ‘I’* is cross-referenced on the verb as subject and *meen ‘stone’* is cross-referenced as plural direct object. The clause exhibits the constituent order of subject–object–verb (SOV), which is the unmarked order.
In §2 typological parameters are viewed that have a bearing in determining the nature of grammatical functions (GFs) in the language. These include configurational parameters, such as constituent order and the verb phrase constituent, the morphological coding and semantics of GFs, the intra-syntactic properties of GFs with regard to complement clauses, reflexives, and impersonal and reciprocal constructions, and the inter-syntactic properties of GFs with respect to the switch-reference system and causative constructions.

In §3 the syntax and semantics of the two basic types of impersonal construction in Amele are examined and compared. These are termed derived and lexical impersonal constructions, respectively. The derived forms are fully productive from the active verb and express the notion of desire. Lexical impersonal verbs, on the other hand, are not productive and express the notion of a physiological or psychological experience.

The heart of the article is in §4 where what constitutes the notion of ‘subject’ in the impersonal clause is examined against the set of criteria used to define subject for the active verb.

It turns out that in the impersonal clause subjecthood properties are divided between the experiencer nominal cross-referenced on the verb as direct object and the anonymous nominal cross-referenced on the verb by subject agreement. Only the morphological subject coding property and the semantic property of agent applies to this nominal. The rest of the configurational, pragmatic and referential subjecthood properties apply to the experiencer nominal cross-referenced as direct object.

In this section we also examine what type of argument-determined construction impersonal constructions are in terms of the four basic types proposed by Dixon and Aikenvald (1997). The conclusion is that impersonal is an argument transferring type of construction like passive, antipassive, applicative and causative, (specifically a valency increasing construction like applicative and causative) but unlike these constructions which retain the relevant semantic function across structures and change the syntactic and pragmatic functions, impersonal retains the pragmatic function of topic of the clause and changes the syntactic and semantic functions in the derived construction.
2. **Typological parameters**

In this section we will look at the typological parameters of Amele that have a bearing on defining the grammatical functions of arguments in the active clause.

2.1 **Configurational parameters**

The unmarked constituent order for the active clause in all text types (i.e. by far the most frequent occurrence statistically) is SOV. Typically the subject is the first constituent in the clause and verb the last. Amele also has postpositions and suffixation inflection. The language is pro-drop and allows sentences without overt nominal subjects. It also has a verb phrase (VP) constituent of which subject is not a part. This can be demonstrated from (3). In this example ege ‘we’ is cross-referenced on the verb by su\textsubscript{Agr} and is the left-most core argument of the clause. It is also the agent and the fact that it is not part of the VP can be shown by placement of the negator gee ‘not’. This constituent is part of the VP and it is normally ungrammatical for it to occur before the subject. Certainly in (3) it would be ungrammatical for it to do so.

\begin{verbatim}
(3) (*Qee) Ege (gee) saab (gee) j-ol-om.
     (NEG) 1PL (NEG) food (NEG) eat-NEGp-1PL.SU
     ‘We did not eat food.’
\end{verbatim}

As already mentioned, Amele has OV constituent order and postpositions and is a wholly left-branching language in Dryer’s (1992) terms with all phrasal complements occurring to the left of the head constituent. It is also a predominantly head-marking language. So su\textsubscript{Agr} and object agreement (O\textsubscript{Agr}) is marked on the verb as the head of the clause and there is no case-marking on the nominal constituents of the clause. In the same way possessor agreement is marked on the inalienably possessed noun which functions as the head of the construction. This is illustrated by (4).

\begin{verbatim}
(4) ija mela-mi
    1SG son-1SG.POSR
    ‘my son’
\end{verbatim}

Amele is not exclusively head-marking, however. The switch reference (sr)
morphology, i.e. same subject following (ss) and different subject following (ds), is marked on the dependent clause which precedes the following ‘head’ or controlling clause. Thus in (5a) the final clause saab jiga has the same subject ija ‘I’ as the preceding dependent clause therefore this clause is marked ss. In (5b), on the other hand, there is a 3sg subject in the final clause which is not coreferential with ija ‘I’ in the first clause so ds is marked on this clause.

(5) a. Ija bil-i-m-ig saab j-ig-a.
    1sg sit-appl-ss-1sg.su food eat-1sg-todp
    ‘I sat down and ate the food.’

b. Ija bil-ece-min saab j-ei-a.
    1sg sit-ds-1sg.su food eat-3sg-todp
    ‘I sat down and he ate the food.’

Note that in this type of ss/ds marking the ss and ds markers are separate from the su Agr morphology.\(^9\) This is a type of government between clauses. There is no agreement of subject categories, such as person and number, between the two clauses. Instead the controlling clause triggers the marking of the ss morpheme -m on the dependent clause. Likewise, when the subject of the controlling clause is different to that of the dependent clause the ds morpheme -ece is marked on the dependent clause. Notice, however, that while the sr morphology is marking the dependent clause as such the morphemes actually attach to the verb in each case as the head and final constituent of the dependent clause.

Another instance of dependent marking is the reflexive pronouns. An example is given in (6). Here the personal pronoun is marked with the suffix -dodoc ‘self’ which indicates its dependence on the antecedent subject.

(6) Ija ija-dodoc q-ug-a.
    1sg 1sg-refl hit-1sg.su-todp
    ‘I hit myself.’

2.2 Coding of grammatical functions

Grammatical functions are coded in Amele by constituent order in the clause and verbal cross-reference agreement on the verb for both subject and object functions. The language has a nominative-accusative system for marking the arguments S, A and O in the clause. These coding properties are illustrated by (7).
The subject *ija* ‘I’ is cross-referenced on the verb by the *su* Agr suffix -*ig* and the direct object *ahul* ‘coconuts’ is cross-referenced on the verb by the direct object agreement (*do* Agr) morphology -*ad*. Notice that the noun *ahul* is not marked morphologically for plural number. Instead this category is indicated by the *do* Agr. No case agreement is marked on the nominal arguments either and no distinction is made between subject and object pronouns. These distinctions are all marked on the verb.

A verb with a single argument is cross-referenced by *su* Agr, as illustrated by (8). So, in terms of Dixon (1994), Amele groups S/A together as distinct from O.

(8)  
\[ \text{Ija cob-igi-na.} \]  
\[ 1SG \text{ walk}-1SG.SU-PRES \]  
‘I am walking.’

Up to three different types of object can be cross-referenced on the verb, viz. direct (*do*), indirect (*io*) and oblique (*oo*). For example, an *oo* expressing benefactive can be added to (7) to produce (9).

(9)  
\[ \text{Ija jo=na ahul eu gel-ad-i-h-ig-a.} \]  
\[ 1SG \text{ house}=\text{in coconut that scrape-3PL.DO-1SG.SU-TODP} \]  
‘I scraped those coconuts in the house for you.’

In (10) *dana eu* ‘those men’ is cross-referenced on the verb as *io.recipient* and *oo.benefactive* is again cross-referenced as ‘you (sg)’. In this case *do* Agr is not marked on the verb.

(10)  
\[ \text{Ija dana eu saab} \]  
\[ 1SG \text{ man that food} \]  
\[ \text{distribute-APPL-3PL.IO-APPL-2SG.OO-1SG.SU-TODP} \]  
‘I shared the food out to those men for you.’

If you compare (9) and (10) you will see that the 3pl.do.patient in (9) is
marked with -ad and the 3PL.IO.RECIPIENT in (10) is also marked with -ad. The difference in function is actually indicated by the presence of the applicative marker (APPL) -i in (10) which occurs between the verb stem and the IOAgr. According to Roberts (1997c) forms such as (9) and (10) can be analysed as applicative constructions on the basis of the structure of the verb ‘give’ in Amele, even though most instances of IOAgr and OOAgr cross-referenced on the verb are not derived from oblique postpositional phrase (PP) constructions.

Each of the do, IO and OO grammatical functions can have a range of semantic functions. For example, the most common semantic function of doAgr is Patient, as illustrated by (7) above, but doAgr can also have an Addressee function, as marked on the speech verb in (11), a Comparative function, as in (12), a Possessive function, as in (13), a Causee function, as in (14), a Recipient function, as in (15), or a Goal function, as in (16a), as well as other functions more difficult to assess semantically. Only with the goal function is it possible to have an alternative nonargument expression using an oblique PP construction, as illustrated by (16b).

(11) **DO.ADDRESSEE**

\[ Uqa \ ma-t\text{-}e\text{-}i\text{-}a \ "Ija ahul \ 3SG \ tell-1SG.DO-3SG.SU\text{-}TODP \ 1SG \ coconut \ gel\text{-}i\text{-}h\text{-}ig\text{-}en, \ t\text{-}ei\text{-}a. \ scrape\text{-}APPL\text{-}2SG.OO\text{-}1SG.SU\text{-}FUT \ 1SG.DO\text{-}3SG.SU\text{-}TODP \ ‘He told me, ‘I will scrape coconut for you.’ ‘ \]

(12) **DO.COMPARATIVE**

\[ Mel \ aid \ eu \ ija \ cito\text{-}t\text{-}ena. \ boy \ female \ that \ 1SG \ tall\text{-}1SG.DO\text{-}3SG.SU\text{-}PRES ‘That girl is taller than me.’ (Lit. ‘talls me’) \]

(13) **DO.Possessive**

\[ Ho \ eu \ dana \ eu \ bil\text{-}ad\text{-}egi\text{-}na. \ pig \ that \ man \ that \ sit\text{-}3PL.DO\text{-}3PL.SU\text{-}PRES ‘Those pigs belong to those men.’ \]
(14) **DO.CAUSEE**

*Mel sim cul-ad-ece-bil ija=ca*

boy child let-3PL.DO-DS-3PL.SU 1SG=towards h-oig-a.

come-3PL.SU-IMP

‘Let the children come to me.’

(15) **DO.RECIPIENT**

*Uqa mela-h-ul lecis meen cesaw-al-en.*

3SG son-3SG.POSR.PL two money divide-3DU.DO-REMP.3SG.SU

‘He divided the money between his two sons.’

(16) **DO.GOAL**

a. *Uqa cesel-g-en.*

3SG return-1PL.DO-REMP.3SG.SU

‘He returned to us.’

b. *Uqa ege=ca cesel-en.*

3SG 1PL=towards return-REMP.3SG.SU

‘He returned to us.’

The io grammatical function can also have a range of semantic functions. The main function is that of Recipient, as already illustrated in (10) above, but ioAgr can also have a Possessive function, as in (17), an Addressee function, as in (18), and a Reference function, as in (19a). This semantic notion can also be expressed alternatively by an oblique PP construction, as in (19b). The semantic functions of io.GOAL and io.SOURCE can also be expressed either by ioAgr on the verb or by an oblique PP, as illustrated by (20) and (21), respectively.

(17) **IO.POSSESSIVE**

*Ija dewe-ni mool*

1SG body-1SG.POSR coconut oil
cain cacawac-d-u-t-ag-aun.

PROH saturate-3SG.DO-APPL-1SG.IO-2SG.SU-NEG

‘Do not saturate my body (lit. body of mine) with oil.’
The difference between the \textit{io} forms cross-referenced on the verb and those marked by an oblique PP in (19), (20) and (21) is a pragmatic one. In the \textit{io} Agr forms the focus is on the indirect object.

The \textit{oo} grammatical function also has more than one semantic function. The primary function of \textit{oo} is that of Benefactive and another example is given in (22a). \textit{oo}.\textit{Benefactive} is another semantic function that can be expressed
either by ooAgr, as in (22a), or by an oblique PP, as in (22b). However, in this case native speakers would say they are not equivalent in meaning, since the PP construction can also have a causal as well as a benefactive meaning. Another function of ooAgr is that of Malefactive and an example of this is given in (23).

(22) oo.benefactive
   a. Uqa jo eu ceh-al-i-ad-ei-a.  
      3SG house that build-3du.DO-APPL-2PL.OO-3SG.SU-TODP  
      ‘He built both those (two) houses for you (plural).’
   b. Uqa age=nu jo eu ceh-al-ei-a.  
      3SG 2PL=for house that build-3du.DO-3SG.SU-TODP  
      ‘He built both those (two) houses for/because of you (plural).’

(23) oo.malefactive  
   Ené cain salal-i-t-ag-aun.  
   here PROH slide-APPL-1SG.OO-2SG.SU-NEGf  
   ‘Don’t slide here and annoy me (coll. don’t slide on me here).’

As can be seen from the above examples there is an order in which the different types of OAgr can be marked on the verb.

The doAgr attaches directly to the verb stem without an intervening applicative marker. ioAgr must follow doAgr if it is marked and there must be an applicative marker preceding the ioAgr. ooAgr is the outermost of the three and follows any other oAgr marked. The ooAgr must also be preceded by the applicative marker. The marking of oAgr on the verb as

\[
\text{verb stem + (doAgr) + (ioAgr) + (ooAgr) + suAgr}
\]

is therefore a mirror image of the ordering of constituents in the clause, which is

subject–oblique object–indirect object–direct object–verb

These structural and coding properties therefore provide at least five different ways of determining the grammatical function of the constituent in the clause. These are:

1. Its order in the clause, i.e. su, oo, io, do, V
2. For distinguishing subject, whether it is inside or outside the VP.
3. The type of cross-reference inflection marked on the verb, viz. suAgr and oAgr have entirely different forms (see Roberts 1987: 277–81, 1993, 1996,
for example), and the form of doAgr is similar to but different from the form
of ioAgr and ooAgr.
4. The position of the agreement inflection marked on the verb, i.e. verb stem,
±doAgr, ±ioAgr, ±ooAgr, +suAgr
5. In the case of oAgr whether the applicative marker precedes or not.

Yet a sixth way is provided by paradigmatic substitution, particularly for the io
and oo forms. For example, the object reference in (24) can have a goal or
benefactive reading. To determine which reading applies the postpositional
alternatives can be substituted, as in (25).

(24)  Hel-i-t-ag-a.
       throw-APPL-1SG.IO/0O-2SG.SU-IMP
‘Throw (it) to/for me.’

       1SG=to (io) throw-2SG.SU-IMP
‘Throw it to me.’

   b. Ija=nu hel-ag-a.
       1SG=for (oo) throw-2SG.SU-IMP
‘Throw it for me.’

Although three different types of object can be cross-referenced on the verb
only a maximum of two objects can be cross-referenced on any verb at the same
time. This restriction applies to all verbs except the verb ‘give’. For this verb
all three object functions can be marked at the same time. An example of this
is given in (26). For ‘give’ there is no visible verb stem as such. Instead the
ioAgr morphology has been relexicalised and functions as the verb stem. The
doAgr and ooAgr can both be optionally marked after the relexicalised ioAgr.

For a complete discussion and analysis of ‘give’ in Amele see Roberts (1997c).

(26)  Eeta=nu ut-ad-i-t-ag-a?
       what=for 3SG.IO-3PL.DO-APPL-1SG.OO-2SG.SU-TODP
‘Why did you give him them on me?’

So the separate grammatical functions of subject, direct object, indirect object
and oblique object can be clearly defined both formally and functionally and it
is possible to mark all of these functions on at least one verb at the same time.
Whaley (1997) says that languages almost without exception use three or fewer
grammatical functions. However, many Papuan languages mark recipient and
benefactive on the verb as additional grammatical functions (see Whitehead (1981–82), for example) and Amele is a typical example of this class of languages of which there are 800 or more members.

Foley (1986: 96–8) says that Papuan languages can fall into three main groupings with regard to how they mark the dative arguments of recipient and benefactive. Some behave like Yimas, in which the dative nominals are assimilated to the class of core functions, i.e. actor and undergoer, and are indicated by verbal affixation. Others behave like Iatmul, in which the datives are assimilated to the class of peripheral functions and are suffixed with nominal case markers. There is also a third intermediate group in which beneficiary can appear as either a core argument marked on the verb or as a peripheral argument marked by a nominal case marker and recipient is marked only as a core argument. The Barai language of the Koian family is cited as an example of this class. Amele would appear to belong to the Barai class since in Amele the Benefactive can be expressed either by ooAgr on the verb or by the postposition =nu ‘for/because’ cliticised to the beneficiary. Recipient, on the other hand, can only be expressed by OAgr on the verb.

It cannot be indicated by an oblique PP construction, for example. However, Recipient can be marked as either a core argument by doAgr or a dative argument by ioAgr. Whether Recipient is cross-referenced as do or io depends on the ditransitive verb in question.

Whaley (1997) following Gerdt (1992) suggests that languages can be classified as to whether they are direct-object centred or indirect-object centred languages. Direct object-centred languages tend to have very little case marking and have verb agreement only with subjects or only with subjects and direct objects. They also tend to permit recipients to appear as direct objects. English is cited as a good example of a direct-object centred language. In contrast indirect object-centred languages tend to have robust case-marking systems and to allow verb agreement with indirect objects. Moreover, they often permit patients, which are typically treated as direct objects in direct object-centred languages, to be encoded as indirect objects. Choctaw is cited as an example of such a language.

In Whaley’s terms Amele is probably best considered to be a direct-object centred language, since it has no case marking and readily permits recipients to appear as direct objects rather than permitting patients to appear as indirect objects. However, there is verb agreement for more than just subjects and direct objects. Also Amele does not have any type of ‘recipient promotion’ as in
English where a recipient in a prepositional phrase, e.g. *I gave the ball to Jim*, can be promoted to direct object position, *I gave Jim the ball*. Instead some verbs, such as *siwdoc* ‘to distribute’, require IO.RECIPIENT and other verbs, such as *cesawec* ‘to divide’, require DO.RECIPIENT.

2.3 *Intra-syntactic properties of grammatical functions*

The intra-syntactic properties of grammatical functions relate to the coreference of subject in complement clauses, reflexives and reciprocal constructions.

2.3.1 *Complement clauses*

No active verb in Amele requires an obligatory complement clause. However, when a verb does take a complement clause and the subject of the complement clause is identical to the subject of the main clause then the former is omitted. Some examples of verbs that can take a complement clause are given in (27)–(30) to illustrate this. The verbs *temdoc* ‘to try’ and *saciadoc* ‘to prepare’ belong to the class of verbs that take an obligatory DO marker whether there is a direct object in the clause or not.\(^{11}\)

\[\begin{align*}
(27) & \quad \text{Ija} \quad \emptyset \text{ nu-ec}=\text{nu tem-d-om}. \\
& \quad 1\text{sg} \quad \text{go-INF}=\text{for try-3sg.do-remp.1sg.su} \\
& \quad \text{‘I tried to go.’}
\end{align*}\]

\[\begin{align*}
(28) & \quad \text{Ija} \quad \emptyset \text{ nu-ec}=\text{nu sacia-d-om}. \\
& \quad 1\text{sg} \quad \text{go-INF}=\text{for prepare-3sg.do-remp.1sg.su} \\
& \quad \text{‘I prepared to go.’}
\end{align*}\]

\[\begin{align*}
(29) & \quad \text{Ija} \quad \emptyset \text{ nu-ec}=\text{nu sanan m-em}. \\
& \quad 1\text{sg} \quad \text{go-INF}=\text{for put-remp.1sg.su} \\
& \quad \text{‘I started to go.’}
\end{align*}\]

\[\begin{align*}
(30) & \quad \text{Ija} \quad \emptyset \text{ nu-ec}=\text{nu cucui-em}. \\
& \quad 1\text{sg} \quad \text{go-INF}=\text{for fear-remp.1sg.su} \\
& \quad \text{‘I feared to go.’}
\end{align*}\]

2.3.2 *Reflexives*

Amele has reflexive pronouns. These are the personal pronouns with the reflexive suffix *-dodoc* attached.\(^{12}\) They can have a reflexive function, as illustrated by (31), or an emphatic function, as illustrated by (32).

\[\begin{align*}
(31) & \quad \text{Ija} \quad \emptyset \text{ nu-ec}=\text{nu sanan m-em}. \\
& \quad 1\text{sg} \quad \text{go-INF}=\text{for put-remp.1sg.su} \\
& \quad \text{‘I started to go.’}
\end{align*}\]
(31) Dana uqa-dodoc q-oi-a.
   man 3SG-REFL hit-3SG.SU-TODP
   ‘The man hit himself.’

(32) Ija ija-dodoc jobon nu-ig-a.
   1SG 1SG-REFL village go-1SG.SU-TODP
   ‘I myself went home.’

In the active clause the reflexive can also function as the modifier of an argument with the subject as antecedent. An example of this is given in (33).

(33) Ija ija-dodoc ilo-mi q-ug-a.
   1SG 1SG-REFL head-1SG.POSR hit-1SG.SU-TODP
   ‘I hit my own head.’

It is also possible to have subject and object agreement coded on the verb for the same referent. This can be su+do, as in (34a), or su+io, as in (35a), or su+oo, as in (36a).

(34) a. Ija q-it-ig-a.
   1SG hit-1SG.DO-1SG.SU-TODP
   ‘I hit me.’

(35) a. Ija saab it-ig-a.
   1SG food 1SG.IO-1SG.SU-TODP
   ‘I gave me food.’

(36) a. Ija saab cil-i-t-ig-a.
   1SG food boil-APPL-1SG.OO-1SG.SU-TODP
   ‘I boiled me food.’

However, it is ungrammatical to add to such structures a reflexive pronoun with the same function as that cross-referenced on the verb. This is illustrated by (34b), (35b), and (36b).

(34) b. Ija (*ija-dodoc) q-it-ig-a.
   1SG (1SG-REFL) hit-1SG.DO-1SG.SU-TODP
   ‘I hit (*myself).’

(35) b. Ija (*ija-dodoc) saab it-ig-a.
   1SG (1SG-REFL) food 1SG.IO-1SG.SU-TODP
   ‘I gave me food (*myself).’
The reflexive object pronoun and the relevant object agreement are mutually exclusive. In effect the presence of the reflexive pronoun reduces the transitivity of each clause to just a subject argument. To express reflexivity in conjunction with a verb that has obligatory OAg agreement, such as ‘give’ in (35) for example, the reflexive pronoun must be demoted to an oblique PP, as in (35c).

(35) c. *ija* *ija-dodoc=nu* saab it-ig-a.

1SG 1SG-REFL=for food 1SG.IO-1SG.SU-TODP

‘I gave myself food.’

As described in Roberts (1987: 124–30) the antecedent in reflexive constructions can be any of the grammatical functions subject, direct object, indirect object or oblique object. In (37) the antecedent is DO and the reflexive is a subject modifier, in (38) the antecedent is IO and the reflexive is a subject modifier, and in (39) the antecedent is OO and the reflexive is also a subject modifier. However, only antecedent subject can have a reflexive pronoun in an argument position. All the antecedent object functions can only have a reflexive pronoun in an argument modifier position. Thus subject has a unique function with regard to reflexivisation.

(37) *Ifa* *ija-dodoc mela-mi q-it-i-a.*

1SG-REFL SON-1SG.POsr hit-1SG.DO-3SG.SU-TODP

‘My own son hit me.’

(38) *Ifa-dodoc mela-mi saab it-ig-a.*

1SG-REFL SON-1SG.POsr food 1SG.IO-1SG.SU-TODP

‘My own son gave me food.’

(39) *Ifa-dodoc mela-mi saab cil-i-t-ig-a.*

1SG-REFL SON-1SG.POsr food boil-APPL-1SG.OO-1SG.SU-TODP

‘My own son boiled me food.’

Other languages spoken in PNG also have a detransitivising reflexive. Sinaugoro, for example, is an Austronesian language belonging to the Papuan Tip Cluster. This language has nominative-accusative cross-reference agreement marking on the verb and ergative case marked on nominals.13 This is illus-
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(40)  `Gia tau-ĝe-na-na bai e vaĝi-a-to.
    3s man-neutral-3s-erg pig 3s.su kill-3s.do-perfective
    ‘The man killed the pig.’

(41)  `Gia tau-ĝe-na e ve-vaĝi-to.
    3s man-neutral-3s 3s.su reflexive-kill-perfective
    ‘The man killed himself.’

(42)  *`Gia tau-ĝe-na-na e ve-vaĝi-a-to.
    3s man-neutral-3s-erg 3s.su reflexive-kill-3s.do-perfective
    ‘The man killed himself.’ (Sinauoro)

Contrast Sinauoro with Arop, another Austronesian language spoken in PNG. Nystrom (1994) describes how reflexive is transitive in this language. Arop has subject cross-reference agreement marking on the verb, as illustrated by (43). Reflexive is indicated by a valence increasing transitive marker -na on the verb and a free pronoun that agrees in person and number with the subject, as illustrated by (44). It is ungrammatical for the reflexive pronoun to occur without the transitive marker, as illustrated by (45).

(43)  Tet-men-men peyian.
    1pl.su.imperf-cont-sit just
    ‘We are just sitting around.’

(44)  Tet-men-men-na et peyian.
    1pl.su.imperf-cont-sit-trans 1pl just
    ‘We are just resting ourselves.’

(45)  *Tet-men-men et peyian.
    1pl.su.imperf-cont-sit 1pl just
    ‘We are just resting ourselves.’ (Arop)

Dixon and Aikhenvald (1997) have suggested a new and more consistent
classification of argument-determined constructions. They argue for four basic types called (i) argument transferring, (ii) argument focusing, (iii) argument manipulating, and (iv) marking the referential role of arguments. Under (i) argument transferring, they include passive and antipassive as examples of valency decreasing derivations and applicative and causative as examples of valency increasing derivations. Across the four types suggested these are the only constructions that vary the transitivity in the clause. It has been demonstrated above, however, that reflexive is also a construction that can decrease transitivity in the clause in some languages while increasing transitivity in others. There would therefore appear to be a case for including reflexive under the argument transferring type of construction.

2.3.3 Reciprocals
Amele also has reciprocal constructions. As described in Roberts (1987: 131, 306–8, 1991a and 1996). The reciprocal verb is realised by two identical switch-reference verbs embedded within a matrix verb. These verbs can comprise either a verb stem with or without oAgr or just oAgr followed by inflection that expresses ds and 3sg.suAgr. Each verb coreferences an individual reciprocant. This construction is embedded within a matrix verb with inflection that expresses subject agreement with the reciprocant group as a whole, either dual or plural number. Thus the antecedent group is always the subject of the matrix verb.14

The reciprocal construction is fully productive and most transitive verbs can have a reciprocal form. The only limit appears to be envisioning a situation where a particular action can be reciprocated.

Some illustrative examples are given in (46)–(52). In each case the subject of the matrix verb is the antecedent but the reciprocal arrangement can be coreferenced with the do, as in (46)–(48), the io, as in (49)–(50), or the oo, as in (51)–(52). The combined effect is that the subject of the matrix clause, which refers to the whole reciprocant group, takes on the semantic functions applicable to both subject and object in each case.

(46)  su.agent ↔ do.patient
    Age f-ece-b \( f-ece-b \) eig-an.
    3pl see-ds-3sg.su see-ds-3sg.su 3pl.su-ystp
    ‘They saw each other (yesterday).’
(47)  
\[ \text{SU.AGENT} \leftrightarrow \text{DO.PATIENT} \]
\[ Dana \text{ age } \text{get-ud-ece-b } \text{get-ud-ece-b} \]
\[ \text{man } 3\text{PL cut-3SG.DO-DS-3SG.SU cut-3SG.DO-DS-3SG.SU} \]
\[ \text{ol-oin.} \]
\[ \text{HABP-3PL.SU} \]
‘The men used to cut each other.’

(48)  
\[ \text{SU.AGENT} \leftrightarrow \text{DO.PATIENT} \]
\[ Ele \text{ cesul do-co-b } do-co-b \]
\[ 1\text{DU help } 3\text{SG.DO-DS-3SG.SU 3SG.DO-DS-3SG.SU} \]
\[ ow-a=le. \]
\[ 1\text{DU.SU-INJ=HORT} \]
‘Let us (two) help each other.’

(49)  
\[ \text{SU.AGENT} \leftrightarrow \text{IO.RECIPIENT} \]
\[ Age \text{ jaq-i to-co-b to-co-b} \]
\[ 3\text{PL write-APPL 3SG.IO-DS-3SG.SU 3SG.IO-DS-3SG.SU} \]
\[ ein. \]
\[ \text{REMP.3PL.SU} \]
‘They wrote to each other.’

(50)  
\[ \text{SU.AGENT} \leftrightarrow \text{IO.REFERENT} \]
\[ Ale \text{ mel-emela mad-i to-co-b} \]
\[ 3\text{du son-3du.POSR tell-APPL 3SG.IO-DS-3SG.SU} \]
\[ to-co-b \text{ esi-na.} \]
\[ 3\text{SG.IO-DS-3SG.SU 3DU.SU-PRES} \]
‘They (two) are telling each other about their sons.’

(51)  
\[ \text{SU.AGENT} \leftrightarrow \text{OO.BENEFACTIVE} \]
\[ Age \text{ jacas qet-i to-co-b to-co-b} \]
\[ 3\text{PL tobacco cut-APPL 3SG.OO-DS-3SG.SU 3SG.OO-DS-3SG.SU} \]
\[ oqag-an. \]
\[ 3\text{PL.SU-FUT} \]
‘They will cut tobacco for each other.’
Concerning the typological schema proposed by Dixon and Aikhenvald (1997), reciprocal constructions in Amele are of the class (I) argument transferring type. Specifically, they are a detransitivising device.

Compare the reciprocal constructions in (46)–(52) with the nonreciprocal equivalents below. For example, (46a) is a nonreciprocal equivalent of (46). In (46a) there is a do dana ‘men’ and this is cross-referenced on the verb with doAgr. However, in (46) there is no do in the matrix clause and no doAgr marked in the matrix verb morphology. Therefore the reciprocal form is a detransitivised version of the nonreciprocal form. This same correspondence can be seen between (49) and (49a), and (51) and (51a).

(46) a. Dana age dana qet-ad-ol-oin.
   man 3pl man cut-3pl.do-habp-3pl.su
   ‘The meni used to cut the meni.’

(49) a. Age jaq-i-ad-ein.
   3pl write-appl-3pl.io-remp.3pl.su
   ‘They wrote to them.’

(51) a. Age jacas qet-i-ad-oqag-an.
   3pl tobacco cut-appl-3pl.io-3pl.su-fut
   ‘They will cut tobacco for them.’

2.4 Inter-syntactic properties of grammatical functions

The inter-syntactic properties of grammatical functions relate to the coreference of subject and object between switch-reference clauses and causative constructions.

2.4.1 Switch-reference clauses
Roberts (1997a) estimates that 70% of Papuan languages have some kind of switch-reference system. In Amele sr is the most prominent piece of inter-
impersonal constructions in the language. There are two basic types of marking. For subjunctive verbs expressing sequential tense the markers -m ‘same subject following’ and -ece or -oco for ‘different subject following’ are used. These forms have already been illustrated in (5) above. For subjunctive verbs expressing simultaneous tense particular sets of suAgr inflection are used to mark the ss/ds distinction. This can be briefly illustrated by (53) and (54).

(53)  
\[ Ege \ co-cob-ob \quad (*\text{-oqon}) \quad saab \]  
\[ 1\text{PL SIM-Walk-1PL.SU.SS (}\sim -1\text{PL.SU.DS.R}) \text{ food} \]  
\[ \text{eat-REMP.1PL.SU} \]  
\[ \text{‘As we walked we ate food.’} \]

(54)  
\[ Ege \ co-cob-ob \quad (*\text{-omun}) \quad saab \]  
\[ 1\text{PL SIM-Walk-1PL.SU.SS (}\sim -1\text{PL.SU.DS.IR}) \text{ food} \]  
\[ \text{eat-1PL.SU-FUT} \]  
\[ \text{‘As we walk we will eat food.’} \]

In (53) \text{saab jom} is the controlling clause and the preceding sr clause must be marked for ss by the ss suAgr morphology. It would be ungrammatical in this context to mark ds, which in this case would be marked by the ds suAgr for a realis subjunctive clause, since the final clause is marked for remote past tense. Contrast this with (54) where the alternative ds suAgr would be the irreals set, since the final controlling clause is marked for future tense.16

2.4.2 Causative constructions

Although Amele does not have causative verbs as such, constructions do occur involving certain verbs that have a causative function and these constructions rely on the notions of A and O for their operation. A typical causative construction based on the verb \text{odec} ‘to do’ is illustrated by (55). In this case the verb \text{odigec} ‘to do us’ has a causative function. The literal meaning is ‘she did us and we ate’. In this case the ‘us’ DO in the causative clause is coreferential with the ‘we’ SU in the causee clause.

(55)  
\[ Uqa \ \text{od-ig-ece-b} \quad \text{ege saab j-om.} \]  
\[ 3SG \ \text{do-1PL.DO-DS-3SG.SU 1PL food} \text{ eat-REMP.1PL.SU} \]  
\[ \text{‘She made us eat food.’} \]
As illustrated by (56a), the causative construction only ‘works’ if the do.causative is coreferential with the su.causee. In (56a) the do.causative is coreferential with the do.causee. Therefore such a construction makes no sense and is ungrammatical. To make it grammatical the do.causative needs to be made coreferential with the su.causee, as in (56b).

(56)  a. *Uqa od-ig-ece-b dana eu ege
     3SG do-1PL.DO-DS-3SG.SU man that 1PL
     q-ig-i-a.
     hit-1PL.DO-3SG.SU-TODP
     ‘She made that man beat us.’

     b. Uqa od-ud-ece-b dana eu ege
     3SG do-3SG.DO-DS-3SG.SU man that 1PL
     q-ig-i-a.
     hit-1PL.DO-3SG.SU-TODP
     ‘She made that man beat us.’

Other verbs such as madec ‘to tell’ and culec ‘to allow’, can also have a causative function and some examples are given in (57) and (58).

(57)     Uqa dana eu  ma-ad-ece-b  bel-ein.
     3SG man that tell-3PL.DO-DS-3SG.SU go-REMP.3PL.SU
     ‘He told those men to go (lit. he told them and they went).’

