

Working on Irish

James McCloskey

This paper derives from a Plenary Lecture delivered at the Annual Meeting of the Linguistic Society of America in San Francisco on January 3rd, 2002. I am grateful to the organizers of the meeting for presenting me with the opportunity of discussing these matters and I am grateful to the audience for much useful commentary. Discussions with Sandy Chung, Jorge Hankamer, Jason Merchant, and Chris Potts were useful in shaping the final version. The work reported on here was supported in part by research funds from the Academic Senate of the University of California, Santa Cruz, and in part by the National Science Foundation, through Project Number BCS-0131767

The Background

Since it is, according to the constitution, the ‘first official language’ of the Republic of Ireland, Irish is the national language of a first-world capitalist democracy. English is recognized as the ‘second official language’. As critics of national language policies continually point out, though, these constitutional claims reflect wishful thinking or hypocrisy rather than reality. For almost all purposes, Ireland is an English-speaking country and for the vast majority of the population, Irish plays no role whatever in day to day routines.

For all that, the language has real importance as a cultural and political symbol, and as a consequence it enjoys most of the trappings and conveniences that one would expect of a national language—a TV channel, a radio network, a large published literature, newspapers, a large presence in the educational system, and numbers of civil servants who are charged with the tasks of coining official neologisms, managing spelling reforms, producing reference grammars and dictionaries, and so on. Many of these people perform their tasks with great discrimination and skill.

At the same time, Irish is an endangered language spoken as a vernacular by an embattled and marginalized community whose cultural and economic survival is very much open to doubt. For one of the ways in which official language promotion policies have dramatically failed has been in the effort to maintain the language in those communities in which it has at least until recently been the vernacular—the *Gaeltachtaí*. These are small rural communities scattered along the southern and western seaboard. Estimates of the number of native speakers who live in these communities range from a low of 15,000 to a high of 30,000. Accurate estimates are very hard to come by, though, in part because the question of which communities are or are not ‘Irish-speaking’ is a very sensitive one, with important political, social, and economic ramifications. Certain kinds of economic aid are available to official Gaeltacht communities, a fact which provides an incentive to cling to the official designation long after the actual linguistic situation has changed. In addition, the question of whether or not a given community considers itself to be a Gaeltacht is often a source of considerable internal conflict—conflicts which work themselves out especially in the schools (What will be the language of instruction?), in the churches (What will be the language of the Mass?), and in attitudes towards people who move in to the community from the larger English-speaking world (Should a proposed development of holiday-cottages be given planning permission? Should County Councils be allowed to provide public housing in Gaeltacht areas for people who cannot speak Irish?).

For a century and a half at least, Gaeltacht communities have been under severe economic pressure—caused by unemployment, emigration, and distance from the centers of power and planning. They are also subject to enormous social pressures, from the various larger communities of which they form a part, towards cultural and linguistic assimilation. Everyone today is bilingual from an early age

and there are probably now no monoglot speakers of Irish at all, although there were up until the 1960s and 1970s.

As a consequence of this accumulation of pressures, many local varieties of the language have disappeared since 1922 (the year of independence, and the year in which official language maintenance efforts began)—the Irish of Clare, the Irish of Sligo, the Irish of East Galway, and the Irish of Tyrone, for example. The Irish of Mayo will follow soon, as will the Irish of West Cork. Such situations are familiar to linguists everywhere.

There is one way, however, in which policies and ideals of language promotion in Ireland have had real and unusual effect. They have resulted in the creation of a second community of Irish speakers—people who do not have native ability, but who have achieved high levels of second-language competence and who use Irish regularly in their daily routines. This is, in the main, an educated, urban, middle class, and very dispersed community. There are perhaps 100,000 people who use the language regularly in this way, the vast majority of whom have some sentimental or ideological commitment to use of the language. Many use Irish in the home and send their children to Irish-medium play-groups and Irish-medium schools. As a consequence, there is now a substantial number of children who have been learning a newly calqued urban version of Irish as a first language. The levelling and creolization processes which then take place in the Irish-medium schools give birth to varieties which are a complicated mix of Irish and English elements, a mix which varies considerably from place to place (very different, for instance, in Dublin and in Belfast), and which varies also with the formality or informality of the linguistic setting.

There are thus two very distinct sets of communities which use ‘Irish’ as a language. Their situations, and the forms of the language they use, are very different. It would be wrong to over-state the separateness of the two groups. Most members of the second-language community have a sentimental attachment to one Gaeltacht community or another, and many people from the Gaeltacht achieve professional status, live in non-Gaeltacht areas, and interact to one degree or another with the second-language community. Nevertheless, the basic social split is fairly stark (and needless to say gives rise to its own tensions). I know of no true parallel to this situation elsewhere.

In this charged and complicated setting, the business of doing linguistic work can be fraught.

We are accustomed to saying that our goal is to shed light on what constitutes native language ability. In the Irish situation, though, the designation ‘native speaker’ has large cultural and ideological significance. Which kind of Irish and whose kind of Irish do we privilege for investigation and codification?

There are surely different answers to this question depending on one’s descriptive and theoretical purposes. The view I have taken and continue to take, is that, for the purposes of the kinds of questions that generative grammar tries to answer, the study of the modern urban varieties is methodologically too fraught. If the principal aim of the enterprise is to clarify what it means to have full native

ability in a language, then it is just not clear to me how much light the new Irishes can shed on that question. This is the right conclusion in scientific terms, I think, but it’s easy to see how it can be misconstrued (if that is the right way of putting it) as exclusionary and élitist.

Be that as it may, the goal of describing the Irish of Gaeltacht communities seems to me to be a reasonable one for a linguistics which is theoretical in the sense of generative grammar, and my aim has been (and will continue to be) to shed light on questions of linguistic theory by investigating the range of varieties used in Gaeltacht communities.

But that decision made, we are now in the unhappy country of the endangered and dying language.

The Irish of the Gaeltacht now exists in three major varieties (crudely: Northern, Western and Southern), which are not united by a functioning standard, and which are divided one from another by differences substantial enough that they can make for real difficulties of mutual understanding.

All three varieties have speakers in every age-cohort. Unsurprisingly, though, levels of ability vary enormously from place to place, from generation to generation, and from individual to individual. Among those who are in their teens at present, for instance, one finds the full range of levels of competence—from purely passive ability, through many grades of semi-speaker ability, through to rich and fully-featured competence. Linguistic change is rapid, and there is some evidence, anecdotal but persuasive, that the youngest generation of all (those younger than 10) have begun in the past 5 years or so to decisively throw off the language. The sense is ubiquitous that Irish is only barely holding on; pessimism (and cynicism) about its future is one of the enduring staples of Irish cultural and political life.

