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On subjects and explanation

1.1 Overview

Explaining subjects and their properties is an important challenge in contemporary linguistics. For formalist approaches to linguistics, the clustering of properties that subjects display necessitates some special representational properties unique to subjects. Without such representational uniqueness, the properties of subjects that set them apart from other elements of the clause are mysterious. However, this only pushes the need for explanation back one level: such special representation itself calls out for explanation. For functionalist approaches, similar issues are raised, as it is not clear what the functional properties of subjects are that set them apart. From a typological perspective, the mystery of subjects is even deeper, as different language types appear to deploy subject properties in different (but systematic) ways. As a result of the discoveries of ergative languages, Philippine-type languages, active languages, and the like, interesting questions have been raised about the properties of subjects, the representation of subjects, and even the cross-linguistic validity of “subject” as an element of linguistic description.

The concept of “subject” is one with a long history in linguistics. As with most other such concepts, contemporary linguistics did not invent the subject. Instead, it has taken a traditional concept and attempted to provide it with theoretical content. Problems have arisen because the concept “subject” originates in traditional studies of classical Indo-European languages such as Greek and Latin, languages which are closely related genetically, areally, and typologically. Investing “subject” with theoretical content thus usually depends on either focusing on languages which are typologically similar to classical Indo-European languages or attempting to extend an Indo-European notion to languages which have very different typological properties. As a result, different researchers take varying positions on which languages are examined, and in some languages which element (if any) is to be identified as the subject. Much of the literature on such topics as ergativity and active languages focuses on
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debates such as these. These issues need to be clarified if a true understanding of subjects and their properties is to be achieved.

All contemporary approaches to linguistics – formalist, functionalist, typological, etc. – appropriately take the goal of linguistics to be the explanation of linguistic phenomena. As such, they depart from merely being satisfied with describing linguistic facts, although proper description is, of course, a prerequisite for explanation. In the realm of subjecthood, this means that simply stipulating the properties of subjects is not sufficient: the properties should follow from a proper characterization of the nature of subjects. Since explanation is possible only in the context of a theory of the linguistic domain in question, the attempts that have been made at explaining subjects have been as varied as schools of linguistics, and have mirrored the drawbacks of the theoretical assumptions made by the researchers. Formal accounts tend to be characterized by a disregard for functional factors and often by inadequate cross-linguistic coverage. Functionalist and typological accounts are typically based on superficial surveys of languages and disregard the nature of the formal devices involved in syntax.

It is the thesis of this study that a truly explanatory theory of subjects has yet to be constructed, and its goal is the proposal of such a theory. A theory of subjects must be formally grounded, functionally aware, and achieve sufficiently broad typological coverage, including all of the types of languages which are potentially problematic. Unlike previous accounts, the theory of subjects to be proposed here meets all of these criteria. Naturally, it draws on insights of earlier approaches, but it synthesizes them in a way which results in true explanation of the properties of subjects as they are revealed in cross-linguistic study.

In this first chapter, we will enumerate the properties generally thought to be subject properties. We will also discuss typological issues related to subjecthood. Finally, we will discuss different types of approaches to subjects.

1.2 Subject properties

1.2.1 First approximation

As mentioned above, subjects display an array of properties which must be accounted for by a theory of subjecthood. Properties of subjects have been enumerated in studies like Keenan (1976) and Andrews (1985). We will review them here briefly, primarily using examples from English. However, before we discuss the properties of subjects, it is necessary to take heed of the following observation by Andrews (1985: 104):
At the outset we must note that there are no properties which in all languages are always exhibited by subjects and only exhibited by them. There may be some properties that are universally restricted to subjects [fn. omitted], but there are certainly none that they always have. Rather, we find properties that are exhibited by subjects in a wide range of languages, and which may be plausibly argued to be restricted to subjects in some of them.

This observation is not surprising – it is in line with the way typological properties typically apply (Comrie 1989). However, it violates the usual formalist preference for absolute universals, and thus is an important caveat for any formally based theory of subjects. In addition, the fact that typological properties typically emerge as tendencies rather than absolutes is itself something that needs to be explained.

The first property is that if a verb has an Agent argument, the Agent is realized as subject.

   b. The kid ate the sandwich
   c. *The sandwich ate the kid.

A verb like the putative eat in (1c), in which the Patient is realized syntactically as subject and the Agent as object, is disallowed. Of course, while all Agent arguments are subjects, not all subjects are Agents. If the verb does not have an Agent argument, the subject will express some other thematic role. A special case of this is the passive construction, in which the Agent loses its expressed-argument status (Chomsky 1981, Bresnan 2001).

Another property of subjects is that the addressee of an imperative is a subject. This can be seen in each of the following imperatives: the addressee can have a variety of thematic roles, not necessarily Agent, but it must have the syntactic status of subject.