(58)     Age mel sim  cul-ad-ece-bil  ija=ca
     3PL boy child allow-3PL.DO-DS-3PL.SU 1SG=towards
     h-oig-a=le.
     come-3PL.SU-IMP=HORT
     ‘Let the children come to me.’

3. The syntax and semantics of impersonal constructions

There are two basic forms of impersonal constructions in Amele, which can be termed derived and lexical.
3.1 Derived impersonal constructions

The derived impersonal construction expresses the notion of desire or wish (i.e. optative mood) and any verb that takes a subject with a human or animate referent can be inflected for this category. They are termed derived because they are viewed as a fully productive derivation from the active form of the verb.

Contrast an active verb, such as (59), with a derived impersonal verb, such as (60).

(59) *Ija ma j-i-gi-na.*

\[1SG \text{ taro eat-}1SG.\text{SU-PRES}\]

‘I am eating taro.’

(60) *Ija ma j-ag-a t-ena.*

\[1SG \text{ taro eat-2SG.}\text{SU-IMP} 1SG.\text{DO-}3SG.\text{SU-PRES}\]

‘I want to eat taro (lit. I (you) eat taro told me).’

With the active verb the subject *ija ‘I’* is cross-referenced on the verb by \text{SU}\text{Agr}. However, with the impersonal verb the ‘subject’ *ija ‘I’* is cross-referenced in the matrix verb with \text{DO}\text{Agr}. This impersonal verb morphology is preceded by a complement imperative clause, which is addressed to the one expressing the desire. The subject of this complement clause, *hina ‘you’* in this case, is normally omitted when it is coreferential with the ‘subject’ of the impersonal verb.

The imperative clause is always expressed in second person but must agree in number with the experiencer. Thus ‘we want to eat taro’ would be *ege ma jeiga (2PL.\text{SU-IMP}) gena.*

This type of impersonal verb can be inflected for any tense, aspect or mood, except for counterfactual mood. Note that there is no change in the basic meaning of the verb in the impersonal construction. It still means ‘eat taro’. The change occurs in the semantic function of the ‘subject’ *ija ‘I’*. In (59) the function is agent but in (60) the function is experiencer. In (60) this nominal is also cross-referenced on the impersonal verb as \text{DO} and the grammatical subject is cross-referenced as anonymous third person singular.

Thus the impersonal desiderative contrasts with the imperative in how the command is directed. In the imperative the command is directed by the speaker towards another party. Whereas in the impersonal desiderative the command is directed towards the speaker by an anonymous agency.
A second type of construction is used to express impersonal desiderative in the counterfactual mood. It has a similar structure to the first type except that the impersonal verb is inflected for the counterfactual mood and the verb in the preceding complement clause is in the remote past tense instead of imperative mood. Also in this case the verb in the complement clause must agree in both person and number with the experiencer. An example is given in (61).

(61)  
\[ \text{Ija ma j-em t-ou-b.} \]  
\[ 1\text{SG taro eat-REMP.1SG.SU } 1\text{SG.DO-CONTR-3SG.SU} \]  
‘I would like to have eaten taro.’

In (60) and (61) the experiencer cross-referenced as do on the impersonal verb and the addressee of the imperative verb have the same reference so the subject of the imperative verb is omitted. However, if the desire is for someone else to do something then this referent has to be expressed. An example of this is given in (62). Notice that the imperative verb jeiga ‘eat’ agrees in number with cotiel ‘brothers’, which functions as the subject of this verb.

(62)  
\[ \text{Ija cot-i=el ma j-eig-a} \]  
\[ 1\text{SG brother-1SG.POSR=PL taro eat-2PL.SU-IMP} \]  
\[ t-en. \]  
\[ 1\text{SG.DO-3SG.SU.PRES} \]  
‘I want my brothers to eat taro.’

In a similar way when the subject of the complement clause in the counterfactual impersonal construction is different from the experiencer in the matrix clause then the verb in the complement clause must agree in person and number with its own subject. This is illustrated by (63).

(63)  
\[ \text{Ija cot-i=el ma j-ein} \]  
\[ 1\text{SG brother-1SG.POSR=PL taro eat-REMP.3PL.SU} \]  
\[ t-ou-b. \]  
\[ 1\text{SG.DO-CONTR-3SG.SU} \]  
‘I would like my brothers to have eaten taro.’

It is also the case that impersonal desiderative can readily combine with any of the other derivational categories marked on the verb, such as iterative\textsuperscript{17} aspect and reciprocal. Examples of each of these combinations are given in (64)–(66).
Impersonal + iterative

Ija ma j-ag-a ti-ti-en.
1SG taro eat-2SG.SU-IMP ITER-1SG.DO-REMP.3SG.SU
‘I repeatedly wanted to eat taro.’

Impersonal + reciprocal

Age q-oco-b q-oco-b eig-a
3PL hit-DS-3SG.SU hit-DS-3SG.SU 3PL.SU-IMP
ad-en.
3PL.DO-REMP.3SG.SU
‘They wanted to hit each other.’

Impersonal + iterative + reciprocal

Age q-oco-b q-oco-b eig-a
3PL hit-DS-3SG.SU hit-DS-3SG.SU 3PL.SU-IMP
a-ad-en.
ITER-3PL.DO-REMP.3SG.SU
‘They repeatedly wanted to hit each other.’

Impersonal desiderative can also be expressed in the injunctive (third person imperative) mood, as in (67), and an impersonal clause can function as a complement clause, as illustrated by (68).

Impersonal desiderative can also be expressed in the injunctive (third person imperative) mood, as in (67), and an impersonal clause can function as a complement clause, as illustrated by (68).

(67)  
Ma j-ag-a h-ei-a!
taro eat-2SG.SU-IMP 2SG.DO-3SG.SU-INJ
‘Desire to eat taro!’

(68)  
Ija ma j-ag-a t-ec=nu sanan
1SG taro eat-2SG.SU-IMP 1SG.DO-INF=for
m-em.
put-REMP.1SG.SU
‘I have started to desire to eat taro.’

With regard to combining with other categories, it should be noted that an impersonal verb does not function like a stative verb in the language. Amele does not have a verb ‘to be’ as such. Instead several verbs that have both a dynamic and stative function can occur in the stative clause. The main verbs that have this dual function are: bilec ‘to sit (down)/to be’, nijec ‘to lie (down)/to be’, tawec ‘to stand (up)/to be’, goec ‘to hit/to be/to have’, mec ‘to put/to become’ and lec ‘to go/to become’.

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An example of how a stative verb works in Amele is given in (69). Example (69a) is a stative clause without a verb. This contrasts with the stative clause in (69b), which does have a verb.

The difference between (69a) and (69b) is in the expression of tense/aspect. (69a) is essentially ‘tenseless’ and expresses an existential meaning. Therefore no verb is required to carry the tense marking. With (69b), on the other hand, a stative verb is required to express the notion of past habitual aspect and in this case the verb bilec ‘to sit (down)/to be’ is supplied.

(69) a. Dana eu utuqa-ni.
    man that neighbour\-1\-sg.\pos r
    ‘That man is my neighbour.’

   b. Dana eu utuqa-ni bil-ol-oi.
    man that neighbour\-1\-sg.\pos r sit\-habp\-3\-sg.\su
    ‘That man used to be my neighbour.’

Stative verbs have a number of cooccurrence restrictions. One restriction is that a verb such as bilec ‘to sit (down)/to be’ cannot have its stative meaning in the present tense. This is because present tense in Amele has an inherent progressive meaning. In (70a), for example, only the dynamic meaning of bilec is allowed. To express the stative meaning one has to switch to the today’s past tense, as in (70b). However, impersonal verbs can readily occur with present tense, as already illustrated by (60) above.

(70) a. Uqa ene bil-ina.
    3\-sg here sit\-3\-sg.\su\-pres
    ‘He is sitting here.’

   b. Uqa ene bil-i-a.
    3\-sg here sit\-3\-sg.\su\-todp
    ‘He is (sitting) here.’

A verb like bilec cannot have its stative meaning when inflected for imperative mood. Thus in (71) the dynamic meaning is the only one allowed. But impersonal verbs, on the other hand, can be inflected for imperative mood, as shown by (67) above.

(71)  Ene bil-ig-a!
    here sit\-2\-sg.\su\-imp
    ‘Sit here!’
Finally, the verb *bilec* can only have its dynamic meaning when inflected for iterative aspect. In (72a), for example, the stative meaning is not allowed. Contrast this with the same verb inflected for simultaneous tense, as in (72b). Simultaneous tense is also expressed by reduplication of the verb, but CV reduplication instead of whole stem reduplication in the iterative form. In the simultaneous tense form the stative meaning is allowed. Again impersonal verbs can be inflected for iterative aspect, as illustrated by (64) and (66) above.

(72) a.  
    *Uqa ene bili-bili-ena.*
    
    **3SG here ITER-sit-3SG.SU.PRES**
    ‘He sits here repeatedly.’

    b.  
    *Uqa ene bi-bil-en . . .*
    
    **3SG here SIM-sit-3SG.SU.DS.R**
    ‘As he is/sits here . . .’

Thus the conclusion to be reached is that impersonal verbs in Amele are not stative but dynamic. The semantic difference between an active verb and an impersonal verb is one of control. The entity referred to by the experiencer nominal in the impersonal clause does not have control over the experience.

### 3.2 Lexical impersonal constructions

Lexical impersonal constructions are so-called because they are not productively derived from active verb forms. The impersonal verb illustrated in (1) and reproduced below is an example of a lexical impersonal verb. In this case a nominal constituent *wen* ‘hunger’ appears in place of the imperative complement clause in the derived impersonal construction. Therefore lexical impersonal verbs are not derived from active verbs.

(1)  
    *Ija wen t-ei-a.*
    
    **1SG hunger 1SG.DO-3SG.SU-TODP**
    ‘I was hungry (lit. I, x hungered me).’

It can be readily demonstrated that *wen* is nominal and not a verb stem, for example, by the fact that it can be expanded as such. This is illustrated by (73).

(73)  
    *Ija wen ben bahic t-ei-a.*
    
    **1SG hunger big very 1SG.DO-3SG.SU-TODP**
    ‘I was very hungry.’
Also some lexical impersonal verbs are based on an inalienably possessed noun that takes its own agreement inflection. An example is given in (74). In this case the possessor is coreferential with the experiencer and so the possessor pronoun *ija* ‘I’ is omitted.

(74)  

\[
\text{i} \text{j} \text{a} \quad \text{m} \text{a} \text{j} \text{a} - \text{n} \text{i} \quad \text{t} - \text{e} - \text{t} - \text{a}.
\]

\[
\text{1} \text{SG shame} - \text{1} \text{SG. POSR 1} \text{SG. DO - 3} \text{SG. SU-TODP}
\]

‘I was ashamed.’

There are several different formal types of lexical impersonal verb. Many are of the *wen doc* ‘to be hungry’ type. These are based on a nominal that can usually occur elsewhere in the language as a free nominal. For example, *wen* ‘hunger’ can also occur in *wen=ca* hunger=add ‘hungry’ and *wen bil-ec* hunger sit-INF ‘to be hungry’. In some cases the nominal is a compound noun, such as *wa gab d-oc* water cup *3SG. DO-INF* ‘to be thirsty’. A limited number are of the *majag doc* ‘to be ashamed’ type, which are based on an inalienably possessed noun that must agree with the experiencer. Yet others are based on an inalienably possessed noun that does not agree with the experiencer. Examples of this type are *musul doc* ‘to be sweaty’ and *teful doc* ‘to be boney’. In these cases the possessed noun occurs in the default third person singular form. At least one lexical impersonal verb is based on just a morphological stem that can occur elsewhere as both a nominal stem and a verbal stem. This is:

\[
cucui \text{ doc} \quad \text{‘to be afraid’} \quad \text{(impersonal verb)}
\]

\[
cucui-ec \quad \text{‘to fear’} \quad \text{(active verb)}
\]

\[
cucui-an \quad \text{‘his fear’} \quad \text{(in alienably possessed noun)}
\]

In all of this form type, however, the basic structure is the same. The experiencer nominal occurs as the left-most NP and is cross-referenced by verbal morphology as direct object. This is followed by a nominal which expresses the nature of the experience, after which occurs the impersonal verb morphology. The subject of these constructions is always expressed as anonymous third person singular.

There is another distinctive type of lexical impersonal verb. These are all based on the verb *qoc* ‘to hit’, one of the verbs that has an alternative function as a stative verb. Some illustrative examples are given in (75)–(78) of this type.

(75)  

\[
\text{i} \text{j} \text{a} \quad \text{h} \text{a} \text{g} \quad \text{q} - \text{i} - \text{t} - \text{i} - \text{n} \text{a}.
\]

\[
\text{1} \text{SG sickness hit} - \text{1} \text{SG. DO - 3} \text{SG. SU-PRES}
\]

‘I am sick.’
In construction this type of lexical impersonal verb is very similar to the *wen doc* ‘to be hungry’ type. Some are based on an uninflected nominal, such as *hag qoc* ‘to be sick’ in (75), some are based on an inflected inalienably possessed nominal that agrees with the experiencer, such as *waug qoc* ‘to be sorry’ in (76), and some are based on an inflected inalienably possessed nominal that does not agree with the experiencer, such as *musul qoc* ‘to be sweaty’ (77). There is also an additional type where *qoc* combines with another verb in a serial verb type of construction, such as *toni qoc* ‘to fall and get hurt’ in (78). However, all these verbs have the same basic impersonal structure as the derived impersonal verbs with an anonymous third person singular subject and the experiencer nominal occurring as the left-most NP, cross-referenced on the verb as direct object.

A few lexical impersonal verbs have active equivalents. These are

- **cucui doc** ‘to be afraid’
- **cucui ec** ‘to fear’
- **dadan doc** ‘to be confused’
- **dadan ec** ‘to make a mistake’
- **gale doc** ‘to have desire’
- **gale ec** ‘to rejoice’
- **hool doc** ‘to have yearning’
- **hool ec** ‘to yearn’
- **us doc** ‘to be sleepy’
- **us nijec** ‘to sleep’
- **wen doc** ‘to be hungry’
- **wen bilec** ‘to be hungry’

But derivations from active verbs to lexical impersonal verbs is not a productive process.

There are several options as to how best analyse the ‘experience’ nominal in the *wen doc* ‘to be hungry’ type of lexical impersonal verb.
Since the impersonal verb morphology attaches to this nominal, the first option would be to analyse it as the stem of the impersonal verb, i.e. as a verb stem. However, this is not a solution, since this constituent is clearly nominal. It can be expanded as a noun phrase, as shown in (73) above, and a possessed noun carrying its own possessive inflection can function as the experience nominal, as illustrated in (74). To have a noun functioning as a verb would mean there would no longer be any distinction between these categories. Also the fact that there are lexical impersonal verbs based on qoc ‘to hit’, i.e. an experience nominal plus a verb stem, would indicate that the experience nominal itself is not functioning as the verb stem. It would therefore be valid to posit that wen doc type impersonal verbs have an unrealised verb stem, the same as existential clauses illustrated in (69).

A second option would be to analyse the experience nominal as an argument of the verb, specifically as the anonymous agency cross-referenced on the verb by the third person singular su Agr. On the one hand, the meaning of some of the impersonal clauses would suggest that this is the case. With hag qoc ‘to be sick’ and ilo qoc ‘to have a headache’, for example, it would seem that it is the ‘sickness’ and the ‘head’, respectively, that are doing the ‘hitting’. Also when an impersonal clause controls a preceding active clause marked for switch-reference (sr) this marked clause normally carries same subject following (ss) morphology if the agent of that clause is coreferential with the experiencer of the impersonal clause. (79) illustrates this.

(79) a. ṭeq co-cob-ob 0g-wen g-en.
     1pl sim-walk-1pl.ss.r hunger 1pl.do-3sg.remp
     ‘As we walked we became hungry.’

However, in such a construction when the sr clause is marked for different subject following (ns), as illustrated in (79b), the meaning is that some external agency is causing the hunger. This would suggest that when ss is marked it is wen ‘hunger’ that is the agentive nominal.

(79) b. ṭeq co-cob-oqon 0g-wen g-en.
     1pl sim-walk-1pl.ds.r hunger 1pl.do-3sg.remp
     ‘As we walked something made us hungry.’

However, this analysis breaks down when the formational constituent in the impersonal construction is not a nominal, such as in cacawac doc ‘to be saturated’ (adjective) and geh qoc ‘to be hurt badly’ (adverb). Also the qoc imper-
sonal verbs which have a serial verb construction, like *toni goc* ‘to fall and get hurt’ and *cagu goc* ‘to be cut across’, do not have an experience nominal for the suAgr to refer to. For these cases we need to posit an anonymous undefined subject. If we adopt this analysis for all the lexical impersonal verbs then it would be consistent with the derived impersonal verbs, which also do not have an overt referent for the third person singular suAgr.

A third option would be to analyse the *wen* in *wen doc* as some kind of complement, i.e. an obligatory constituent of the predicate, that ‘completes’ the action of the verb.

The difficulty with this analysis would be deciding on what category of complement it is. For example, we have already seen that this nominal is not direct object, since the experiencer NP is cross-referenced for this category. With some lexical impersonal verbs it is possible to have 10Agr marked which expresses possession. An example of this is given in (80). Here *ahul* ‘coconuts’ is the experiencer NP and this is cross-referenced on the verb by 3SG doAgr as a collective noun. This example provides evidence that the experience nominal (*agag* ‘heat’ in this case) is not identified with the complement function of indirect object.

(80)  

\[ \text{Ahul} \; \text{agag} \; d\text{-u-t-ena}. \]

coconut heat 3SG.DO-APPL-3SG.IO-3SG.SU.PRES

‘My coconuts are getting hot (in the sun).’

Neither can it be identified with the oblique object function of benefactive, since this would require either 00Agr marking on the verb or a =nu PP construction. What we are left with as a possibility is the type of nominal or adverbial complements found in stative clauses, such as those illustrated in (81) and (82).

(81)  

\[ \text{Mel eu} \; \text{dana} \; m\text{-e-i-a}. \]

boy that man put-3SG.SU-TODP

‘That boy has become a man.’

(82)  

\[ \text{Mel eu} \; \text{ben} \; m\text{-e-i-a}. \]

boy that big put-3SG.SU-TODP

‘That boy has become big.’

*Mec* ‘to put/to become’ is a verb that can have a dynamic or stative meaning. When it does function as a stative verb it requires a nominal or adjectival complement. We can therefore analyse the *wen* in *wen doc* as a type of nominal or
adjectival complement to the impersonal verb in contrast to the verbal complement of the derived impersonal constructions.

3.3 Derived and lexical impersonal constructions compared

As already stated, derived and lexical impersonal constructions have the same basic structure of an experiencer nominal cross-referenced on the verb as direct object with anonymous third person singular subject agreement also marked. In this respect they both have the same properties for defining what is the subject of an impersonal verb discussed in §4 below. However, it is worth noting that there are some syntactic and semantic differences between the two types of impersonal verb.

First of all, derived impersonal verbs are fully productive and this type of verb can be derived from any active verb with a subject that has a human or animate referent. Lexical impersonal verbs are not productive and only a few (as cited above) have an equivalent active verb.

Also a number of lexical impersonal verbs can have inanimate experiencer referents, such as

- agag doc  ‘to be hot’
- culumen doc  ‘to be heavy’
- duan doc  ‘to be cold’
- musul doc  ‘to be sweaty’

We have already seen that derived impersonal verbs can be inflected for iterative aspect, reciprocity and imperative mood. These categories can also be applied to lexical impersonal verbs but the application is more restricted. All lexical impersonal verbs can take iterative aspect and an example is given in (83).

(83)  \( I_ja \ siw \ ti-ti-ena. \)
\[3SG \ breath \ iter-1SG.do-3SG.su.pres\]
‘I am repeatedly breathless.’

A much more restricted set of lexical impersonal verbs can be inflected for reciprocity and imperative mood. An example of the former is given in (84) and an example of the latter in (85).
Lexical impersonal verbs can also function as complement clauses, and an example is given in (86). It is also the case that some lexical impersonal verbs can take a complement. An example is given in (87).

(86) \[ \text{Ege fogo } g-ec=nu \text{ tem-d-oq-an.} \]
\[ 1\text{PL perception 1PL.DO-INF=for try-3SG.DO-1PL.SU-FUT} \]
‘We will try to understand.’

(87) \[ \text{Ija nu-ec=nu cucui t-en.} \]
\[ 1\text{SG go-INF=for fear 1SG.DO-REMP.3SG.SU} \]
‘I was afraid to go.’

4. Defining ‘subject’ in impersonal constructions

In §2 it was demonstrated that the subject in the active clause has the following distinguishing properties:

**Configurational Parameters**
- the subject is the left-most of the core arguments in the clause and is typically the left-most constituent of the clause
- the subject is not part of the verb phrase

**Coding of Grammatical Functions**
- the subject is cross-referenced on the verb with suAgr
- the subject is nominative and a confluence of S/A

**Semantic Functions**
- the subject is typically the agent
Intra-Syntactic Properties
- the subject of the complement clause is omitted under identity with the subject of the main clause
- the subject is the sole antecedent for reflexive forms in an argument position
- the subject is the sole antecedent for reciprocal forms

Inter-Syntactic Properties
- when the subject is coreferential with the subject of a preceding clause this produces ss marking on the verb of that clause
- the direct object of a causative clause must be coreferential with the subject of the following causee clause

We can now apply these subject defining criteria to the experiencer nominal in the impersonal construction. These criteria will be applied to both the lexical and derived type of impersonal construction.

4.1 Subject as the left-most constituent

The experiencer nominal in (1) is the left-most core argument of the impersonal clause. In fact, in most situations it is the only core argument expressed by a free nominal and typically it is the left-most constituent of the clause.

(1) *Ija wen t-ei-a.
   1SG hunger 1SG.DO-3SG.SU-TODP
   ‘I was hungry.’

For example, the unmarked order would be for the experiencer nominal to occur first in a clause like (88) with the adverbial constituents expressing time and place to come in between the experiencer nominal and the verb.

(88) *Ija cum bahu=na cucui ben t-ei-an.
   1SG yesterday forest=in fear big 1SG.DO-3SG.SU-YESTP
   ‘I was very afraid in the bush yesterday.’

It would also be completely ungrammatical to place the experiencer nominal in front of the verb, where objects normally occur, and reverse this nominal with the verb complement nominal *wen, as in (89) for example.

(89) *Wen ija t-ei-a.
   hunger 1SG 1SG.DO-3SG.SU-TODP
   ‘I was hungry.’
The same ordering constraints also apply to a derived impersonal construction such as that illustrated by (60). It would certainly sound odd to native speakers to have the imperative complement clause before the experiencer nominal *ija 'I'.

(60) *ija ma j-ag-a (*ija) t-ena.
    1SG taro eat-2SG.SU-IMP 1SG  1SG.DO-3SG.SU.PRES
    'I want to eat taro.'

Thus in every respect the experiencer nominal in the impersonal clause has the same positional function as the subject in the active clause.

4.2 Subject not part of the verb phrase

It has been demonstrated that the active clause in Amele has a verb phrase constituent and that the subject NP is not part of that constituent. The experiencer nominal in the impersonal clause also has the same property of not being part of the VP constituent in the impersonal clause.

For example, the negator *gee 'not', which is a constituent of the VP, cannot occur before the experiencer nominal in the impersonal clause. This is illustrated by (90) and (91).

(90) (*Qee) Ija (gee) wen (gee) t-el.
    (*NEG) 1SG (NEG) hunger (NEG) 1SG.DO-3SG.SU.NEGP
    'I was not hungry.'

(91) (*Qee) Ija ma j-ag-a (gee) t-ena.
    (*NEG) 1SG taro eat-2SG.SU-IMP (NEG) 1SG.DO-3SG.SU.PRES
    'I do not want to eat taro.'

This demonstrates both that the impersonal clause has a VP constituent like the active clause and also that the experiencer nominal is outside of that constituent. Therefore on a configurational basis the experiencer nominal functions as subject of the impersonal clause.

4.3 Subject cross-referenced with suAgr

In the active clause the subject NP is cross-referenced on the verb by suAgr, the form of which and position in relation to the verb stem is quite different.
to oAgr. The experiencer nominal in the impersonal clause, however, is cross-referenced on the verb by doAgr. So the experiencer nominal is not coded morphologically as subject of the impersonal verb.

4.4 Subject as Agent

The semantic function of subject in the active clause is typically agent. However, there are many active intransitive verbs in Amele that can have a patient subject and some are listed in Table 1. Some have a monomorphemic stem and others are derived from verbs, such as qoc ‘to hit’, mec ‘to put’, bec ‘to come up’, hoc ‘to come’, and so forth, combining with a nominal or adjectival complement.

These verbs are termed ergative or unaccusative in a relational grammar framework and are assumed to have subjects that originate as objects. There are three characteristics that distinguish the subjects of intransitive verbs such as these as patient from intransitive verbs that have an agent subject:

- none of these verbs can be inflected for do, io or oo agreement
- none of these verbs can have a benefactive argument either marked on the verb or by an oblique postpositional phrase
- none of these verbs can typically take a complement clause.

However, in each case the subject is always cross-referenced on the verb by suAgr and interacts with the switch-reference system as subject of the verb.

<table>
<thead>
<tr>
<th>Table 1: Unaccusative Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>agagec ‘to heat up’</td>
</tr>
<tr>
<td>cabatec ‘to fall over’</td>
</tr>
<tr>
<td>cahulec ‘to exceed’</td>
</tr>
<tr>
<td>foec ‘to perceive’</td>
</tr>
<tr>
<td>huluec ‘to decompose’</td>
</tr>
<tr>
<td>ibec ‘to swell’</td>
</tr>
<tr>
<td>mahoc ‘to light up’</td>
</tr>
<tr>
<td>qojogoe ‘to melt’</td>
</tr>
<tr>
<td>seelec ‘to awake’</td>
</tr>
<tr>
<td>talec ‘to tear’</td>
</tr>
</tbody>
</table>
The meaning difference between these unaccusative verbs and verbs with an agentive subject can be shown by comparing some verbs with their accusative equivalents. For example, *gag bec* means ‘for something, such as water, to boil’, whereas *cil ec* means ‘to boil something’, *mahoc* means ‘for something, such as the moon, to light up’, whereas *cu jawec* means ‘to illuminate something’, *seelec* means ‘for someone to wake up’, whereas *iwigedoc* means ‘to wake someone up’, and *talec* means ‘for something to tear’, whereas *baladoc* means ‘to tear something’. A number of these unaccusative verbs also have impersonal equivalents, for example, *agagec* ‘to heat up’ and *agag doc* ‘to be heated up’, *foec* ‘to perceive’ and *fogodoc* ‘to receive/gain understanding’, and *dadanc ec* ‘to be confused’ and *dadandoc* ‘to be confused’.

However, while subjects of intransitive verbs in Amele can have either an agent or patient function the nominal cross-referenced as direct object in impersonal verbs can only have a patient/experiencer function. It never has an agent function.

### 4.5 Subject and complement clauses

When an active verb takes a complement clause and the subject of the complement clause is identical to the subject of the main clause then the former is omitted. An example of this is repeated as (92).

(92) \[ \text{Ija \ Ø nu-ec=nu cucui-em.} \]
\[ \begin{array}{ll}
\text{1SG} & \text{go-INF=for fear-REMP.1SG.SU} \\
\end{array} \]
'I feared to go.'

In (92) *cucuiec* ‘to fear’ is an active verb. This verb happens to have an impersonal equivalent, *cucui doc* ‘to be afraid’, which can also take a clausal complement. This is illustrated in (93).

(93) \[ \text{Ija \ Ø nu-ec=nu cucui t-en.} \]
\[ \begin{array}{ll}
\text{1SG} & \text{go-INF=for fear 1SG.DO-REMP.3SG.SU} \\
\end{array} \]
'I was afraid to go.'

In this case the subject of the complement clause is identical to the experiencer nominal of the impersonal main clause and the subject of the complement clause is omitted under identity. There is also the same type of omission under identity of the complement clause subject when the impersonal clause is the complement clause. An example of this is repeated as (68).
Therefore in all respects the experiencer nominal in the impersonal clause functions as subject in complement clause omission under identity.

4.6 Subject and reflexive

In the active clause the subject is the sole antecedent for reflexive forms in an argument position. In impersonal constructions the experiencer nominal has exactly the same function as the antecedent of reflexive forms. In (94) the reflexive pronoun has a reflexive function and in (95) it has an emphatic function.

(94)  
\[ \text{Age age-do-doc majan-ag}\text{a ad-en.} \]
\[ \text{3PL 3PL-REFL shame}-\text{3PL.POSR 3PL.DO-REMP.3SG.SU} \]
\[ \text{‘They were ashamed of themselves.’} \]

(95)  
\[ \text{Ija ija-do-doc dan}\text{a i dah m-ud-ec nu} \]
\[ \text{1SG 1SG-REFL man this ear put-3SG.DO-1NF =for} \]
\[ \text{gale t-ena.} \]
\[ \text{desire 1SG.DO-1SG.SU.PRES} \]
\[ \text{‘I wish to hear this man for myself.’} \]

In (94) the reflexive pronoun takes the experiencer nominal \textit{age} ‘they’ as its antecedent even though this argument is cross-referenced on the verb as direct object. Recall that in the active clause only subject can take a reflexive from an unmodified argument position. In this case the position of the reflexive is equivalent to direct object. But also recall that in the active clause a reflexive in do position is mutually exclusive with a reflexive in that position. The relevant example is reproduced as (34b). However, in (94) there is no conflict of interest between the \textit{noAgr} for the antecedent experiencer nominal and the reflexive since the antecedent is functioning as the subject of the impersonal clause.

(34)  
\[ \text{b. Ija (*ija-do-doc) q-it-ig-ag.} \]
\[ \text{1SG (1SG-REFL) hit-1SG.DO-1SG.SU-TODP} \]
\[ \text{‘I hit me (*myself.’} \]
Derived impersonal forms can also be expressed with a reflexive, as in (96), for example. However, in this case the antecedent to the reflexive hinadodoc is the subject of the imperative complement clause which is normally omitted under identity with the subject of the matrix clause. In this case this ‘subject’ is the experiencer nominal of the derived impersonal clause.

(96)  
*Ija hina-dodoc buj-ec as-ag-a t-ena.*  
1SG 2SG-REFL shit-NOM wipe-2SG-IMP 1SG.DO-3SG.SU.PRES  
‘I want to wipe away the shit myself / my own shit.’

4.7 Subject and reciprocal

In the active clause the subject is the sole antecedent for reciprocal forms and reciprocant object function can be direct, indirect or oblique. The impersonal construction can be combined with the reciprocal construction to produce forms where the antecedent reciprocant is the experiencer nominal and the reciprocant object is either direct, indirect or oblique. Some examples of this are given in (97)–(100).

(97)  
**DO.EXPERIENCER ↔ DO.PATIENT**  
Age f-ece-b f-ece-b ad-ei-a.  
3PL see-DS-3SG.SU see-DS-3SG.SU 3PL.DO-3SG.SU-TODP  
‘They wanted to see each other (lit. he sees, he sees).’

(98)  
**DO.EXPERIENCER ↔ DO.PATIENT**  
Ele cesul do-co-b do-co-b  
1DU help 3SG.DO-DS-3SG.SU 3SG.DO-DS-3SG.SU l-igi-an.  
1DU.DO-3SG.SU-FUT  
‘We (two) will want to help each other (lit. he helps him, he helps him).’

(99)  
**DO.EXPERIENCER ↔ IO.RECIPIENT**  
Age jaq-i to-co-b to-co-b  
3PL write-APPL 3SG.IO-DS-3SG.SU 3SG.IO-DS-3SG.SU ad-en.  
3PL.DO-3SG.SU.REMP  
‘They wanted to write to each other.’
(100)  **DO.EXPERIENCER ↔ OO.BENEFACTIVE**

*Age jacas*  *get-i*  *to-co-b*  *to-co-b*

*3PL tobacco cut-APPL 3SG.OO-DS-3SG.SU 3SG.OO-DS-3SG.SU*  

*ad-ou-b.*

*3PL.DO-CONTR-3SG.SU*

‘They should have wanted to cut tobacco for each other.’

In effect, the **DO.EXPERIENCER** argument of the matrix reciprocal verb assumes the reciprocal subject function in these impersonal constructions. Note that in all of these forms the **SU Agr** on the matrix reciprocal verb is impersonal 3SG, since this is a combination of reciprocal and impersonal.

Reciprocal voice can also be expressed on a lexical impersonal verb. An example is given in (101).

(101)  *Age maja-g*  *do-co-b*  *do-co-b*

*3PL shame-3SG.POSS 3SG.DO-DS-3SG.SU 3SG.DO-DS-3SG.SU*  

*ad-ena.*

*3PL.DO-3SG.SU.PRES*

‘They are ashamed of each other.’

4.8  **Subject and switch-reference**

In the active clause when the subject is coreferential with the subject of a preceding clause this produces **SS** marking on the verb of that clause and if it is not coreferential then **DS** marking is triggered.

We have already seen with (79a) that when an impersonal construction functions as the controlling clause a preceding active clause will normally be marked **SS** if the subject of the active clause is coreferential with the **DO.EXPERIENCER** of the impersonal clause. This also applies when the controlling clause is a derived impersonal clause, as in (102). Therefore in both cases the **DO.EXPERIENCER** argument functions like the subject of an active clause.

(79)  a.  *Ege co-cob-ob*  *wen*  *g-en.*

*1PL SIM-WALK-1PL.SS.R hunger 1PL.DO-3SG.REMP*

‘As we walked we became hungry.’
In fact, impersonal clauses (both derived and lexical) interact with the_sr_system in an interesting way in that when the active clause is the controlling clause and the governed clause is an impersonal clause then the impersonal clause is marked_ds, even if the experiencer nominal of the impersonal clause is coreferential with the subject of the controlling active clause. This is illustrated by (103).