Working with native speaker consultants in this context can be difficult. There is no shortage of consultants and most of the people that I have worked with are younger than I am. However, many speakers, younger people especially, feel that their own competence is limited or degraded by comparison with that of older and ‘better’ speakers, an attitude which can lead to undue deference towards an investigator, or to a profound unease with the task of offering judgments of well-formedness or unacceptability. Often, the investigator is referred to local authority figures who are felt to be repositories of the true and rich local form of the language. But working with these very self-conscious bearers of linguistic tradition is tricky in different ways, since they are often concerned with the preservation and presentation of ‘pure’ and historically correct local features, and will as a consequence often deny the validity of patterns which do not conform to this ideal.

Bleak and difficult as this situation often is for the linguist, there are a number of compensating resources and opportunities, most of which derive fairly directly from the official national veneration in which the language is held.

First among these compensations is the fact that, in large part because of government subsidies, there is by now a huge published literature in which

all of the major dialects and many of the minor (and now unspoken) ones are represented. The usual philological precautions are needed when making use of these texts (some awareness of editorial practice at different periods, how to interpret local or idiosyncratic orthographic conventions and so on), but they constitute, in sum, an extraordinary treasure-house of linguistic evidence. The flow of such publications seems to be increasing rather than decreasing as time goes by (with the rise of many small publishing houses often based in quite remote areas), and it is one of the mysteries that serious literature in Irish is blossoming just as the language in which it is framed seems to be heading towards extinction.

Second among the compensations is the fact that there is now a large and very rich body of descriptive work on all of the dialects (living and dead). This body of work is a rich source of evidence and observation, and the community of scholars who created it is small, but active and able—people who have devoted their careers to the detailed description of Irish in all of its forms. The knowledge and generosity of these individuals is an extraordinary resource.

Thirdly, and most importantly, there is also now a large network of people (of all generations) who are in no sense linguistic scholars, but who simply love the language in all its aspects and who are close observers of it. There are radio shows which provide a forum for such people to call in and discuss this or that intricacy in this or that dialect. Many such people work hard to observe and record local forms of the language, publish local histories and biographies, and produce their own literature. These are teachers, broadcasters, writers, priests, musicians, civil servants, local political figures and the like—often (but not always) native speakers from Gaeltacht communities who have moved out into the larger community. They make extraordinary consultants—very aware of the different registers and shifting patterns in use around them, very alive to the subtleties of the language, practiced in observation.

Other opportunities arise not so much from the special role played by the language in Irish nationalism, but rather from the odd duality of its situation—at once a national language, and the threatened language of a marginalized community. Literacy is universal, but partly from a sense of democracy and partly as a concession to the felt weakness of Gaeltacht communities, no functioning official standard, in most senses of the term, has ever been imposed. Official standardization is limited to morphology, orthography, and a few aspects of morphosyntax. The absence of a standard can often be a very great nuisance in real life, but for the descriptive linguist it has the welcome consequence that the complex issues created by interference from an artificial standard, or from prescriptive pressures, do not in general arise—or do not arise, at least, as intrusively as they do in the case of languages with well-established standards. In this regard, the contrast with Welsh is marked.

In the absence of a standard, and given the cultural and scholarly focus on local varieties, certain other opportunities arise. The patterns of syntactic micro-variation that distinguish the various dialects one from another are intricate and beautiful, a gold mine for the comparative syntactician. Since standardization has

been so limited in its goals and in its reach, and since there is a lively publishing enterprise whose principal purpose is to reflect and validate local varieties (living and dead), these patterns are rendered visible and accessible to study in a way that is much more difficult to achieve for other languages.¹

The resources just described are all the more important in that in doing linguistic research on Irish, we do not have the single most important resource available to those who work on languages whose situation is less tenuous—namely, a community of native-speaker linguists, whose expertise can provide a check against false or incomplete claims about data. With respect to languages like Japanese or Hebrew, these communities have the vital function of running and re-running crucial experiments (judgments of grammaticality, judgments of synonymy, judgments about entailments and implicatures and ambiguity) again and again, refining and revising factual claims in a cumulative process over years.

For Irish, there is no such community and no such protection. It is in part for this reason that I have made it a personal practice over the years to document factual claims beyond the routine by using evidence from published sources—examples drawn from books, essays and broadcasts by native speakers of various dialects. This practice is not a substitute for the kind of to-and-fro by which factual claims are debated and established for the well-studied languages. But the use of such evidence can provide at least some reassurance of reliability—for claims, at any rate, about what patterns are grammatical, or about what is productive, or about what is marginal. For claims about what is absolutely ungrammatical, the method provides virtually no reassurance.

The absence of a community of native speaker linguists in addition makes the investigation of certain kinds of question very difficult indeed, if not altogether impossible. Consider one topical issue—how reconstruction effects should be understood. The delicate experiments that one finds, for instance, in Danny Fox's work—attempting to establish if judgments about anaphoric possibilities correlate with judgments about relative scope under reconstruction—cannot realistically be run for Irish. The community (native speakers and linguists) that would collectively assess and sift claims about such subtle effects simply does not exist.

Work must also proceed more slowly than for the languages whose investigation has most shaped the practices and methodology of generative grammar. Questions of fact that can be settled in a matter of minutes for a language such as German or French require much more effort and time (weeks and months

¹ The Irish dialects of Ireland and the Gaelic dialects of Scotland form a single dialect continuum, with the Irish of Rathlin Island, recently extinct, forming a linguistic bridge between the two. They were united by a common literary standard until the middle of the 17th century and were conventionally regarded until that point as forming a single language. Very little theoretically-informed work on the Gaelic dialects of Scotland existed before the important body of work developed in recent years by David Adger and Gilliam Ramchand. Many new opportunities are opened by the research they have done. Connections with the other Celtic languages (languages of the Brythonic group, such as Welsh and Breton) are more distant, since the period of unity is very remote—in the first half of the first millennium B.C. according to one authoritative source (McKone (1994: 66)).

rather than minutes) for their resolution in Irish. There are fewer people to ask the questions, there are fewer people to provide answers, and those who can provide answers are not in the office next door.

More serious than the issue of speed is the issue of quantity of evidence. If we take it that the elicitation of a native speaker judgment is the standard replicable experiment in (this kind of) linguistics, then for Irish, many many fewer experiments have been run than have been run for, say, German or Japanese.

None of these circumstances seems likely to change. For reasons that I would like to understand better (but which I suspect have mostly to do with broader societal attitudes towards the language), students of linguistics in Ireland are not drawn to work on Irish. Most choose to work on the major European languages. And for those who venture from the outside into this ideological tinderbox (a student in a PhD program in the US, for example), the difficulties are daunting in the extreme. Merely learning the language for conversational purposes is difficult, since it is at this point close to impossible to place oneself in circumstances where one is required to use Irish. At the first hesitancy, people will always defer and switch to English—in impatience, or as a matter of perceived courtesy.²

Working on Irish, then, while not as challenging as working on many endangered languages, brings with it a particular and idiosyncratic set of difficulties. Recognizing those challenges raises issues which are very important but which have been very little discussed, in public or formal settings at least. Imagine that some important theoretical proposal emerges from analytical work on a language in roughly the state that Irish is in. Will or should this proposal be given the same weight in shaping general theory as proposals emerging, say, from the study of Italian? Rationality and common sense say no. It is simply a fact that analyses of Irish have not been tested and scrutinized in the way that analyses of Italian have been. And this is not really a temporary stage in the development of a subfield. There is not likely ever to be a set of circumstances in which Irish ‘catches up’ in the relevant sense.