(2) a. Eat the sandwich!
   b. Go to school!
   c. Freeze, if that’s what you want! (Parent to child who refuses to put on a coat in freezing weather)
   d. Be happy!
   e. Be arrested by the municipal police, not the state police!

Another property which is apparent in the English imperative examples, although more clearly in other languages, is that the subject is more susceptible to being realized as a covert (null or empty) pronoun. It is telling that the empty-pronoun construction (or pro-drop) is often referred to in the
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theoretical literature as the null-subject construction, a name which is based on this higher susceptibility. We will discuss the facts in more detail in Chapter 2.

A frequently discussed property of subjects is anaphoric prominence. The exact details vary from language to language (as will be discussed in Chapter 2), but one clear consequence which can be seen in all languages with reflexive pronouns is that, in a transitive clause in which the subject and object are coreferential, it is the subject which is expressed as a full NP and the object as the reflexive pronoun.

(3) a. Pnina saw herself.
   b. *Herself saw Pnina.

In some languages the antecedent of a reflexive must be a subject, while in others (like English) it just has to have higher prominence, but in either case the most prominent element of the clause is the subject.

An anaphoric construction which does not exist in English, but in which the greater prominence of the subject is again apparent, is the switch-reference construction, in which a clause marks the anaphoric relation (coreference or disjoint reference) between its own subject and the subject of a superordinate and/or coordinate clause. This is exemplified in the following Diyari sentences (Austin 1981).

(4) a. Karna wapa- rna warrayi, jukudu nanda- lha.
   man go- PART AUX kangaroo kill- IMPLIC.SAME
   ‘The man went to kill a kangaroo.’
   b. Karna- li marda matha- rna warrayi, thalara
   man- ERG stone bite- PART AUX rain
   kurda- rnanthu.
   fall- IMPLIC.DIFF
   ‘The man bit the stone so the rain would fall.’

In (4a), the clauses have coreferential subjects, so the “same” morpheme is used in the subordinate clause. In (4b), on the other hand, the subjects are disjoint in reference, and the “different” morpheme is used.

1 An anonymous reviewer suggests that the data from Samoan in Chapin (1970) may be a counterexample. Chapin observes that there is no subject/non-subject asymmetry for a pronoun with a reflexive interpretation; the only condition is that the antecedent must precede the pronoun. However, he also notes that there are no distinct reflexive pronouns in the language. Since the Samoan forms are simply undifferentiated anaphoric elements, there is no reason to expect a restriction to subject.
Even in a language like English, which has no switch-reference system, subjects have a special status in coordination and subordination. In coordinated clauses, if the subjects of both clauses are identical, the subject can be omitted in the second clause. The object cannot be involved in this kind of relation.

(5) a. Mati kissed Pnina and hugged Yoni. (= Mati hugged Yoni; ≠ Pnina hugged Yoni)
   b. *Mati kissed Pnina and Yoni hugged. (intended reading: . . . hugged Pnina)

More frequently discussed in the theoretical literature is the subordination construction known as control (or equi). In the control construction, the subordinate subject is covert (and modeled as a special null nominal called PRO in the transformational literature) if it is identical to an element of the main clause. While the coreferential main clause element need not be subject, the subordinate clause element must be.

(6) a. They persuaded the starship captain [to kiss the alien woman].
   b. *They persuaded the alien woman [(for) the starship captain to kiss].
   c. They persuaded the alien woman [to be kissed by the starship captain].

A similar construction is raising, 2 in which an element which is a thematic (semantic) argument of the subordinate clause is expressed as part of the main clause, in which it is not a thematic argument. The only kind of subordinate clause element which can be raised in this fashion is the subject.

(7) a. It seems [that lions eat zebras].
   b. Lions seem [to eat zebras].
   c. *Zebras seem [(for) lions to eat].
   d. Zebras seem [to be eaten by lions].

Coordination, control, and raising are thus constructions in which the subject has a special status.

Subjecthood interacts in various ways with long-distance (\(wh\)) dependencies. One of the best-known cases is the fact, originally observed in Keenan and Comrie’s (1977) classical study of relative clauses, that subjects are more prone to \(wh\)-movement cross-linguistically than other elements. In English, paradoxically, subjects appear to be more resistant to \(wh\)-movement than other elements of the clause: non-subjects can be extracted from a clause with an overt complementizer while subjects cannot (the \(that\)-trace effect).

2 Also known as matrix coding (Van Valin and LaPolla 1997).
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(8) a. Pnina thinks that Yoni gave the ball to Gabi.
b. *Who does Pnina think that gave the ball to Gabi?  
c. What does Pnina think that Yoni gave to Gabi?  
d. Who does Pnina think that Yoni gave the ball to?

There are other subjecthood-related aspects to long-distance dependency constructions, to be discussed in detail in Chapter 4.