(103)  
\[ Ege \ co-cob-i \ bi-bil-ob \ wen \]
\[ 1PL \sim-walk-appl \sim-sit-1PL.ss.r \ hunger \]
\[ g-ece-b \ saab \ j-om. \]
\[ 1PL.do-ds-3SG.su \ food \ eat-1PL.su.remp \]

‘As we walked along we became hungry and ate food.’

When the impersonal clause is the controlling clause then the sr_system compares the most topical argument (i.e. the pragmatic peak) in that clause with the subject of the preceding clause. Therefore it compares the experiencer nominal in the impersonal clause with the preceding subject and finding them coreferential marks ss on the governed clause. When the active clause is the controlling clause and the impersonal clause is the governed clause then normal service is resumed, so to speak, and the sr_system compares the subject in the active clause with the subject of the preceding impersonal clause and finding them not coreferential marks ds on the governed impersonal clause. Thus the experiencer nominal functions as the most topical argument in the impersonal clause when that clause is the controlling clause for sr marking.

4.9 Subject and causative constructions

In the active clause the direct object of a causative clause must be coreferential with the subject of the following causee clause. This construction only works if the direct object of the causative clause is coreferential with the subject of the causee clause.

Impersonal clauses can also function as the causee clause in this type of
causative construction. However, in this case the causative function only works if the direct object of the causative clause is coreferential with the do.experiencer of the impersonal causee clause. This is illustrated by (104a). If the do in the causative clause is made coreferential with the subject of the impersonal clause, as in (104b), then this is completely ungrammatical and makes no sense at all.

(104) a. *Uqa od-ig-ece-b ege wen g-ei-a.
   3sg do-1pl.do-ds-3sg.su 1pl hunger 1pl.do-3sg.su-todp
   ‘She made us hungry.’
   b. *Uqa od-ud-ece-b ege wen g-ei-a.
   3sg do-3sg.do-ds-3sg.su 1pl hunger 1pl.do-3sg.su-todp
   ‘She made us hungry.’

Thus with regard to causative constructions the do.experiencer argument in impersonal constructions is treated as the referential subject.

4.10 Subject as nominative confluence of S/A

It was demonstrated that Amele has nominative-accusative cross-reference agreement marking on the verb and that where a single argument occurs in the active clause it is always cross-referenced as subject. The relevant example of a single argument intransitive clause is reproduced. Thus Amele conflates A with S.

(8)   Ija cob-igi-na.
   1sg walk-1sg.su-pres
   ‘I am walking.’

It is this S/A argument that is the pivot or pragmatic peak (PrP) for the various intra-clausal and inter-clausal syntactic functions described above in §2. So S/A in the active clause functions as the antecedent for the S/A of complement clauses omitted under identity, and for reflexives and reciprocals in an O position. It also functions as the controlling argument in switch-reference government and the causee in causative constructions.

With impersonal clauses, on the other hand, they are always transitive and have two arguments, one cross-referenced by doAgr (the experiencer or patient) and one cross-referenced by suAgr. However, the argument cross-referenced by suAgr is suppressed and never appears overtly, while the argu-
ment cross-referenced by do Agr is promoted to the PrP position in the clause.

We have also seen how it is this promoted O in the impersonal clause that now has all the PrP functions of S/A in the active clause. It is this argument in the impersonal clause that functions as the antecedent for complement clauses, reflexives and reciprocals and it is this argument that functions as the controller in sr constructions and the causee in causative constructions.

### 4.11 Subject in the impersonal clause

These facts regarding the subject properties of the nominal cross-referenced on the verb in the impersonal clause as do. EXPERIENCER are summarised in Table 2. By way of comparison the subject properties of the second NP in an impersonal clause, nominally called the agent NP, are also given. What this table shows is that the experiencer-NP exhibits seven out of the ten subject properties discussed, while the second NP—the one actually cross-referenced on the verb as subject—only exhibits three of these properties. What this exercise makes clear is that the prototypical ‘subject’ in Amele is a confluence of the pragmatic and referential properties that make it the topic of the clause, on the one hand, and the semantic properties that make it agent. What the impersonal construction does is separate these properties so that there

<table>
<thead>
<tr>
<th>Table 2. Subject properties of core NPs in impersonal constructions</th>
<th>Experiencer-NP</th>
<th>Agent-NP</th>
</tr>
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<tbody>
<tr>
<td>Configurational Parameters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left-most NP</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Non-VP constituent</td>
<td>yes</td>
<td>–</td>
</tr>
<tr>
<td>Coding of GFs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>su Agr cross-reference</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Nominative confluence of S/A</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Semantic function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent</td>
<td>no</td>
<td>(yes)</td>
</tr>
<tr>
<td>Intra-clausal syntax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antecedent for subject of complement clause omission</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Antecedent for reflexives</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Antecedent for reciprocals</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Inter-clausal syntax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls ss/ns marking in preceding active clause</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Coreferential with preceding do in causative clause</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>
is a clause with two arguments, one of which is the pragmatic topic and one the semantic agent. The interesting aspect of this is that the morphological coding goes with the semantic functions. So agent, or more generally actor, is cross-referenced by suAgr and undergoer is coded by OAg. However, it is not possible to say that in Amele these semantic functions are coded directly, since it is also possible to establish a class of unaccusative intransitive verbs with a patient argument cross-referenced by suAgr.

4.12  The typology of impersonal constructions

As mentioned previously, Dixon and Aikhenvald (1997) have suggested a four-way classification of argument-determined constructions called (i) argument transferring, (ii) argument focusing, (iii) argument manipulating, and (iv) those marking the referential role of arguments. In this schema a construction can be classified as a particular type according to whether

a. there is variation in transitivity between associated constructions
b. the syntactic functions of the predicate arguments change
c. one of the related constructions can be taken as syntactically basic and the other(s) as morphosyntactically derived from it, and
d. one construction type marks the control which a particular argument has over the activity.

We can assess the impersonal constructions in Amele with regard to these four parameters.

(a) Variation in transitivity

There are argument-determined constructions in Amele where the transitivity of the derived construction is different from the basic construction. The applicative incorporation of ioAgr and ooAgr in the verb increases the valency of the verb by one argument in each case. The reflexive formation with reflexive pronouns, on the other hand, is mutually exclusive with the relevant object function. This construction therefore decreases the valency of the verb by one argument. The reciprocal construction also detransitivises the verb.

With impersonal constructions, however, the situation is a bit more complicated. If we look at an example of the derived impersonal construction, repeated as (60), then we can see that it is clearly derived from the equivalent active clause (59). The S/A in (59) is equivalent to the O in the matrix impersonal
clause in (60) and a new A argument is introduced in this clause. However, one complication is that the predicate in (59), including the O argument, ma ‘taro’, of that predicate, is actually demoted to a complement imperative clause in (60).

(59)    \[\text{i}j\a\text{ ma j-igi-na.}\]
\[\text{\text{1SG} taro eat-\text{1SG.SU-PRES}}\]
\[\text{‘I am eating taro.’}\]

(60)    \[\text{i}j\a\text{ ma j-ag-a t-en}a.\]
\[\text{\text{1SG} taro eat-\text{2SG.SU-IMP 1SG.DO-\text{3SG.SU-PRES}}}\]
\[\text{‘I want to eat taro.’}\]

If we ignore the content of the predicate and concentrate on just the S/A argument in the active clause then we see that the derivation from active to impersonal is as follows:

\[
\text{subject(nom)} \rightarrow \text{object(acc)}
\]
\[
\text{null} \rightarrow \text{subject(nom)}
\]

The nominative subject in the active clause becomes the accusative object in the impersonal clause and a new nominative subject is introduced in the impersonal clause. Viewed this way the impersonal construction can be classified as a valency increasing construction.

The same analysis can also be applied to the lexical impersonal constructions. However, it only applies satisfactorily to those impersonal constructions that happen to have an equivalent active form, such as (105) and (106). The nominative-subject in (105) is equivalent to the accusative-object in (106).

(105)    \[\text{i}j\a\text{ cucui-ig-a.}\]
\[\text{\text{1SG} fear-\text{1SG.SU-TODP}}\]
\[\text{‘I feared.’}\]

(106)    \[\text{i}j\a\text{ cucui t-ei-a.}\]
\[\text{\text{1SG} fear \text{1SG.DO-\text{3SG.SU-TODP}}}\]
\[\text{‘I was afraid.’}\]

This parameter would therefore place impersonal constructions in Amele in the argument transferring type along with passive, antipassive, applicative and causative. However, in the next section we will see that impersonal is significantly different to these other valency changing constructions.
(b) Functions of the arguments changed
Clearly the syntactic functions of the arguments change in (59) and (60), and (105) and (106). In (59) and (105) the argument that is cross-referenced on the verb as nominative-subject is cross-referenced on the verb in (60) and (106) as accusative-object. However, the change is different to a more familiar construction like passive, for example. The focus of passive is on the accusative-object argument which becomes the nominative-subject in the corresponding passive clause, i.e.

\[
\text{subject(nom/agent/topic)} \rightarrow \text{oblique(or null)}
\]
\[
\text{object(acc/patient/focus)} \rightarrow \text{subject(nom/patient/topic)}
\]

In this case the object changes its syntactic function from accusative to nominative and changes its pragmatic function from focus to topic of the clause. But its semantic function of patient stays the same.

Now contrast this with the impersonal construction. The focus of this construction is the nominative-subject argument. In this case, however, the argument changes its syntactic status from nominative to accusative and its semantic status from agent to patient (experiencer) but retains its pragmatic function of topic.

\[
\text{subject(nom/agent/topic)} \rightarrow \text{object(acc/patient/topic)}
\]
\[
\text{null} \rightarrow \text{subject(nom)}
\]

With all of the other valency changing constructions cited as belonging to the type (I) argument transferring class, i.e. passive, antipassive, applicative and causative, they retain the semantic function of the argument in the transfer and it is the syntactic and pragmatic functions that change. With impersonal the pragmatic function stays the same across the constructions and you finish up with a topical O, which of course requires a nontopical A. Hence the anonymous subject agreement.

(c) One construction as basic
The derived impersonal construction has the active clause as the corresponding basic structure. As already stated, only a few lexical impersonal verbs have a corresponding active verb.

(d) Marks controller
Dixon and Aikhenvald (1997) say that in the case of (I), Argument transferring, we get a YES answer for this parameter where an A argument is retained in or
introduced into the core (antipassive and causative) and a NO elsewhere (pas-sive and applicative). In the case of impersonal we do have a new A argument introduced into the core as the anonymous third person singular subject, and the referent for this argument can be construed as the controller of the experience.

The final assessment is that the impersonal construction in Amele gives a YES to all four of the defining parameters and this would classify this structure as type (I), argument transferring constructions. However, as pointed out under (b) above, impersonal does not have the same type of function change as passive, antipassive, applicative and causative.

5. Conclusion

We have examined the argument structure of impersonal constructions in Amele in terms of the three universal syntactico-semantic categories S, A and O proposed by Dixon (1994) and also in terms of the argument structure and syntax of that language. The conclusion is that these constructions have two core arguments which, while cross-referenced on the verb by suAgr and doAgr, respectively, share the properties of the subject found in the active clause. Specifically, the argument cross-referenced by suAgr has the subject properties of being:

• coded as subject by verbal cross-reference agreement
• the nominative confluence of S/A
• the agent.

The argument cross-referenced by doAgr, on the other hand, has the subject properties of being:

• the left-most core argument in the clause
• not a constituent of the verb phrase
• the antecedent for subject of the complement clause omission under identity
• the antecedent for reflexive forms
• the antecedent for reciprocal forms
• the argument that controls ss/bs marking in a preceding active clause
• the argument that must be coreferential with the direct object in a preceding causative clause to produce a causative meaning.

We have also looked at what type of argument-determined construction imper-
sonal constructions are in terms of the four basic types proposed by Dixon and Aikhenvald (1997). The findings are interesting in that while impersonal is an argument transferring type of construction like passive, antipassive, applicative and causative, it is unlike these constructions in a significant way. All of these constructions retain the semantic function of the relevant argument while the syntactic and pragmatic functions change between the basic construction and the derived construction. With impersonal, on the other hand, the pragmatic function of topic of the clause is retained and the syntactic and semantic functions change. Specifically there is the following relationship between the active clause and the derived impersonal clause:

\[ \text{A (nominative/agent/topic)} \rightarrow \text{O (accusative/patient/topic)} \]
\null \rightarrow \text{A (nominative/agent/focus)}

In fact, the A argument of the impersonal clause is more of a place holder than a functioning subject but it is required in order to have a topic O argument.

It has also been shown how in Amele up to four core arguments of subject, direct object, indirect object and oblique object can be cross-referenced on the verb. This would appear to be unusual amongst the world’s languages but it has been reported in the literature on Papuan languages that an oblique argument like benefactive can be marked on the verb in many of these languages.

Notes

1. I wish to acknowledge helpful advice on a previous draft of this article by Sasha Aikhenvald, Masa Onishi and Bob Dixon. The following abbreviations are used: Agr(reement), Antic(ipatory) Obj(ect agreement), Appl(icative marker), Cont(inuous aspect), Co(u)ntr(e)fact(ual mood), Diff(eren)tsubjectfollowing), D(rect)obj(ect), Fut(ure tense), Habitual(past aspect), Hort(ative), Imp(licative mood), Imperf(ective aspect), Infinite, Inflection, Injunctive mood), Iterative aspect), Neg(ative)f(uture tense), Neg(ative)p(ast tense), Negator), Nom(inalised), Oblique(object), Pos(sessory), Present tense), Prohibit(biter), R(ealis modality), Refl(exive), Reinf(ite) past tense), Same(subject following), Sim(ultaneous tense), Subject), Switch( reference), Tod(ay's past tense), Trans(itional), Yest(erday's past tense), 1 (first person), 2 (second person), 3 (third person), SG (singular number), Du (dual number), Pl (plural number). The symbol = indicates a postpositional clitic.

2. This term has been used by a number of other Papuanists, such as Haiman (1980), Davies (1981) and Foley (1986).

3. Amele is spoken by about 6,000 people most of whom live on their traditional land just south of the town of Madang in PNG and has the largest number of speakers of the six languages of the Gum
language family (see Z'graggen 1975). Amele has three main dialects (see Roberts 1991b). The particular dialect discussed in this article is the Haija dialect.

4. The data examples are all written orthographically. Two symbols whose pronunciation may not be obvious are c which is the glottal [ʔ] and q which is the labiovelar [ʡ].

5. Roberts (1997b) demonstrates how the basic configurational properties of OV order and postpositions has an effect on the language up to the discourse level of structure such that logical propositions in Amele all have a head last configuration as the default order completely opposite to Koine Greek, for example, which has VO order and prepositions and a default head first order for logical propositions.

6. Amele, like most Papuan languages, has a rich set of verb inflections. Roberts (1996) is a full description and analysis. There are ten tense distinctions, four aspect distinctions, six modal distinctions, and two voice distinctions marked, as well as two types of switch-reference marking and person and number agreement for subject, direct object, indirect object and oblique object.

7. There are two basic morphological sets of subject agreement. This is described in Roberts (1987: 277–8). suAgr forms part of INFL which is analysed in Roberts (1992b, 1996) as a semi-independent inflectional constituent of the verb.

8. Amele has four such core arguments, all of which can be cross-referenced on the verb: subject, direct object, indirect object and oblique object.

9. In Roberts (1997a) at least seven different methods of marking the ss/ds distinction morphologically are identified in the languages of PNG. By far the most common means is to have separate and distinct morphemes for ss and ds.

10. A fuller account of how subject and object agreement functions in Amele can be found in Roberts (1992b, 1993, 1996).

11. Verbs in Amele can be divided into different morphological classes depending on what type of OAgr can be marked. Some, like temdoc and saciadoc, take obligatory doAgr whether there is an object nominal in the clause or not. Other verbs can have doAgr, ioAgr or ooAgr optionally marked, while some verbs, like asanev ‘to finish’ and buec ‘to buzz’, do not allow any OAgr to be marked at all. This matter is discussed further in Roberts (1987: 278–91) and a complete listing of verbs according to their subcategorisation properties can be found in Roberts (1994). In Roberts (1987) it is suggested that those verbs that take obligatory doAgr are goal-oriented and those that do not are agent-oriented. However, this semantic basis only explains the morphological distinction of some verbs and not others. In the end the classification has to remain morphological.

12. In fact, Amele has a second set of reflexive forms expressed by the clitic word =gul ‘own’, for example, ija=na=gul 1sg =of=own ‘my own’. But -dodoc ‘self’ only attaches to personal pronouns and is considered a true reflexive form.


14. Note that any theory of syntax, such as proposed by Anderson (1982) for example, that requires a clear distinction between derivational morphology, which only occurs in the lexicon, and inflectional morphology, which only occurs in the syntactic component, has a major difficulty in handling Amele reciprocal forms, since they are at once both derivational and inflectional. See Roberts (1996) for a full discussion.

16. The distinction between realis vs. irrealis modality is found in Amele and a number of other Papuan languages. This is discussed in Roberts (1990, 1992a). Bhat (1999: 137, 144) cites Amele as an exemplar mood prominent language, as opposed to English, for example, which is a tense prominent language.

17. Iterative aspect is typically marked by leftward reduplication of the verb stem and is described further in Roberts (1991a). In the examples (64)–(66) the verb inflection is reduplicated in this way as though it were a verb stem.

18. Simultaneous tense CV reduplication looks at the phonological structure of the word, whereas iterative stem reduplication looks at the morphological structure of the word. See Roberts (1991a) for further details.

19. When io.possessive is cross-referenced on the impersonal verb, as in (80) for example, the possessive phrase only needs to occur if it is an inalienably possessed noun.

20. Since cal mec ‘to die/become lifeless’ is an unaccusative verb in Amele and does not allow the benefactive function it is quite difficult to translate a verse like Romans 5.8 ‘While we were still sinners Christ died for us.’

21. This English gloss is not meant to be offensive but rather is meant as an accurate translation of the Amele, whose speakers do not have a less objectionable pseudonym available as English speakers do.

22. In Roberts (1997a) it was found that most Papuan languages with sr and impersonal constructions followed this pattern of the impersonal controlling clause triggering ss on the preceding active clause and being itself marked for ts when it was the governed clause. Other languages that have this pattern, for example, are Kobon (Davies, 1981) and Usan (Reesink, 1987). Out of the 160+ languages investigated only Alamblak (see Bruce, 1984) was found to have a pattern where ts is marked on the clause preceding the impersonal clause and on the impersonal clause itself, i.e. a strict reference to syntactic subject. Therefore, although a number of linguists, such as Haiman and Munro (1983) and Foley and Van Valin (1984), have asserted that sr systems in Papuan languages track the subject of the clause as the confluence of S/A and not semantic or pragmatic functions, such as agent or topic, Roberts (1997a) demonstrates that sr systems in Papuan languages can be categorised as either agent-oriented (such as Alamblak) or topic-oriented (most other Papuan languages) using the diagnostic of how they interact with impersonal constructions.

6. References


Non-canonical subjects and objects in Finnish

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1. Introduction

At first glance, Finnish appears to be a well-behaved nominative-accusative language with AVO, SV basic constituent order. The most typical transitive sentences have a subject (S/A) in the nominative case and a direct object (O) in either the accusative case (when it is fully affected) or in the partitive case (when only partially affected). Nominative subjects trigger verb agreement for person and number. However, a closer look reveals that many constructions do not conform to the nominative-accusative pattern, and also, constituent order is in fact fairly fluid and determined pragmatically (see Vilkuna 1989). There are a number of constructions in Finnish where this normal link between nominative case and subject on the one hand and accusative or partitive case and object on the other hand does not hold. This paper is about these constructions. We describe the various putative non-canonical subject and object constructions in Finnish and attempt to relate these to typological considerations concerning non-canonical subjects and objects in general.

As background, it is important to understand the case-marking patterns of the language. Finnish is traditionally held to have four “grammatical cases” (i.e. cases which can signal core arguments of the verb): nominative, genitive, accusative, and partitive. Some of these cases overlap each other in phonological shape, seen in Table 1. The cases traditionally labelled ‘nominative’ and ‘accusative’ have the same form (-t) in the plural; the form of the accusative singular is -n, which happens to be identical in form to the genitive singular case. The
Table 1. The “Grammatical” Cases\(^3\)

<table>
<thead>
<tr>
<th>Case</th>
<th>Singular</th>
<th>Plural</th>
<th>Personal pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>-ø</td>
<td>-t</td>
<td>-ø</td>
</tr>
<tr>
<td>Accusative</td>
<td>-n</td>
<td>-t</td>
<td>-t</td>
</tr>
<tr>
<td>Genitive</td>
<td>-n</td>
<td>-i-en, -t-en</td>
<td>-n</td>
</tr>
<tr>
<td>Partitive</td>
<td>-a/ä, ta/ä, -tta/ä</td>
<td>-i-ta/ä, -i-a/ä</td>
<td>-a, -tä</td>
</tr>
</tbody>
</table>

Note that, in addition, partially affected objects are marked with the partitive case\(^4\). Some grammarians also claim that for certain verbs the direct object is marked with a local case; we return to this question in §3.4. Both nouns and pronouns normally mark the finite subject with the nominative case but, under certain conditions, both partitive and genitive subjects are to be found (see §2). Hakulinen and Karlsson (1979: 181–2) found that 70% of subjects were in the nominative case (the canonical case for subjects), while 5% were partitive and 3% genitive. They found in a corpus containing about 4,500 instances of objects that 44% of objects were in the partitive case, 17% were in nominative case, and only 16% were in the accusative case, traditionally held to be the canonical object case\(^5\).

If we were to take the strict view that subjects should be marked with the nominative case and objects with the accusative case, then Finnish would have to be said to have a large amount of non-canonical case marking for its core functions. However, we discuss these case marking patterns for the putative ‘non-canonical’ arguments and show that for the most part they are in fact quite canonical.

It is notoriously difficult to develop diagnostic tests for subjecthood and objecthood in Finnish, and the sort of syntactic and semantic criteria utilized in work on other languages generally cannot be used as diagnostic in Finnish.\(^6\) However, Sands (2000: §§3.2, 3.3) has developed criteria for recognizing subject and object of a sentence and some of these tests are applied in this paper.

Finally, Finnish transitivity is usually clear from the rich verb morphology. This means that in many instances where other languages might have a non-canonically marked construction (cf. Onishi, Introduction to this volume), Finn-
ish verb morphology makes the construction entirely clear and the marking usually turns out to be canonical for the constructions in question. For example, where English can say *sink of both the boat sank* (intransitive) and *they sank the boat* (transitive), Finnish carefully distinguishes these, as in:

1. a. *Laiva uppos-i.*  
   ship+NOM sink-3SG+PAST  
   ‘The ship sank.’

   b. *Mérirosvo-t upo-itt-i-vat laiva-n.*  
   pirate-NOM+PL sink-CAUS-PAST-3PL ship-ACC  
   ‘The pirates sank the ship.’ (Holman 1984: 50)

The rich Finnish verbal derivational morphology comes into any consideration of canonical case marking or transitivity in the language.

The interplay among ‘transitivizers’, ‘intransitivizers’, root transitive, and root intransitive verbs is important to an understanding of proposed canonical vs. non-canonical structures in Finnish. Many of these alternatives correspond to verbs which are frequently non-canonical in other languages, and some may be tempted to see some of these alternatives in Finnish as non-canonical constructions, especially instances where a non-subject topic is brought forward to preverbal position. Consider, for example, the following set of sentences related to the experience of fright.

2. a. *(Minä)* pelkää-n.  
   (1SG+NOM) fear-1SG  
   ‘I’m afraid.’

   b. *(Minä)* pelkää-n koir-i-a.  
   (1SG+NOM) fear-1SG dog-PL-PART  
   ‘I am frightened of dogs’/’I fear dogs.’

   c. *Minu-a pelo-tta-a.*  
   1SG-PART fear-CAUS-3SG  
   ‘I’m afraid’/’Something frightens me.’

   d. *Minu-a pelo-tta-vat koira-t.*  
   1SG-PART fear-CAUS-3PL dog-NOM+PL  
   ‘I am frightened by the dogs’/’The dogs frighten me.’

   e. *Koira-t pelo-tta-vat minu-a.*  
   dog-NOM+PL fear-CAUS-3PL 1SG-PART  
   ‘The dogs frighten me.’
Each of (2a)–(2f) represents in Finnish a common pattern of case marking repeated for many verbs. Sentences (2a), (2b), (2e) and (2f) are clearly canonical (i.e. they have overt subjects in the nominative case which trigger verb agreement in pragmatically neutral sentences typically appear pre-verbally; cf. Helasvuo 1997a: 92). Sentence (2d) is also canonical, though the nominative subject which triggers verb agreement is post-verbal. Sentence (2c), however, on the surface might appear to be a sentence with a non-canonical subject in the partitive case (see below). This has very similar meaning to sentence (2a), while sentence (2d) differs from (2e) in that the former focuses on the experience of being frightened and the subject, here ‘the dogs’, which is not human and therefore is not considered so topical in this instance, is postverbal, while the human topic (1SG pronoun), the object in this sentence, is more topical and appears preverbally in the topic slot. However, in sentence (2e), as well as (2f), the subject ‘the dogs’ is topical and therefore is preverbal. These sentences illustrate the tendency in Finnish for the ‘topic’ of the sentence to appear in preverbal position (see Vilkuna 1989, Helasvuo 1997a: 92–8), and thus (2c) and (2d) focus on the fact that ‘I am frightened’ as opposed to the fact that someone or something is actively frightening me. There is, however, overlap in usage of the different sentence types. Sentences (2c) and (2d) belong to a group of verbs which have become known as the ‘Causatives of Feeling’, all of which typically topicalize a partitive animate experiencer.

Now we turn to the question of whether sentence (2c) has a non-canonical subject or not. Finnish is a so-called ‘null-subject’ or ‘pro-drop’ language; it permits finite verb forms in which the subject is not necessarily expressed overtly but is clear from the context or is not relevant to the topic of discussion and is therefore simply omitted. Thus in (2c), we may understand the underlying subject of pelottaa ‘to frighten’ as something which is not overtly stated in the sentence. Comparison of (2c) with (2d) shows that this is a very likely analysis of this sentence, and, as already mentioned, the topic of the clause is moved into pre-verbal position, which might lead some to want to see this argument as a non-canonical subject. Thus, while (2c) superficially looks somewhat like non-canonical verb forms in other languages, here with its human NP (namely minu-a 1SG-PART) in preverbal (topic) position, from a Finnish point
of view it is perfectly normal—it has a partitive object (minua) of a finite transitive verb (pelottaa) which happens in this instance not to have an overt subject (though an underlying A is understood to be involved, since the finite verb form exhibits agreement with some third person singular entity not expressed in the sentence).

Since Finnish does allow subjects in partitive case (see §2.1 for the circumstances where this is permitted), one might wonder whether (2c) could not be analyzed as containing a non-canonical partitive subject (i.e. interpreting minua not as object but as subject). This is not a viable option, however, since if it were subject, one would expect possible deletion of the subject in a following clause which was co-referential with the partitive argument; however, this does not happen; sentence (3a) is ungrammatical:

(3) a. *Hän-tä, pelo-tt-i ja siksi Ø,
3SG-PART fear-CAUS-3SG+PAST and so Ø
juoks-i koti-in.
3SG+PAST home-ILL
‘He/she was afraid and for that reason ran home.’

To be grammatical it would have to be as in (3b) with the subject overtly expressed (though this also has an alternative reading that someone else ran home):

(3) b. Hän-tä, pelo-tt-i ja siksi hän, juoks-i
3SG-PART fear-CAUS-3SG+PAST and so 3SG+NOM home-ILL
koti-in.
run-3SG+PAST
‘He/she was afraid and for that reason (he/she) ran home.’

Further reasons for claiming that this partitive argument is not subject are presented in Sands (2000: §6.2.1).

Thus, it can be concluded that the partitive argument in sentence (2c) is certainly not a non-canonical partitive subject, but it is a canonical object in the partitive case. Therefore, it is crucial to keep in mind the aspects of Finnish verb morphology relating to transitivity, and the rich possibilities that are offered for semantic nuances and differing aspects of transitivity, when attempting to deal with notions of non-canonical marking of NPs in Finnish.

To summarize the subject and object case marking patterns in Finnish, Table 2 presents the distribution of case marking for both the canonical
constructions and for the ‘non-canonical’ constructions to be discussed in §§2 and 3. Note that this presents data for nominal objects only, since personal pro-
nominal objects always take the accusative or partitive case. In §4 we attempt

to relate these Finnish constructions to the typology of non-canonical verbs
reflected in Onishi (Introduction to this volume).

Table 2. Distribution of subject and object case marking for nominals in Finnish

<table>
<thead>
<tr>
<th>Subject</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NOM</td>
</tr>
<tr>
<td>Neutral (§1)</td>
<td>+</td>
</tr>
<tr>
<td>Negative (§3.2)</td>
<td>+</td>
</tr>
<tr>
<td>Partitive Subject (§2.1)</td>
<td>+</td>
</tr>
<tr>
<td>‘Necessive’ (§2.2.1)</td>
<td>+</td>
</tr>
<tr>
<td>Nonfinite verb (§§2.2.4, 3.1.2)</td>
<td>+</td>
</tr>
<tr>
<td>Imperative (§3.1.1)</td>
<td>+</td>
</tr>
<tr>
<td>‘Missing Person’ (§3.1)</td>
<td></td>
</tr>
<tr>
<td>Impersonal (§3.1.3)</td>
<td></td>
</tr>
<tr>
<td>(gen ‘for’) inf (§2.2.3)</td>
<td></td>
</tr>
</tbody>
</table>

2. Non-canonical subjects

As mentioned in §1, the Finnish canonical subjects are in the nominative case
and trigger verb agreement. These patterns and other tests for subjecthood pre-
sented in Sands (2000: §3.2) are utilized in the following discussion to deter-
mine whether an argument should be considered a subject or not. There are two
principal constructions we discuss which have putative non-canonical subjects:
the partitive ‘subjects’ of ‘Existential’ clauses and the genitive ‘subjects’ of
‘Necessive’ clauses.

2.1 Partitive subjects

Linguists have found Finnish sentences with ‘subjects’ in the partitive case
fascinating and there are many differences of opinion concerning them. Traditionally, partitive subjects are said to occur in ‘Existential’ sentences (though
as we will see below, ‘existential’ is not precisely what characterizes them).

The most common verb that appears with the partitive subject is *olla* ‘to be’ and
here the construction is very similar to the English ‘There is/are . . .’ sentences
(see (6a)). In sentences with partitive subjects, the finite verb is always third person singular in form—that is, there is no agreement between partitive subjects and the verb (Karlsson 1982: 94). Also, the partitive subject is often post-verbal, though this is by no means necessary, as seen in (5a) below. Let us begin by looking at the conditions for the use of partitive subjects.

2.1.1 Constraints (or conditions under which partitive subjects are possible)

[1] The ‘Existence’ constraint: Ikola (1971: 171) is one of many authors who claim that “the partitive subject is possible only in sentences which primarily express existence (the predicate can at times express also coming to be, ceasing to be, motion or change into another state of being).” The partitive subject of the Existential only occurs in the context of an indefinite quantity of a mass or plural noun, or in a negative context. (The notion that ‘existence’ is involved in the partitive subjects is commonly repeated in Finnish grammatical treatments). As we will see presently, it is not strictly true that the sentences must have an existential sense. For now, however, let us consider some examples which illustrate this construction. The first sentence in the following pairs illustrates the partitive subject with its ‘existential’ sense, while the second illustrates the corresponding sentence with a more canonical nominative subject:

(4) a. Ulkonaleikk-i laps-i-a.
    outside play-3SG+PAST child-PL-PART
    ‘Outside children were playing.’/‘There were children playing outside.’

    b. Lapse-t leikk-i-vät ulkona.
    child-NOM+PL play-PAST-3PL outside
    ‘The children played outside.’

(5) a. Use-i-ta ihmis-i-ä on hukku-nut.
    several-PL-PART human-PL-PART be+3SG drown-PAST+PARTIC
    ‘Several people have drowned.’/‘There are several people who have drowned.’

    b. Ihmise-t o-vat hukku-neet.
    human-NOM+PL be-3PL drown-PAST+PARTIC+PL
    ‘The people have drowned.’

(6) a. Purki-ssa on leipä-ä.
    tin-INES be+3SG bread-PART
    ‘There’s some bread in the tin.’/‘In the tin (there) is some bread.’
b. Leipä on purki-ssa.
   bread+nom be+3sg tin-ines
   ‘The bread is in the tin.’ (Karlsson 1982: 94)

Consider also the following examples which describe the existence or coming into existence of the nominal in the partitive case:

(7) Kirja-a-ni on jo kirjakaupo-i-ssa.
    book-part-1sg+poss be+3sg already bookshop-pl-ines
    ‘My book is already in bookshops.’ (Penttilä 1963: 628)

(8) Ja kun uut-ta vart-ta kasvo-i, Pönttö
    and when new-part stalk-part grow-3sg+past pöntö
    mullit-ti se-n jälleen.
    put.soil.on-3sg+past it-acc again
    ‘And when a new stalk grew, Pönttö put soil on it again.’

(9) Susikoske-n ol-i vaikea kuvi-te-la, että
    Susikoski-gen be-3sg+past difficult imagine-inf that
    noit-i-a ol-i ole-ma-ssa.
    witch-pl-part be-3sg+past be-3inf-ines
    ‘It was difficult for Susikoski to imagine that witches exist.’