But this rational caution brings its own risks. Many more languages are beset by the kinds of difficulties we have been describing for Irish than are free of them. And of the great number of languages whose grip on the world is tenuous, few provide the kinds of counter-balancing resources that are available to the linguist working on Irish. In being cautious about the assessment of evidence, then, we run the risk of excluding, or under-valuing, whatever insights might be gleaned from all of those languages which have had the bad luck to run afoul of one imperial administration or another.

² One consequence is that papers on Irish syntax from the generative perspective frequently incorporate fairly basic errors—mis-spellings, mis-conjugations, mis-translations. The presence of such errors lowers the credibility of this work among those who approach the language from more traditional philological or historical perspectives, who tend to dismiss it out of hand once the errors are noticed. Interestingly, these lapses, and the insecure grasp of the language that lies behind them, has not in general stood in the way of the construction of important and insightful analyses. Or so at least it seems to me.

Rational caution can also leave those who choose to work on the languages of marginalized communities with the sense of being, in the theoretical world, second class citizens—a feeling which can be discouraging for someone facing into a program of work which already seems daunting in the extreme.

All of this is in some sense inevitable, and clearly there are no absolute principles that one can appeal to in deciding what to be persuaded of and what to be sceptical about. People will assess the available evidence as best they can. Two things, though, seem to me to be important:

- (i) It would be good if there were more open and explicit discussion of these issues.
- (ii) In assessing evidence from, say, Irish, analysts need to be aware of what the circumstances are in which this work was done.

And any general exclusion would be very short-sighted. For, in spite of all the hazards and idiosyncrasies, real progress has been made in the linguistics of Irish, especially in recent years, and the sense has been palpable, especially since the early 1990s, of things falling into place, often in surprising and unexpected ways. Real progress has also, and as a consequence, been made in understanding something about the general nature of human language. Obviously that progress has been made partly in spite of, and partly because of, the peculiarities of the research environment for Irish.

There are four areas especially in which work on Irish has led to significant theoretical progress in syntax.³ It is, to begin with, one of the better described VSO languages, and analyses at reasonable levels of sophistication now exist for its various clause-types (finite clauses, non-finite clauses, small clauses), and for the relations which hold among them. As a consequence, work on the language has been important for the central issue of what the principles are which determine how clauses are built. There is now a large and lively literature on all of these questions (see work by Nancy Stenson, Eithne Guilfoyle, Máire Noonan, Cathal Doherty, Andrew Carnie, Heidi Harley, Nigel Duffield, Julie Legate, David Adger, Gillian Ramchand and others cited in the references). Similar claims can be made, I think, for the phenomenon of Pro-drop and its interaction with the morphosyntax of agreement (McCloskey and Hale (1984) and much subsequent work). Notable advances have also been made in understanding the internal syntax of nominal phrases (see especially Duffield (1995)). Finally, important advances in the understanding of \bar{A} -dependencies have emerged from work on Irish.

It would be impossible to do justice to all of these areas of investigation here, and so I have elected instead to try to say something substantive about the fourth (\bar{A} -dependencies), reviewing the current state of understanding, adding a small number of new observations, but for the most part surveying existing work. In doing this, I will try to reason forward from an initial point which assumes little in the way of theoretical commitment.

³ The discussion that follows will be restricted to syntax, since that is what I know about.

Initial Steps

We can begin with the simplest kind of relative clause:

- (1) an fhilíocht a chum sí –
the poetry PART composed she
 ‘the poetry that she composed’

(1) is a relative clause and it exhibits a familiar pattern—a gap in the position corresponding to the semantic variable, with nothing obviously corresponding to the fronted relative pronouns of other languages. What makes the Irish case distinctive is the little particle preceding the verb in (1), the underlined element spelled a and pronounced [ə], eminently deletable and eminently overlook-able. When one first tries to understand this piece of morphophonology, two things become clear fairly quickly. One is that the appearance of the particle is not restricted to relative clauses, but appears rather in an array of clause types and construction types. The second is that the appearance of the preverbal particle *a* is linked with the appearance of the gap within the clause.

So a couple of questions arise right away:

- (i) what mechanism links the appearance of the gap with the appearance of the preverbal [ə]?
- (ii) what is the class of structures that is characterized by this pairing of features and why is it that class rather than any other?

An answer to the second question emerged fairly quickly. The relevant class of constructions is just the class of WH-constructions identified first by Ross in his thesis (Ross (1967)) and further defined and clarified by Chomsky in work of the middle and late 1970’s (see Chomsky (1977) especially). In fact the class of Irish constructions that show the pattern in (2):

- (2) [CP *a* ... – ...]

is unnervingly close to the class of constructions identified by Ross, Chomsky and others as being (what we would now call) WH-constructions or constructions involving \bar{A} -movement. The class includes relative clauses of all types:

- (3) an lá a bhí muid i Machaire Rabhartaigh –
the day PART be [PAST] we in
 ‘the day (that) we were in Machaire Rabhartaigh’

constituent questions:

- (4) Cá fhad a bhí siad fá Bhaile Átha Cliath – ?
WH length PART be [PAST] they around Dublin
 ‘How long where they in Dublin?’

comparative and equative clauses:

- (5) Níl sé chomh maith agus a dúradh a bheadh sé –
NEG-is it as good as PART was-said PART be [COND] it
 ‘It’s not as good as it was said that it would be.’
- (6) níos ísle ná a ceapadh a bheadh sé –
more low [COMP] than PART was-thought PART be [COND] it
 ‘lower than it was thought it would be’

clefts:

- (7) a Ba i nDoire a dúradh a fuarthas é t
COMP[PAST] in Derry was-said PART was-found it –
 ‘It was in Derry that it was said it was found.’
- b Sean-aimseartha a deir muintir an bhaile a tá sí –
old-fashioned PART say people the townland PART is she
 ‘It’s old-fashioned that the people of the townland say she is.’

Also pseudo-clefts:

- (8) Séard a chonaic siad – saighdiúirí ag mairseáil
PART saw they soldiers march [PROG]
 ‘What they saw was soldiers marching.’

It was clear by the late 1970’s that the pattern in (2) is a reflection in Irish of the syntax of WH-movement, with the attendant properties one would expect.⁴

A remaining piece fell into place more recently. The combination of gap and *a*-particle also turns up in adverbial clauses corresponding to *as*-clauses in English:

- (9) a mar a dúirt sé féin a tharlódh
as PART said he himself PART would-happen
 ‘as he himself said would happen’
- b Chuaidh sé ‘un an aonaigh mar a dubhairt sé a rachadh
went he to the fair as PART said he PART go [COND]
 ‘He went to the fair, as he said he would,’

Potts (2002), developing in part earlier work by Tim Stowell, Paul Postal, Steve Lapointe and others, has shown that these constructions in a range of languages show the full range of properties associated with WH-movement.

