

Introduction

The term *PRO* in the generative tradition is taken to refer to an empty subject of non-finite clauses. *PRO* can serve as a subject of either infinitival or gerundive clauses functioning as subjects, complements or adjuncts. Some of the contexts where the *PRO* subject can be found are illustrated in the following examples:

(1)

- a. Mark₁ tried [PRO₁ to open the door].
- b. Mark₁ promised Mary₂ [PRO₁ to open the door].
- c. Mark₁ asked Mary₂ [PRO₂ to open the door].
- d. Mark₁ remembered [PRO₁ opening the door].

(2)

- a. It is harmful (for Mark₁) [PRO₁ to smoke a lot].
- b. It is harmful to the environment [PRO_{arb} to use leaded petrol].
- c. [PRO_{arb} To make a lot of money] means PRO_{arb} to abuse the tenants.
- d. [PRO_{arb} Living on one's own] may have some advantages.

(3)

- a. Mark₁ went out [PRO₁ to buy some papers].
- b. [Before PRO₁ going out], Mark₁ had locked the door.

The bracketed clauses in (1) correspond to non-finite complements, the bracketed clauses in (2) represent non-finite subjects, and the clauses bracketed in (3) can be classified as non-finite adjuncts.

The evidence for the presence of *PRO* in the subject position of non-finite clauses like the ones above can be obtained primarily from two sources. One is the Extended Projection Principle of Chomsky (1981), demanding that each clause have a subject. The other is the Theta Theory, which requires that all theta roles of a particular predicate be discharged to appropriate arguments. In the case of (1a), for instance, the predicate *open* assigns two theta roles, namely the role of Theme to its internal argument, i.e. the door, and the role of Agent to its

external argument, i.e. PRO. Thus, PRO, like other arguments, has an independent theta role.

However, PRO lacks independent reference. The reference of PRO must be determined by some higher argument (cf. (1), (2a) and (3)) or is otherwise arbitrary (cf. (2b), (2c) and (2d)). The interpretative relation between PRO and its antecedent is commonly designated as *control*, where the antecedent is referred to as a controller and PRO as a controllee. In the literature, two types of control have been distinguished, namely obligatory control (henceforth OC) and non-obligatory control (henceforth NOC). There is no general consensus as to what criteria should be taken to establish the division line between these two control types (cf. Chapter II, section 2.1). However, the presence of a local, c-commanding, and non-split antecedent is commonly assumed to constitute prerogatives of OC, whereas the lack of an antecedent, and the possibility of having either a non-c-commanding or split antecedent, are considered to characterise NOC. Under these criteria, the sentences in (1) and (3) above exhibit OC, while the examples in (2) represent NOC.

The distribution of PRO and its interpretation have been a recurrent research topic since the 1980s, when Chomsky introduced PRO into the inventory of empty categories. Chomsky (1981) suggests deriving the distribution of PRO from the so-called PRO Theorem, stated in (4) below:

(4) The PRO Theorem

PRO is ungoverned.

Since Case is assigned under government within the Government and Binding Theory (henceforth GB theory), the PRO Theorem predicts that PRO is Caseless and thus correctly accounts for the fact that PRO and lexical DPs are in complementary distribution, as confirmed by (5):

(5)

- a. *PRO/Mark works in the garden.
- b. Mark meets *PRO/Mary every weekend.
- c. Mark depends on *PRO/ Mary.
- d. Mark finds [*PRO/Mary funny].
- e. Mark expects [*PRO/Mary to come].

All the starred positions in (5) are governed and hence, in accordance with the PRO Theorem, cannot be legitimately occupied by PRO.

Chomsky (1981) makes an attempt at deriving the PRO Theorem in (4) from the Binding Theory (henceforth BT). He argues that PRO should be treated as a pronominal anaphor and as such is subject to both Principle A and Principle B of the BT. The former requires that an anaphor be bound in its governing category, whereas the latter demands that a pronoun be free (i.e. unbound) in the same domain. Since PRO must be both bound and free in its governing category, it is subject to contradictory binding requirements. The only way to satisfy these requirements, Chomsky argues, is by claiming that PRO lacks a governing category altogether. The lack of the governing category, in turn, implies that PRO is ungoverned and hence the PRO Theorem is shown to follow from the independently necessary requirements of the BT.