[2] No direct object or predicate complement. A second constraint on the partitive subject is summarized by Ikola (1971: 171) as ‘if an object or predicate complement is joined to the predicate, then the sentence cannot be existential and thus the subject cannot be in the partitive.’ Contrast (10a), which has both a partitive subject and an object and is therefore ungrammatical, with (10b) and (10c), which express similar concepts but are grammatical:

(10) a. *Mieh-i-ä hakkaa piha-lla pu-i-ta.
    man-pl-part chop yard-ades wood-pl-part
    ‘Some men are chopping wood in the yard.’

b. Miehe-t hakkaa-vat piha-lla pu-i-ta.
    man-nom+pl chop-3pl yard-ades wood-pl-part
    ‘The men are chopping wood in the yard.’

c. Piha-lla on mieh-i-ä hakkaa-ma-ssa
    yard-ades be+3sg man-pl-part chop-3inf-ines
    pu-i-ta.
    wood-pl-part
    ‘In the yard there are some men chopping wood.’ (Ikola 1971: 171)
The ‘third infinitive’ -ma is a nominalization and here the entire nominalized clause miehiä hakaamassa puita can be analysed as a partitive NP argument of the main clause.) An ungrammatical example with a partitive subject and a predicate complement is:

    minister-PL-PART be+3SG social.democrat-PL-PART
    ‘Some ministers are social democrats.’ (Hakulinen and Karlsson 1979: 167)\(^{12}\)

A grammatical version of this sentence must include a nominative subject or must form a relative clause of the predication:

(11) b. Jotku-t ministeri-t o-vat
    some-NOM+PL minister-NOM+PL be-3PL
    sosiaalidemokraattis-i-a.
    social.democrat-PL-PART
    ‘Some ministers are social democrats.’

c. On ministere-i-tä jotka o-vat
    be+3SG minister-PL-PART who+NOM+PL be-3PL
    sosiaalidemokraattis-i-a.
    social.democrat-PL-PART
    ‘There are ministers who are social democrats.’

In this case, (11a) is ungrammatical, it is thought, because it is does not have an existential connotation; it is about characteristics of ‘ministers’ rather than about somehow asserting the ministers’ existence.

A crucial issue to be dealt with is the extent to which constraint [2] actually holds, a question we return to presently.

If the two constraints just mentioned are met, then partitive subjects can be utilized in the following sets of circumstances:

[3] If the subject refers to an unspecified amount or part of the whole of a mass or divisible noun, then the partitive singular is used. (Ikola 1971: 172; Hoover 1984: 66; Karlsson 1982: 94; Hakulinen and Karlsson 1979: 166 speak of this as the ‘indefiniteness of partial amounts’):

(12) a. Ruoka-a on pöydä-llä.
    food-PART be+3SG table-ADES
    ‘(Some) food is on the table.’
Contrast (12a) with (12b):

(12) b. Ruoka on pöydä-llä.
food+NOM be+3SG table-DES
‘The food is on the table.’

See also:

(13) Vet-tä valu-i kellari-in-kin.
water-PART flow-3SG+PAST cellar-ILL-TOO
‘(Some) water flowed also into the cellar.’

(14) Tää-llä kasva-a petäämetsä-ä.
here-DES grow-3SG pine.forest-PART
‘Pine forest grows here.’

[4] If the subject refers to an unspecified number or portion of a count noun, the subject is in the partitive plural (Karlsson 1982: 94–5):

street-DES be+3SG car-PL-PART
‘On the street there are (some) cars.’/‘There are (some) cars on the street.’

Contrast (15a) with (15b):

(15) b. Auto-t o-vat kadu-lla.
car-NOM+PL be-3PL street-DES
‘The cars are on the street.’

See also:

(16) Ihmis-i-ä kuole-e joka päivä.
human-PL-PART die-3SG each day
‘People die every day.’

(17) Sellais-i-a virhe-i-tä esiinty-y usein.
this.kind-PL-PART mistake-PL-PART appear-3SG often
‘Such errors come up often.’ (Karlsson 1982: 95)

[5] If the sentence expresses negation of the existence of the subject (Ikola 1971: 172; Karlsson 1982: 95) (note that the partitive subject is not obligatory in negation):
(18) a. Kadu-lla ei ole auto-a.
   street-ades neg 3sg be car-part
   ‘There’s not a car on the street.’

Contrast (18a) with (18b):

(18) b. Auto ei ole kadu-lla.
   car+nom neg 3sg be street-ades
   ‘The car is not on the street.’

See also:

(19) Pöydä-llä ei ole kirja-a.
    table-ades neg 3sg be book-part
    ‘There is no book on the table.’

(20) Mies-tä ei näy ei-kä kuulu.
    man-part neg 3sg appear neg 3sg-and be.heard
    ‘The man is not seen nor heard.’

[6] If the sentence expresses doubt or if a negative answer to a question is anticipated:

    be+3sg-quest 2sg-ades time-part
    ‘Would you have a watch?’ (expression of doubt)

Contrast (21a) with (21b):

(21) b. On-ko sinu-lla kello.
    be+3sg-quest 2sg-ades time+nom
    ‘Do you have a/the watch?’

See also:

(22) On-ko tää-llä ketään?
    be+3sg-quest here-ades who+part
    ‘Is there anybody here?’ (doubt)

(23) On-ko tei-llä tää-tä kirja-a?
    be+3sg-quest 2pl-ades this-part book-part
    ‘Do you have this book?’ (Karlsson 1982: 95)
[7] If some oblique phrase or adverb contributes an ‘individuated’ (or more specific) interpretation (cf. Hopper and Thompson 1980) to the clause, a partitive subject is ungrammatical. This is due to the fact that the oblique phrases place the clause in circumstances where an ‘existential’ connotation is no longer possible (see Hakulinen and Karlsson 1979: 168, 170, Penttilä 1963: 627). The obliques contribute towards changing the degree of transitivity these clauses have by making them more transitive, and, as mentioned in the following paragraphs, the clauses with partitive subject are in fact very low in transitivity. This is seen in the contrast between (24a) and (24b), and (25a) and (25b), where the (b) sentences are ungrammatical:

(24) a. Lava-lla hymyile-e misse-j-ä.
   platform-ades smile-3sg “miss”-pl-part
   ‘On the platform the beauty contestants smile.’ ‘There are beauty contestants smiling on the platform.’

   b. *?Lava-lla hymyile-e misse-j-ä tuomare-i-lle.
   platform-ades smile-3sg “miss”-pl-part judge-pl-all
   ‘On the platform the beauty contestants smile at the judges.’
   (Hakulinen and Karlsson 1979: 168)14

   apple.tree-pl-part grow-3sg garden-ines
   ‘Apple trees grow in the garden’

   b. *Omenapu-i-ta kasva-a hitaasti puutarha-ssa.
   apple.tree-pl-part grow-3sg slowly garden-ines
   ‘(The) apple trees grow slowly in the garden’

   c. Omenapuu-t kasva-vat hitaasti puutarha-ssa.
   apple.tree-nom+pl grow-3pl slowly garden-ines
   ‘The apple trees grow slowly in the garden.’ (Hakulinen and Karlsson 1979: 170)

While there is a generally recognized lack of success at stating the precise conditions under which clauses with partitive subjects can be used, there is general agreement that they involve “existence” (or belonging in a certain place) in some broad and vague sense and that it is the class of Existential sentences which may co-occur with a partitive subject. The existential clauses are not so much about asserting general existence in the world as they are predications about locative space, reporting its contents (cf. Helasvu 1996b: 343). As
pointed out above, the Existential clauses are very low in transitivity, according to Hopper and Thomson’s (1980) transitivity hypothesis. That is, they have only a single participant; they represent a state, and not an action; they are consequently low in agency; and they are non-punctual and non-volitional. Even though in (4a) above, for example, the partitive subject argument lapsia ‘children’ is an agent of the verb leikkiä ‘to play’, and the children are carrying out the action of playing, it is not this action that is being focussed on in the clause; rather the crucial point is, as defined by Huumo (1995) and Huumo and Perko (1993), that the subject, ‘some children’, is included within the domain, ‘outside’. A similar claim is made in Hakulinen and Karlsson (1979: 169), who suggest that it might be more accurate to look at these sentences as those in which the activity/event expressed by the verbs permit a meaning of ‘locating/placing the subject in some location’, and indeed very often a locative adverb or oblique locative construction appears in these sentences (cf. Hakanen 1997: 9). Thus the fact that the children are playing is only incidental and such a sentence as (4a) is possible only because for children to be playing outside is a proto-typical activity associated both with children and with outside. To substitute an action that is not typically associated with children being outside leads to a sentence which at best is only marginally acceptable, as in (31) (contrast this with (8a):

(26) ??Ulkona syö laps-i-a.
outside eat+3SG child-PL-PART
‘Outside children are eating.’

This is further illustrated in the following pair of sentences:

(27) a. Tyttö-j-ä lymyile-e viidak-o-ssa.
girl-PL-PART lurk-3SG jungle-INESS
‘Girls are hiding in the jungle.’/‘There are girls hiding in the jungle.’

girl-PL-PART smile-3SG jungle-INESS
‘Girls are smiling in the jungle.’

Hakulinen and Karlsson point out that the class of verbs which permit partitive subjects is in principle open and unlimited, although in practice only a small group of verbs is found to appear with partitive subjects in Finnish texts. Wäähämäki (1975, cited in Hakulinen and Karlsson 1979: 169–70) found that in 1,349 instances of partitive subjects taken from Finnish literary texts, 83% appeared with the ten most frequent verbs, and in fact the huge majority of
cases were with *olla* ‘to be’. The ten most frequent verbs are seen in Table 3 (from Hakulinen and Karlsson 1979: 170):

<table>
<thead>
<tr>
<th>Verb</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>olla</em> ‘to be’</td>
<td>739</td>
<td>54.8%</td>
</tr>
<tr>
<td><em>tulla</em> ‘to come’</td>
<td>114</td>
<td>8.5%</td>
</tr>
<tr>
<td><em>tapahduta</em> ‘to happen’</td>
<td>87</td>
<td>6.5%</td>
</tr>
<tr>
<td><em>kauhua</em> ‘to be heard’</td>
<td>43</td>
<td>3.2%</td>
</tr>
<tr>
<td><em>näkäyä</em> ‘to be seen’</td>
<td>30</td>
<td>2.2%</td>
</tr>
<tr>
<td><em>sintiä</em> ‘to be born, originate’</td>
<td>28</td>
<td>2.1%</td>
</tr>
<tr>
<td><em>esiintyä</em> ‘to appear’</td>
<td>21</td>
<td>1.6%</td>
</tr>
<tr>
<td><em>aiheutua</em> ‘to have its cause in’, ‘to come about because’</td>
<td>20</td>
<td>1.5%</td>
</tr>
<tr>
<td><em>saattua</em> ‘to take place, to happen’</td>
<td>18</td>
<td>1.3%</td>
</tr>
<tr>
<td><em>jäädä</em> ‘to remain, stay’</td>
<td>17</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

In total, 98 different verbs appeared in the texts, but 54 of these appeared only once.

Finally, it should be noted that Helasvuo (1996b) has shown that the discourse function of Existential clauses is to provide background information for a discourse. The argument introduced as being in existence (the partitive argument) is generally not further mentioned in the discourse and the clause simply provides information about the location.

2.1.2 *Partitive subjects together with direct objects*

Let us now return to the question of how accurate constraint [2] (above) may be and how it should be seen in view of counter-examples to it. Constraint [2], restated, is: “If an object (or predicate complement) is joined to the predicate, then the sentence cannot be existential and thus the subject cannot be in the partitive” (Ikola 1971: 171; cf. Hakulinen and Karlsson 1979: 167). However, in a number of instances the partitive subject can be used in clauses which have an overt direct object. Many of these objects are, however, generally not specific or referential, but are cognate objects (of the ‘to dream a dream’ type) or are redundant or predictable from the discourse context. That is, in these instances, no difficulty arises in distinguishing the subject NP from the object NP. Compare (28a) with (28b) from Ikola (1968). These clauses are effectively
synonymous and thus the claim is made that (28a) is effectively an intransitive clause. In any case, the low transitivity of (28a) leads to this being an acceptable clause.

(28) a. Use-i-ta siviilihenkilö-i-tä sa-i
    several-PL-PART civilian.person-PL-PART receive-3SG+PAST
    surma-nsa.
    death+ACC-3SG+POSS

   ‘Several civilians received their deaths.’ / ‘Several civilians died.’

b. Use-i-ta siviilihenkilö-i-tä kuol-i.
    several-PL-PART civilian.person-PL-PART die-3SG+PAST

   ‘Several civilians died.’

Nevertheless, as Hakulinen and Karlsson (1979: 167) say, “the partitive subject has begun to appear also in such sentences in which there is a full direct object (especially in partitive case)” (cf. also Sulkala and Karjalainen 1992: 212). Some examples are:

(29) Odottav-i-a äite-j-ä, varusmieh-i-ä ja
    expecting-PL-PART mother-PL-PART serviceman-PL-PART and
    opiskelijo-i-tä käytt-i äänioikeu-tta-an
    student-PL-PART use-3SG+PAST voting.right-PART-3SG+POSS
    Salo-ssa maanantai-na.
    salo-INES Monday-ESS

   ‘Expecting mothers, servicemen, and students used their right to vote in Salo on Monday.’

(30) Venäjä-ä luke-e hyvin vähän suomalais-i-a
    Russian-PART study-3SG very few Finn-PL-PART

   ‘Very few Finns study Russian’

(31) a. Kieltenopettaj-i-a saa luo-na-mme
    language.teacher-PL-PART get+3SG presence-INESS-1PL+POSS
    työ-tä.
    work-PART

   ‘Language teachers get work with us.’ (Hakulinen and Karlsson 1979: 167)

The important point about these transitive sentences with partitive subject is, as outlined in Hakulinen and Karlsson (1979: 168), that the clause must be
interpretable with no additional context. Thus the participants are indefinite and cannot be accompanied by a definite pronoun as seen in (31b):

(31) b. *Näi-tä kieltenopetaj-i-a saa this+PL-PART language.teacher-PL-PART get+3SG
lou-na-mme työ-tä.
presence-INESS-1PL+POSS work-PART
‘These language teachers get work with us.’

The transitive sentences with partitive subjects also seem to provide background information as opposed to describing individuated situations (see Sands 2000: §4.8.4; Helasvuo 1997a)—recall that these partitive subjects are not specific or definite—and so are really used very similarly to the partitive subject of intransitive Existential sentences (which have no direct object).

The increasing acceptability of a partitive subject with transitive verbs is possibly related to an increase also in the use of partitive subject with intransitive verbs, not just for Existential clauses, but to indicate non-exhaustive reference. This is as outlined in Vilkuna (1989: 260) who gives the following account:

It is possible that present-day Finnish is undergoing what could be called ‘subjectivization’ of the partitive E[xistential]-subject. The following, apparently all-new sentences contain change-of-state verbs, which normally reject the E[xistential] pattern, and the \textsc{loc-V-par} \textsc{[locative–verb–partitive]} order would indeed be quite unnatural . . . [examples from] newspaper headline[s] . . . :

1. \textit{Bussilinjo-j-a muuttu-u Espoo-ssa.}
\textit{busline-PL-PART change-3SG ESPOO-INES}
‘Some bus routes will change in Espoo.’

2. \textit{Auto-j-a hyyty-y pakkase-en.}
\textit{car-PL-PART freeze-3SG cold-ILL}
‘Cars get frozen up because of the cold/in the cold weather.’

The tendency seems to be towards using partitive \textit{[subject]} to convey simple indefiniteness (non-exhaustive reference); for example, ([1]) seems to want to avoid the implication that all bus routes would be changed, even though the corresponding nominative-subject sentence would not necessarily carry that implication either . . . partitive subjects are becoming acceptable for people even in transitive sentences, especially when accompanied by an explicit quantifier word.

2.1.3 \textit{Is the partitive argument really a non-canonical subject?}

Although traditionally the partitive argument of the Existential clauses (of
2.1.1) has been called the subject, this question is actually open to debate. Hakulinen (1983) argues it is a subject, just not a prototypical subject, while Karlsson (1982: 109) argues that the subject-object distinction is simply neutralized; Vilkuna (1989), Wiik (1974) and Sands (2000: §4.6) argue that this argument is more like an object than a subject. There are arguments for this claim which relate to the case-marking pattern of objects (Wiik 1974, see §3), for example that the argument of the Existential clause is in the partitive case when negative as negative objects are (see 2.1.1). Possessive clauses, a sub-type of the Existential clauses, have a possessor indicated with the adessive case and are a rare case where a pronominal argument of an Existential clause is possible. This pronominal argument is in the accusative case and is thus like an object.

(32) Niinkauankuin minu-lla on sinu-t, tunne-n
so long than 1SG-ADES be+3SG 2SG-ACC feel-1SG
itse-ni onnellise-ksi,
self-1SG+POSS happy-TRAN
‘So long as I have you, I feel myself to be happy.’

Thus in these ways, the case-marking pattern of the Existential argument resembles that of an object.17 (For other arguments and more detail, see Sands 2000: §6.2.1.C.)

On the other hand there is some evidence to argue that the argument is actually a subject after all. Consider (33) from the writer J. Aho (cited in Penttilä 1963: 631):

(33) Tul-i mieh-i-ä ja nais-i-a ja
come-3SG+PAST man-PL-PART and woman-PL-PART and
tek-i-vät tupas-i-a-an kaik-i-lle
make-PAST-3PL cabin-PL-PART-3PL+POSS all-PL-ALL.
rinte-i-lle.
slope-PL-ALL.
‘There came men and women and they made their cabins on all the hillsides.’

Given that in this instance the verb of the second clause (tekivät) both has no overt NP of its own and agrees in number with the plural partitive NP subjects of the first clause (miehiä and naisia) which are its logical subject, it seems clear that mieh-i-ä and nais-i-a are being treated as true subjects in this
sentence. This follows from the fact that with partitive objects there is no deletion of coreferential subjects in the next clause, as can be seen in (34):

(34) *Hän näk-i mieh-i-ä ja nais-i-a
3sg+nom see-3sg+past man-pl-part and woman-pl-part
ja tek-i-vät tupas-i-a-an kaik-i-lle
and make-past-3pl cabin-pl-part-3pl+poss all-pl-all
rinte-i-lle.
slope-pl-all
‘He/she saw men and women and made their cabins on all the hillsides’.

However, this may not be as clear as it seems. In Sapir’s famous saying, all grammars leak. This would appear to be true in the case of Finnish sentences of this sort, those with conjoined clauses in which the first has a partitive subject which is coreferential with a subject NP of the conjoined clause which is not in partitive case. All of the following alternatives occur and yet native speakers are not certain whether any is (fully) grammatical. This illustrates the uncertainty in speakers’ minds as to whether the partitive argument is a true subject or not.

man-pl-part run-3sg yard-ades and hit+3sg ball-part
b. ?Mieh-i-ä juoksentele-e piha-lla ja lyö-vät pallo-a
man-pl-part run-3sg yard-ades and hit-3pl ball-part
b. ?Mieh-i-ä juoksentele-e piha-lla ja he lyö-vät
man-pl-part run-3sg yard-ades and 3pl+nom hit-3pl pallo-a.
ball-part
‘(Some) men are running around in the yard and are hitting the ball.’

Scholars will continue to dispute whether the partitive argument of the intransitive Existential clauses is subject or object, or a neutralization of the two. However, the partitive subject of the transitive sentences illustrated in §2.1.2 is certainly a subject (one cannot argue that it is an object), but it is an indicator of very low transitivity. The partitive argument (whether it be subject or object) reflects reduced transitivity, though it is possibly becoming more widespread and used for indefinite, inexhaustible quantity. So the question remains, is this partitive argument non-canonical or not? If we take the strict view that Finnish
subjects must be in the nominative case and trigger verb agreement but also accepting the traditional view that the argument introduced in the Existential clause is a subject, then certainly it must be said that the partitive arguments here are non-canonical. But this standpoint seems to ignore essential aspects of Finnish case marking. First, the partitive case also reflects reduced transitivity when used on objects (cf. Sands 2000: §4.8, and below) and thus there is a clear link between the subject and object partitive case marking patterns. Second, the behavior of the argument in question is similar to an object in many ways and so there may be good reason to accept the view that perhaps Finnish has a split system of marking its intransitive verbs, with subject-like marking for verbs or clauses with high agentivity/transitivity and object-like marking for verbs or clauses with low agentivity/transitivity. Whichever standpoint one takes, it is certainly clear that in Finnish the partitive case indicates low transitivity, whether for objects, subjects/objects of Existential clauses, or subjects of clauses with two arguments (‘transitive clauses’).

2.2 Genitive subjects

A number of constructions require “subjects” in the genitive case in Finnish (see §2.2.3). The genitive is generally held to be the default subject case for non-finite verb forms (cf. Laitinen and Vilkuna 1993: 31), and therefore most of the constructions mentioned here would not be considered non-canonical from a Finnish grammatical perspective. The genitive ‘subject’ of so-called Necessive constructions, however, is held by many Finnish grammarians to be a non-canonical subject, and it therefore receives more attention here. It should be noted that there are actually two questions with regards to this genitive argument: (a) is it a subject, and (b) if it is a subject, what is it the subject of?

2.2.1 Necessive constructions

Verbs of obligation are called “necessives” or “necessitatives” in Finnish grammar. (For detailed study of these, see Laitinen 1992, 1995a, 1997.) Verbs and verbal constructions of obligation typically take surface subjects in the genitive case and the verbs do not agree in person or number with this subject, but are in third person singular form (cf. Ikola 1971: 172). These verbs (with the exception of the olla + passive participle construction) always combine with an infinitive verb form which indicates that which must be done. If the infinitive is transitive, the surface direct object is in the nominative case if fully
affected and in the partitive case if only partially affected or if the clause is negative (cf. Hakulinen and Karlsson 1979: 100). The verbs and constructions in this class include the following (there are also a number of others, a group of about 20 verbs among the modals, Laitinen 1997: 111):

- **pitä-** must ('to hold, to keep' in non-Necessive contexts)
- **pitäisi** should
- **täyty-** must
- **täytyisi** should, ought to
- **olla pakko** to be obligatory, must
- **olla verb.root-pass-partic** should, must
- **tule-** should (moral obligation)
- **kuulu-** must (inherent or moral obligation)
- **neg tarvitse** not have to

The following examples illustrate some of these (cf. Sulkala and Karjalainen 1992: 319):

(36) Sinu-n pitä-ä men-nä.
    2sg-gen must-3sg go-inf
    ‘You must go.’

(37) Sinu-n pitä-isi men-nä.
    2sg-gen must-cond+3sg go-inf
    ‘You ought to go.’

(38) Minu-n täyty-y nyt lähte-ä.
    1sg-gen must-3sg now leave-inf
    ‘I must leave now./’I have to leave now.’

(39) Sinu-n on pakko men-nä.
    1sg-gen be+3sg obligatory go-inf
    ‘You must go./’It is necessary for you to go.’

(40) Sinu-n on men-tä-vä.
    2sg-gen be+3sg go-pass-partic
    ‘You have to go.’

(41) Kaikk-i-en on kerran kuol-ta-va.
    all-pl-gen be+3sg once die-pass-partic
    ‘All must die sometime.’ (Penttilä 1963: 469)
Häne-n ei tarvitse läh-te-ä.
3sg-gen neg 3sg-need leave-inf
‘He/she doesn’t have to leave.’

As Vilkuna (1989: 152) says, “a particularly hard question to answer is whether the genitive NP in the necessive sentence is a subject or not”; at times such clauses have been regarded as subjectless or impersonal and in any case lacking a prototypical subject (cf. Laitinen 1997: 111). The interpretation which considers the genitive-marked NP to be the subject is most common (see, for example, Hakulinen and Karlsson 1979: 158, 172, Sulkala and Karjalainen 1992: 210–11), but some Finnish grammarians analyse these constructions as: (1) the infinitive (or embedded clause) is considered the subject of the sentence and the NP in genitive case is considered to be the subject of the infinitive rather than of the main (Necessive) verb (Ikola 1978); the genitive argument is also held to be the subject of the infinitive in Laitinen (1992, 1997), Laitinen and Vilkuna (1993), and in Penttilä (1956); or (2) the genitive is taken to be a dative adverbial, attached to the main (Necessive) predicate (Leino 1986; Vilkuna 1989: 260). We turn now to our analysis of the Necessive construction.

In the Necessive construction, the genitive NP has the semantic role of the undergoer of the obligation of the verb and one possible analysis of the clause type is that given by Ikola (1971), with the infinitive analysed as subject of the Necessive verb and the genitive argument as a dative adverbial.

Compare sentences (43a-b) where the verb sovia ‘to suit, fit’ functions as a modal and may alternate with a genitive or allative argument.

(43) a. Minu-n ei sovi läh-te-ä.
1sg-gen neg 3sg-suit leave-inf
‘I shouldn’t leave.’ (It would not be acceptable to other people; it would not be decent)

b. Minu-lle ei sovi läh-te-ä.
1sg-all neg 3sg-suit leave-inf
‘It’s not convenient for me to leave.’ (It is not possible for some reason essentially beyond my control for me to leave).

Here the genitive argument alternates with an allative-adverbial which might seem like good evidence to consider the genitive argument as a dative-adverbial. However, there is a significant difference in meaning and this is crucial to the analysis. In (43a) the genitive argument is under a ‘general (social or ethic-
al) norm”; *minu-n 1SG-GEN* is presented as the one who has the final responsibility for deciding whether to leave or not, meaning that in this way it is agentive or volitional, i.e. controls the situation. However, in (43b) with *minulle 1SG-ALL*, it is appropriate to translate the allative nominal as a ‘dative-adverbial’ with meaning ‘for me’, in the sense: ‘for me to leave is not possible because of circumstances not essentially under my control’. That is, the referent of *minulle* in the allative case in (43b) has less choice than the one of genitive *minun* in (43a). The genitive argument in this function is therefore closer semantically to a subject and not to a dative-adverbial.

Another reason for believing that the genitive argument is not a dative-adverbial derives from a widespread Necessive construction (generally left out of grammatical treatments of Finnish) which has nominative case (rather than the expected genitive), but no verb agreement. Contrast the following three sentences (from Laitinen and Vilkuna 1993: 24):

   cow NOM+PL must-3SG come-INF home-ILL
   ‘The cows must come home.’ (It’s someone or something other than the cows that is obliged to get the cows home)

   cow-PL-GEN must-3SG come-INF home-ILL
   ‘The cows must come home.’ (It’s the cows’ obligation to come home)

   cow NOM+PL must-3SG bring-INF home-ILL
   ‘You/one has to bring the cows home.’/‘The cows have to be brought home.’ (See also Laitinen 1997: 112)

Sentence (44c) has an implied Missing Person subject (see below) which is not present, making *lehmät* ‘cows’ the object, which is moved into the pre-verbal topic position according to the common pattern of the language in instances where there is no overt subject (Laitinen 1997: 112, Laitinen and Vilkuna 1993: 24). This becomes clear when we contrast a related sentence which has an overt genitive subject, (44d):

(44) d. *Heidän pitä-ä tuo-da lehmät koti-in.*
   3PL-GEN must-3SG bring-INF cow NOM+PL home-ILL
   ‘They must bring the cows home.’
A nominative subject can be seen also in (45):

(45) \textit{Lapse-t pitä-ä ol-la kymmenе-ltä säsngy-ssä.}
\text{child-\textsc{n}om+\textsc{pl} must-\textsc{3sg be-inf ten-\textsc{abl} bed-\textsc{ines}}}

‘Children must be in bed at ten.’ (Vilkuna 1989: 260)

Note here that the Necessive verb \textit{pitää} does not agree in number with the plural nominative subject \textit{lapset}; if it did, it would be \textit{pitä-vät ‘must-\textsc{3pl’}}. Nevertheless, \textit{lapset} does appear to be the subject and as it is in nominative case there is no possible reading here of ‘for the children’. The interpretation of (45) as ‘to be in bed at ten holds for the children’, which the analysis which treats the genitive NP as a dative-adverbial has, is not possible.

As Laitinen and Vilkuna (1993: 24) point out, the instances with nominative subjects (such as (44a)) are “almost exclusively restricted to intransitives” and instances with first or second person pronouns in nominative case are extremely rare. The alternative with genitive case (as in (44b)) is required in sentences where the semantic role of the NP is agent (controller) or experiencer with respect to the embedded verb. The alternative with the subject of the Necessive verb in nominative case is possible only when the obligation is “external,” not under the control or intention of the NP, but derives from elsewhere. For example, in (46), the obligation to be a certain age was not under control or in the intention of the boys and girls, but rather derives from the external authority of the church:

(46) \textit{Ennenaina pit-i ol-la poja-t 16-vuotisia}
\text{before always must-\textsc{3sg be-inf boy-\textsc{nom+pl} 16-years.old}}
\text{ja tytö-t 15 täyttä-neet.}
\text{and girl-\textsc{nom+pl} 15 complete-\textsc{past+partic}}

‘Before the boys always had to have turned 16 years old and the girls 15 [to be confirmed].’ (Cf. Laitinen and Vilkuna 1993: 39)

Thus it is clear that the genitive argument occurs with clauses which are higher in transitivity and the nominative argument occurs where there is lower transitivity (less control, intention, volition, or agentivity). The genitive argument is agentive and volitional and very much worthy of being a subject, as opposed to the nominative argument which is non-volitional and less worthy of being subject. Sands (2000: §6.3), proposes that the genitive argument is in fact the subject of the infinitive (not of the Necessive main verb), as is the nominative argument where it occurs, and this explains first, why the nominative argument
does not trigger verb agreement (because it is subject of an infinitive which cannot show subject agreement), and second, why the genitive argument is more subject-like than the nominative argument in this instance. Since the genitive case subject is the canonical case for non-finite verb forms (this point has been made earlier and will be seen in more detail below), it is used in situations of high transitivity, while where transitivity is reduced another case is used, just as the partitive has been shown to indicate low transitivity for finite subjects. Here in necessive constructions, however, the nominative case indicates reduced transitivity. Where the partitive indicates reduced transitivity, the nominative indicates high transitivity and so is already taken up. Where the genitive indicates high transitivity, however, the nominative remains unused and is available to signal lower transitivity. (Sands 2000 presents additional reasons for analyzing the genitive argument as subject of the non-finite infinitival complement rather than of the main ‘necessive’ verb itself.)

If we accept that the genitive argument of the Necessive construction is a subject, but of the infinitive as opposed to the main verb, then the Necessive construction illustrated in example sentences (36) to (42) should be seen, not as a clause type with a non-canonical subject, but rather as a clause type with a canonical genitive subject to a non-finite verb form.20 The instances with nominative subject in this clause type (e.g. (44a), (45)) are, however, non-canonical and indicate reduced transitivity. Laitinen (1997: 113) points out that the pattern in necessive clauses with, on the one hand, genitive case where more agentivity (more control, volition, or responsibility) is involved (as in (44b), (44d), and, on the other hand, with nominative case where less control, volition, or responsibility is involved (as in (44a), (45), (46)) is very much like that of active-stative languages (or some split-ergative languages), where presence of control, volition, or responsibility is marked by the ergative (in Finnish necessives by the genitive) and absence of these is signalled by the absolutive (by nominative case in Finnish necessive clauses).

2.2.2 *Constructions with genitive NP ‘complements’*

In Finnish, there is a construction in which an NP appears in genitive case meaning ‘for’, often also translated by the English ‘for to’ complement. While it appears to involve merely an oblique NP, some Finnish grammarians treat this as subject (perhaps because it is similar in some examples to, say, the me in *for me to go* in English which is treated as a raised subject of the infinitive, though such a raising analysis is inadequate and inaccurate for Finnish). The
construction is found with ‘to be’ + adjective (see (47), (48) and (49)), and with a limited set of verbs (see (50)):

(47)  
\[
\begin{align*}
\text{Minu-} & \text{n on hyv\text{"a ol-la koto-na}.} \\
\text{1SG-GEN be+3SG good be-INF home-ESS} \\
\text{‘It’s good for me to be home.’}
\end{align*}
\]

(48)  
\[
\begin{align*}
\text{E-n tied\d{\text{"a}}, kuinka helppo-a Brecht-i-n ol-i} \\
\text{NEG-1SG know how easy-PART Brecht-GEN be-3SG+PAST} \\
\text{vasta-ta t\d{\text{"a-h\u00e4n kysymykse-}en.} } \\
\text{answer-INF this-ILL question-ILL} \\
\text{‘I don’t know how easy it was for Brecht to answer this question.’} \\
\text{(Ikola 1971: 173)}
\end{align*}
\]

(49)  
\[
\begin{align*}
\text{Meid\d{\text{"a}-}n on mahdoton-ta suostu-a} \\
\text{1PL-GEN be+3SG impossible-PART agree-INF} \\
\text{tarjoukse-e-nne.} \\
\text{offer-ILL-2PL+POSS} \\
\text{‘It is impossible for us to agree to your offer.’} \\
\text{(Penttil\d{\text{"a} 1963: 345)}
\end{align*}
\]

(50)  
\[
\begin{align*}
\text{Minu-} & \text{n k\d{\text{"a-}v-i paremmin t\d{\text{"a-}ss\d{\text{"a}} yritykse-ss\d{\text{"a}.} } } \\
\text{1SG-GEN go-3SG+PAST better this-INES try-INES} \\
\text{‘It went better for me in this attempt.’} \\
\text{(Penttil\d{\text{"a} 1963: 344)}
\end{align*}
\]

Unlike with the Necessive clauses discussed in §2.2.1 where it was shown that an analysis of the genitive argument as a dative-adverbial was not acceptable (though historically it began from this), with this clause type it is apparent that the genitive argument should be considered to be a dative-adverbial. This dative-adverbial genitive is seen in what are traditionally called ‘habitive’ sentences in Finnish grammar, where the dative-like genitive (as in (51c) (also (51d)) freely substitutes with allative and adessive directional cases (as in (51a), (51b), and (51d)) without change in meaning:

(51)  
\[
\begin{align*}
\text{a. Mu-} & \text{lle tul-i rakko jalka-an.} \\
\text{1SG-ALL come-3SG+PAST blister+NOM foot-ILL} \\
\text{‘I got a blister on my foot.’}
\end{align*}
\]

\[
\begin{align*}
\text{b. Mu-} & \text{l-	ext{"a} tul-i rakko jalka-an.} \\
\text{1SG-ADES come-3SG+PAST blister+NOM foot-ILL} \\
\text{‘I got a blister on my foot.’}
\end{align*}
\]
c. *Mu-n tul-i rakko jalka-an.*
1SG-GEN come-3SG+PAST blister+NOM foot-ILL
'I got a blister on my foot.'

d. *Mu-lta/mu-lla/mu-n läht-i mies.*
1SG-ABL/1SG-ADES/1SG-GEN leave-3SG+PAST man+NOM
sea-PL-ALL
'My husband left to be a sailor.' (Cf. Laitinen 1995a: 92, 1995b: 340–1, 1997: 121)

A comparison of the different construction types with the adjective *hyvä* 'good' illustrates the dative-adverbial property of the genitive argument—contrast (52a) and (53a) which illustrate the dative-adverbial role of the genitive argument with (52b) and (53b) in which the subject is indeed in the nominative case and plays no dative-adverbial role in the clause:

(52) a. *Häne-n on-kin hyvä puhu-a.*
3SG-GEN be+3SG-TOO good speak-INF
'It is good for him to speak.'

b. *Hän on-kin hyvä puhu-ma-an.*
3SG+NOM be+3SG-TOO good speak-3INF-ILL
'He is good at speaking.'

be+3SG-QUEST bear-PL-gen good find-INF them-PART
'Is it good for bears to find them?'

b. *O-vat-ko karhu-t hyv-i-ä löytä-mä-än nii-tä?*
be-3PL-QUEST bear-PL good-PL-PART find-3INF-ILL them-PART
'Are bears good at finding them?'