⁴ Except for the licensing of parasitic gaps, which have not, so far, been detected in any variety of Irish.

So the pattern seems complete, and we have the answer to the second of our questions above: the set of contexts in which (2) turns up is the set of clauses in which WH-movement has applied. For the first question (what mechanism links the appearance of the gap with the appearance of the preverbal particle) the challenge becomes that of understanding the link between the appearance of preverbal *a* and an application of WH-movement. That is:

- (10) Preverbal *a* registers an application of WH-movement.

That's an accurate statement of the distribution of the particle, to the extent that we understand the words used in it. But saying exactly what (10) means will involve making some more serious theoretical commitments. Furthermore, an expectation is now generated, namely, that the particle will appear in each clause which contains the gap. This expectation arises given the claim that a phrase can cross a clause boundary only if it moves initially to the edge of the clause (to the specifier of CP) and then moves further. In a case of 'long movement' then, there will be a sequence of applications of WH-movement, one per clause, each of which will have to be registered by an instance of *a*.

As is well-known, this is exactly how things work in Irish. The preverbal particle appears at the head of each clause which contains the gap but not the binder of the gap, as shown in (11) and in a number of earlier examples:

- (11) Aon bhliain déag is dóigh liom a deireadh
one year ten PART+COPI[PRES] likely to-me PART say [PAST-HABIT]
 m' athair a bhí sé nuair ...
my father PART was he when
 'It's eleven years old that I think that my father used to say that he was when ...'

- (12) $XP_j [CP a \dots [CP a \dots [CP a \dots -_j \dots]]]$

In the absence of WH-movement, (11) would have the form in (13), where instead of the particle *a* we have the usual complementizer *go*:

- (13) ... gur dóigh liom go ndeireadh
goN+COPI[PRES] likely to-me goN say [PAST-HABIT]
 m' athair go raibh sé aon bhliain déag nuair ...
my father goN was he one year ten when
 '... that I think that my father used to say that he was eleven years old when ...'

If *a* is a particle which registers an application of WH-movement, then its appearance at the head of each clause in (11) suggests that there has been an application of WH-movement within the limits of each clause—just as the

hypothesis of successive-cyclic application requires. Irish (with Scots Gaelic) in fact provided one of the earliest pieces of morphosyntactic confirmation for the correctness of the successive cyclicity hypothesis (though that was not how I saw things myself at the time). More precisely then:

- (14) Preverbal *a* registers an application of WH-movement within the clause that it introduces.

How now do we cash out the informal phrase 'register an application of WH-movement' in (14)?

We can begin with the idea that the preverbal particle *a* is in fact a complementizer—a complementizer which ends up being a prosodic clitic on the finite verb. This claim has been disputed more than once, but I think it is correct. The issues are reviewed and discussed in McCloskey (2001a) (see also McCloskey (1996) for relevant material). It appears in the right position to be a complementizer, it has the right sensitivity to finiteness, it has the right range of selectional and semantic functions, and it has the morphosyntactic properties internal to the language that one would expect of a complementizer. Most importantly perhaps, the particle may not co-occur with any other element plausibly analyzed as a complementizer (conditional, interrogative, declarative and so on). Alternative proposals that have been made can be shown fairly clearly, I think, to be incorrect (McCloskey (2001a)).

But if the particle *a* is a complementizer, it is distinct in form, in morphophonological effect and in distribution from other complementizers of the language. Some property, therefore, must distinguish *a* from other members of the same class. Assume that this distinctive property consists in its bearing a distinctive syntactic feature, a single feature to which the other properties are sensitive. What is this feature? It must be a feature whose appearance is linked with an application of WH-movement. That is, after all, the prime distributional characteristic of this element. But now we have an interesting convergence, since one of the core ideas that has emerged in recent theoretical work is the idea that movement operations in general (or at least an interestingly large class of movement operations) are driven by featural properties of attracting heads. If we identify this movement-driving feature with whatever feature it is that must distinguish *a* from the other complementizers (call that feature WH for the moment), then we succeed in making a natural connection between the distinctive form of the particle and the fact that its appearance is associated with an application of WH-movement. And we now assume syntactic structures like the schematic one in (15).

- (15)
-
- ```

graph TD
 CP --> XP["XP [WH]"]
 CP --> C["C [WH]"]
 C --> a["a"]
 C --> I["I"]
 I --> I_fin["I [FIN]"]
 I --> trace["△ t_WH"]

```

The answer to our first question then (what mechanism links the appearance of *a* with an application of WH-movement) is that *a* is a member of the class of complementizers and bears a feature WH, which is responsible for triggering movement into its own specifier position. Further, we assume that the syntactic structure (15) is the syntactic counterpart of the variable-binding structures that figure in the semantics of relative clauses, questions, clefts, comparative clauses, equative clauses and so on.

This is a satisfying result in that it simultaneously sheds some light on the mire and detail of a particular language and provides support for a theoretical idea that had been developed for entirely different purposes and in entirely different contexts.

### Venturing Farther

But matters are of course more complicated. An important part of the story that I have been suppressing until now is the fact that resumption plays a large role in the Irish system of unbounded dependencies. The resumptives may either be overt (as in (16a)) or null (as in (16b)), depending on whether or not the pronouns in question are locally identified by agreement morphology (see McCloskey and Hale (1984)).

(16) a an t-easpag ar chroch na Sasanaigh é  
*the bishop aN*[-PAST] *hung the English him*  
 ‘the bishop that the English hung (him)’

b na gasraí a raibh tú ag caint leofa *pro*  
*the boys aN were you talk* [PROG] *with* [RS]  
 ‘the boys that you were talking to (them)’

For cases in which the resumptive is within a finite complement clause, the pattern most frequently encountered is that seen in (17). Once again, the pronoun may either be overt (as in (17a)) or be an instance of *pro* (as in (17b)).

(17) a fir ar shíl Aturnae an Stáit go rabh siad díleas do’n Rí  
*men aN thought Attorney the State goN were they loyal to-the King*  
 ‘men that the Attorney General thought (that they) were loyal to the King’

b cúpla muirear a bhféadfá a rá go rabhadar *pro* bocht  
*couple household aN you-could say* [-FIN] *goN were* [RS] *poor*  
 ‘a few households that you could say (that they) were poor’

There are three properties of structures like (16) and (17) which will be important here.

The first is that they are characterized by the appearance of a different pre-verbal particle than the WH-complementizer we have been dealing with so far.

This is not immediately evident when one looks at the examples in (17), but it is nevertheless the case. The particle seen at the head of the relative clauses in (16) and (17) is distinct in form, in mutation-effect and in its morphophonological interactions from the *a* we have so far been dealing with (see Duffield (1995), McCloskey (2001a) and references cited there for detailed discussion of the relevant differences). It has become conventional to use the notation *aN* as a quick abbreviation for this complex of morphophonological features. It has also become conventional to refer to the particle *a* which is associated with WH-movement, by way of the abbreviation *aL*. I will adopt these notational conventions from this point on.