There are other properties that are unique to subjects. For example, many languages require every sentence to have a subject (either overt or covert), a property enshrined in transformational theory’s Extended Projection Principle (and analogous principles in other contemporary theories of syntax). Another property which has been built into the transformational model is that subjects often occupy a special “external” structural position (e.g., outside of VP), a position which provides them with structural prominence relative to other arguments of the verb. Subjects also have semantic and pragmatic prominence. For example, subjects are often definite. They also take wide scope over other elements of the clause.

(9) a. A student didn’t take my course. (*a takes wide scope over negation)  
b. I didn’t see a student. (ambiguous)

Finally, the subject is usually the discourse topic.

We can summarize these subject properties in the following list.

(10) Agent argument in the active voice
    Most likely covert/empty argument
    The addressee of an imperative
    Anaphoric prominence
    Switch-reference systems
    Shared argument in coordinated clauses
    Controlled argument (PRO)
    Raising
    Extraction properties
    Obligatory element
    “External” structural position
    Definiteness or wide scope
    Discourse topic

This catalog of properties represents the reason for the continued interest in the nature of subjects. There is no obvious pretheoretical reason for a single

3 Another construction which is often mentioned in the context of subject properties is Quantifier Float. While the ability to launch floating quantifiers is limited to subjects in some languages, it is clearly not true universally. We suspect that Quantifier Float is not a uniform syntactic construction cross-linguistically, but will not attempt to account for its properties here.
element of the sentence to have all these properties; the fact that one does in many languages calls out for explanation.

1.2.2 Case and subjects

To sharpen the conception of subject properties that we outlined in the previous section, we need to consider the relationship between subjecthood and morphological marking: Case⁴ and, to a lesser extent, agreement. Subjects in many languages are realized with either no overt Case marking or with the same Case marking that is used with citation forms, two situations we can unify under the heading “unmarked Case.” This unmarked Case, often called nominative, is sometimes taken to be a defining property of subjects in Case-marking languages. However, typological study has shown that this is an overly simplistic view of the situation. We will outline the relevant facts in this section. Similarly, it is often stated that subjects have a special status in terms of agreement. Here again, the facts appear to be more complicated. We will return to the question of Case and agreement in Chapter 3.

Since we need to be able to refer to clausal participants without committing to their status as subjects and objects, we will follow much of the typological literature (see, for example, Comrie 1978, 1989) in using the following terminology:

(11) Sole argument of intransitive verb: S
Agent-like argument of transitive: A
Patient-like argument of transitive: P (sometimes called O)

The most common (and most familiar) situation is one where S and A have unmarked Case (traditionally called nominative) and P has a marked Case (traditionally called accusative). Such a language is called nominative-accusative. In a nominative-accusative language, the traditional identification of S/A as “subject” and the hypothesis that subjects have the unmarked Case coincide.

However, in some languages, it is the S and P that have unmarked Case. The S/P unmarked Case is usually called absolutive rather than nominative. In this kind of language, the A has a marked Case which is called ergative. For this reason, these languages are usually referred to as ergative languages. As observed by Dixon (1994), ergative languages are found almost everywhere around the globe, including many languages of Australia (Dyirbal, Warlpiri,
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Diyari, Yidin’, etc.), Eskimo languages (Inuit, Yupik), Basque, Georgian, Avar, Chukchee, Hindi-Urdu, Tongan, Samoan, and many others.5

(12) Dyirbal (Dixon 1994)
   a. ɲama banaga- n’u
       father.ABS return- NFUT
       ‘Father returned.’
   b. ɲama yabu- ngu bura- n
       father.ABS mother- ERG see- NFUT
       ‘Mother saw father.’

(13) Greenlandic Inuit (Marantz 1984)
       man- ERG woman.ABS see- IND3SG.3SG
       ‘The man saw the woman.’
   b. Anut autlar- puq.
       man.ABS go.away- IND3SG
       ‘The man went away.’

(14) Basque (Bittner and Hale 1996b)
   a. Miren- ek ni jo n- au.
       Miren- ERG me.ABS hit 1SG- have.3SG
       ‘Miren hit me.’
   b. Miren erori d- a.
       Miren.ABS fallen 3SG- be
       ‘Miren fell.’

(15) Avar (Mallinson and Blake 1981)
   a. Ći v- ač?- ula.
       man.ABS he- come- PRES
       ‘The man comes.’
   b. Ebel- alda či v- at- ula.
       mother.ABS man.ERG he- discover- PST
       ‘Mother discovers the man.’