In the construction with the genitive argument, the adessive or allative case can generally substitute without change in meaning, as seen in (54) (compare (52a)):

(54) *Häne-lä on-kin hyvä puhu-a.*
3SG-ADES be+3SG-TOO good speak-INF
'It is good for him to speak.'

Another reason for believing that the genitive argument is a dative-adverbial is that when a clause of this type is made into a participle complement, the genitive case is replaced with either the allative or adessive case (Sands 2000:...
§6.2.2). Thus compare (47) (above) with (55a) and (55b), all with the same meaning:

    know-1SG 1SG-ALL be-PARTIC good be-INF home-ESS
    ‘I know that it is good for me to be at home.’

    know-1SG 1SG-ADRES be-PARTIC good be-INF home-ESS
    ‘I know that it is good for me to be at home.’

We conclude, this clause type does not have a non-canonical genitive subject, but rather has a genitive dative-adverbial (oblique NP) and the clause type is in fact without an overt subject.

2.2.3 Non-finite genitive subject constructions

The genitive case marks the subject in various subordinate clause constructions. The general rule is that the subject of anything other than a finite clause takes the genitive case. Subjects marked with genitive case in these subordinate non-finite verb forms, then, are considered to be canonically marked in Finnish. Some instances of constructions which fit this are:

[1] Genitive subject of verb in past passive participle + partitive (‘after’):

(56) Talven tul-tya men-i-n
    winter-GEN come-PAST+PASS+PARTIC-PART go-PAST-1SG
    koti-in.
    home-ILL
    ‘After winter had come, I went home.’

(57) Pekan herätyä Tuula
    Pekka-GEN wake-PAST+PASS+PARTIC-PART Tuula+NOM
    lähti töihin.
    go-3SG+PAST work-ILL
    ‘After Pekka woke up, Tuula went to work.’ (Karlsson 1982: 184)

[2] Genitive subject of third infinitive agentives (the third infinitive agentive construction is essentially a nominalization and the third infinitive behaves like a participle, modifying a noun:

[1]

[2]
(58)  Kalle-n osta-ma auto seiso-o pih-a-la.
Kalle-gen buy-3INF car+/nom stand-3SG yard-ades
‘The car (which was) bought by Kalle is (standing) in the yard.’

(59)  Tä-sä on isä-n teke-mä tuoli.
this-ines be+3SG father-gen make-3INF chair+nom
‘Here is the chair made by father.’ (Penttilä 1963: 336)

[3] *Genitive subject of third infinitive + abessive ('without'):

(60)  Ihmis-ten huoma-a-ma-tta hirvi tul-i
human-gen+pl notice-3INF-ABES moose+nom come-3past
room-ill.
‘Without the people’s noticing, the moose came into the room.’

(61)  Puikahdi-n paika-lle-ni mu-i-den
slip-past-1SG place-all-1SG+gen other-pl-gen
huoma-a-ma-tta.
notice-3INF-ABES
‘I slipped into my place without the others knowing.’ (Penttilä 1963: 336)

[4] *Genitive subject of embedded participial clauses:

(62)  Luule-t-ko minu-n tietä-vän tämä-n?
think-2sg-quest 1sg-gen know-partic this-acc
‘Do you think that I know this?’

(63)  Nä-i-n Anna-Maija-n tule-van.
see-past-1sg Anna-Maija-gen come-partic
‘I saw that Anna-Maija is coming.’/‘I saw Anna-Maija coming.’

(64)  Huomas-i-n Kalle-n tul-leen.
notice-past-1sg Kalle-gen come-past+partic
‘I noticed that Kalle had come/that Kalle came.’/‘I noticed Kalle’s
having come.’ (Karlsson 1982: 107)
[5] Genitive subject of the so-called “second infinitive” (a non-finite verb form):

(65) Sinu-n olle-ssa-si ahkera minä vain
    you-gen be-2inf-2sg+poss diligent 1sg+nom just
    nuku-i-n.
    sleep-past-1sg

    ‘While you were being diligent, I just slept.’ (Sulkala and
    Karjalainen 1993: 212)

(66) Talve-n tull-essa minä jä-i-n koti-in.
    winter-gen come-2inf 1sg+nom stay-past-1sg home-ill.

    ‘While winter was coming, I stayed home.’ /’When winter was com-
    ing, I stayed home.’

In these and other such constructions in Finnish, we treat the genitive subject
as canonical marking for non-finite verb forms.

3. Non-canonical objects?

Does Finnish have any non-canonical objects? Several constructions are candi-
dates, but, as we will argue, these do not actually involve non-canonical objects,
and there may not be any real non-canonical objects in Finnish.

3.1 Nominative direct objects

In Finnish clauses when there is no overt subject in the nominative case, the
direct nominal object is not in the accusative case but is in the nominative (or
the partitive where it is not fully affected).22 (Some Finnish grammarians, how-
ever, still call this the ‘accusative’ case, designated as the Ø-accusative, which
just happens to coincide with the nominative singular in form: see Table 2). The
accusative case is therefore only assigned in instances where it is necessary to
distinguish the subject from the object. This use of the nominative case with
objects is seen in the following constructions, in none of which is the nominative
case non-canonical, but rather the case marking follows the strict rules of the
language.
3.1.1 *Objects of imperatives*

First and second person imperative verb forms do not have a nominative subject and take nominative objects (when fully affected; partitive objects if partially affected), not accusative objects, as seen in:

(67) a. *Sano se uudestaan.*
    say+IMP it+NOM again
    ‘Say it again!’

b. *Sano se-n uudestaan.*
    say+IMP it-ACC again
    ‘Say it again!’

c. *Tapani sanoi se-n.*
    Tapani said it-ACC
    ‘Tapani said it.’

(68) a. *Ota-pa tämäl!*
    take+IMP-EMPH this+NOM
    ‘Take this!’ ‘Why don’t you take this?’

b. *Ota-pa tämä-n!*
    take+IMP-EMPH this-ACC
    ‘Take this!’ (Cf. Sulkala and Karjalainen 1992: 24)

c. *Tapani ottaa tämä-n.*
    Tapani take this-ACC
    ‘Tapani will take it.’

3.1.2 *Objects of infinitives*

The object of an infinitive complement in a clause which has no overt nominative subject of the governing finite verb, because the governing verb is an imperative or impersonal, behaves like the object of the main verb and takes the nominative (or partitive) case. Where the main verb has a nominative subject, the object of the infinitive is in the accusative. Compare (69a) and (69b) with (69c). This rule also holds for Necessive clauses (see §2.2.1) that have an infinitive complement.

(69) a. *Anna Marja-n osta-a auto.*
    let+IMP Marja-GEN buy-INF car+NOM
    ‘Let Marja buy a car.’
b. Minun käsk-tiin osta-a auto.
   1sg-gen buy-pass+past buy-inf car+nom
   ‘I was told to buy a car.’

c. Pauli käsk-i Marja-Liisa-n osta-a
   Pauli+nom order-3sg+past Marja-Liisa-gen buy-inf
talo-n.
   house-acc
   ‘Pauli told Marja-Liisa to buy a house.’ (Sulkala and Karjalainen 1992: 222)

Where the infinitive is an attribute of a subject nominal or of a predicate nominal which does not have a nominative subject, the object of the infinitive takes the nominative (or partitive) case when there is no nominative subject. Contrast the nominative of (70a), (70b), and (71a) with the accusative of (70c); contrast also (70a) and (71a) which have nominative objects with the ungrammatical (70d) and (71b) which have accusative objects:

(70) a. On hauskasaa-da hyvä ystävä.
   be+3sg fun get-inf good+nom friend+nom
   ‘It is nice to get a good friend.’ (Sulkala and Karjalainen 1992: 221)

   Jussi-gen be-3sg+past fun get-inf good+nom friend+nom
   ‘It was nice for Jussi to get a good friend.’

   Jussi+nom want-3sg+past get-inf good-acc friend-acc
   ‘Jussi wanted to get a good friend.’

   be+3sg fun get-inf good-acc friend-acc
   ‘It is nice to get a good friend.’

(71) a. Minu-lla on lupalaikomus teh-dä se.
   1sg-ades be+3sg permission/intention do-inf it+nom
   ‘I have permission/the intention/the habit to do it.’ (Ikola 1971: 185)

b. *Minu-lla on lupalaikomus teh-dä se-n.
   1sg-ades be+3sg permission/intention do-inf it-acc
   ‘I have permission/the intention/the habit to do it.’

If the infinitive is the attribute of an object or other non-subject participant of a finite verb, then the object of the infinitive is usually in the nominative case,
regardless of whether the infinitive has an overt genitive subject or not. (Note that infinitives have a genitive subject because they are non-finite verbs [see §2.2.1 and §2.2.4] and so the nominative case remains free to be assigned to the object.) This type of infinitive is not governed by the main clause (as is the infinitive in (69a-c)) and acts like an independent clause for case marking, as seen in (72) and (73).

(72)  
\[ \text{Ole-mme mainin-neet Snellmani-n yritykse-n} \]
be-1PL mention-PAST+PARTIC+PL Snellman-GEN attempt-ACC
\[ \text{saa-da kysymys ratkaistu-ksi.} \]
get-INF question+NOM resolved-TRAN
\‘We have mentioned Snellman’s attempt to get the question resolved.’\ (Ikola 1971: 185)

(73)  
\[ \text{Hallitus harkits-i mahdollisuut-ta otta-a} \]
government ponder-3SG+PAST possibility-PART take-INF
\[ \text{kotimainen laina.} \]
homeland+NOM loan+NOM
\‘The government considered the possibility of taking out a domestic loan.’\ (Ikola 1971: 182)

3.1.3 The object of the impersonal construction
The so-called passive of Finnish is an impersonal verb form whose purpose is primarily to leave out mention of any agent, and, thus, it permits no overt A or S in the clause. As there is no overt nominative subject, the NP object of impersonal verb forms shows up in the nominative case, as in:

(74)  
\[ \text{a. Kirja pan-tiin pöydä-lle.} \]
book+NOM put-PAST+PASS table-ALL
\‘The book was put on the table.’\n\[ \text{b. *Kirja-n pan-tiin pöydä-lle.} \]
book-ACC put-PAST+PASS table-ALL
\‘The book was put on the table.’

Nevertheless, the single NP argument of the impersonal verb is an object, not a subject, as shown by several of its properties. First, it does not trigger agreement in the verb. That is, (75b) with agreement is ungrammatical in this sense—(75a) shows the grammatical version:
non-canonical subjects and objects in Finnish

(75) a.  
\textit{Kirja-t}  \textit{on}  \textit{jätte-ty} \textit{pöydä-lle}.  
\textit{book-nom+pl} \textit{be+3sg leave-ppp table-all}  
‘The books have been left on the table.’

b.  *\textit{Kirja-t}  \textit{o-vat}  \textit{jätte-ty-t} \textit{pöydä-lle}.  
\textit{book-nom+pl} \textit{be-3pl leave-ppp-pl table-all}  
‘The books have been left on the table.’

Sentence (75b) is grammatical in another sense, not as an impersonal verb form, but where \textit{jätte-ty} \textit{t} is taken as a stative adjective, meaning ‘the books are left on the table’ (that is, are in the state of having been left, i.e. literally they are ‘left/abandoned books’.) This is seen more clearly in (76a), with stative adjective passive form, where the result of the activity as a permanent property of the affected entity is easier to perceive, contrasted with (76b) in the regular impersonal construction:

(76) a.  \textit{Ove-t}  \textit{o-vat} \textit{maala-tu-t}.  
\textit{door-pl+nom be-3pl paint-past+pass+partic-pl+nom}  
‘The doors are painted.’

b.  \textit{Ove-t}  \textit{on} \textit{maala-ttu}.  
\textit{door-pl+nom be+3sg paint-past+pass+partic}  
‘The doors have been painted.’

Second, negative impersonals require the partitive case, as do other objects of negative verbs, and do not permit the nominative case to appear, though nominative subjects are perfectly acceptable with non-impersonal negative verbs; this is seen in the following three related sentences:

(77) a.  \textit{Kirjo-j-a}  \textit{ei} \textit{ole} \textit{pan-tu} \textit{pöydä-lle}.  
\textit{book-pl-part neg+3sg be put-ppp table-all}  
‘The books have not been put on the table.’

b.  *\textit{Kirja-t}  \textit{ei(-vät)} \textit{ole} \textit{pan-tu-ja} \textit{pan-nu-t} \textit{pöydä-lle}.  
\textit{book-pl-part neg+3sg(-3pl) be put-ppp/put-ppp-pl+part/put-ppp-pl table-all}  
‘The books have not been put on the table.’

c.  \textit{Kirja-t}  \textit{ei-vät} \textit{ole} \textit{pöydä-lle}.  
\textit{book-nom+pl neg-3pl be table-ades}  
‘The books are not on the table.’
Third, the object nature of the argument of the impersonals is most clearly seen with pronouns which take the accusative case, the case otherwise reserved for objects (recall Table 1). This is seen in (78a); sentence (78b), with nominative case and verb agreement, is ungrammatical in this sense:

(78) a. Heidä-t on tape-ttu.
    3PL-ACC be+3SG kill-PPP
    ‘They have been killed.’

b. *He o-vat tape-ttu/tape-tu-t.
    3PL+NOM be-3PL kill-PPP/kill-PPP-PL
    ‘They have been killed.’

(See also Ikola 1971: 60, who says that “in Finnish it is not a subject which joins the passive but rather an object.”) So, again, it appears that there is nothing particularly non-canonical about the complements of the impersonals treated in this section. Nouns take nominative or partitive case and pronouns take accusative or partitive case, just as in other instances where no other NP needs to be distinguished in A, S, or O role within the clause.

3.2 Objects of negative verbs

As already mentioned in other sections of this paper, the object of a negative clause is in the partitive case, not accusative, as seen in the contrast between (79a) and (79b):

    NEG-1SG eat-PAST apple-PART
    ‘I did not eat the apple.’

b. Sö-i-n omena-n.
    eat-PAST-1SG apple-ACC
    ‘I ate the apple.’

These partitive objects reflect the lower transitivity of negative clauses in general (cf. Hopper and Thompson 1980; Laury 1982: 61) and are not considered non-canonical in Finnish; therefore they are not examined further in this paper.

3.3 NP complements of antaa ‘to allow’, sallia ‘to permit’, etc.

Constructions with antaa ‘to allow’, sallia ‘to permit’, suoda ‘to permit’ and
to command”, require an infinitive complement clause in which the subject is in the genitive case and also plays the role of the object of the main (finite) verb. This is similar in function to the ‘subject-to-object’ raising rule, as in English ‘for him to go’, except that the Finnish NP in genitive case bears no formal morphological marking indicative of its object status—the genitive case marks the subjects of the infinitive verb forms in these examples, but, since genitive case signals the subject of non-finite verb forms in general in Finnish, this construction is not really non-canonical. (Some traditional grammarians, with considerable reason, consider the whole infinitive/infinitival clause—including its genitive subject—to be the object of these sentences; cf. Penttilä 1963: 640. One reason for this is that the object of the infinitive, as has been seen in §3.1.2, takes its case marking directly from the main clause.) Examples follow:

(80) a. Anna-n poja-n kirjoittaa.
   ‘I allow the boy to write.’/‘I let the boy write.’ (Sulkala and Karjala-
ininen 1992: 37)
b. Anno-i-n häne-n lähte-ä koti-in.
   ‘I let him go home.’
c. *Anno-i-n häne-t lähte-ä koti-in.
   ‘I let him go home.’

(81) a. Käsk-i-n poik-i-en leikki-ä piha-lla.
   ‘I told the boys to play in the yard.’
b. *Käsk-i-n poja-t leikki-ä piha-lla.
   ‘I told the boys to play in the yard.’

(82) Suo-kaa minu-n nyt tällä kerta-a ol-la
    antelias.
   ‘Let me now be generous this time.’ (Penttilä 1963: 641)

In (80a), poja-n (boy-GEN) functions as both the subject of kirjoittaa ‘to write’
and as the underlying object of *antaa* ‘to allow’. However, syntactically this argument plays the role of subject of the infinitive; (80c) shows that the accusative (object) case (*häne-t* (3SG-ACC)) in such sentences is ungrammatical. (See Sands 2000: §6.4.1.D for additional arguments.)

The genitive argument in this construction is therefore the canonical non-finite subject of the infinitive.

3.4 ‘Locative’ object constructions

Finnish has a number of verbs where the semantics and the morphosyntax do not seem to agree with respect to whether their complements should be treated as direct objects or not. These have in common that while they do not take objects in canonical object cases (accusative, nominative or partitive), their complement NPs in non-canonical (basically ‘locative’) cases do experience the direct effect of the verb as direct objects do. These are treated by some Finnish grammarians as direct objects which take unusual cases, though others equivocate over them (cf. Hakulinen and Karlsson 1979: 175). We just mention these, but do not treat them in detail, because similar sorts of examples are found in many languages, often presenting only minor challenges of analysis. Some examples of these are:

[1] ‘To believe’, ‘trust’, etc. Verbs meaning ‘to believe’ and ‘to trust’ take ‘objects’ (complements) in the illative (‘into’) case, as in:

(83) a. *Hän usko-o sii-hen.*
   3SG+NOM believe-3SG it-ILL
   ‘He/she believes it.’

b. *Minä luota-n sinu-un.*
   1SG+NOM trust-1SG you-ILL
   ‘I trust you.’

   Kekkonen-ILL trust-PAST+PASS
   ‘Kekkonen was trusted.’ (Maling 1993: 55)

[2] ‘To begin something’: Some verbs of ‘beginning’ take a complement in the illative case:

(84) a. *Ryhdy-i-n työ-hön.*
   start-PAST-1SG work-ILL
   ‘I started the work.’ (Hakulinen and Karlsson 1979: 175)
b. *Hän rupesi-ammatti-in.*
   3SG+NOM begin-3SG+PAST profession-ILL
   ‘He/she took up a trade.’

Where such constructions become more relevant concerning non-canonical objects—and where their treatment becomes trickier—is where some verbs present the additional problem of permitting options with either the canonical case marking of the object, or the ‘locative’ object marking, as, for example, in:

(85) a. *Ei saa koskea-esine-i-tä.*
   NEG+3SG get touch-INF object-PL-PART
   ‘You can’t touch the objects.’/‘One is not permitted to touch the objects.’

b. *Ei saa koskea-esine-i-siin.*
   NEG+3SG get touch-INF object-PL-ILL
   ‘You can’t touch the objects.’/‘One is not permitted to touch the objects.’

(86) a. *Koputa sinä ove-a.*
   knock+IMP 2SG+NOM door-PART
   ‘Knock on the door!’

   knock+IMP 2SG+NOM door-ILL
   ‘Knock on the door!’

c. *Koputa sinä ove-lle.*
   knock+IMP 2SG+NOM door-ALL
   ‘Knock on the door!’ (Hakulinen and Karlsson 1979: 176)

While the non-canonical locative NPs have some properties of direct objects, it is probably best to consider them just oblique NPs (non-core arguments) which certain verbs happen to prefer, similar to English *look at* (intransitive, with oblique NP) vs. *see* (transitive, with direct object NP).

4. Implications of Finnish non-canonical marking of A, S and O

Onishi, *(Introduction to this volume)* refers to five “semantico-syntactic” classes of predicates which may take non-canonical S/A marking in different languages. In this section we discuss only those verbs and constructions in
Finnish which correspond to Onishi’s classes and which display some unusual behavior.

4.1 Class I: one- or two-place verbs with affected S/A

4.1.1 Predicates of physiological states/events
Predicates which indicate a physiological state (e.g. olla kylmä/nälkä/kuumal
kiire/sääli ‘to be cold/hungry/hot/in a hurry/to pity’) in Finnish often appear with
a genitive or adessive argument for the person who experiences the state. The
verb shows no agreement with this argument and is in the third person singular:

(87) a. Minu-n on kylmä.
   1SG-GEN be+3SG cold+NOM
   ‘I am cold.’ (literally ‘For me is cold.’ or ‘Mine is cold.’)

b. Minu-lla on kylmä.
   1SG-ADJS be+3SG cold+NOM
   ‘I am cold.’ (literally ‘At me/on me is cold.’)

Contrast this with the more direct construction in (87c) which has a nominative
argument and verb agreement, but a different meaning:

(87) c. Minä ole-n kylmä.
   1SG+NOM be+1SG cold+NOM
   ‘I am cold.’ (‘I am cold, frigid’, ‘I am a cold person.’)

The genitive/adessive argument is better seen as a dative/possessive-adverbial
than as a non-canonical subject. Thus, this construction is to be associated with
that of §2.2.3.; compare (87a) with (47), repeated here as (87c), and with (87d),
where the parallelism is seen more directly:

(87) c. Minu-n on hyvä ol-la koto-na. (=47)
   1SG-GEN be+3SG good be-INF home-ESS
   ‘It’s good for me to be home.’

d. Minu-n on kylmä kävel-lä ulkona.
   1SG-GEN be+3SG cold be-INF home-ESS
   ‘It’s cold for me to walk outside,’ ‘I’m cold walking outside.’

One reason for analysing this genitive argument as a dative/possessive-
adverbial is that it cannot form an ellipsis pivot with the subject of a
co-ordinated clause, as seen in (88):
A few other verbs of physiological states appear with a partitive object and with no overtly stated subject: the Causatives of Feeling, introduced in §1 (above) (e.g. palella ‘to be chilly’, näläyttää ‘to be hungry’, nukuttaa ‘to be sleepy’). Even fewer of these have an alternative form with a canonical nominative subject. The nominative subject is used in general or habitual circumstances, whereas the partitive argument implies an experiencer, as seen in the contrast between (89a) and (89b):

(89) a. Minu-a palele-e.
   1SG-PART be.cold-3SG
   ‘I feel chilly.’/‘I’m freezing.’ (Lit.: ‘It/something is chilling/freezing me.’)

   b. Minä palele-n aamuisin.
      1SG+NOM be.cold-1SG morning
      ‘I am cold in the mornings.’

4.1.2 Predicates of inner feelings/psychological experiences

Many predicates of psychological experience (e.g. pelottaa ‘to fear’, hämmäystyttää ‘to be surprised’, inhottaa ‘to be disgusted’) belong to the class of the Causatives of Feeling described in §1 (above) which have the experiencer as object in the partitive case and an optional subject in the nominative (that is, the subject can be a Missing Person subject and thus not appear on the surface or an overt subject can appear in the clause). These verbs are canonical, as explained in §1, but they do have unusual, non-neutral word order, since the partitive object (= experiencer) is more typically clause initial rather than the true subject.

4.2 Class II: two-place verbs with less agentive A (or S) and less affected O (or E[xtension to core])

For a large number of verbs in Finnish which have a less affected O, the object is obligatorily in the partitive case, and the accusative or nominative case is not
used for these objects. This is common with verbs of emotion (such as *rakastaa* ‘to love’, *vihata* ‘to hate’, *pelätä* ‘to fear’, *katua* ‘to regret’), as well as with many other verbs which are inherently atelic, having no endpoint (e.g. *jatkaa* ‘to continue’, *seurata* ‘to follow’, *katsoa* ‘to watch’), or which have little affect on the object (*ajatella* ‘to think [about]’, *toivoa* ‘to hope [for]’). This follows from the general fact that the primary case in Finnish for less affected O, or for reduced transitivity, is the partitive.

(90) a.  
    *Rakasta-n hän-tä.*
    love-1SG 3SG-PART
    ‘I love him/her.’

b.  
    *Rakasta-n häne-t.*
    love-1SG 3SG-ACC
    ‘I love him/her.’

4.2.1 **Verbs of perception**

Much is written in Finnish grammars about ‘verbs of perceptions, sensation, and emotion’. A summary of these and the constructions that they take follows.

[1] **With elative case:**

A participant whose opinion, reaction, or feeling concerning the event is reported in the sentence is put into the elative case (*-sta*-stä ‘from the interior’).

The nominal in the elative case is not an argument of the verb but is rather an adjunct that may be added to any clause which expresses a fact:

(91)  
    *Minu-sta kuva on vino-ssta.*
    1SG-ELA picture be+3SG askew-INES
    ‘To me/for me/according to me/in my opinion, the picture is crooked.’
    (Penttilä 1963: 397)

(92)  
    *Oma-sta miele-stä-ni ole-n valmis.*
    own-ELA mind-ELA-1SG+POSS be-1SG ready
    ‘In my own opinion, I’m ready.’

[2] **With ablativeallative case:**

The complement of a verb which expresses an opinion about sense-experience (e.g. *näyttää* ‘to seem’, *maistaa* ‘to taste of’, *haista* ‘to smell of’, *kuultua* ‘to sound like’) is usually put into the ablative case (*-ltä*-ltä ‘from the exterior’), but sometimes into the allative case (*-lle* ‘to the exterior’) with no apparent
change in meaning. This argument is a locative argument (an Extension to the core) as discussed in 3.4.

(93) \[ \text{Puku näyttä-ä hyvä-ltä.} \]  
\text{suit+NOM appear-3SG good-ABL}  
‘The suit looks good.’ (Penttilä 1963: 427)

(94) \[ \text{Omena-t maistu-vathappam-i-lta.} \]  
\text{apple-NOM+PL taste-3PL sour-PL-ABL}  
‘The apples taste sour.’ (Penttilä 1963: 427)

(95) \[ \text{Käde-t haise-vat terva-lta.} \]  
\text{hand-NOM+PL smell-3PL tar-ABL}  
‘The hands smell like/of tar.’ (Penttilä 1963: 427)

(96) \[ \text{Laulu kuulu-i kaunii-lta.} \]  
\text{song+NOM be.heard-3SG+past beautiful-ABL}  
‘The song sounded beautiful.’ (Penttilä 1963: 427)

(97) \[ \text{Ruoka maistu-u hyvä-lle.} \]  
\text{food+NOM taste-3SG good-all}  
‘The food tastes good.’ (Penttilä 1963: 433)

(98) \[ \text{Mies vaikutta-a luotettava-lle.} \]  
\text{man+NOM influence-3SG trustworthy-all}  
‘The man seems trustworthy.’ (Penttilä 1963: 433)

Where the person (or animal) whose opinion is expressed is overtly present in the clause, this nominal appears with the elative case, as in [1] (above), illustrated in (99):

(99) \[ \text{Minu-sta ruoka maistu-u hyvä-ltä.} \]  
\text{1SG-ELA food+NOM taste-3SG good-ABL}  
‘The food tastes good to me.’

4.2.2 Verbs of liking
For the most part, verbs of this class take regular canonical marking, with the exceptions of \text{pitää} and \text{tykätä}, both ‘to like’. These two Finnish verbs meaning ‘to like’ take normal nominative subjects, but the ‘object’ (or complement) is in the elative case, -sta/-stä (meaning ‘from [inside]’, ‘about’, and is thus a locative argument as discussed in §3.4. These are \text{pitää}, native in origin
(meaning ‘to keep, to hold’ where it occurs with an accusative object), and
*tykätä, a loan from Swedish *tycka ‘to like’ (not as formal in style as *pitää):

(100) Hän pit-i ihmis-i-stä ja myös häne-stä
   3SG+NOM like-3SG+PAST human-PL-ELA and also 3SG-ELA
   like-PAST+PASS
   ‘She liked people and she was also liked.’ (Sulkala and Karjalainen 1992: 111–12)

(101) Poika tykkä-ä hevose-sta.
   boy+Nom like-3SG horse-ELA
   ‘The boy likes the horse.’

A canonical accusative object is not possible with these verbs in the sense of ‘to
like’, as the ungrammaticality of (102) shows:

(102) *Poika tykkä-ä hevose-n
   boy+Nom like-3SG horse-ACC
   ‘The boy likes the horse.’

4.3 Class III: Two-place secondary verbs with modal meanings

The verbs expressing necessity/obligation have been presented in §2.2.1 where
it was argued that these verbs can be analyzed as taking an infinitive comple-
ment which has a canonical genitive argument as subject.

4.4 Class V: Verbs of possession, existence, and lacking

In possessive constructions in Finnish the possessor is in the adessive case
(-lla/-lä ‘on’) and appears with a form of the verb olla ‘to be’ which does not
agree with the possessor. The possessed NP (most neutrally found post-ver-
bally) is in the nominative or partitive case if it is a nominal, but is in the accu-
sative case if it is a pronoun; it is usually in the partitive case if the clause is
negated. This argument does not trigger verb agreement. Some examples are:

(103) Jukka-lla ol-i avaim-e-t.
   Jukka-AdES be-3SG+PAST key-NOM+PL
   ‘Jukka had the keys.’
(104)  *Minu-lla on sinu-t.*  
1SG-ADES be+3SG 2SG-ACC  
‘I have you.’

(105)  a.  *Si-llä ei ole luu-ta.*  
it-ADES NEG+3SG be bone-PART  
‘It [= the dog] doesn’t have a bone.’

b.  *Si-llä ei ole luu.*  
it-ADES NEG+3SG be bone+Nom  
‘It doesn’t have a bone (but it does have something else).’  
(Toivainen 1993: 122)

In sentences like (105b), in spite of the negation (which normally requires partitive objects), the nominative case can appear where the implication is not the negation of the having of the bone, but rather focuses on what it really does have (that is, as in *se ei ole luu* ‘it’s not a bone [but something else like that]’) (Toivainen 1993: 122).

Traditionally this clause type is described as having typically a post-verbal nominative/partitive ‘subject’ (i.e. *avaimet* ‘keys’ in (103)), though alternatively one might wish to view it as having a non-canonical adessive subject argument (*Jukka-ADES* in (103)) (for discussion, see Vilkuna 1996). In fact, neither statement is entirely accurate and the clause type is perhaps better seen as having no clear subject. This clause type is a subtype of the Existential clauses discussed in §2.1.

There is another construction of temporary possession ‘X has Y with him/her [for the moment]’. This has a nominative argument, often pre-verbal, which triggers verb agreement, and the possessor is expressed post-verbally in the adessive case:

(106)  a.  *Avaimet ol-i-vat Jukka-lla.*  
key-NOM+pl be-PAST-3PL Jukka-ADES  
‘Jukka had the keys.’/‘The keys were on Jukka/in his possession.’  
(Maling 1993: 52)

Where a pronoun is possessed, this may follow the verb and still trigger verb agreement, as in (106b) (contrast (104)):

(106)  b.  *Minu-lla ole-t sinä.*  
1SG-ADES be-2SG 2SG+NOM  
‘I have you.’  (Toivainen 1993: 121)
4.5 Fluid Systems

Several verbs in Finnish may participate in two or more different case frames with different meaning (where one of the frames may be more canonical). One example of this is the verb *olla* ‘to be’ which is used, as well as with a nominative S as the copula for a predicate nominal, with an adessive possessor in a Possessive construction as seen in §4.4. A similar example is *tulla* ‘to come’, which may be used as an intransitive verb with nominative subject (meaning ‘to come’), but also with an elative pre-verbal nominal and a post-verbal nominative/partitive nominal it means ‘to become’. This is a subtype of the Existential clauses, illustrated in (107) and (108) (notice the raising of *hän-*stä with the verb *näyttää*–ä):

\[(107)\]
\[
\text{Tytö-stä } \text{tule-} e \text{ opettaja.} \\
\text{girl-ELA come-3SG teacher+NOM} \\
\text{‘The girl will become a teacher.’}
\]

\[(108)\]
\[
\text{Hän-*stä näyttää-ä } \text{tule-van hyvä laulajatar.} \\
\text{she-ELA show-3SG come-PARTIC good+NOM singer+NOM} \\
\text{‘It appears that she will become a good singer.’/’She appears to be becoming a good singer.’}
\]

The verb *pitää* has two different case frames. The first is as a transitive verb with canonical A and O to mean ‘to hold’. The second is as illustrated in §4.2.2 with an elative complement instead of O to mean ‘to like’ (literally ‘to hold from X’). *Uskoa* is another example, with several possibilities (cf. (102a)), though in this instance the different case frames are essentially canonical, each with its own particular meaning:

\[(109)\]
\[
a. \text{Usko-} n \text{ häne-en.} \\
\text{believe-1SG 3SG-ILL} \\
\text{‘I believe him/her.’/’I believe in him/her.’}
\]
\[
b. \text{Usko-} n \text{ hän-tä.} \\
\text{believe-1SG 3SG-PART} \\
\text{‘I believe him/her.’ (‘I believe what he/she said.’)}
\]
\[
c. \text{Usko-} n \text{ se-n.} \\
\text{believe-1SG it-ACC} \\
\text{‘I believe it.’ (a thing, story, abstract entity)}
\]
Some other examples where the difference between a canonical object and a locative complement have very little, if any, semantic difference were presented in §3.4.