The second property is that the relation between the resumptive pronoun and the specifier of CP at the ‘top’ of the structure seems not to be mediated by movement.<sup>5</sup> The resumptive strategy routinely involves violation of standard constraints on movement such as island effects, ECP effects, and weak crossover (McCloskey 1979, 1990). It has been argued, then, that these structures involve ‘base-generation’ (‘merge’ in more recent terms) of an operator in SPEC,CP, an operator which in turn binds the resumptive pronoun which appears somewhere within the associated IP.<sup>6</sup>

Given this, the third relevant property of (16)/(17) is unsurprising. In typical examples like those in (17) the morphosyntax (i.e. the form of the complementizer) shows no sign of ‘successive-cyclic’ effects. The complementizer which appears in intermediate positions in (17a–b) is the normal declarative complementizer *go*. That this should be so is not surprising. If the resumptive strategy does not involve movement, it could not involve successive-cyclic movement.

Reasonable as this comforting picture might seem to be, we will see shortly that it needs to be revised in some very important ways. We also immediately face a new analytical challenge, in that it is necessary now to account for a three-way distinction among complementizers:

- (i) *aL*: associated with an application of WH-movement within the clause it heads
- (ii) *aN*: associated with the appearance of a resumptive pronoun within the clause that it heads
- (iii) *goN*: the default declarative complementizer

The analysis developed so far allows us to make a two-way distinction: between those members of the class of complementizers which bear the WH-feature and those which do not. Obviously, something more is needed.

But summarizing to this point, there is evidence for two distinct patterns in the array of  $\bar{A}$ -binding constructions in the language. For simple (one-clause)  $\bar{A}$ -

<sup>5</sup> For a different view, see Kayne (1994), Bianchi (1999), Boeckx (2001).

<sup>6</sup> For more detailed discussion and argumentation, and especially for arguments that there is in fact an operator in the specifier of CP in cases like (16) and (17), see McCloskey (1990, 2001b).

dependencies, we have the two structures schematized in (18):

- (18) a [CP *Op<sub>j</sub> aL* [IP ... *t<sub>j</sub>* ... ]]  
 b [CP *Op<sub>j</sub> aN* [IP ... *pro<sub>j</sub>* ... ]]

And for ‘long’ dependencies, we have the patterns in (19)

- (19) a [CP *Op<sub>j</sub> aL* [IP ... [CP *t<sub>j</sub> aL* [IP ... *t<sub>j</sub>* ... ]]]]  
 b [CP *Op<sub>j</sub> aN* [IP ... [CP *g<sub>0</sub>* [IP ... *pro<sub>j</sub>* ... ]]]]

We take forward the assumption that (18a) and (19a) involve (successive-cyclic) movement to SPEC,CP, in the familiar way. We also take forward the idea that (18b) and (19b) involve merge of a binding operator in SPEC,CP. And the principal analytical puzzle we take forward is this: what mechanisms determine the three-way distinction in complementizer form?

### Other Patterns

Since the earliest work on these Irish WH-constructions, it has been known that, although the patterns summarized in (19) were the most frequently used and found, other possibilities also existed. In the intervening years, textual work of the kind described earlier has turned up detailed evidence for the existence of a number of these additional patterns, which, at first sight at least, complicate the analytical picture considerably, and which have to date resisted understanding (for earlier discussion, see McCloskey (1976, 1979, 1985, 1990), Sells (1984), Harlow (1981, 1983)). These various patterns have in common (i) that they are attested relatively rarely in comparison with (19), and (ii) that although they all involve resumption, they nevertheless unexpectedly involve ‘successive-cyclic’ morphosyntax, in the sense that in all of them one of the two dedicated WH-complementizers (*aL* or *aN*) appears in the intermediate C-position of an  $\bar{A}$ -dependency, rather than the expected default *g<sub>0</sub>N*. I will refer to these patterns collectively as the ‘Mixed Patterns’.

The first of these mixed patterns most typically (but not exclusively) turns up in connection with a particular subclass of islands—the N-complement sub-case of the Complex NP Constraint of Ross (1967). The pattern is illustrated schematically in (20), and some attested examples are presented in (21)–(24).

- (20) [CP *aN* [IP ... [DP (D) [NP N [CP *aL* [IP ... *t* ... ]]]]]]

That is, in the NP-internal CP, there is a gap and an occurrence of *aL*. At the ‘top’ of the structure, there is an occurrence of *aN*, the complementizer which is normally associated with the appearance of a resumptive pronoun:

- (21) rud a raibh coinne aige a choimhlfionfadh – an aimsir  
*thing aN was expectation at-him aL fulfill* [COND] *the time*  
 ‘something that he expected time would confirm’

- (22) biseach ... a raibh súil agam a bhéarfá –  
*recovery aN was hope at-me aL get* [COND][S2]  
 ‘a recovery that I hoped you would stage’

- (23) rud a raibh tuairim láidir agam a bheadh – aige  
*thing aN was opinion strong at-me aL be* [COND] *at-him*  
 ‘something that I strongly suspected he would have’

- (24) rud a raibh dóchas láidir agam a bhí – fíor  
*thing aN was hope strong at-me aL was true*  
 ‘something that I strongly hoped was true’

We can understand the syntax here in the following way (see McCloskey (2001b) for more detailed discussion and argumentation). N-Complement islands are special in one respect. They consist of a complement CP within a nominal phrase. Within the limits of the clause itself, movement should be free. This initial movement will give rise to a partial structure like that seen in (25), with the complementizer taking the form *aL*, since this is a routine application of WH-movement:

- (25) [CP C [IP ... [DP (D) [NP N [CP *Op<sub>j</sub> aL* [IP ... *t<sub>j</sub>* ... ]]]]]]

What should happen then? The derivation cannot proceed by movement, because any attempt to raise the operator further will necessarily involve moving it across the island boundary. But if a syntactic link must somehow be established between the position of the variable and the specifier of the topmost CP, the language has another strategy at its disposal—namely, resumption. If the element moved to the specifier of the lower CP is the kind of element which can function as a resumptive, then it can be bound by an operator in the higher Comp-position. That the moved operator should be such an element is expected, given the idea, developed in much work of the 1980’s, that the null operators which undergo  $\bar{A}$ -movement are in fact instances of the null pronominal element *pro*. The higher link of the chain in (20), on this view, is constructed by way of a completely routine syntactic option in the language—the lower pronoun is in a position inaccessible to movement, but not inaccessible to binding. The higher C-position whose specifier hosts the binding operator is, as a consequence, realized as *aN*, as in all such configurations. The resultant structure is (26), which is just a schematization of the syntax we see realized in (21)–(24) above:

- (26) [CP *pro<sub>j</sub> aN* [IP ... [DP (D) [NP N [CP *pro<sub>j</sub> aL* [IP ... *t<sub>j</sub>* ... ]]]]]]

The initial oddness of (20) then, in a sense, dissolves. It represents, in fact, a simple combination of more basic structures well attested in the simplest relative clause types.