Although the treatment of PRO as a pronominal anaphor correctly derives its distribution, it is itself not unproblematic. Firstly, if PRO is ungoverned, then it is impossible to define a locality domain for either its anaphoric or its pronominal properties. Secondly, if PRO is always a pronominal *anaphor*, it is expected not to be licensed without an A-binding antecedent. However, this prediction is disconfirmed by (2b), (2c) and (2d), where PRO lacks an antecedent.

As a response to the problems that the treatment of PRO as a pronominal anaphor has given rise to, three types of analyses have emerged. These comprise: 1) the treatment of PRO as a pure anaphor, 2) the analysis of PRO as a pronoun, and 3) the treatment of PRO as either an anaphor or a pronoun. The advocates of analysing PRO as a pure anaphor include Manzini (1983), Bennis and Hoekstra (1989), and Vanden Wyngaerd (1994). Manzini (1983) subjects PRO to a binding principle, called Principle A', valid for anaphors without a governing category. Whenever the conditions for PRO to be bound are not met, PRO is allowed to refer freely. Bennis and Hoekstra (1989) argue that PRO should always be regarded as an anaphor, since the properties of PRO commonly considered as non-anaphoric, i.e. having a non-c-commanding antecedent, a split controller, or a long distance controller, are also characteristic of lexical anaphors. To support this claim they provide instances of lexical anaphors from Dutch, which display these typical 'non-anaphoric' properties. Like Manzini (1983), they modify Principle A in such a way as to make it applicable to anaphoric PRO. In a way similar to Bennis and Hoekstra (1989), Vanden Wyngaerd (1994) argues that PRO is an anaphor and suggests that cases of arbitrary PRO can be subsumed under control by an implicit argument.

The analysis of PRO as a pronoun is undertaken by Borer (1989), Huang (1989) and Petter (1998). Borer (1989) argues that both finite and non-finite Inflection govern their specifier position and therefore, on her analysis, *pro* and PRO are basically indistinguishable. The difference between *pro* and PRO lies in the nature of the licensing element. Little *pro* is licensed by pronominal Agr in I,

while big PRO occurs in the presence of anaphoric Agr in I. Anaphoric Agr in I must be bound to an A-position in the case of OC, and whatever reference is assigned to Agr is transferred by co-indexation to PRO.¹ Consequently, in Borer's account PRO itself is not anaphoric, but the anaphoricity of PRO results from the anaphoric character of its licensing element. Borer's account is similar to that of Manzini (1983) in that the licensing of PRO is achieved by means of binding condition A via anaphoric Agr. Huang (1989:186), like Borer, attempts to propose 'a general theory of control that determines the reference of both *pro* and PRO'. However, in contradistinction to Borer, he takes Agr features to be one of the factors that may be involved in the general condition of control for empty arguments. Huang puts forward the Generalised Control Rule, which holds of both *pro* and PRO, the difference between these two empty subjects being reduced to the respective presence vs. absence of Case. Finally, Petter (1998) offers an analysis, according to which PRO corresponds to an empty pronoun, and as such it must be both formally licensed and content-identified (cf. Rizzi (1986)). PRO is formally licensed in her account by structural nominative Case. PRO may be minimally content-identified by the non-finite morphology with underspecified ϕ -features, deriving NOC, or may be referentially content-identified by control from a higher argument, yielding OC. Petter accounts for the complementary distribution between PRO and lexical DPs (cf. (5)) by claiming that only the latter require licensing by [+finite] T and [+specified] agreement features of person and number.

In a way similar to Chomsky (1981), the analyses of PRO presented so far offer a uniform treatment of this empty category. The main problem they create is the same as in the case of Chomsky's approach, i.e. failure to provide an adequate account of both OC and NOC. While the treatment of PRO as an anaphor can easily derive OC, it fails to account for NOC. Conversely, the analysis of PRO as a pronoun, while suitable for deriving NOC, turns out to be problematic for the OC data.