4.6 Control

Onishi (Introduction to this volume) speaks of the idea that control is usually the main semantic factor distinguishing constructions with a canonical S/A and a non-canonical S/A: non-canonically marked versions describe events which take place spontaneously or are less controlled. It also refers to volitionality as a related and similar parameter (note that both are typically associated with agentivity cross-linguistically). This appears to be true in Finnish at least of the instances of Necessive verbs and constructions with the complement NP in the nominative case (which do not have control or act volitionally) as opposed to those with the expected genitive case (see §2.2.1 above).

4.7 Stativity

It has been claimed that where there is a contrast, canonical marking often indicates an active meaning and non-canonical marking a stative meaning (cf. Onishi, Introduction to this volume). In Finnish, this was seen to hold true in the case with the partitive subjects, which are highly reduced in transitivity and which are stative-like in that they usually (though not always) involve some general sense of ‘existence (in a location)’ (see §2.1 above).

More interesting in this regard is the historical origin of the partitive case for objects in Finnish, which developed from what originally was the ablative case; that is, it was a non-core argument of the verb and thus by definition less transitive than clauses with canonical accusative objects. The partitive case is an innovation in Balto-Finnic (and its close relatives) from the ablative case. For example, in Mordvin there is a very small set of verbs (mostly ‘to eat’ and ‘to drink’) which employ the ablative case with direct objects. This reveals the beginnings of the partitive in the Volga-Finnic period from the ablative to express partially affected objects. In Mordvin the ablative was used as a ‘restricting’ object case, e.g. ‘to eat of/from the bread’ came to mean ‘to eat some
(of the) bread’, from which the grammatical function of the partitive case developed, used only with certain irresultative verbs, e.g. ‘to seek’, ‘to ask for’, ‘to follow’, ‘to hope for’, ‘to long for’, etc. (Campbell 1990: 66). In short, an ablative oblique (non-core argument) became the marker for partially affected objects (an origin which reflects reduced transitivity). In the modern language, however, the partitive case is quite canonical for objects, and in fact as seen in §1, in terms of sheer frequency of occurrence, more objects in examples which occur in texts are in the partitive case than in the accusative.

4.8 Modality (irrealis)

Non-canonical constructions often express potential and other irrealis moods (cf. Onishi, Introduction to this volume). In Finnish the contrast between accusative and partitive objects, as is well-known, imparts an aspectual difference to the sentences, where the partitive sentences are incompletive and imperfective in effect, and thus irrealis in the way it combines with certain tenses, as seen in:

(110) Pekka syö omena-n.
Pekka+NOM eat+3SG apple-ACC
‘Pekka will eat the apple.’ (future, telic)

(111) Pekka syö omena-a.
Pekka+NOM eat+3SG apple-PART
‘Pekka is eating the/an apple.’ (progressive, atelic)

(112) Pekka sö-i omena-n.
Pekka+NOM eat-3SG+PAST apple-ACC
‘Pekka ate the apple.’ (perfective, telic)

(113) Pekka sö-i omena-a.
Pekka+NOM eat-3SG+PAST apple-PART
‘Pekka was eating the/an apple.’ (imperfective, atelic)

Note, however, that these partitive objects are in Finnish quite canonical; the partitive is the case for reduced transitivity in general.

5. Conclusions

While Finnish has many constructions which superficially seem similar to non-canonically marked subjects and objects of other languages, as argued here, on
closer inspection most of these do not appear to be non-canonical at all, but rather involve the rich derivational verbal morphology of Finnish and, in some cases, reflect the typical preposing of topics, especially non-subject topics when no overt subject is present in the clause. In particular, most of the constructions with genitive subjects are straightforward instances involving non-finite verb forms, and the genitive case is the canonical marker of subjects of non-finite forms in Finnish. Of special interest, however, is the ‘Necessive’ construction, which under one analysis has a genitive subject, where it would be non-canonical, though under a different analysis, the genitive would not be subject of the finite necessive verb, but rather of its non-finite complement and thus would be canonical in Finnish grammar. Similarly, the instances which have nominative objects are straightforward reflections of the fact that essentially Finnish employs the accusative case for objects only when within a clause an O-role NP needs to be distinguished from an A-role NP. Also of particular interest are the partitive subjects. Under the most straightforward analysis, these do involve non-canonical subjects; however, as the marker of low transitivity, with severe constraints on where they can appear, they do not seem unusual within the spirit of Finnish grammar. It is also clear from some of the examples that are surveyed here that in some cases ‘the grammar leaks’ (i.e. native speakers are not certain of what is or is not grammatical in these instances), and also that grammarians disagree concerning the analysis, some not disturbed by the need sometimes to recognize non-canonical marking, and others disposed to insist on highly counter-intuitive analyses in order to avoid any need to recognize anything non-canonical. The distribution of subject and object marking which has been dealt with in this paper is summarized in Table 2.

If there is a major message in our conclusions, it would include: (1) that in spite of what superficially seems to be a lot of non-canonical subject and object marking in Finnish, under closer scrutiny there is in fact extremely little; and (2) if so much of the seeming non-canonical marking of Finnish turns out to be canonical, perhaps caution is called for in the investigation of non-canonical marking in other languages. Indeed, in our reading of the literature on other languages, it would appear that at times minor exceptions and very marginal, frozen and non-productive patterns which exhibit some non-canonical marking (with its own peculiar, but usually straightforward historical explanations) are not always adequately distinguished from the main productive grammatical patterns of the language. In some of these instances, what is at stake might better be considered lexical properties of particular verbs (something for dictionaries), not really significant to the grammar. Thus, with the Finnish case as
background, we would urge caution in the treatment of non-canonical marking in other languages.

Notes

1. We would like to thank Auli Hakulinen, Marja-Liisa Helasvuo, Aili Jantunen, Lea Laitinen, Krista Sands, Seija Tiisala, and Maria Vilkuna for much useful information about Finnish (though we do not intend to imply that they all necessarily agree with what we say here). We also thank R. M. W. Dixon and Alexandra Aikhenvald for helpful comments on an earlier version of this paper. Naturally, none of these individuals is responsible for any misuse we may have made of their recommendations and information. Thanks also to the Research Centre for Linguistic Typology (Australian National University) for the fellowship which afforded Lyle Campbell the time and opportunity to work on this paper. Kristina Sands worked on it concurrently with her PhD thesis (Sands 2000), which this paper draws from. Abbreviations used in this paper are: abes = abessive; abl = ablative; acc = accusative; ades = adessive; all = allative; caus = causative; elat = elative; emph = emphasis; ess = essive; gen = genitive; ill = illative; imp = imperative; ines = inessive; inf = infinitive; neg = negative; nom = nominative; part = partitive; partic = participle; pass = passive—actually an impersonal construction; past = past; pl = plural; ppp = past passive participle; quest = question; refl = reflexive; tran = translative case.

2. The Finnish grammatical tradition is extremely rich and we rely heavily upon it. However, we do not accept all its dictates and rather rely also on evidence outside of the handbooks. In particular, with respect to constructions potentially analyzable as having non-canonical subjects and objects, traditional Finnish grammarians (as well as modern Finnish linguists) are not always in agreement about what the subject or object of such sentences really is. For example, in some treatments “subjects” can bear not only in nominative case, but in certain constructions also the partitive, genitive, adessive, and other cases, while at the other extreme Helasvuo (1997a: 115) argues that “only those NPs should be considered as subjects in Finnish which are in the nominative and trigger agreement.” In such disputed instances, we depend on standard linguistic criteria and argumentation.

3. We note that Vainikka (1989, 1993) and some others (also discussed in Helasvuo 1997b: 215) argue for combining the accusative singular suffix -n with the genitive suffix -n as a single case: the genitive. Here, however, we keep to the traditional approach which distinguishes these two. The nominative plural and accusative plural, each with suffix -t, present another problem of analysis. Is there a single case, or are there two different cases? Both analyses are adopted by different linguists in the literature; Sands (2000: App. I, §2.1) prefers to see it simply as a plural suffix which has no indication of case. Campbell, on the other hand, prefers to maintain the traditional distinctions, nominative plural -t, accusative plural -t, (also accusative singular -n, and genitive singular -n), noting different behavioral properties in these despite homophony. We leave this question open, as it does not touch significantly on the questions addressed in this paper.

Some traditional analyses present both -n and -Ø as forms of the accusative singular (cf. Laury 1982: 47–9, Helasvuo 1997a); however, in other traditional treatments and in modern descriptions the so-called “accusative” suffix -Ø is considered an example of the nominative case (cf. Timberlake 1975, Maling 1993, Toivainen 1993), thus leaving the accusative singular suffix as -n. This is the analysis that we adopt here; the reasons for this are explained later in the paper. Note that the -t in
the plural genitive and plural partitive column in Table 1 is not considered part of the case suffix, but is itself the marker of ‘plural’.

4. The partitive case also marks objects of negatives, of verbs with irresultative sense, and instances where the meaning of the noun is the indefinite quantity ‘some’.

5. The personal pronouns more closely approximate a nominative-accusative system, since fully affected pronominal objects are all marked with accusative; however, nominals divide the marking of fully affected objects between accusative and nominative in different constructions. (The conditions for this different case usage are discussed in §3.1).

6. Take for example reflexivization, which is a good test for subject in many languages. In Finnish almost any argument or adjunct of a clause may be the precedent for a reflexive pronoun. See for example Sukala and Karjalainen (1992: 135–44).

7. Not all verbs bear clear morphological markers of transitivity or intransitivity, but we interpret all Finnish verbs as being inherently either transitive or intransitive in nature. This means that verbs such as syödä' to eat’, which can appear with or without an overt object, are interpreted in this approach as underlyingly transitive, but can appear in an elliptical construction without an overt object. There are several verbs (but not many) which belong to this class. Similarly, a few verbs which are inherently intransitive can in special narrowly circumscribed circumstances take an object (that is, can be extended intransitive), for example, juosta ‘to run’ (as in, for example, juoks-i-n kilometri-n [run-PAST-1SG kilometre-ACC] ‘I ran a kilometre’), hän kuol-i kaukea-n kuolema-n [3SG+Nom die-PAST horrible-ACC death-ACC] ‘he/she died a horrible death’.

8. In many of the examples in this paper, the following two verbal suffixes which have an impact on the transitivity of the clause will be encountered (for these and others see Ikola 1971: 103–11, Penttilä 1963: 208–23):

[1]-tta- /-ttä- (sometimes -tal-tä and -al-ä) traditionally called ‘causative’ (abbreviated CAUS), meaning that ‘someone or something is being made to perform the action indicated by the root’ (Holman 1984: 53–4). Some examples are:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
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<tbody>
<tr>
<td>istu-ttaa</td>
<td>‘to seat’/cf. istu-a 'sit'</td>
</tr>
<tr>
<td>syö-ittää</td>
<td>‘to feed’/cf. syö-dä ‘eat’</td>
</tr>
<tr>
<td>tee-ittiä</td>
<td>‘to have done, get made’/cf. teh-dä ‘make’</td>
</tr>
<tr>
<td>selvi-ittää</td>
<td>‘to explain’/cf. selviää ‘become clear’</td>
</tr>
<tr>
<td>väsy-ittää</td>
<td>‘to tire, cause to tire’/cf. väsy-dä ‘tire, become tired’</td>
</tr>
</tbody>
</table>

[2]-u- /-y-, -tu- /-ty-, -utu-/yty-, and -ntu-/nty- traditionally called ‘reflexive’ (abbreviated REFL), meaning ‘that the process denoted by the verb is either directed towards or done for its source, i.e. the subject’ (Holman 1984: 54). Some examples are:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kaat-u-a</td>
<td>‘to fall’/cf. kaat-a ‘to overturn, to upset, to knock down’</td>
</tr>
<tr>
<td>löyt-y-ä</td>
<td>‘to find’/cf. löyt-ää ‘to find’</td>
</tr>
<tr>
<td>sairaat-u-a</td>
<td>‘to become ill’/cf. sairas ‘ill’</td>
</tr>
<tr>
<td>kirjoitta-utu-a</td>
<td>‘to enrol (literally, to write oneself into)/cf. kirjoitta-a ‘to write’</td>
</tr>
<tr>
<td>kiellet-yty-ä</td>
<td>‘to decline, to refuse, refrain from’/cf. kielletä-ä ‘to forbid, deny, prohibit’</td>
</tr>
</tbody>
</table>
   | kokoo-ntu-a | ‘to gather, come together, assemble, meet’/cf. koo-talkookoa- ‘to gather, amass, assemble’ (cf. koko ‘whole, entire’).

Several other such suffixes exist; for example: -el(e)/-il(e)– ‘repeated or intensive action’; -ahta-/-ähtä– and -aise-/-äise– ‘suddenness, momentariness’, heightened transitivity in the sense of more punctual, more telic; -(e)me– ‘inchoative’, derives intransitive verbs from adjective roots, which signify a change of state or intensification of the state signalled by the adjective; etc.
9. In Finnish independent first and second person pronoun subjects are optional and are usually omitted.

10. Lea Laitinen points out (personal communication, see 1998b) that sentence (3b) has only the reading 
    ‘He/she was afraid and for that reason he/she ran home’ in Finnish dialects and that the standard 
    language actually seems artificial in this regard, since originally and still in many dialects hän ‘3sg 
    pron’ is used mainly in contexts of reported speech (or thought), i.e. coreferential with the subject 
    of the first clause, as in dialectal:

    (i) Se sanoettähän on väsynyt.
    he/she+nom1 said that he/she+nom, be+3sg tired
    ‘He/she said that he/she was tired’ (literally: ‘he/she said, “I’m tired”’.) (Laitinen 1997: 117)

11. The ‘existential’ sentences are not limited to subjects in partitive case, but also can take nominative 
    subjects, however we treat only those with partitive subjects in this paper, since existentials with 
    nominative subjects have not been thought to be non-canonical. For discussion and defining condi-
    tions for ‘existential’ sentences, see Hakanen (1997) and Helasvuo (1996b).

12. While Hakulinen and Karlsson report this sentence as ungrammatical, Seija Tiisala (personal 
    communication) points out that in a proper context its equivalent is perfectly acceptable, as in:

    (i) Ministeeri-i-tä on sosialidemokraattis-i-a ja kommunistis-i-a, mutta
    Minisnter-pl-part be+3sg social.democrat-pl-part and communist-pl-part but
    autta-vat-ko ne köyhi-i-ä? Ei-vät.
    help-3pl-quest 3pl+nom poor-pl-part neg-3pl
    ‘Ministers are social democrats and communist, but do they help the poor? They don’t.’

    Lea Laitinen (personal communication) concurs with this judgement, pointing out that this construc-
    tion is used in cases where more than one kind of entity is reported to exist. (Several other examples 
    of this are presented in Penttilä 1957: 627–8.) Vilkuna (personal communication) believes that a 
    sentence such as this is not a predicate complement, but is a kind of existential, meaning ‘there are 
    social democrat and socialist ministers...’. Vilkuna points out that a true predicate complement with 
    a nominative subject would have tai ‘or’ rather than ja ‘and’ and quotes examples as follows:

    (ii) Joutsen-i-a on must-i-a ja valkois-i-a.
    swan-pl-part be+3sg black-pl-part and white-pl-part
    ‘There are black swans and white swans.’

    (iii) Joutsene-to-vat must-i-a tai valkois-i-a.
    swan-pl be-3pl black-pl-part or white-pl-part
    ‘The swans are black or white.’

13. Note that technically there is no nominative counterpart to these sentences; the following sentence 
    is ungrammatical under an existential reading:

    (i) Kadulla ei ole auto.
    street-ades neg+3sg be car+nom
    ‘There’s not a car on the street.’

    However, under the reading that not a car, but rather something else, is on the street, it is grammatic-
    al.

14. While Hakulinen and Karlsson (1979) give sentence (28b) as ungrammatical, Lea Laitinen (personal 
    communication) recommends indicating them with a question mark and not an asterisk, since she 
    finds that it does not sound so ungrammatical.

15. We thank Seija Tiisala for pointing out this example to us.
16. While several linguists report sentences with both a partitive subject and a direct object as being on the increase (cf. Hakanen 1997: 10, Vilkuna 1989: 260), others doubt this (Marja-Liisa Helasvuo and Lea Laitinen, personal communication).

17. It might be thought that an “unaccusative hypothesis” for these might be attractive, in which at one level the NP would be treated as an object but at another level as a subject. Certain similarities in argument structure might be seen to suggest this, as for example, in the treatment of the partitive NP in the following:

(i) a. Ruusu-j-a kasvo-i puutarha:ssa.
   rose-pl-part grow-3sg+past garden-ines (partitive subject)
   ‘Roses grew in the garden.’
   b. Ruusu-j-a kasva-te-ittin puutarha:ssa.
   rose-pl-part grow-past caus+past+pass garden-ines (partitive object of impersonal)
   ‘Roses were grown in the garden.’
   c. Ruusu-j-a kasva-tr-i-vat lapse-t.
   rose-pl-part grow-caus-past+3pl child-nom (partitive object of transitive)
   ‘The children grew roses.’/‘Roses were grown by the children.’ (Vilkuna 1989: 161).

However, there are problems with such an analysis. One difficulty is that these “existential” sentences do not depend on any particular verbs or classes of verbs (as unaccusatives typically do), but rather are quite general in the language (Vilkuna 1989: 161). Note, also, that the partitive subjects do not correlate with the usual features of ‘agentivity’, as seen in the contrast between (ii) (non-human, non-volitional partitive subject) and (iii) (human, agentive, volitional partitive subject):

(ii) Laivo-j-a tul-i illa-lla.
    ship-pl-part come-3sg+past evening-ades
    ‘(Some) ships came at night.’

(iii) Sotila-i-ta tul-i illa-lla.
    soldier-pl-part come-3sg+past evening-ades
    ‘(Some) soldiers came at night.’ (Sulkala and Karjalainen 1992: 211)

The ‘unaccusativity’ hypothesis for Finnish is also discussed in Laitinen and Vilkuna (1993).

18. Thanks go to Seija Tiisala for these examples. She points out further that of the three, the first is more acceptable than the other two, and that the last would be more acceptable with ... ja ne lyovät palloa ‘... and they hit the ball’. The difference is that he (in 35c) is 3pl. human independent pronoun, while ne is the 3pl. non-human independent pronoun which is commonly applied also to humans in less formal usage. Lea Laitinen (personal communication) finds (42a) quite acceptable. She notes that (42b) could be acceptable in dialects, since in some dialects, a 3pl. verb form without an overt subject can be used anaphorically when the subject has been mentioned earlier. She finds (42c) grammatical in standard Finnish if translated ‘Some men are running around in the yard and they are hitting the ball’ (emphatic).

19. Also grammatical is:

(i) Lehmä-t pitä-ä heidä:n tuo-da koti-in.
    cow-nom+pl must-3sg 3pl-gen bring-inf home-ill
    ‘They must bring the cows home.’

However, this is not so pragmatically neutral, focusing more on the cows than on the NP with genitive case which is under the obligation and which would normally be expected in preverbal topic position.
20. We will not attempt to answer here the tricky question of what, if anything, is the subject of the main clause.

21. Sentence (53b) is taken from Nalle Puh, the translation of Winnie the Pooh (p.109) while (52a) is from the periodical Suomen Kuvalehti (1987: 1), from the database of the Department of Finnish, University of Helsinki. (See Sands 2000: §6.2.2)

22. An exception to this rule is the so-called Missing Person construction in Finnish where an argument, usually the subject, is not present overtly and is understood to be indefinite. Missing Person clauses take an object in the accusative (or partitive) even where an overt subject is lacking, as in the following:

   (i) Kun astu-ä ove-stä sisä-ään löytä-ä paika-n helposti.
       when step-3SG door-ELA inside-ILL find-3SG place-ACC easily
       ‘When you step through the door inside, you’ll find the place easily.’ (Ikola 1971: 173)

23. Negative imperatives take partitive objects, just as negative clauses in general do, e.g.:

   (i) Älä ota tä-tä!
       NEG+IMP take this-PART
       ‘Don’t take this.’

24. However, as Ikola (1971: 181) says, the rules for objects in some instances of this sort present difficulties even for native speakers of Finnish. In some instances which are structurally identical to (86) and (87), the accusative is used (rather than the expected nominative). As Ikola (1971: 185) says, if the noun upon which the infinitive depends and the predicate of the sentence belong together and are closely united (where generally a single word can be substituted for this whole), then the case of the infinitive’s object is not necessarily determined by the nominative rule. That is, where an alternative single transitive verb is available which is semantically equivalent to the verb + noun structure and could in principle substitute for it, the nominative object rule can be suspended, as in (i):

   (i) Hän sai-i luva-n rakenta-a mööki-n meidän
       3SG+NUM get-3SG+PAST permission-ACC build-INF cabin-ACC 1PL+GEN
       maa-le-mme.
       land-ALL-1PL+POSS
       ‘He received permission to build a cabin on our land.’ (Ikola 1971: 185)

   Here, sai luva-n ‘got permission’ is equivalent, more or less, to sai ‘got to, was allowed’ (... sai rakentaa mööki-n... ‘got to build a cabin’), and hence the accusative mööki-n ‘cabin’ rather than the nominative möikki is required in (i). See also (ii) and (iii):

   (ii) Oli-n aike-i-ssa osta-a talo-n.
       be-PAST-1SG intend-PL+INES buy-INF house-ACC (talo+NUM would be expected)
       ‘I had intentions to buy the house.’ ‘I intended to buy the house.’ (Ikola 1971: 185)

   In (ii), olla aikeissa ostaa is essentially equivalent to aio-i-n osta-a [intend-PAST-1SG buy-INF]
   ‘I intended to buy’, and hence the accusative talo-n rather than nominative talo appears as the object

   (iii) Tiesäätä tek-i-vät päättökse-n korja-ta sillä-n.
       road shareholder-NOM+PL make-PAST-3PL decision-ACC repair-INF bridge-ACC
       ‘Road shareholders made a decision to repair the bridge.’

   Here, tek-i-vät päättökse-n ‘made a decision’ is equivalent to päätt-i-vät [decide-PAST-3PL] ‘they decided’ (Penttilä 1963: 597).
Of examples like these, Ikola (1971: 185) reports that the application of the rules is often difficult because the border between the two alternatives is not rigid, and that usage vacillates so much that breaking the rules here is not considered a grave error—that is, this is another instance where the grammar leaks.

25. However, under very limited circumstances where the object actually undergoes a change in state the accusative object may be used. Thus compare (109a) with the following:

(i) Rakast-i-n häne-t kuolia-ksi.
love-PAST-1SG 3SG-acc death-TRAN
'I loved him to death.'

26. For many native speakers, this sentence is barely acceptable, for example only in a strained contrast such as, for example, ‘the others may have taken sweetbreads with them, but I have you’ (Seija Tiisala, personal communication).

27. We thank Lea Laitinen (personal communication) for these examples illustrating uskoa.

References


1. Introduction

Japanese is an SOV language whose canonical constructions involving intransitive and transitive predicates call for the following case frames:

(1) Intransitive predicates
   a. *Ken ga  kasiko-i.
      Ken NOM smart-PRES
      ‘Ken is smart.’
      Ken NOM healthy cop
      ‘Ken is healthy.’
      Ken NOM student cop
      ‘Ken is a student.’
   d. *Ken ga  ki  kara oti-ta.
      Ken NOM tree from fall-PAST
      ‘Ken fell from the tree.’
   e. *Ken ga  hasit-ta.
      Ken NOM run-PAST
      ‘Ken ran.’

(2) Transitive predicates
      Ken NOM Ai acc hit-PAST
      ‘Ken hit Ai.’
b. Ken ga hon o yon-da.
   Ken NOM book ACC read-PAST
   ‘Ken read the book.’

c. Ken ga Ai ni hon o yat-ta.
   Ken NOM Ai DAT book ACC give-PAST
   ‘Ken gave a book to Ai.’

Sentence (1a) has an adjectival predicate, whose present tense form ends in -i, while (1b) and (1c) involve nominal predicates, which require the copula da in the predicate function. (1d) contains a non-volitional (so-called unaccusative) intransitive verb, while (1e) has a volitional (or unergative) intransitive verb.

Canonical transitive verbs involving an animate and an inanimate object are shown in (2a) and (2b), both showing the same nom-acc case pattern. Consistent nominative ga-marking on S in intransitive sentences and the same marking on A of transitive sentences, in contradistinction to accusative o-marking on O of transitive clauses, unequivocally show that Japanese is a consistent nominative-accusative type language, without a trace of the active-type (or split-intransitive) language at least in terms of case marking.

Sentences (1a)–(1c) all contain non-activity (or stative) predicates, and these predicates normally trigger topicalization when the clauses occur as independent sentences. ‘Normal’ utterances with these predicates may thus contain topic noun phrases marked by the particle wa as below, masking basic nominative case marking on the S nominals.

(3) a. Ken wa kasiko-i.
    Ken TOP smart-PRES
    ‘Ken is smart.’

b. Ken wa kenkoo da.
   Ken TOP healthy COP
   ‘Ken is healthy.’

c. Ken wa gakusei da.
   Ken TOP student COP
   ‘Ken is a student.’

The pattern of basic case marking is maintained in nominalized clauses, however, where topicalization normally does not apply:

(4) [Ken ga kasiko] koto (wa) minna ga sitteiru.
    Ken NOM smart that (TOP) everyone NOM know
    ‘That [Ken is smart] (everyone knows).’
The point being made here is important in considering Japanese non-canonical constructions because the ones that we are concerned with in here all involve stative predicates which ‘sound’ most natural when they contain a topic nominal rather than a nominal with basic nominative *ga* or dative *ni*. Our examples in the following sections contain the case displays of *gal/wa* and *ni* (*wa*), as in (5) below, to indicate the basic case patterns involved, and to show that in the former the *topic wa* version, and in the latter the *ni-wa* combination or the *wa-version* yield more natural-sounding Japanese expressions.

(5)  

a. *Ai ga* / *Ai ni* (wa) *eigo* *ga hanaseru.*  
   *Ai nom/top English nom can speak*  
   ‘Ai can speak English.’

b. *Ai ga* / *Ai ni* (wa) *Kenga sukida.*  
   *Ai nom/top Ken nom like cop*  
   ‘Ai likes Ken.’

2. Dative object constructions

There are several types of sentence in Japanese which deviate from the canonical patterns shown in (1) and (2) above. One of them involves dative objects, which vary considerably as to the meanings of the nominals involved. The dative particle *ni*, as the label suggests, prototypically marks a goal nominal of a ditransitive clause (6a) as well as the goal of motion verbs (6b), the location of stative predicates (6c), and the source of transfer verbs (6d). It also marks the agent in the passive clause (7a) and the causee nominal in a causative (7b).

(6)  

   a. *Ai ga* *Kenga* *ni hon o yat-ta.*  
      *Ai nom Ken nom goal book acc give-past*  
      ‘Ai gave a book to Ken.’

   b. *Kenga Tookyoo ni it-ta.*  
      *Ken nom Tokyo goal go-past*  
      ‘Ken went to Tokyo.’

   c. *Tukue no ue ni hon ga aru.*  
      *desk gen top loc book nom exist*  
      ‘There is a book on the top of the desk.’
d. Ken ga Ai ni hon o morat-ta.
   Ken NOM Ai SOURCE book ACC receive-PAST
   ‘Ken received a book from Ai.’

(7) a. Ken ga haha-oya ni sikara-re-ta.
   Ken NOM mother AGENT scold-PASS-PAST
   ‘Ken was scolded by his mother.’

b. Ai ga Ken ni hon o yoma-se-ta.
   Ai NOM Ken CAUSEE book ACC read-CAUS-PAST
   ‘Ai made Ken read the book.’

The predicates taking dative objects include au ‘meet’, sitagau ‘obey/follow’, katu ‘win’, and a few others that involve affected subjects, as in (9).

(8) a. Ai ga Ken ni at-ta.
   Ai NOM Ken DAT meet-PAST
   ‘Ai met Ken.’

b. Ken ga Ai ni sitagat-ta.
   Ken NOM Ai DAT obey-PAST
   ‘Ken obeyed/followed Ai.’

c. Ai ga Ken ni kat-ta.
   Ai NOM Ken DAT win-PAST
   ‘Ai won/prevailed over Ken.’

(9) a. Ken ga ame ni nure-ta.
   Ken NOM rain DAT get wet-PAST
   ‘Ken got wet in the rain.’

b. Ken ga sake ni yot-ta.
   Ken NOM sake DAT get drunk-PAST
   ‘Ken got drunk with sake.’

c. Ken ga hasika ni kakat-ta.
   Ken NOM measles DAT contract-PAST
   ‘Ken contracted measles.’

The diversity of the constructions involving ni-marked nominals is mind-boggling, as if to suggest that dative marking is a wastebasket category. This makes it difficult to ascertain the semantic role of the dative nominal involved in one of the main non-canonical constructions dealt with in this paper, namely the so-called dative subject constructions. However, dative object
constructions in (8) provide a contrasting backdrop against which dative subject constructions can be discussed. The remainder of this paper is devoted to dative subject constructions and their variants involving double nominative noun phrases.

3. Dative subject constructions and their variants

The two main types of non-canonical constructions to be dealt with in this paper have been illustrated in (5) above, which is repeated below for convenience.

(10) a. Ai ga/wa Ken ga suki da.  
Ai nom/top Ken nom like cop  
‘Ai likes Ken.’

b. Ai ni (wa) eigo ga hanaseru.  
Ai dat (top) English nom can speak  
‘Ai can speak English.’

c. Ai ga eigo ga hanaseru. (cf. b)  
Ai nom English nom can speak  
‘Ai can speak English.’

d. *Ai ni Ken ga suki da. (cf. a)  
Ai dat Ken nom like cop  
‘Ai likes Ken.’

The first construction involves double nominative noun phrases and the second a dative and a nominative noun phrase. The former is referred to as the double nominative construction, and the later the dative subject construction. I consider these two types to be variants of each other for the following reason. Firstly, both these constructions have a preverbal nominative noun phrase. Secondly, dative subject constructions may be encoded as double nominative constructions as an alternate form (cf. 10b and 10c), although basic double nominative constructions do not alternate with dative subject constructions (cf. 10a and 10d). Thirdly, the predicates entering these two constructions are among those that display dative subject constructions in other languages.

As the other contributions to this volume show, we can identify several semantic predicate types that call for non-canonical constructions of the types being considered here. They center around the following semantic fields:
(11) a. Possession/Existence;
b. Psychological states;
c. Physiological states;
d. Visual/auditory perceptions, including the notion of ‘appearance’/‘seeming’;
e. Modal states of necessity and wanting, including the notion of obligation (‘must’);
f. Modal states of potentiality, including ability and the notion of permission (‘may’);
g. Uncontrolled events; e.g. forgetting, finding, etc.

As the following examples show, Japanese predicates calling for the non-canonical constructions fall into these semantic types except the last one. While it is true that if a language displays a dative subject construction, it draws the relevant predicates from these semantic types, rarely does a language show uniform dative marking throughout these predicates. As mentioned above, Japanese stative non-canonical constructions divide themselves into two types—the nom-nom (double nominative) type and the dat-nom (dative subject) type:

(12) Possession/Existence
   a. Ken ga/wa atama ga ookii.
      Ken nom/top head nom big
      ‘Ken has a big head.’
   b. Ken ni (wa) kodomo ga san-nin iru.
      Ken dat (top) child nom three-person be/exist
      ‘Ken has three children.’
   c. Ken ni (wa) syakkin ga oositukunai.
      Ken dat (top) debt(money) nom many/small in quantity
      ‘Ken has a large amount /only a small amount of debts.’

(13) Psychological states
   a. Mami ni (wa) Hata-sensei ga osorosii (sooda).
      Mami dat (top) Hata-prof nom fearful
      ‘Mami is fearful of Prof. Hata.’
   b. Mami ga/wa Ken ga suki da.
      Mami nom/top Ken nom like cop
      ‘Mami likes Ken.’
(14) Physiological states
   a. Taro no attama ga itai.
      Taro NOM/top head NOM hurting
      ‘Taro has a headache.’
   b. Mami no asi ga tumetai.
      Mami NOM/top foot NOM cold
      ‘Mami has cold feet.’

(15) Visual/audio perceptions
   a. Ken ni (wa) Huzi-san ga yoku mieru.
      Ken DAT (TOP) Fuji-Mt. NOM well visible
      ‘Ken can see Mt. Fuji well.’
   b. Mami ni (wa) sono oto ga kikoe-nakat-ta.
      Mami DAT (TOP) that sound NOM audible-NEG-PAST
      ‘Mami didn’t hear that sound.’

(16) Necessity/Desiderative states
   a. Boku ni (wa) okane ga hituyoo da.
      I DAT (TOP) money NOM necessity COP
      ‘I need money.’
   b. Boku ni (wa) Ken ni au hituyoo ga aru.
      I DAT (TOP) Ken GOAL meet necessity NOM be/exist
      (Lit. ‘I have the need of meeting Ken’ / ‘I need to meet Ken.’)
   c. Boku no ga kono hon ga hosii.
      I NOM/top this book NOM want
      ‘I want this book.’
   d. Boku no ga mizu ga nomi-tai.
      I NOM/top water NOM drink-DESID
      ‘I want to drink water.’