In that it makes straightforward sense of an otherwise recalcitrant syntactic pattern, then, the analysis sketched here is well supported on syntactic grounds.



But it is somewhat surprising from the perspective of semantic interpretation. Resumptive pronouns are usually taken to mark the position of a bound variable in semantic interpretation. Moved operators are usually taken to be variable-binders rather than bound variables. If the analysis in (26) is along the right lines, then we have to imagine an element which is simultaneously a bound variable and the binder of a variable. Or at any rate, we have to imagine the syntactic correlative of such a semantic object. We will return to this issue.

As it turns out, though, (20) is only one of several such ‘mixed’ patterns. In fact, if we start with the two simple types which have been recognized since the beginning of work on these topics, namely (18), then for two-clause embeddings, all permutations are attested. This is illustrated in (27) and (28), with a brief indication of how each is probably derived. I use ‘MERGE’ to indicate merge of a binding operator in the specifier of CP of a clause, ‘MOVE’ to indicate an application of WH-movement in a clause.

- (27) rud ar bith a cheapann siad a bhfuil baint aige liom  
*thing any aL think they aN is tie at-it with-me*  
 ‘anything that they think is connected with me’

XP<sub>j</sub> [CP *pro*<sub>j</sub> *aL* [IP ... [CP *t*<sub>j</sub> *aN* [IP... *pro*<sub>j</sub> ... ]]]]

MERGE in the lower clause, forcing appearance of *aN* in the lower C-position; MOVE in the higher clause, forcing appearance of *aL* in the higher C-position.

- (28) an méid den dán ar mheas sé a raibh feidhm leis  
*the much of-the poem aN thought he aN was need with-it*  
 ‘as much of the poem as he thought was needed’

XP<sub>j</sub> [CP *pro*<sub>j</sub> *aN* [IP ... [CP *pro*<sub>j</sub> *aN* [IP... *pro*<sub>j</sub> ... ]]]]

MERGE in the lower clause; MERGE in the higher clause, forcing appearance of *aN* in both C-positions.

That is, the same two options that are available in simple one-clause WH-constructions are available, willy-nilly, in complement clauses. In each case, there are two ‘choices’ made available by the system—it is possible to move an operator (*pro* in many cases) into the specifier of CP and realize C as *aL*. Alternatively, it is possible to base-generate an operator (again at least sometimes *pro*) in the specifier of CP and realize C as *aN*. Larger  $\bar{A}$ -Chains are simple compositions of these two basic options. ‘Mixed’ chains of this type (some links formed by movement, others by resumption) have also been documented by Dan Finer for Seyalarese (Finer (1997)).

We are balancing, then, two puzzles at this point. One is the old and basic puzzle of what the mechanisms are which govern the form of complementizers. The newer puzzle is how we should understand the initially unexpected mixed patterns documented in this section.

Solving the first puzzle, I think, solves the second.

## A Proposal

When one looks at the two basic patterns ((18), repeated here as (29)):

- (29) a [CP *Op*<sub>j</sub> *aL* [IP ... *t*<sub>j</sub> ... ]]  
 b [CP *Op*<sub>j</sub> *aN* [IP ... *pro*<sub>j</sub> ... ]]

the initial instinct is to assume that the mechanism of specifier-head agreement makes the necessary distinctions. If there is some crucial featural difference between the element which undergoes WH-movement, and the element which binds resumptive pronouns, then that difference will be reflected on C and would be reflected in the difference between *aL* and *aN*.

I know of no actual proposal about what the relevant featural distinction would be, but this approach is in any case unlikely to be tenable given the existence of the mixed pattern (27), illustrated again in (30):

- (30) fear a shíl mé a raibh saibhreas mór aige *pro*  
*man aL thought I aN was wealth great at* [MS3]  
 ‘a man who I thought had great wealth’

In these cases (relatively well attested) there is a resumptive pronoun in a position inaccessible to movement in the lower clause, and the intermediate C-position is *aN*, signalling the presence of the resumptive pronoun. The higher clause has *aL* in its C-position, signalling (according to the assumptions developed so far) movement of an operator into its specifier position. The analysis seems plain enough: the operator which binds the resumptive pronoun from the intermediate Comp-position is itself the element which undergoes  $\bar{A}$ -movement to the highest specifier of CP.

But what that means in turn is that the same element triggers an appearance of *aN*, when it appears in the lower SPEC,CP-position, and an appearance of *aL* in the higher SPEC,CP-position, suggesting that featural distinctions among the various elements that occupy SPEC,CP cannot be responsible for the different realizations of C.

What seems to be going on rather is that the different forms of C depend not on the featural content of the element in SPEC,CP, but rather on the mode of introduction of that material—*aL* when the element is placed there by way of the MOVE operation, *aN* when it is placed there by way of the MERGE operation.

More specifically, we can assume that *aL* and *aN* are both members of the class C which bear an operator feature. Both in addition have the EPP property, which requires that their specifier be filled. There are two ways in which these joint featural properties can be satisfied (much as in the case of the specifier of IP): either the operator feature can enter into an agreement relation with (the head of) a phrase in its local domain and raise it into its specifier position, or else an appropriate element can be directly inserted (‘merged’) in its specifier position.

The different realizations of C reflect the operation of (31):<sup>7</sup>

- (31) a  $\begin{bmatrix} C \\ Op \\ EPP \end{bmatrix}$  whose features are checked by MOVE is realized as *aL*.  
 b  $\begin{bmatrix} C \\ Op \\ EPP \end{bmatrix}$  whose features are checked by MERGE is realized as *aN*.  
 c C which does not bear the *Op*-feature is realized as *goN*.

This proposal is a little unorthodox in theoretical terms since it assumes that morphosyntactic properties can be sensitive not just to the syntactic properties of material in the local domain of a head but also to their mode of introduction. Nevertheless, it is simple in its essentials and accounts directly for all of the data considered so far, including the recalcitrant ‘mixed’ patterns that have been so difficult to integrate into previous accounts. As long as we assume (essentially with Chomsky (2000) and Chomsky (2001b)) that the features mentioned in (31) can be freely instantiated on C, whether at the top or in the middle of an  $\bar{A}$ -dependency, the same options will arise at each step (actually ‘phase’) of the derivation and the extravagance of the mixed patterns will be accounted for.

There is another property of the proposal in (31) that deserves highlighting. It makes no direct connection between the appearance of *aN* and the appearance of a resumptive pronoun. Rather, the idea is that *aN* appears when the morphosyntactic properties of C are satisfied by the merge of an element in its specifier. Often, the element so merged will be a binding operator which will bind (the semantic variable corresponding to) a resumptive pronoun.

Crucial support for this point of view comes from the observation that *aN* also (and obligatorily) appears in *why* questions:

- (32) a Cad chuige a ndeachaigh tú ann?  
*why aN went you there*  
 ‘Why did you go there?’  
 b \*Cad chuige a chuaigh tú ann?  
*why aL went you there*  
 ‘Why did you go there?’