5 Some of these (such as Dyirbal) are split ergative, meaning that some types of NPs display an ergative pattern and others a nominative-accusative pattern. Languages of that type have distinct ergative and accusative Cases, showing that the marked Cases differ from each other. There are also a few languages (‘three-way’ languages) in which all NPs are marked ergative in A function and accusative in P function. It has been claimed by Woolford (1997) that there are also four-way languages, in which two distinct markings are possible for P. However, in the languages she brings as examples, Nez Perce (in which the A may also be unmarked) and Kalkatungu, one of these P Cases is unmarked morphologically. Apparently she wants to distinguish unmarked P from unmarked S (or A in Nez Perce) because unmarked S and A trigger subject agreement (as does ergative A), while unmarked P triggers no agreement. However, while Case and agreement are both methods of identifying the arguments of verbs, there is no reason (outside of a particular theory of Case and/or agreement) to expect a straightforward relation between head marking (agreement) and dependent marking (Case).
The term “ergative language” is also generally used for languages, such as the Mayan languages, in which there is no Case marking, but agreement groups S and P together as opposed to A.

(16) **Tzotzil** (Aissen 1983)
   a. Č- i- bat.
      ASP- 1ABS- go
      ‘I’m going.’
   b. L- i- s- ma.
      ASP- 1ABS- 3ERG- hit
      ‘He hit me.’
   c. Ta- ō- h- mah.
      ASP- 3ABS- 1ERG- hit
      ‘I’m going to hit him.’

On the other hand, some ergative languages, like Warlpiri, have ergative Case marking but nominative–accusative agreement.

(17) **Warlpiri** (Simpson 1983)
   a. Ngaju ka- rna parnka- mi.
      LABS PRES- 1SGSUBJ run- NPST
      ‘I am running.’
      I- ERG PRES- 1SG.SUBJ- 3SG.OBJ see- NPST child.
      ‘I see the child.’
   c. Kurdu- ngku ka- ō ju nya- nyi ngaju.
      child- ERG PRES- 3SG.SUBJ- 1SG.OBJ see- NPST LABS
      ‘The child sees me.’

As noted above, nominative-accusative languages are plausibly analyzed by calling S/A the subject, and associating subject status with unmarked Case. One way to understand ergative languages would be to hypothesize that the absolutive argument, S/P, is subject instead of S/A. But if P is subject in ergative languages, it should have subject properties. Investigation has shown that things are not that simple. In some ergative languages, such as Basque and Warlpiri, the P argument of a transitive clause has no subject properties. For languages of this kind, called “morphologically ergative,” P is clearly not the subject. (For now, we leave it open whether S/A is the subject in such languages, or whether such languages can be said to have no subject. We will discuss one morphologically ergative language, Warlpiri, in Chapter 6.) It is clear, however, that in morphologically ergative languages unmarked Case cannot be said to be a subject property. For other ergative languages, such as Dyirbal and Inuit, subject properties are split. Some subject properties are properties of (S and) A,
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just as in English. Other subject properties are S/P (absolutive) properties. So in some sense A and P are both subject-like in these languages, but in different ways. Since the ergative Case marking seems to be in some sense related to syntactic properties, these languages are said to be “syntactically ergative.” We will return to syntactically ergative languages in the next section.

In another class of languages, the Philippine-type languages, any element of the clause can have unmarked Case (usually referred to as nominative); the verb is marked with an affix designating one of its arguments as the nominative. The nominative nominal is referred to by Philippinists as the topic, but as observed by Schachter (1976) it is not a topic in the sense that the term is usually used in linguistics.6

(18) **Tagalog** (Schachter 1987)

a. Mag- aalis ang tindero ng bigas sa sako para
   ACT- take.out NOM storekeeper ACC rice DAT sack for
   sa babaе.
   DAT woman
   ‘The storekeeper will take some rice out of a/the sack for a/the woman.’

b. Aalis- in ng tindero ang bigas sa sako para
   take.out- DO ERG storekeeper NOM rice DAT sack for
   sa babaе.
   DAT woman
   ‘A/The storekeeper will take the rice out of a/the sack for a/the woman.’

c. Aalis- an ng tindero ng bigas ang sako para
   take.out- IO ERG storekeeper ACC rice NOM sack for
   sa babaе.
   DAT woman
   ‘A/The storekeeper will take some rice out of the sack for a/the woman.’

d. Ipag- aalis ng tindero ng bigas sa sako
   BEN- take.out ERG storekeeper ACC rice DAT sack
   ang babaе.
   NOM woman
   ‘A/The storekeeper will take some rice out of a/the sack for the woman.’

e. Ipang- aalis ng tindero ng bigas sa sako
   INS- take.out ERG storekeeper ACC rice DAT sack
   ang sandok.
   NOM scoop
   ‘A/The storekeeper will take some rice out of a/the sack with the scoop.’

6 The morphological Case marking for non-nominative A arguments, which is often glossed as genitive, we consider to be ergative Case and gloss it accordingly. Verbal aspect is not glossed.