(17) Potentiality/ability
   a. Ken ni (wa) eigo ga hanas-e-ru.
      Ken DAT (TOP) English NOM speak-POTEN-PRES
      ‘Ken can speak English.’
   b. Ken ni (wa) eigo ga dekiru/wakaru.
      Ken DAT (TOP) English NOM can do/understand
      ‘Ken can do (has command of) English/Ken understands English.’
The predicates involved in the above types of non-canonical case marking patterns span three major predicate types of Japanese, namely verbs (e.g. *aru* ‘exist/have’, *wakaru* ‘understand’, *hanas-e-ru* ‘can speak’, adjectives (e.g. *hosii* ‘want’, *nomi-tai* ‘want to drink’), and adjectival nominals (e.g. *kanoo da* ‘possible’, *hituyoo da* ‘necessary’). They represent both lexical (e.g. *wakaru* ‘understand’, *hosii* ‘want’) and derived forms (e.g. *hanas-e-ru* ‘can speak’, *nomi-tai* ‘want to drink’). Owing to the productive derivations of potential and desiderative forms, non-canonical constructions of the types being considered are very productive in Japanese. Since possession, as well as psychological and physiological constructions, represent such personal states, these constructions are indeed prevalent forms of expressions, and they deserve much closer attention than hitherto accorded.

What is common to all these non-canonical constructions is that they express states rather than activities. A corollary of this is that they do not yield progressive forms by the use of the *te-iru* ‘be’ ending. Because of this stative character, they typically trigger topicalization, hence all of the examples above sound more natural if the topic forms, marked by *wa*, are chosen.

We have already mentioned that the *dat-nom* predicates may be couched in the *nom-nom* framework. Some of the basic *nom-nom* predicates can enter the canonical *nom-acc* constructions. For example, the adjectival nominal predicate *suki da* ‘like’ may be couched in the canonical framework, as potentials and desideratives derived from transitive verb roots. Prohibited is the pattern of *dat-acc*, as in (18e), indicating that the nominative nominal, like the absolutive in ergative languages, is indispensable in the Japanese clause structure:

(18) a. *Ai ga/wa Ken galo suki da.*
   *Ai nom/top Ken nom/acc like cop*
   ‘Ai likes Ken.’

b. *Boku ga/wa mizu galo nomi-tai.*
   *I nom/top water nom/acc drink-desid*
   ‘I want to drink water.’
c. Kenni (wa) eigo ga hanas-e-ru.
   Ken DAT (TOP) English NOM speak-POTEN-PRES
   ‘Ken can speak English.’
d. Kenga (wa) eigo o hanas-e-ru.
   Ken NOM/TOP English ACC speak-POTEN-PRES
   ‘Ken can speak English.’
e. *Kenni (wa) eigo o hanas-e-ru.
   Ken DAT (TOP) English ACC speak-POTEN-PRES

It is hard to pinpoint a possible meaning difference between DAT-NOM forms and the corresponding NOM-NOM forms and between NOM-NOM forms and NOM-ACC forms.

4. Non-canonical constructions as transitive constructions

Having surveyed the case marking patterns of non-canonical constructions in Japanese, we are now in a position to proceed to the question of their analysis. In the older tradition, the Japanese grammarians treated non-canonical constructions from a morphological point of view, although they did not examine the constructions in their full DAT/NOM₁-NOM₂-PRED forms typically concentrating only on the NOM₂-PRED portion (because the DAT/NOM₁ is most often topicalized or unencoded (see below)). Since NOM₂ is marked by the particle ga, indicating the subject of both transitive and intransitive sentences, it was assumed that this nominal was a subject (e.g. Martin (1962)).

(19) a. Eiga ga suki da.
   movies NOM like COP
   ‘(I) like movies.’
   b. [eiga ga suki da]
      SUBJ  PRED

   Among the traditional grammarians, Tokieda (1950) offered a non-conventional treatment. Recognizing the fact that the NOM₂ of the non-canonical construction can be construed as an object (goal) toward which subjective feelings are directed, Tokieda set up a category of ‘objective’ function distinct from subject and object. Thus for the full non-canonical form, Tokieda’s analysis would assign the following grammatical functions:
Arguing against the traditional analysis in (19), Kuno (1973) offers a straightforward transitive analysis for non-canonical constructions of the form of (21).

Kuno’s argument against the analysis in (19b) is that a sentence like (19a) is elliptical, and that the full sentence in the form of (21a) contains a real subject. Kuno (1973: 80) tells us that if the experiencer in (21a) is the subject of this sentence, then the second NP cannot be also one. He contrasts a double nominative sentence like (21a) with a double subject construction of the following form:

Kuno’s point is that a double subject construction like this yields a full (non-elliptical) sentence even if the first nominative nominal is deleted. But this is not the case with the non-canonical constructions, as the following contrast shows:

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In (23b), the speaker (“I”) is implied, whereas there is no additional information implied in the case of (23a).

Kuno’s analysis of non-canonical constructions as transitive has gained some support from Shibatani’s (1977) demonstration that the dative nominal of the dat-nom structure does possess certain subject properties such as binding of the reflexive *zibun* ‘self’, as well as triggering of subject honorification process (see below). Indeed, the transitive analysis is in line with the researchers of the languages of South Asia such as Hindi and Sinhala, as well as others, where non-canonical constructions paralleling those of Japanese have received a transitive analysis similar to Kuno’s (see other contributions to this volume and see Shibatani 1999, Shibatani and Pardeshi (in press) for the arguments against the transitive analysis).

5. Dative nominals as subjects

The transitive analysis of dative subject constructions and their variants finds support from various syntactic phenomena pointing to the subjecthood of the dative nominal involved, hence the term ‘dative subject’ constructions. We can compare the syntactic properties of the dative subject and the dative object to see how the former aligns with the regular nominative subjects contrasting sharply with the latter.

First, consider word order. As the examples of the canonical constructions in the Introduction show, nominative subjects appear sentence initially in the unmarked word order. And so do dative subjects, as opposed to dative objects, which come in the regular object position.

(24) Canonical transitive clause
   a.  *Ai ga Ken o sikat-ta.*
      *Ai NOM Ken ACC scold-PAST*
      ‘*Ai scolded Ken.*’
   b.  *Ken o Ai ga sikat-ta.* (Scrambled version)
      *Ken ACC Ai NOM scold-PAST*
      ‘*Ai scolded Ken.*’

(25) Dative object
   a.  *Ken ga Ai ni at-ta.*
      *Ken NOM Ai DAT meet-PAST*
      ‘*Ken met Ai.*’
b. ?Ai ni Ken ga at-ta. (Scrambled version)
   Ai DAT Ken NOM meet-PAST
   ‘Ken met Ai.’

(26) Dative subject
   a. Ken ni eigo ga hanas-e-ru
      Ken DAT English NOM speak-POTEN-PRES
      ‘Ken can speak English.’
   b. ?Eigo ga Ken ni hanas-e-ru. (Scrambled version)
      English NOM Ken DAT speak-POTEN-PRES
      ‘Ken can speak English.’

Japanese has special honorific predicate forms when the subject nominal refers to someone worthy of respect. When a verb predicate is involved, it may be replaced by the verbal complex of *o-V-ni naru* ‘lit. to become V-ing’, while an adjectival or nominal adjectival predicate is simply marked by the honorific prefix *o-*. 

(27) a. Sensei ga ik-u.
      teacher NOM go-PRES
      ‘The teacher goes.’ (Plain)
   b. Sensei ga o-iki-ni nar-u.
      teacher NOM HON-go-ADV become-PRES
      ‘The teacher goes.’ (Subject honorific)

(28) a. Sensei wa wakai.
      teacher top young
      ‘The teacher is young.’ (Plain)
   b. Sensei wa o-wakai.
      teacher top HON-young
      ‘The teacher is young.’ (Subject honorific)

Notice that object nominals would not trigger subject honorification even if they referred to someone respectable. Instead, a distinct object honorification form (*o-V suru* ‘do V-ing’) is called for.

      Ken NOM teacher ACC assist-PAST
      ‘Ken assisted the teacher.’
b. #Ken ga sensei o o-tasuke-ni na-ta.
   Ken NOM teacher ACC HON-assist-ADV become-PAST
   ‘Ken assisted the teacher.’ (Subject honorific; Ken is honored)

c. Ken ga sensei o o-tasuke si-ta.
   Ken NOM teacher ACC HON-assist do-PAST
   ‘Ken assisted the teacher.’ (Object honorific)

Dative objects, like accusative objects, trigger object honorification, while
dative subject, like nominative subjects, trigger subject honorification.

(30) Dative object
a. Ken ga sensei ni at-ta.
   Ken NOM teacher DAT meet-PAST
   ‘Ken met the teacher.’

b. Ken ga sensei ni o-ai si-ta.
   Ken NOM teacher DAT HON-meet do-PAST
   ‘Ken met the teacher.’ (Object honorific)

c. #Ken ga sensei ni o-ai-ni nat-ta.
   Ken NOM teacher DAT HON-meet-ADV become-PAST
   ‘Ken met the teacher.’ (Subject honorific; Ken is honored)

(31) Dative subject
a. Sensei ni (wa) eigo ga wakar-u.
   teacher DAT (TOP) English NOM understand-PRES
   ‘The teacher understands English.’

b. *Sensei ni (wa) eigo ga o-wakari su-ru.
   teacher DAT (TOP) English NOM HON-understand do-PRES
   (Object honorific)

b. Sensei ni (wa) eigo ga o-wakari-ni
   teacher DAT (TOP) English NOM HON-understand-ADV
   become-PRES
   ‘The teacher understands English.’ (Subject honorific)

Dative subjects also differ from scrambled objects, as the latter fail to trigger
subject honorification.
Scrambled dative object

a. #Sensei ni Ken ga o-ai-ni nat-ta.
   teacher dat Ken nom hon-meet-ADV become-PAST
   ‘Ken met the teacher.’ (Subject honorific; Ken is honorified)

b. Sensei ni Ken ga o-ai si-ta.
   teacher dat Ken nom hon-meet do-PAST
   ‘Ken met the teacher.’ (Object honorific)

The Japanese reflexive pronoun zibun normally requires its antecedent to be subject. Again neither accusative nor dative object can function as an antecedent of zibun. In the following examples, accordingly, the reflexive form uniquely refers to the referent of the nominative subject, namely Ken.

(33) a. Ken ga Hanako o zibun no uti de izime-ta.
   Ken nom Hanako acc self of house at bully-PAST
   ‘Keni bullied Hanako at self’s house.’ (Accusative object)

b. Ken ga Hanako ni zibun no uti de at-ta.
   Ken nom Hanako dat self of house at meet-PAST
   ‘Keni met Hanako at self’s house.’ (Dative object)

On the other hand, dative subjects anteced the reflexive zibun, as in the following example, where it is to be noted that the nominative noun phrase cannot bind the reflexive form.

(34) Ken ni (wa) Hanako ga zibun no imooto yori yoku rikai-dekiru.
   Ken dat (top) Hanako nom self of sister than well understand-can
   ‘Keni can understand Hanako better than self’s sister.’ (DAT subject)

Again, the scrambled dative object cannot anteced the reflexive form.

(35) Hanako ni Ken ga zibun no uti de at-ta.
   Hanako dat Ken nom self of house at meet-PAST
   ‘Keni met Hanako at self’s house.’ (Scrambled dative object)

Thus, altogether there seems to be robust evidence that points to the subjecthood of the dative nominal in the dative subject construction, supporting the transitive analysis of this construction. While the above discussion was
illustrated only with dative subject constructions, exactly the same points could be made with regard to the initial nominative nominal of double nominative constructions, considered to be variants of dative subject constructions. We shall now turn to the conflicting evidence pointing to the subjecthood of the nominative nominal of the dative subject construction and of the second nominal of the double nominative construction.

6. Nominative nominals as subjects

A first indication that the nominative nominal of the dative subject construction and the second nominative nominal of the double nominative construction are also subjects comes from case marking itself. The particle *ga* is identified as a nominative case marker precisely because its primary function in Modern Japanese is to mark the subject of a clause. Analyzing dative subject constructions and double nominative constructions as transitive clauses with a nominative object weakens the generalization that what is marked by *ga* is a subject. Indeed, Kuno has to stipulate the following in order to accommodate nominative-marked objects:

> I shall show that *ga* is used not only for marking the subject but also for marking the object of all transitive adjectives and nominal adjectives . . . and of a certain class of transitive verbs. I shall further show that these verbs which take *ga* for object marking have the common semantic characteristic that they represent, not actions, but states. (Kuno 1973: 81; underlining added)

Japanese does not have an agreement phenomenon comparable to those seen in Indo-European languages and others, where the nominative subject typically triggers subject–verb agreement. In those languages where subject–verb agreement is seen, it is the nominative nominal, rather than the dative subject, that triggers agreement, as in the following examples.

(36) a. *Mir gefällt dieses Buch.*  
I.DAT like.SG this book.SG.NOM  
*I like this book.*

b. *Mir gefallen diese Bücher.*  
I.DAT like.PL these books.PL.NOM  
*I like these books.*
(37) a. **Le Moshe haya sefer.**
   dat Moshe be.3SG.masc.past book.masc.sg
   ‘Moshe had a book.’ (Modern Hebrew; Anne Hartenstein, p.c.)

   b. **Le Moshe hayu shlosha sfarim.**
   dat Moshe be.3PL.masc/fem.past three book.masc.pl
   ‘Moshe had three books.’

Besides these coding properties, the nominative nominals in question participate in the honorification process as well as reflexive binding in Japanese. As discussed above, these are properties uniquely associated with the nominative subject and the dative subject. Yet in the following example, it is the nominative nominal, rather than the dative nominal, that triggers subject honorification.

(38) **Kimi ni (wa) rippa na go-ryoosin ga oide-ni**
   you dat (top) splendid cop HON-parents nom exist(HON)-adv
   naru (zya nai ka).
   become (right?)
   ‘You have splendid parents, don’t you?’

In this sentence, it is the referent of the nominative nominal *go-ryoosin* ‘HON-parents’ that is the target of the deference because the dative subject referred to by the familiar second person form *kimi* ‘you’ would not trigger the honorification process.

Likewise, the second nominative nominal of the double nominative construction can anteced the reflexive pronoun, as in the following example, where the honorific verbal ending also indexes the honorified status of the referent of the second nominative nominal.

(39) **Yamada-san ga okusan ga zibun no kaisya o**
   Yamada-Mr. nom wife nom self of company acc
   keiei-nasatte iru.
   management-do (HON) be
   ‘It is Mr. Yamada, whose wife, is managing self’s own company.’

Thus, there is a good deal of evidence that the second nominative nominal of the non-canonical DAT/NOM-NOM frame is a subject. A major task in dealing with these non-canonical constructions is accounting for the distribution of subject properties between the dative nominal and the nominative nominal of the dative construction and between the first nominative nominal and
the second one in the double nominative construction. Simply admitting a nominative-marked object, as Kuno (1973) does, offers no solution to this problem. The Relational Grammar analysis (e.g. Perlmutter 1984, Harris 1984, Jake 1985), on the other hand, precisely addresses this issue. In this framework, a dative sentence such as (40a) is analyzed as involving two strata of relational network, in one of which—the initial stratum—the dative nominal holds the subject relation and the nominative nominal the object relation. These undergo inversion turning the former into a final indirect object and the latter into a final subject, as shown below:

(40) a. Ken ni nihongo ga wakaru.
   Ken DAT Japanese NOM understand
   ‘Ken understands Japanese.’

b. 1 2   P (initial stratum)
   3 1   P (final stratum)
Ken nihongo wakaru

While this analysis provides a basis for the explanation toward the split distribution of subject properties over the dative and the nominative nominal of the dative construction, not all dative constructions behave in an uniform manner as predicted by the Relational Grammar analysis. Besides, it will be shown in the next section that there is evidence that the relevant predicates calling for the non-canonical coding are basically intransitive, many of which are paired with transitive versions, undermining the abstract transitive analysis of the Relational Grammar framework.

7. Transitive and intransitive predication

As pointed out in the beginning, those predicates that enter into non-canonical constructions in Japanese are all stative, and the majority of them are adjectives and adjectival nominals—except for the potential derivatives, which involve the verbal endings -(r)areru and -eru. Indeed, in many other languages, expressions that are couched in non-canonical frames typically involve intransitive verbs of being, becoming, or coming, as in the case of many south Asian languages (see Shibatani and Pardeshi in press). In Japanese, many adjectives and adjectival nominals calling for non-canonical constructions have corresponding verbs, most of which are transitive. In (41), most verbs enter into the canonical transi-
tive case frame NOM-ACC, while the corresponding adjectives and adjectival nominals call for the non-canonical NOM/DAT-NOM frame, as shown in (42)–(44).

(41) Verbs Adjectives
nikumu nikui ‘hate(ful)’
natukasimu natukasii ‘long for’
sitasimu sitasii ‘fraternize/to be familiar’
kanasimu kanasii ‘sad’
tanosimu tanosii ‘enjoy/enjoyable’
ayasimu ayasii ‘suspect/suspicious’
itamu itai ‘hurt’
yurumu yurui ‘slack(en)’
netamu netamasii ‘to be jealous’

Verbs Adjectival nominals
kirau kirai da ‘dislike’
suku suki da ‘like’

(42) a. Ai ga/ wa Ken o nikumu.
Ai NOM/TOP Ken ACC hate (verb)
‘Ai hates Ken.’
b. Ai ga/ wa Ken ga nikui rasii.
Ai NOM/TOP Ken NOM hateful (adjective) seem
‘It seems that to Ai Ken is hateful.’

(43) a. Mami ga/ wa Hata-sensei o natukasimu.
Mami NOM/TOP Hata-prof ACC long for (verb)
‘Mami longs for Prof. Hata.’
b. Mami ni (wa) Hata-sensei ga natukasii.
Mami DAT (TOP) Hata-prof NOM longing (adjective)
‘Mami longs for Prof. Hata.’

(44) a. Mami ga/ wa Ken o kirau.
Mami NOM/TOP Ken ACC dislike (verb)
‘Mami dislikes Ken.’
b. Mami ga/ wa Ken ga kirai da.
Mami NOM/TOP Ken NOM dislike COP (adj. nominal)
‘Mami dislikes Ken.’
In many other languages a contrast is seen in terms of the presence or absence of volition/control between a transitive expression and a corresponding dative subject construction (or its variant), and Japanese also seems to show this difference between the alternate coding patterns above. Thus, while the verb versions allow imperatives, the adjectival counterparts do not:

\[(45) \quad Ni\text{-}ku\text{-}mi\text{-}ta\text{-}kereba, \text{nikume.} \quad \text{hate\text{-}want\text{-}COND} \text{ hate\text{-}IMP} \quad \text{‘If you want to hate (me), hate (me)!’} \]

In this chapter we are advancing the commonsensical hypothesis that adjectives and adjectival nominals are intransitive. In other words, while transitive verbs such as those on the left column in (41) predicate over their subject, the adjectival and adjectival nominal counterparts in the right hand column are all intransitive, and they predicate over the second nominative nominal in the dat/nom-nom pattern. That is, the forms in (42) and (43) would receive the following analysis:

\[(46) \quad a. \quad \text{[Aiga \text{Ken o nikumu}]} \quad (\text{Transitive predication; cf. 42a}) \quad \text{SUBJ} \quad \text{PRED} \\
\quad b. \quad \text{Aiga [Ken ga nikui]} \quad (\text{rasii}) \quad (\text{Intransitive predication; cf. 42b}) \quad \text{SUBJ} \quad \text{PRED} \]

\[(47) \quad a. \quad \text{[Mami ga Hata-sensei o natukasimu]} \quad (\text{Transitive predication; cf. 43a}) \quad \text{SUBJ} \quad \text{PRED} \\
\quad b. \quad \text{Mami ni [Hata-sensei ga natukasii]} \quad (\text{Intransitive predication; cf. 43b}) \]

We shall discuss the nature of the extra noun phrases (the initial nominative nominal and the dative nominal) in (46b) and (47b) in the next section. For the moment let’s concentrate on the predication relations posited above. Predication describes the nature of the referent of the subject nominal. Thus, in (46a), the verb is primarily describing about Ai, while in (46b), the predicate describes the nature of Ken. Evidence for this difference in predication patterns obtains from the interpretation of prenominal modification forms. For example, (48a) below means a person who hates someone, reflecting the predication pattern in (46a), while (48b) means someone who inspires hatred, reflecting the predication pattern of (46b). Other pairs in (41), when comparison is possible, behave the same way, indicating that the members of the verb-adjective/adjectival nominal pairs differ in their predication pattern, as shown in (46) and (47).
(48) a. _nikumu hito_
   hate person
   ‘a hating person’

b. _nikui hito_
   hateful person
   ‘a hateful person; a person inspiring hatred’

(49) a. _kirau hito_
   dislike person
   ‘a person disliking (someone)’

b. _kirai na hito_
   disliking cop person
   ‘a person inspiring dislike’

(50) a. _natukasimu hito_
   long for person
   ‘a longing person’

b. _natukasii hito_
   long for person
   ‘a person inspiring longing’

The above is consistent with the predication and prenominal modification patterns of regular transitive and intransitive structures, indicating that the relevant non-canonical constructions involve intransitive predication.1

(51) a. _orosu hito_ (transitive)
   bring down person
   ‘a person who brings down/unloads (something/someone)’

b. _oriru hito_ (intransitive)
   come down person
   ‘a descending person’

The distinction between the transitive and intransitive predication discussed here figures prominently in some languages, where a clear semantic opposition obtains between the canonical transitive expression and the corresponding non-canonical construction involving intransitive predication. Compare the following Sinhala forms, for example, where (52a), cast in the canonical transitive frame with an active verb form (A-form), describes a volitional activity, while
(52b), a variant of the dative subject construction with a non-active verbal counterpart (P-form), conveys an accidental involvement of an individual in a spontaneously occurring event. The literal interpretation of (52b) is something like ‘The child was inadvertently involved in the event of the cup’s breaking.’ Notice that the latter involves intransitive predication, which can form an independent intransitive sentence, as in (52c).

(52) a. lamAya koope binda.
   child cup break.PAST.A
   ‘The child (deliberately) broke the cup.’
b. lamAya-atin [koope biNduna].
   child-INST cup break.PAST.P
   ‘The child (accidentally) broke the cup.’
c. koope biNduna.
   cup break.PAST.P
   ‘The cup broke.’ (Wijayawardhana et al. 1995:113)

Needless to say, the proposed intransitive analysis for the relevant non-canonical construction is consistent with the subject properties associated with the second nominal nominative, which we discussed in the preceding section. However, it leaves the initial dative or the initial nominative nominal of the non-canonical construction unaccounted for. We shall now turn to this problem.

8. On the elliptical nature of the relevant intransitive predication

Undoubtedly a major motivation for the transitive analysis of the non-canonical constructions in question comes from the elliptical nature of the expressions without the initial dative or the initial nominative noun phrase of the non-canonical expressions. Thus, the (a) expressions below are felt to be elliptical, as noted by Kuno (1973).

(53) a. Ai ga suki da. (Elliptical)
   Ai NOM like COP
   ‘(Someone) likes Ai.’
b. Ken ga/wa Ai ga suki da. (Full sentence)
   Ken NOM/top Ai NOM like COP
   ‘Ken likes Ai.’
(54) a. *Nihongo ga hanas-e-ru.* (Elliptical)
Japanese nom speak-poten-pres
‘(Someone) can speak Japanese.’
b. *Ken ni (wa) nihongo ga hanas-e-ru.* (Full sentence)
Ken dat (top) Japanese nom speak-poten-pres
‘Ken can speak Japanese.’

As in the earlier discussion in Section 4, Kuno (1973) contrasts the double nominative construction of the (53b)-type with what he calls double subject constructions on the basis of his claim that while the latter yields a non-elliptical expression without the initial nominative noun phrase, the former, being a transitive construction, requires two arguments. However, this argument does not go through, since some of what Kuno considers to be double subject constructions also require another nominative noun phrase to be complete.

Kuno’s classification is as follows:

(55) Kuno (1973)

a. *Ken ga otoosan ga sin-da.* (Double subject construction)
Ken nom father nom die-past
‘It is Ken whose father died.’
b. *Ken ga Ai ga suki da.* (Transitive construction)
Ken nom Ai nom like cop
‘Ken likes Ai.’
c. *Ken ni nihongo ga hanas-e-ru.* (Transitive construction)
Ken dat Japanese nom speak-poten-pres
‘Ken can speak Japanese.’

However, (55a) without the initial nominative nominal, as below, is as elliptical as (53a) and (54a).

(56) *Otoosan ga sin-da.*
father nom die-past
‘A father died.’

In order for this expression to be complete, *otoosan ‘father’ must be “determined” either by supplying the possessor nominal, e.g. *Ken no ‘Ken of/Ken’s’, or by framing it in the domain of another nominal as in (55a).

The crux of the problem is why sentences like (53a), (54a), and (56) are felt to be elliptical while “normal” intransitive sentences like the following are not elliptical.
In order to better understand this problem, I now turn to double subject constructions, whose structure and semantics are better understood.

9. Double subject constructions

A fair number of languages exhibit double subject constructions of the following type, where there are two nominative subjects, or their equivalents if the language, e.g., Chinese, does not have case marking.

(58) a. *Zoo ga hana ga nagai (koto).* (Japanese)
   elephant nom nose nom long (that)
   ‘(that) an elephant has a long nose/trunk.’

b. *Xiàng bízi cháng.* (Chinese)
   elephant nose long
   ‘An elephant has a long nose/trunk.’

c. *Chán thâaw too.* (Thai)
   I foot big
   ‘I have big feet.’

d. *Ali kepala-nya besar.* (Indonesian)
   Ali head-his big
   ‘Ali has a big head.’

e. *Si Erap daku ang ulu.* (Cebuano; Philippines)
   top Erap big top head
   ‘Erap has a big head.’

f. *Ji dhaaten chon syaa.* (Newari; Tibeto-Burman)
   I truly head hurt
   ‘I truly hurt in the head.’

g. *jumbi yinda wula-n?* (Warrungu (Australia);
   penis.nom 2sg.nom die-nonfut Tsunoda 1997: 99)
   ‘Your penis has died?’ (In response to: ‘My erection has gone.’)
All these expressions, sometimes referred to as possessor ascension/raising or external possessor constructions, are assumed to have the following double subject, double predication structure:

(59)

```
NP1
  S1
  NP2
  S2
  PRED
  hana-ga
  nagai
  long
  S
  zoo-ga
  elephant-NOM

LARGE SUBJ  SMALL SUBJ
```

Here, everyone agrees that the predicate *nagai* ‘long’ is a one-place intransitive predicate predicking over the NP *hana-ga* ‘nose-NOM’. Indeed, sentence (58a) says that the nose (i.e., the trunk) is long, not the elephant. Thus, the second nominative NP is the subject of the predicate *nagai* ‘long’. On the other hand, *zoo-ga* ‘elephant-NOM’ is also a subject in the sense that the entire sentence is about an elephant. The sentence is understood to mean that an elephant is such that the state of affairs of a nose’s being long is attributable to it. In other words, the clause *hana-ga nagai* ‘a nose is long’ is a clause predicking over the NP *zoo-ga* ‘elephant-NOM’, giving rise to a double subject, double predication structure. For ease of reference, I shall call the internal subject “small subject,” and the external one predicated over by the clausal predicate “large subject,” as indicated in (59).

What is interesting about double subject constructions of this type is that the internal clause cannot stand by itself. Thus, (60) below is decidedly odd as a statement.

(60)  *Hana-galwa nagai.*

  nose-NOM/top long

  ‘A nose is long.’

Just like the accompanying English translation, there is nothing syntactically wrong about this sentence. It is the truth-value of the sentence that is being questioned, since the sentence makes a universal claim that a nose is long,
which is not in fact true. Compare this sentence with the following, which is acceptable since everyone is believed to agree that it is universally true that a flower is beautiful.

(61)  
\[ \text{Hana-ga/} \text{wa utukusii.} \]
\text{flower-NOM/top beautiful}

‘A flower is beautiful.’

There are basically three types of sentence with regard to the point being made. Some sentences describe what is not universally true, while some others describe what is generally accepted as expressing a universal truth. And there are sentences between these two, i.e. those which can be contested about their truth and therefore can specify the domain of their application. Compare the following patterns in English. Sentence (62a) states what is not universally true, and even if one “contextualizes” it as in (62b), it still sounds odd, conveying a strange belief. (63a) says something believed to be universally true, and limiting the truth to a specific domain as in (63b) is also odd—the sentence is perhaps only possible when uttered by a dissenter of the Flat Earth Society. The truth of (64a), on the other hand, can be contested and therefore can be “personalized,” as in (64b).

(62)  
a. ???A nose is long.
   b. ???To me, a nose is long.

(63)  
a. The earth is round.
   b. ???To me, the earth is round.

(64)  
a. Fish tastes good.
   b. To me, fish tastes good.

The internal clause of the double subject construction typically expresses those states of affairs that are not universally true; and accordingly their domain of application must be limited in one way or another. One simple way of achieving this is in terms of narrowing down the referent to a specific entity, turning a universal statement to a specific one, as in (65a), which is also the method employed in English and a large number of other languages.

(65)  
a. \[ \text{Zoo no hana ga nagai.} \]
   \text{elephant of nose NOM long}
   ‘The elephant’s nose/trunk is long.’
Some languages have an additional means of delimiting a universal statement, and it is by means of couching the expression in the double subject construction, as in (65b), where the large subject provides a domain to which the truth of the predicate clause is limited.

As the terms “possessor ascension/raising” and “external possessor” constructions imply, the double subject construction under consideration is often analyzed as deriving from a possessive construction of the type in (65a). However, I contend that such an assumption is mistaken. The double subject construction does not assert the possessive relation between the large subject and the small subject. On the contrary, the small subject, the body-part nominal, in most can be indefinite, which is the interpretation the internal clause with a nominative-marked small subject gets when it occurs as an independent sentence, as in (60). The possessive relation between the large subject and the small subject of the double subject construction is established indirectly from the following logic: If it is true that a state of affairs of a nose’s being long is attributable to an elephant, then it must be true that an elephant’s nose (trunk) is long. Even in the double subject construction of the Indonesian type, where the small subject has a possessive marker (see (58d)), there is no need to postulate the direct possessor-possessee relation between the large subject and the small subject. The large subject simply provides a domain or a reference point, to use Langacker’s (1997) Cognitive Grammar terminology, in which a statement obtains true that some third person’s head is big.

Another way of interpreting the double subject construction is in terms of the dependency relation between the large subject and the predicate clause. That is, the truth of the state of affairs expressed in the predicate clause is dependent upon (the domain provided by) the large subject. This notion of dependency figures prominently in our understanding of the structure of the dative construction and its variants, where the realization of the state of affairs described in the predicate clause crucially depends on the cognizer functioning as the large subject.

Thus, the reason sentences such as Otoosan ga sinda ‘A father died’ or Hana ga nagai ‘A nose is long’ are felt to be elliptical is not because the clause structure itself is incomplete, but because such statements, typically containing a
relational noun, require a domain in which the relational noun can be anchored and in which its truth value can be determined. I claim that dative subject constructions and double nominative constructions are to be analyzed in the same manner. Before we turn to these non-canonical constructions, let us make sure that the large subject of the double subject construction behaves like a subject syntactically as well.

The Japanese subject honorification process simply attaches the prefix *o-* or *go-*, when adjectives and adjectival nominals are involved, as in (66) below:

(66)  
\[ \text{Hata-senseiga } \text{wakai/o-wakai.} \]
\[ \text{Hata-prof } \text{NOM/\text{TOP} young/HON-young} \]
‘Prof. Hata is young.’

The large subject triggers the same honorification process, as the comparison of the behaviors of the possessor nominal and the large subject nominal reveals.

(67)  
\[ \text{Hata-senseino migi-me ga warui?} \text{o-warui.} \]
\[ \text{Hata-prof } \text{GEN right-eye NOM bad/HON-bad} \]
‘Prof. Hata’s right eye is bad.’

\[ \text{Hata-sensei ga migi-me ga warui/o-warui.} \]
\[ \text{Hata-prof } \text{NOM right-eye NOM bad/HON-bad} \]
‘Prof. Hata has a bad right eye.’

The large subject, just like a regular subject, raises into the main clause object position under the predicate such as *omou* ‘to think’, and *minasu* ‘consider’.

(68)  
\[ \text{Hata-senseiwa Kenga totemobaka da to omot-te} \]
\[ \text{Hata-prof. TOP Ken NOM very stupid COP that think-CONJ i-ru.} \]
be-PRES
‘Prof. Hata thinks that Ken is very stupid.’

\[ \text{Hata-sensei wa Ken o totemo baka da to omot-te} \]
\[ \text{Hata-prof. TOP Ken ACC very stupid COP that think-CONJ i-ru.} \]
be-PRES
‘Prof. Hata considers Ken to be very stupid.’
10. Non-canonical constructions as double subject constructions

We shall now turn to the non-canonical constructions in order to determine the nature of the predication involved, i.e. whether they indeed involve transitive predication as claimed by the previous analyses. First of all, we notice that many of the predicates calling for the non-canonical coding pattern have intransitive use. In their intransitive use, however, domains specifying a location or a circumstance must be provided in which the truth of the intransitive statement can be evaluated; or some of the predicates can form a statement construable as universally true, in which case no specific domain need be specified.

Like all the other relevant predicates, a potential predicate like *hanas-e-ru* ‘speakable’ yields an incomplete-sounding sentence when it combines with a nominative subject, as in (70a). With a nominative-marked, as opposed to a topic-marked, subject, this sentence makes a specific statement and requires a context in which its truth can be evaluated. A locative expression can provide such a context, as in (70b), which is a perfect intransitive sentence. My claim is that the dative nominal of the dative subject construction (70c) does exactly the same thing as the locative phrase in providing a domain in which the intransitive predication is embedded and in which the truth of the intransitive statement is said to hold true. Because the dative nominal functions as a large subject, the sentence as a whole describes the property of this subject; e.g. Ken is
such that the state of affairs of Japanese being speakable is attributable to him. The capability reading of the sentence arises from this kind of property reading.