This part of the pattern too falls into place given (31) and given the idea, for which there is considerable independent support, that interrogative phrases of reason must be base-generated in SPEC,CP (see especially Rizzi (1990, 1996)).

## Larger Speculations

It remains to address an old and troubling issue. There is a tension between the hypothesis of successive-cyclicity (with its impressive record of empirical success)

<sup>7</sup> See Shlonsky (1992) for a very similar suggestion in a slightly different context and McCloskey (2001b) for more detailed discussion and elaboration and a slightly different working out of the same idea. Chomsky (2001a) considers some of the broader ramifications of the proposal.

and the idea, deeply embedded in much current work, that movement is driven by featural properties of heads. The tension arises because it has always been something of a puzzle how the required features were licensed on intermediate C-positions (where selectional properties do not require them, and where semantic considerations suggest they should not be).

The Irish evidence is important first in confirming the reality of the postulated features—in the appearance in intermediate C-positions of exactly the same two elements which appear at ‘the top’ of the dependency, where their presence is more plausibly motivated on selectional or semantic grounds.

To account for the range of cases where we see one of the ‘special’ complementizers *aL* or *aN* in intermediate Comp-positions, it is necessary to assume that C may bear the crucial features (an Operator feature and an EPP-feature on the particular conception developed here) in intermediate C-positions, even when their presence is in no sense mandated by selectional requirements or by semantic considerations. Their presence in those positions must furthermore be entirely optional, to allow for the more common (17) (illustrated again in (33)) alongside the mixed patterns we have been focusing on more recently.

- (33) a  $[_{CP} Op_j aN [_{IP} \dots [_{CP} goN [_{IP} \dots pro_j \dots ]]]]$   
 b fir ar shíl Atur nae an Stáit go rabh siad díleas do’n Rí  
*men aN thought Attorney the State goN were they loyal to-the King*  
 ‘men that the Attorney General thought were loyal to the King’

The facts then virtually force us to assume that C may freely bear the crucial features.

The view forced by these observations is remarkably close to that developed in Chomsky (2000) and Chomsky (2001b), according to which movement-inducing features may be freely applied to the heads of phases. The speculation is that although these devices are in themselves simple and blind to their own function, they have come to exist in the syntactic systems of natural languages in order that syntactic connections across phase-boundaries will be possible (even if those connections must of necessity be composed and indirect). What we see in Irish is detailed morphosyntactic confirmation for this general idea, and in addition, we see similar effects in the absence of movement (as we would expect of a language with a fully grammaticized resumption option).

There is absolutely no ‘need’ for the presence of these features and the operations they trigger in the case of structures of resumption, as is shown by the fact that the pattern in (17) with no such intermediate structure is always available and is in fact used more frequently. But once the option of placing the features in question on intermediate C-positions becomes available, it will be used. The system cannot look ahead to determine whether or not this C-position is one in which the presence of a binding operator will be useful or one in which it will just get in the way.

From the point of view of semantic interpretation, all of this machinery is so much extravagant junk. It seems reasonable to hold that the presence of a

binding operator in the topmost SPEC,CP of an  $\bar{A}$ -binding construction is linked with the semantic operation that turns a proposition into a property by way of predicate abstraction. In the simplest cases (single-clause structures, no Pied Piping) the match between syntactic structure and compositional procedure is good—the topmost position in the  $\bar{A}$ -chain is the locus of abstraction; the bottom-most position of the  $\bar{A}$ -Chain corresponds to the open position around which the predicate abstract is constructed.

But in multi-clause structures there is no such pleasing correspondence. Rather the various elements that are postulated in intermediate SPEC,CP-positions have no correspondent in the compositional procedure and must somehow be rendered semantically innocuous (in particular, they must not force an application of predicate-abstraction in intermediate positions). If the partial analyses developed here are on the right track, the mechanisms which accomplish this must go beyond deletion of traces, since for two of the mixed patterns, the element in the intermediate Comp-position is not a trace but rather a merged operator.

Such perceptions, indeed, formed the basis for some of the arguments developed in the 1970s against the successive-cyclic hypothesis, as Jason Merchant has reminded me. Bach (1977: 143–4), for instance, points to this kind of difficulty (which of the traces bound by a moved WH-phrase corresponds to the ‘real’ variable?) and urges scepticism about the idea of successive-cyclicity. I think that Bach was exactly right in his perception of a mis-match between syntax and semantics in these cases.<sup>8</sup> But what we have learned since then, in part because of the evidence made available by languages like Irish, is that this is, nevertheless, the way things work.<sup>9</sup>

Human beings seem to have the ability to effortlessly construct and manipulate complex properties like ‘being an  $x$  such that people think that the Dean promised that she would hire  $x$ ’, in which the variable position around which the property is constructed is contained within a complex layering of propositions. But the syntactic correlatives of these complex properties are more difficult to construct, given the deeply local character of syntax (as expressed, for instance, in the emerging theory of derivational phases). Derivations are, as a consequence, littered with semantically useless debris at phase edges. The complex syntax and morphosyntax of complementizers, and the various syntactic devices which have been explored in this area (WH-agreement, partial WH-movement, pied piping of whole complement clauses) might reflect an aspect of language design, their existence rooted in the need to create an interface between independent systems with different properties.<sup>10</sup>

## Conclusion

Returning finally to our initial themes, it seems to me that what we have here is the right kind of progress, the kind of symbiosis one likes to see between a language and a set of evolving theoretical ideas, each illuminating the other and pushing understanding farther. The payoff has been moderately rich, both in what has been given to the language and what has been given to theory.

This is all the clearer if one looks at the kind of understanding of these phenomena that was made available by ‘traditional grammar’ and philological perspectives.<sup>11</sup> It is, in short, calamitous. This work was done by intellectually very able people whose grasp of the language in all its varieties and facets was profound and detailed. What they lacked was a framework of investigation that would guide their research in fruitful ways.

And that is what Chomsky gave us 45 years ago. There seems to be something deeply right about the kinds of questions that framework makes us ask and the kinds of answers it urges us to pursue. In the face even of the kinds of difficulties that the situation of Irish puts in our path, the results have been rich.

*Department of Linguistics  
University of California, Santa Cruz  
Santa Cruz, California 95064*

*mcclusk@ling.ucsc.edu  
<http://ling.ucsc.edu/~mcclusk>*

---

<sup>8</sup> A good part of the discussion of semantics of Gazdar et al. (1985) (see especially Chapter 6, pp 229–236) struggles with what is essentially the same problem.

<sup>9</sup> See Chung (1998: 234 ff) for a survey of similar kinds of evidence in a range of languages and language-types.

<sup>10</sup> The other possibility is that the elements found at phase edges are not ‘debris’ but rather serve semantic functions which we are at present ignorant of.