An alternative whose aim is to overcome the problems arising in uniform approaches to PRO, is to treat PRO in a non-uniform way, i.e. either as an anaphor or as a pronoun. An approach along these lines is offered by Bouchard (1984, 1985) and Koster (1984). Bouchard (1984, 1985) argues that there are two PROs, one being an anaphor and the other a pronoun. When PRO is an anaphor, it is licensed in terms of the BT, modified to satisfy the requirements of PRO. This kind of PRO is found in OC structures. Pronominal PRO, which

¹ Borer (1989) observes that anaphoric Agr may also be A'-bound in the case of independent generic interpretation, such as (2b).

appears in NOC constructions, is licensed where binding is blocked. This analysis successfully deals with both OC and NOC. Likewise, Koster (1984) suggests regarding OC PRO and NOC PRO as two distinct entities, namely an anaphor and a pronoun, respectively. He focuses mainly on anaphoric PRO and argues that like other anaphors, it is governed, under the assumption that the infinitival CP gets deleted and hence ceases to prevent the matrix verb from governing PRO. Although non-uniform analyses fare better than uniform ones, since they are able to account for both OC and NOC, they are not unproblematic. The main problem they create is connected with subsuming NOC PRO under empty pronouns. Such a move presupposes that NOC PRO and pronouns have identical distribution, which is not always the case (for more details cf. Chapter I, section 2.2.2).

Not only is the licensing of PRO subject to debate, but so is its interpretation. Basically two approaches to the interpretation of PRO can be distinguished, namely propositional and predication. The former, instantiated by all the analyses discussed so far, assumes that non-finite clauses denote closed propositions in the same way as finite clauses do. PRO is projected in the syntax in the subject position of non-finite clauses, and the semantic procedure associates PRO with its controller via some kind of anaphoric relation.² The predication approach, represented by Williams (1980), Lebeaux (1985) and Chierchia (1984), among others, holds that non-finite clauses denote properties, not propositions. Their subject position is, in some analyses, missing in the syntax and in some others, projected as PRO, which is conceived merely as a lambda variable. The semantic procedure associates the non-finite clause with the controller by predicating the former of the latter. According to some linguists, the predication

² Růžicka (1983) offers an account of the interpretation of PRO based not on binding, but on theta theory. He proposes two conditions, i.e. a Thematic Identity Condition (TIC) and a Thematic Distinctness Condition (TDC). He claims that each verb is marked for one of these two conditions. For instance, a verb like *promise* (cf. sentence (1b)) is a [+TI] verb, because the matrix Agent controls the embedded Agent, while a verb like *ask* (cf. (1c)) is a [+TD] verb, since the matrix Theme controls the embedded Agent. This approach is problematic for verbs like *try*, *want* and *like*, which allow both their Agent or Experiencer subject, to control PRO bearing the role of Agent, as in (i) below, or the role of Theme, as in (ii) below.

- (i) John tried [PRO to leave early].
- (ii) John tried [PRO to be elected].

procedure applies in the semantics; according to others, it is induced by a lexical entailment of the control predicate.³

The problem of the licensing and interpretation of PRO, which aroused a lot of interest in the GB framework, has continued to play an important role within the Minimalist Program (henceforth MP) of Chomsky (1995b, 2000, 2001a). In the MP, two leading tendencies can be observed as regards PRO. One aims at deriving the distribution of PRO from the Case theory (cf. Chomsky and Lasnik (1993)), and the other makes an attempt to eliminate PRO as a distinct empty category altogether (cf. Hornstein (1999, 2001, 2003)).⁴

This work sides with the analyses deriving the distribution of PRO from the Case theory. It favours a non-uniform approach to PRO. Its main aim is to provide an analysis of the distribution and interpretation of PRO in English, Irish and Polish within the framework of assumptions of the most recent version of the MP, as formulated in Chomsky (1999, 2001a, b). The choice of a relatively new model for this study will enable us to participate in current discussion concerning many important theoretical issues which have not received any satisfactory account so far. Furthermore, using the recent version of the MP to analyse data of three unrelated languages will give us a chance to verify the universality of various hypotheses which have been advanced in the MP mainly on the basis of the data from English.