(70) Potentials

a. ??Nihongo ga hanas-e-ru.
   Japanese NOM speak-POTEN-PRES
   ‘Japanese can be spoken.’

b. Hawai de (wa) nihongo ga hanas-e-ru.
   Hawai’in (TOP) Japanese NOM speak-POTEN-PRES
   ‘In Hawai’i Japanese can be spoken.’

c. Ken ni (wa) nihongo ga hanas-e-ru. (Dative construction)
   Ken DAT (TOP) Japanese NOM speak-POTEN-PRES
   ‘Ken can speak Japanese; (lit) With respect to Ken, it is true that Japanese can be spoken.’

d. Nihongo wa hanas-e-ru.
   Japanese TOP speak-POTEN-PRES
   ‘Japanese can be spoken./Japanese is a speakable language.’

Sentence (70d), with the topic marker, makes a universal statement that Japanese can be spoken anywhere by anyone. This again gives rise to a property reading that Japanese is a speakable language—if anybody tries (hard) anywhere, Japanese can be spoken.

Existential/possessive expressions are of the same type. A specific statement needs to be anchored, as in (b) and (c) below:

(71) Existentials/possessives

a. ??Kodomo ga san-nin iru.
   child NOM three-CL exist
   ‘Three children exist.’

b. Asoko ni kodomo ga san-nin iru.
   there at child NOM three-CL exist
   ‘There are three children there.’

c. Hata-san ni (wa) kodomo ga san-nin iru.
   Hata-Mr. DAT(TOP) child NOM three-CL exist
   ‘Mr. Hata has three children.’

d. Kami wa iru.
   god TOP exist
   ‘God exists.’
Again, if a universal context is assumed, a universal statement can be made as in (71d), where the intransitive predication stands as a complete sentence both syntactically and pragmatically.

The verbs of necessity work in a similar manner as the above;

(72) Necessity

a. ??Kane ga takusan hituyoo da.
   money NOM a lot necessary COP
   ‘A lot of money is necessary.’

b. Siranai mati de wa kane ga takusan hituyoo da.
   unfamiliar town in TOP money NOM a lot necessary COP
   ‘In an unfamiliar town a lot of money is necessary.’

c. Ken ni (wa) kane ga takusan hituyoo da.
   Ken DAT (TOP) money NOM a lot necessary COP
   ‘Ken needs a lot of money.’

d. Kane wa hituyoo da.
   money TOP necessary COP
   ‘Money is necessary.’

When we turn to the verbs of physiological and psychological states, the situation is little different from the above in that it gets harder to make universal statements independent of a specific domain. First consider the following:

(73) Physiological states

a. ??Ha ga itai.
   tooth NOM hurting
   ‘A tooth hurts.’

b. Boku ga/wa ha ga itai.
   I NOM/TOP tooth NOM hurting
   ‘I have a tooth ache.’

c. ??Ha wa itai.
   tooth TOP hurting
   ‘A tooth hurts.’

e. Musi-ba wa itai.
   carious-tooth TOP hurting
   ‘A carious tooth hurts.’

Example (73a), like other body-part expressions, cannot stand alone without a specification of the domain in which the statement obtains true. However, since it is not true (luckily) that a tooth hurts universally, we cannot form a
non-canonical constructions in Japanese

universal statement like (73c). For a state of affairs involving a physiological state, a cognizer is always needed, as in (73b). In other words, the realization of the relevant physiological state depends on the recognition of that condition by someone. That is, there is no toothache or hunger when no one recognizes it. It is only when the subject nominal is considered to have the property responsible for the physiological state that the relevant intransitive predication yields a complete statement, as in (73e), which unequivocally shows the intransitive nature of the predicate.

Situations involving psychological states are similar to those involving physiological states in that a cognizer of the relevant state is normally needed, and a statement without it would be interpreted as elliptical, as in (74a).

(74) a. ??Ano hito ga suki da.
    that person NOM like cop
    ‘(Someone) likes that person.’
 b. Ai ga/wa ano hito ga suki da.
    Ai NOM/top that person NOM like cop
    ‘Ai likes that person.’
 c. ??Ano hito wa suki da.
    (That person is likable.)

Sentence (74c) is not possible as a complete statement, indicating that suki da ‘like’ is not a predicate allowing an objective characterization of a person. This predicate, unlike English adjective likable, always requires a cognizer who feels the sensation of liking. Just as a toothache does not exist when no one recognizes it, the semantics of suki da says that a person cannot have the quality of being likable unless somebody recognizes it. The same holds for the predicate kirai da ‘hateful’, which says that a person is hateful only when someone else recognizes so.

Not all the predicates of psychological states are like these, and some allow a complete intransitive predication apart from a cognizer. Osorosii ‘fearful’ is one such predicate.

(75) a. ??Ano hito ga osorosii.
    that person NOM fearful
    ‘(Someone) is fearful of that person.’
 b. Boku ni (wa) ano hito ga osorosii.
    I DAT top that person NOM fearful
    ‘I am fearful of that person.’
It remains a mystery why certain mental state verbs allow objective characteriza-
tization of a person/thing independently from a cognizer, as in the case of osorosii
‘fearful’, while certain others like suki da ‘like’ do not, though it can be men-
tioned that predicates such as liking and disliking express more subjective mental
states than others. It is worth noting at this point that the predicates allowing ob-
jective characterization of a person/thing, as in (106), assume the DAT-NOM case
frame in its non-canonical coding, while the other type calls for the NOM-NOM
frame, as in (74b). We shall return to this difference in the next section.

Thus, many of the predicates that are said to call for non-canonical coding
patterns do in fact function as intransitive predicates. That many of these ex-
pressions are felt to be elliptical without the initial dative or nominative noun
phrase is not because the predicates are transitive or because of any other syn-
tactic reason. It is due to the pragmatics of these statements that a domain must
be provided in which their truth can be evaluated or in which the state of affairs
materializes as in the case of mental and physiological states. In short, we are
claiming that both dative subject constructions and double nominative construc-
tions involve intransitive predication embedded in the domain of a large sub-
ject, namely the double subject construction of the following structure:

\[(76) \quad \text{Dative subject/double nominative construction}\]

\[
\text{S}_2 \quad \text{S}_1 \\
\text{NP}_1 \quad \text{NP}_2 \quad \text{PRED} \\
\text{Ken ni eigo ga wakaru} \\
\text{Ken DAT English NOM understand: PRES} \\
\text{‘Ken understands English.’} \\
\text{Ken ga Ai ga suki da} \\
\text{Ken NOM Ai NOM like COP} \\
\text{‘Ken likes Ai.’}
\]
By positing the double subject structure of the above type for the dative subject construction, we are assuming that a large subject of such a construction can be marked other than the nominative. In the case of Japanese, I assume that the dative marked large subject arises from the combination of the dative and the nominative marker, i.e. the combination of \textit{ni-ga}, which requires reduction to single marking of either \textit{ni} or \textit{ga} due to the prohibition of double marking of the central case markers, \textit{ga} (NOM), \textit{o} (ACC), and \textit{ni} (DAT). None of the combinations such as \textit{ga-ga}, \textit{o-ga}, \textit{ni-ga}, \textit{ni-o}, or with the genitive particle \textit{ga-no}, \textit{o-no}, \textit{ni-no} are permitted in Japanese. Combinations of these with peripheral case particles are permitted, and indeed they occur in the large subject position of the double subject construction:

(76) a. \textit{[Kono heya kara-ga [huzi-san ga yoku mieru]].} \\
    this room from-NOM Fuji-Mt NOM well visible \\
    ‘It is from this room that Mt. Fuji is very visible.’

b. \textit{[Hanako to-ga [itiban benkyoo ga si-nikui]].} \\
    Hanako with-NOM most study NOM do-difficult \\
    ‘It is with Hanako that studying is most difficult to do.’

c. \textit{[Tookyoo made-ga [kuroo ga ooi]].} \\
    Tokyo up to-NOM trouble NOM many \\
    ‘It is up to Tokyo that there are many troubles.’

The dative subject construction in Japanese, in other words, has the following basic structure:

(77) \textit{[Ken ni-ga [eigo ga wakaru]].} \\
    Ken dat-NOM English NOM understand

Due to the prohibition of the \textit{ni-ga} combination, one of the particles must be deleted, yielding the following two surface forms;

(78) a. \textit{Ken ni eigo ga wakaru.} (Dative subject construction) \\
    Ken dat eigo NOM understand \\
    ‘Ken understands English.’

b. \textit{Ken ga eigo ga wakaru.} (Double nominative construction) \\
    Ken NOM eigo NOM understand \\
    ‘Ken understands English.’

Thus, there are two sources for double nominative constructions, those deriving from the dative subject construction and basic double nominative
constructions (e.g. (74b)) that do not alternate with dative subject constructions. The next question is what the difference is between the dative subject construction and the basic double subject construction when both are analyzed as double subject constructions.2

11. The degree of dependency of clausal predicates

It has already been alluded to above that there is a difference in the degree of dependency between the large subject and the clausal predicate among some of the double subject constructions. Predicates such as suki da ‘like’ and kirai da ‘hate’ form an intransitive proposition whose realization depends entirely upon a large subject cognizer. The same applies to such a proposition as Atama ga wa itai ‘A head is hurting’, which contrasts with a proposition such as Atama ga wa ookii ‘A head is large.’ While both these expressions are not possible as true statements, in the case of the latter, the proposition can be delimited with a genitive modifier and can be made applicable to a specific head, as, e.g. Taro no atama ga ookii ‘Taro’s head is large.’ Or it can be couched in the double subject construction as Taro no atama ga itai ‘Taro has a large head.’ But in the case of the physiological condition, the only option is the double subject construction, in which a cognizer is specified as such; e.g. Boku no atama ga itai ‘I have a head hurting’; *Boku no atama ga itai ‘My head is hurting.’

Compared to these propositions, those involving potential, existential, and a few psychological predicates can form complete predication without the large subject; e.g. Nihongo wa hanas-e-ru ‘Japanese is speakable’, Kami wa iru ‘God exists’, Ano hito wa kowai ‘That person is fear inspiring’. Of course these can be also couched in the double subject construction so that the application of the truth of the statement is limited to a specific domain (see (70), (71), (75)).

What we see here is the difference in the degree of dependency. Certain intransitive propositions are highly dependent upon a particular domain making it necessary to couch them in the double subject construction. Some others are freely occurring without a specification of the domain to which they apply, but which can also function as a clausal predicate of a large subject making a specific statement about the latter. I want to claim that the difference between the dative subject construction and the basic (i.e. non-alternating) double nominative construction lies in the difference in the degree of dependency between the
clausal predicate and the large subject, the former showing a lower degree of dependency and the latter a higher degree of dependency.

Kuno (1973: 90–1) lists predicates taking the dat-nom pattern as well as those taking the nom-nom pattern, which have been arranged below for our purposes:

(79) dat-nom predicates:

Verbs: -eru (potential derivatives), dekiru ‘can do’, wakaru ‘understand’, aru ‘have/exist’, nai ‘do not have/non-extent’, iru ‘exist’

miertu ‘visible’, kikoertu ‘audible’


(80) nom-nom predicates

Verbs: iru ‘need’


Although it is not quite absolute, there appears to be a general tendency in that the predicates occurring in the dat-nom frame (those in (79)) have an independent intransitive use, while those belonging to the nom-nom class (80) appear to have less of one. We have already illustrated the independent use of predicates such as osorosii ‘fearful’, iru ‘exist’, and hituyoo da ‘necessary’.

Potential derivatives require some historical explanation. First, some of them (e.g. hanas-e-ru ‘speakable’) can occur independently, as discussed earlier. Potential expressions historically arose from spontaneous/passive constructions. These constructions did not have to overtly express an agent, as in the passive of many other languages. The potential developed by using an agentless passive/potential clause as a clausal predicate. Indeed, we can observe the potential/passive split in terms of how a (potential) agent is expressed; when it is expressed clause internally and as an optional adjunct, we obtain a passive
expression. In the potential expression, on the other hand, the potential agent is expressed in sentence initial position, i.e. as large subject of the double subject construction. (81a), for example, is ambiguous between the two readings as indicated by the translations. By inserting the (potential) agent in the manner of (b) and (c), we obtain either a potential or a passive construction.

(81) a. *Kono kodomo-tati wa osie-rare-ta.*
   this children TOP teach-PASS/POTEN-PAST
   ‘These children were teachable/These children were taught.’

b. *Ken ni wa [kono kodomo-tati ga osie-rare-ta]*
   Ken DAT TOP this children NOM teach-POTEN-PAST
   ‘Ken could teach these children.’

c. *Kono kodomo-tati wa Ken ni osie-rare-ta.*
   this children TOP Ken by teach-PASS-PAST
   ‘These children were taught by Ken.’

Thus, although in Modern Japanese the potential ending has diverged from the passive morpheme when the verb root ends in a consonant, changing from -(r)are to -e, the historical evidence suggests that it arose from a passive/potential clause in the manner described above. In other words, the potential verbals calling for the dat-nom case frame arose from an independent clause of the type shown in (81a). Other dat-nom verbs such as *dekiru* ‘can do’, *wakaru* ‘understand’, *kikoeru* ‘be audible’, and *mieru* ‘be visible’ also developed from spontaneous middle expressions.

Compared to the above, many of the predicates calling for the nom-nom frame (those in (80)) are highly dependent in that they cannot occur independently of a cognizer nominal. Again, some predicates belonging to the adjective and the adjectival nominal class, e.g. *kawaii* ‘cute’, *mutukasii* ‘difficult’, can form complete intransitive expressions. Others, however, require a cognizer nominal, and there is no possibility for them to stand as independent sentences (i.e. without implicit cognizers).

The difference between the dative subject construction and the double nominative construction made in this section is in terms of whether the predicate forms complete statements without being couched in the double subject construction. This overall distinction in terms of the degree of dependency as reflected in the case marking of the large subject, however, proves to be too gross a distinction. Closer inspection reveals that even within each type of construction, there is a difference in the degree of dependency. And it is this subtler
difference in the degree of dependency to which syntax is sensitive. We shall
illustrate this as we examine the distribution of subject properties over the large
and the small subject of the double subject constructions.

12. The syntax of double subject constructions

One of the motivations for analysing dative subject constructions as transitive
has been the fact that the dative nominal possesses certain subject properties (see
Kachru et al. 1976, Shibatani 1977). This fact alone does not really argue for the
transitive analysis, however, for we know that the large subject of the double
subject construction (or the possessor ascension construction) also shows subject
properties. In the Relational Grammar framework, the Relational Succession
Law is posited to capture this fact (Perlmutter 1983). If dative subject construc-
tions are analysed as double subject constructions, then the fact that dative
nominals exhibit some subject properties comes as no surprise. What is not made
clear in this framework is why the facts behind the Relational Succession Law
obtain. Certainly the structural relationship between the large subject and the
small subject indicates that the former dominates the latter. But clearly this dom-
inance relationship is a reflection of a semantic dominance or dependency that
obtains between the large subject and the clausal predicate in the relevant con-
structions. In what follows, we shall examine how this notion of dependency
interacts with syntax; i.e. how the distribution of subject properties over the large
subject and the small subject correlates with the notion of dependency discussed
above. Our discussion shows that the distribution of subject properties is not as
consistent as Relational Grammar—the Relational Succession Law and the in-
version analysis (see §6), in particular—predicts.

Among the predicates that call for the dat-nom case frame, the verbs iru
‘exist/have’ and aru ‘exist/have’ show a subtle but interesting contrast. With a
locative nominal, these verbs express the existence of an entity, and are sensi-
tive to its animacy.

(82) a. Asoko ni kodomo ga iru/*aru.
    there loc child nom exist/exist
    ‘There is a child over there.’

b. Asoko ni takai ki ga *iru/*aru.
    there loc tall tree nom exist/exist
    ‘There is a tall tree over there.’
When a human possessor occurs instead of a location, certain animate entities may co-occur with the verb *aru*, as in (83b) below:

(83) a. *Hata-sensei ni (wa) kireina okusan ga iru.*
   Hata-prof DAT (TOP) beautiful wife NOM exist
   ‘Prof. Hata has a beautiful wife.’

   b. *Hata-sensei ni (wa) kireina okusan ga aru.*
   Hata-prof DAT (TOP) beautiful wife NOM exist
   ‘Prof. Hata has a beautiful wife.’

Despite the superficial similarity between the *iru* and the *aru* possessive constructions, they exhibit a contrastive behaviour with regard to some syntactic phenomena. First, observe the honorification pattern:

(84) a. *Hata-sensei ni (wa) kireina okusan ga iru/oideninaru.*
   Hata-prof DAT (TOP) beautiful wife NOM exist/exist.HON
   ‘Prof. Hata has a beautiful wife.’

   b. *Hata-sensei ni (wa) sirami ga iru/#oideninaru.*
   Hata-prof DAT (TOP) lice NOM exist/exist.HON
   ‘Prof. Hata has lice/Prof. Hata is lice-infested.’

(85) a. *Hata-sensei ni (wa) kireina okusan ga aru/ordininaru.*
   Hata-prof DAT (TOP) beautiful wife NOM exist/exist.HON
   ‘Prof. Hata has a beautiful wife.’

   b. *Hata-sensei ni (wa) bakudainasyakkinga aru/ordininaru.*
   Hata-prof DAT (TOP) large debt NOM exist/exist.HON
   ‘Prof. Hata has a large debt.’

In the *iru* possessive construction as in (84), it is the small subject that triggers honorification, as indicated by the inappropriateness of the honorific version of (84b), which honorifies the lice. If the dative nominal *Hata-sensei* ‘Prof. Hata’ were a controlling subject, then we would expect (84b) to be appropriate with an honorific form. In contradistinction to this, it is the large subject that triggers honorification in the *aru* possessive construction. Thus, unlike (84b), (85b) is quite appropriate with the honorific verbal form. This contrast between the *iru* and the *aru* constructions can be further confirmed by the following examples. In the *iru* possessive form of (86a), the nominative noun phrase, the small subject, triggers honorification and an appropriate honorific expression obtains. In the *aru* form in (86b), on the other hand, the dative, large subject,
triggers honorification, rendering the honorific version inappropriate; one does not show deference to a familiar person with the second person form kimi ‘you’. The sentence would be perfectly natural, however, if the dative nominal in (86b) contained a deferential second person form such as anata-sama.

(86) a. Kimi ni (wa) rippana ryosin ga iruloideni naru.
    you.fam dat(top) great parents nom exist/exist. HON
    ‘You have great parents.’

b. Kimi ni (wa) rippana ryosin ga arul#oarini naru.
    you.fam dat(top) great parents nom exist/exist. HON
    ‘You have great parents.’

The phenomenon of reflexive binding is too subtle to be able to distinguish between the two constructions. Still, the honorification pattern examined in (84)–(86) is robust enough to warrant a separate treatment of the distribution of subject properties over the large and small subjects. We would like to claim that the fact that the large subject asserts its subject status more strongly than the small subject in the aru possessive construction is due to a greater dependency that the clausal predicate has on the large subject in this construction. Compared to this, the iru possessive construction involves a more independent clausal predicate. This contrast can be observed by examining the nature of possessed entities allowed in the aru possessive construction.

What can be possessed in the aru possessive construction is rather limited. The best candidates are (1) (mostly acquired) bodily features such as siraga ‘grey hair’, nikibi ‘pimples’, siwa ‘wrinkles’, kizu ‘scar’; (2) personal traits and possessions such as warui kuse ‘bad habit’, saino ‘ability’, tie ‘wisdom’, kangae ‘idea’, zoosyo ‘personal book collection’, tyosyo ‘authored works’, (for some reason syakkin ‘debt’ belongs here); and (3) close kin and associates such as okusan ‘wife’, musuko ‘son’, tomodati ‘friends’, and deshi ‘disciples’. Notice that inalienable possession of body parts cannot be expressed by the possessive construction; they need to be couched in a possessor ascension-type double subject construction. Thus, while aru possessive constructions require entities closely related to the possessor, they cannot contain ones that are very closely connected like body parts.

The iru possessive construction, on the other hand, allows a larger class of entities, though these are limited to animates and typically humans. Observe the following, which illustrate the difference in the range of possessed entities permitted between the two constructions.
(87) a. *Ken ni (wa) yoi tomodati ga takusan iru*aru.
   Ken DAT (TOP) good friends NOM many exist/exist
   ‘Ken has many good friends.’

b. *Ken ni (wa) siensya ga iru*??aru.
   Ken DAT (TOP) sponsor NOM exist/exist
   ‘Ken has a sponsor/supporter.’

c. *Ken ni (wa) inu ga sanbiki iru*??aru.
   Ken DAT (TOP) dog NOM three exist/exist
   ‘Ken has three dogs.’

d. *Ken ni (wa) sirami ga iru*??aru.
   Ken DAT (TOP) lice NOM exist/exist
   ‘Ken has lice.’

e. *Ken ni (wa) takusan huan ga iru*??aru.
   Ken DAT (TOP) many fan NOM exist/exist
   ‘Ken has a lot of fans (followers).’

f. *Ken ni (wa) teki ga iru*??aru.
   Ken DAT (TOP) enemy NOM exist/exist
   ‘Ken has an enemy.’

These observations show that the small subject (and hence the clausal predicate as a whole) has a tighter affinity to the large subject in the *aru* possessive construction than in the *iru* construction, which permits a wider range of possessed entities. The difference in the syntax of honorification between the two constructions is a reflection of this difference in the dependency relationship.

As for the double nominative constructions, let us first examine constructions involving relational nouns including body parts. Both the following expressions are incomplete (i.e. pragmatically but not syntactically).

(88) a. *??Asi ga nagai.*
   legs NOM long
   ‘Legs are long.’

b. *??Okusan ga kirei da.*
   wife NOM pretty COP
   ‘A wife is pretty.’

The fact that these expressions are incomplete indicates that these require (or are dependent upon) some domain in which they can be anchored. Indeed, couching them in the double subject construction render the propositions in question properly interpretable.
(89) a. Yamada-san ga/wa asi ga nagai.
   Yamada-Mr NOM/top legs NOM long
   'It is Mr. Yamada whose legs are long./Mr. Yamada has long legs.'

   b. Yamada-san ga/wa okusan ga kirei da.
   Yamada-Mr NOM/top wife NOM pretty COP
   'It is Mr. Yamada whose wife is pretty.'

   However, the dependency relation differs in these two cases. When a body-part is involved, as in (89a), the state of affairs expressed by the predicate clause does not obtain independently of the large subject, which is construed to be the possessor of the relevant body-part mentioned in the small subject noun phrase. That is, apart from the body-part possessor, the evaluation of the truth of the predicate clause cannot be made.

   In (89b), the relational noun okusan 'wife' requires it to be anchored with someone holding the marital relation with her, but the truth of the propositional content of the predicate clause okusan ga kirei da 'A wife is pretty' can be assessed without reference to the large subject. The individual who happens to be Mr. Yamada’s wife could be pretty even if she were someone else’s wife. Indeed, we obtain a complete statement by replacing okusan ‘wife’ of (88b) with a name such as Hanako, as Hanako ga/wa kirei da ‘Hanako is pretty.’

   Consistent with the difference in the degree of dependency being discussed here, the distribution of subject properties differs between the two constructions. When the body-part nominal is involved, the large subject controls subject-related phenomena, while the small subject asserts its subjecthood when other relational nouns are involved. For example, the large subject antecedes the reflexive pronoun and it triggers subject honorification as well in (90a), whereas it is the small subject that controls these phenomena in (90b):

(90) a. Hata-sensei ga/wa se ga go-zibun no musuko-san
   Hata-prof NOM/top height NOM hon-self GEN son-Mr yori o-takai.
   than hon-high
   'It is Prof. Hata whose height is taller than his own son.'

   b. Hata-sensei ga/wa okusan ga go-zibun no kaisya o
   Hata-prof NOM/top wife NOM hon-self of company acc keiei-nasatte iru.
   manage-do(hon) be
   'It is Prof. Hata whose wife is managing her own company.'
Other **nom-nom** predicates such as *suki da* ‘like’ and *kirai da* ‘dislike’ are highly consistent in the syntax of honorification, showing a high degree of clausal predicate dependency on the large subject. Thus, the large subject consistently triggers honorification, and the small subject never does.

(91) a. *Hata-sensei ga Mami ga o-suki da.*
    Hata-prof NOM Mami NOM HON-like COP
    ‘Prof. Hata likes Mami.’

b. *Hata-sensei ga Mami ga o-kirai da.*
    Hata-prof NOM Mami NOM HON-dislike COP
    ‘Prof. Hata dislikes Mami.’

(92) a. #*Mami ga Hata-sensei ga o-suki da.*
    Mami NOM Hata-prof NOM HON-like COP
    ‘Mami likes Prof. Hata.’

b. #*Mami ga Hata-sensei ga o-kirai da.*
    Mami NOM Hata-prof NOM HON-dislike COP
    ‘Mami dislikes Prof. Hata.’

In (92) honorification is triggered by the large subject *Mami*, not by the small subject *Hata-sensei*, hence the inappropriateness of the forms. Most predicates calling for a **nom-nom** case frame show the above honorification pattern, reflecting the high degree of dependency of the clausal predicate on the large subject.

As discussed in the preceding section, compared to double nominative constructions, dative constructions tend to show a lesser degree of dependency between the large subject and the clausal predicate, many of which allowing the relevant predicates as independent intransitive verbs outside the dative subject construction. However, each type of construction has a variation of its own such that both dative subject and double subject constructions show a difference in the distribution of subject properties. This makes it hard to account for the distribution of subject properties in terms of categorical analyses such as the ones proposed in Relational Grammar.

13. **Summary and conclusion**

This paper has examined the semantics and the syntax of non-canonical constructions in Japanese. The main focus of this paper was on stative non-ca-
non-canonical constructions, since they have analogues in a large number of languages. Stative predicates entering the non-canonical constructions centre around specific semantic domains, most notably possession/existence, physiological states, mental states, and certain modal states. We have argued that what unifies these semantic domains is the notion of dependency of the state of affairs that the relevant predicates express. That is, possession/existence is defined by a location or possessor, hence a possessive/existential state of affairs does not obtain without these elements. Similarly, psychological and physiological states obtain only when they are experienced by a cognizer. Modal states are also bound to an individual upon which their potential realisation is predicated.

All of the stative non-canonical constructions were analysed as involving double subject constructions of the following form:

(93) a. \[ \text{NP-NOM} \ [\text{NP-NOM}\ PRED] \]
\begin{array}{ll}
\text{Large SUBJ} & \text{Small SUBJ}
\end{array}

b. \[ \text{NP-DAT} \ [\text{NP-NOM}\ PRED] \]
\begin{array}{ll}
\text{Large SUBJ} & \text{Small SUBJ}
\end{array}

The clausal predicate represents a state of affairs whose realisation depends on the large subject. The large subject, which the clausal predicate modifies, specifies a domain in which the described state of affairs obtains. The dependency relationship between the large subject and the clausal predicate (and the small subject in it) varies in its degree. Thus, while none of the following sentences can stand as complete expressions, we observe a varying degree of dependency among them.

(94) a. Okusan ga utukusii.
  wife NOM beautiful
  'A wife is beautiful.'

b. Atama ga ookii.
  head NOM big
  'A head is big.'

c. Okusan ga iru.
  wife NOM exist
  'A wife exists.'

d. Okusan ga aru.
  wife NOM exist
  'A wife exists.'
Example (94a) contains a relational nominal, *okusan* ‘wife’, and unless it is further specified, the sentence cannot stand as a complete expression. The same is true with (71b). These forms, however, can become independent full expressions by specifying the “possessor” in genitive form, as below. Indeed, these predicates can form independent sentences without a possessor as well.

(95) a. *Hata-san no okusan ga utukusii.*
    Hata-Mr gen wife nom beautiful
    ‘Mr. Hata’s wife is beautiful.’

b. *Ken no atama ga ookii.*
    Ken gen head nom big
    ‘Ken’s head is big.’

(96) a. *Mami ga utukusii.*
    Mami nom beautiful
    ‘Mami is beautiful.’

b. *Zoo ga ookii.*
    elephant nom big
    ‘An elephant is big.’

The forms in (94a) and (94b) can form non-canonical constructions by predi-cating over a kin person or a possessor as below:

(97) a. *Hata-san no [okusan ga utukusii]*
    Hata-Mr nom wife nom beautiful
    ‘It is Mr. Hata whose wife is beautiful.’

b. *Ken no [atama ga ookii]*
    Ken nom head nom big
    ‘It is Ken whose head is big.’
Because (97b) has a body part small subject, the subject syntax of this kind of construction is controlled by the possessor large subject, which has total semantic dominance over the small subject. On the other hand, the small subject in (97a) is an entity independent of the large subject, albeit one with a close affinity to it. Accordingly, the small subject in this kind of construction asserts its subject status.

Sentences (94c) and (94d) contain existential predicates, and call for either a location or a possessor by which the existence of the entity can be defined. They differ from (94a) and (94b) in that they normally require a large subject expressing a location or a possessor, unless universal existence is implied as in the expression ‘God exists’.

(98) a. \[
\text{Hata-san ni [okusan ga iru]}\]
    Hata-Mr DAT wife NOM exist
    ‘Mr. Hata has a wife.’

b. \[
\text{Hata-san ni [okusan ga aru]}\]
    Hata-Mr DAT wife NOM exist
    ‘Mr. Hata has a wife.’

It was noted that the latter, aru-possessive construction involved a higher dependency relationship between the large subject and the small subject than the former, and this difference was reflected in the syntax.

Example (94e), containing a body part and a predicate expressing a physiological state, is even more dependant on the presence of a cognizer. Unless someone feels pain, there is none. Thus, unlike (95b), (99a) below is ungrammatical. Since Japanese imposes a stringent evidentiality requirement on the cognizer choice, the only possible one for physiological and psychological states would a first person (‘I’).

(99) a. *\text{Boku no atama ga itai.}\
    I GEN head NOM hurting
    ‘My head hurts.’

b. \[
\text{Boku ga [atama ga itai]}\]
    I NOM head NOM hurting
    ‘It is I whose head is hurting/I have a headache.’

Finally, psychological states expressed by those predicates in (94f,g) also require a cognizer without which the said psychological states could
not obtain. Hence the forms in (94f,g) are highly dependent on a large subject cognizer calling for the following non-canonical structure:

(100) a. \[Boku ga \ [mizu ga hosii]\]
     I nom water nom want
     ‘I want water.’

b. \[Ken ga \ [Mami ga suki da]\]
    Ken nom Mami nom like cop
    ‘Ken likes Mami.’

Needless to say, large subjects control subject behavioural properties in these constructions.

We have also suggested that these non-canonical constructions reflect a particular pattern of conceptualizing states of affairs distinct from the conceptualization pattern that entails transitive constructions. Many languages show relevant meaning contrasts between canonical and non-canonical constructions along the line of the presence vs. absence of volitionality/control, reflecting the differences between these two patterns of conceptualization. Japanese too shows a subtle meaning contrast.

While the double subject analysis for the relevant non-canonical constructions in this paper was motivated by the independently observed double subject construction, typically involving body parts—the possessor ascension construction—in Japanese, it has been shown that a strong case can be made for the proposed analysis of dative subject and other non-canonical constructions even in those languages where there is no independently occurring double subject construction (see Shibatani 1999, Shibatani and Pardeshi in press).

Notes

The following abbreviations are used: \(a\) = agent of a transitive clause; \(abl\) = ablative case particle; \(acc\) = accusative case particle; \(agent\) = agent-marking particle; \(cause\) = causee-marking particle; \(cl\) = classifier; \(com\) = comitative case particle; \(cond\) = conditional; \(conj\) = conjunctive particle; \(cop\) = copula; \(dat\) = dative case particle; \(desid\) = desiderative; \(fam\) = familiar; \(gen\) = genitive case particle; \(goal\) = goal case particle; \(hon\) = honorific; \(imp\) = imperative; \(inst\) = instrumental; \(loc\) = locative case particle; \(nom\) = nominative case particle; \(nomi\) = nominaliser; \(nonfut\) = non-future; \(o\) = second non-agentive nominal of a transitive clause; \(obj\) = object; \(pass\) = passive; \(past\) = past tense; \(poten\) = potential; \(pred\) = predicate; \(pres\) = present tense; \(refl\) = reflexive; \(s\) = subject of an intransitive clause; \(source\) = source particle; \(subj\) = subject; \(top\) = topic particle.

1. In Japanese the prenominal modification of this type is indistinguishable from the relative clause
modification. If a true relative clause is involved with relevant arguments, both the “subject” and the “object” readings are possible as in: Hanako ga kirai na hito ‘the person who dislikes Hanako/the person who Hanako dislikes’. Also with an “understood” argument, the following interpretation is also possible: (nattoo ga) kira rinahito ‘the person who dislikes (natto—fermented soy beans).’

2. A legitimate question here is concerned with the difference between the double subject construction and the topic construction involving the particle wa; e.g. Zō ga hana ga nagai vs. Zō wa hana ga nagai ‘An elephant has a long trunk’. A major difference between them is that in the former, a more stringent “aboutness” condition applies than in the latter. The clausal predicate in the double nominative construction must express a state of affairs that is construable as a reasonable way of characterising the large subject. Thus while it is possible to say Kyōto wa boku no anī ga sunde iru ‘As for Kyoto, my brother lives (there)’ is a possible topic construction, its double subject counterpart *Kyōto ga boku no anī ga sunde iru is not, since it is decidedly odd to characterise Kyoto in terms of my brother’s living there. See Shibatani and Cotton (1977) on this.


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