While PRO and control have attracted a lot of attention in English, their analysis in Polish has been largely neglected and the only comprehensive study of this phenomenon is the early generative work of 1981 by Tadeusz Zabrocki entitled 'Lexical Rules of Semantic Interpretation. Control and NP Movement in English and Polish'. The present work makes an attempt to fill a gap of more than 20 years in the study of control in Polish. In contradistinction to Polish, control in Irish has received a reasonable amount of attention. However, the majority of the available studies are based on early minimalist assumptions (cf., for instance, Guilfoyle (1994), Noonan (1994), Carnie (1995) and Duffield (1995)). It seems worthwhile to check whether the conclusions reached with the aid of the early minimalist theoretical apparatus can still be maintained under more recent assumptions.

³ A purely lexical account of control is put forward within Head-Driven Phrase Structure Grammar by Sag and Pollard (1991). They argue that verbs selecting a control complement can be classified into lexical types, such as control verbs of influence, commitment and orientation. The type of control relation triggered by a particular predicate depends on the class it belongs to.

⁴ A detailed overview of the minimalist approaches to PRO is presented in Chapter I, sections 2 and 3.

The data included in this work come from various sources. The English data come from native speakers of the language. The Polish ones come partly from the author, further tested for accuracy with other native speakers, and partly from 'The dictionary of the Polish language' (orig. *Słownik języka polskiego*) (1992), edited by Hipolit Szkiładź, Stanisław Bik and Celina Szkiładź, from 'The syntactic-generative dictionary of Polish verbs' (orig. *Słownik syntaktyczno-generatywny czasowników polskich*) (1980-1992), edited by Kazimierz Polański, and 'A different dictionary of the Polish language' (orig. *Inny słownik języka polskiego*) (2000), edited by Mirosław Bańko. Some of the Irish data come from the descriptions of Irish clause structure by Ó Siadhail (1989) and Stenson (1981). Since there are hardly any speakers of Irish left, we have relied for the most part on the data corpus compiled by Jim McCloskey. As regards sentences that we have made up ourselves on the basis of English examples, it is frequently impossible to elicit reliable judgements; genuine examples are not always available. Hence the high rate of question marks with the Irish data.

This study is organised into five chapters. Chapter I presents those aspects of the MP that will be relevant for the discussion in subsequent chapters. It outlines the most important approaches to PRO and control available within the MP. The approaches are compared and evaluated in order to pinpoint both their strengths and weaknesses.

Chapter II is devoted to the analysis of the distribution and interpretation of PRO in English. After examining the contexts where non-finite clauses can be encountered in English, various classifications of control are examined for the purpose of providing a typology of control in the language. Afterwards, a minimalist analysis of various control types is attempted based on Landau's (2000) account. Super-Equi constructions and NOC PRO also receive some attention. The final part of the chapter addresses the question of how PRO is interpreted in English.

Chapter III deals with the distribution and categorial status of Polish non-finite clauses. A lot of attention is paid to the phenomenon of Restructuring, which is pervasive in Polish and whose properties cast light on the question of what sort of category Polish non-finite clauses represent. An analysis of Restructuring is advanced based crucially on the concept of phase, not on verb incorporation; this bears on the problem of how to account for the troublesome long distance Genitive of Negation.

Chapter IV addresses the issue of control in Polish. Various control patterns are investigated, with a special focus on structures characteristic of Polish and totally absent from English. A typology of diverse control types attested in Polish is offered and an analysis undertaken, again as in Chapter II, with the aid of Landau's (2000) model. The applicability of Landau's model to Polish data is

thoroughly tested. An important problem investigated in this chapter is whether PRO is Case marked in Polish and if so, by what means. The question of whether NOC PRO in Polish can be treated as a pronoun or a logophor is also considered. The chapter closes with an examination of the interpretation of PRO in Polish.

Chapter V focuses on the distribution and interpretation of PRO in Irish. The properties of Irish non-finite clauses, along with the dialectal variation characteristic of them, are examined in detail. The overview of Irish control patterns is followed by a presentation of the typology of control in this language. Next, the various control types are analysed in terms of the Landau (2000) model. The alleged universality of this model is thus again tested against the Irish data. One control pattern unattested in the other two languages receives a lot of attention: it is the so-called anomalous control. The problem of whether NOC PRO in Irish represents a pronoun or a logophor is also scrutinised. The final issue addressed in the chapter concerns the interpretation of PRO in Irish.