---

<sup>11</sup> See Ó Nolan (1920), Ó Cadhlaigh (1940), for instance. For some discussion of these and other accounts, see McCloskey (1985).

## References

- Adger, David. 1997. VSO order and weak pronouns in Goidelic Celtic. *Canadian Journal of Linguistics*, 42:9–29.
- Adger, David and Gillian Ramchand. 2001. Phases and interpretability. In *WCCFL 20 Proceedings*, ed. K. Megerdoomian and L.A. Bar-el, 101–114. Somerville, MA: Cascadilla Press.
- Anderson, Stephen R.. 1982. Where's morphology? *Linguistic Inquiry*, 13:571–612.
- Andrews, Avery A.. 1990. Unification and morphological blocking. *Natural Language and Linguistic Theory*, 8:507–57.
- Bach, Emmon. 1977. Comments on the paper by Chomsky. In *Formal syntax*, ed. Adrian Akmajian, Peter Culicover, and Thomas Wasow, 133–155. New York and San Diego: Academic Press.
- Bianchi, Valentina. 1999. *Consequences of antisymmetry: Headed relative clauses*. Berlin: Mouton de Gruyter.
- Boeckx, Cedric. 2001. Mechanisms of chain formation. Doctoral dissertation, University of Connecticut.
- Carnie, Andrew. 1995. Non-verbal predication and head-movement. Doctoral dissertation, MIT, Cambridge MA.
- Chomsky, Noam. 1973. Conditions on transformations. In *A Festschrift for Morris Halle*, ed. Stephen R. Anderson and Paul Kiparsky, 232–286. New York: Holt, Rinehart and Winston.
- Chomsky, Noam. 1977. On wh-movement. In *Formal syntax*, ed. Adrian Akmajian, Peter Culicover, and Thomas Wasow, 71–132. New York and San Diego: Academic Press.
- Chomsky, Noam. 1986. *Barriers*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries, the framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. Roger Martin, David Michaels, and Juan Uriagereka, 89–156. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2001a. Beyond explanatory adequacy. MS., MIT, Cambridge, Mass.
- Chomsky, Noam. 2001b. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, Mass.: MIT Press.
- Chung, Sandra. 1998. *The design of agreement: Evidence from Chamorro*. Chicago: University of Chicago Press.
- Chung, Sandra and James McCloskey. 1987. Government, barriers and small clauses in modern Irish. *Linguistic Inquiry*, 18:173–237.
- Cinque, Guglielmo. 1990. *Types of  $\bar{A}$ -dependencies*. Cambridge, Mass.: MIT Press.
- de Bhalldraithe, Tomás. 1956. Nótaí comhréire. *Éigse*, 8:242–6.
- DeGraff, Michel. 1997. Nominal predication in Haitian and Irish. In *WCCFL XVI Proceedings of the Sixteenth Annual Meeting of the West Coast Conference on Formal Linguistics*, ed. Emily Curtis, James Lyle, and Gabriel Webster. Stanford, Calif.: Stanford Linguistics Association.
- Doherty, Cathal. 1996. Clausal structure and the Modern Irish copula. *Natural Language and Linguistic Theory*, 14:1–48.
- Doherty, Cathal. 1997. Predicate initial constructions in Irish. In *WCCFL XV Proceedings of the Fifteenth Annual Meeting of the West Coast Conference on Formal Linguistics*, ed. Brian Agbayani and Sze Wing Tang, 81–95. Stanford, Calif.: Stanford Linguistics Association.
- Duffield, Nigel. 1995. *Particles and projections in Irish syntax*. Dordrecht: Kluwer.
- Finer, Daniel. 1997. Contrasting  $\bar{A}$ -dependencies in Selayarese. *Natural Language & Linguistic Theory*, 15:677–728.
- Gazdar, Gerald, Ewan Klein, Geoffrey Pullum, and Ivan Sag. 1985. *Generalized phrase structure grammar*. Cambridge: Harvard University Press and London: Basil Blackwell.
- Guilfoyle, Eithne. 1990. Functional categories and phrase structure parameters. Doctoral dissertation, McGill University, Montreal, Canada.
- Guilfoyle, Eithne. 1994. VNP's, finiteness and external arguments. In *NELS 24, papers from the twenty-fourth annual meeting of the north eastern linguistics society*, ed. M. Gonzalez, 141–155, Amherst, MA. GLSA.
- Harley, Heidi. 1995. Subjects, events and licensing. Doctoral dissertation, MIT, Cambridge MA.
- Harlow, Stephen. 1981. Government and relativization in Celtic. In *Binding and filtering*, ed. Frank Heny. Cambridge, Mass.: MIT Press.
- Harlow, Steve. 1983. Celtic relatives. *York Papers in Linguistics*, 10:77–121.
- Kayne, Richard S.. 1994. *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.
- Legate, Julie. 1997. Irish predication: A minimalist analysis. MS., University of Toronto, Masters Thesis.

Legate, Julie. 1998. Reconstruction and the Irish nonverbal predicate construction. MS., MIT.

McCloskey, James. 1976. Conditions on transformations in Modern Irish. In NELS VII, *Proceedings of the Seventh annual meeting of the North Eastern Linguistics Society*, ed. J. Kegl, D. Nash, and A. Zaenen.

McCloskey, James. 1979. *Transformational syntax and model theoretic semantics: A case-study in Modern Irish*. Dordrecht: Reidel.

McCloskey, James. 1985. The Modern Irish double relative and syntactic binding. *Ériu*, 36:45–84.

McCloskey, James. 1986. Inflection and conjunction in Modern Irish. *Natural Language & Linguistic Theory*, 4:245–281.

McCloskey, James. 1990. Resumptive pronouns,  $\bar{A}$ -binding and levels of representation in Irish. In *Syntax of the modern Celtic languages*, ed. Randall Hendrick, volume 23 of *Syntax and Semantics*, 199–248. New York and San Diego: Academic Press.

McCloskey, James. 1996. On the scope of verb raising in Irish. *Natural Language & Linguistic Theory*, 14:47–104.

McCloskey, James. 2001a. The morphosyntax of Wh-extraction in Irish. *Journal of Linguistics*, 37:67–100.

McCloskey, James. 2001b. Resumption, successive cyclicity, and the locality of operations. In *Derivation and explanation in the minimalist program*, ed. Samuel D. Epstein and Daniel Seely. Blackwell Publishers. [in press].

McCloskey, James and Kenneth Hale. 1984. On the syntax of person number marking in Modern Irish. *Natural Language & Linguistic Theory*, 1:487–533.

McCloskey, James and Peter Sells. 1988. Control and A-chains in Modern Irish. *Natural Language & Linguistic Theory*, 6:143–189.

McDaniel, Dana. 1989. Partial and multiple WH-movement. *Natural Language & Linguistic Theory*, 7:565–604.

McKone, Kim. 1994. An tSean-Ghaeilge agus a réamhstair. In *Stair na Gaeilge*, ed. Kim McKone, Cathal Ó Háinle, Damien McManus, Nicholas Williams, and Liam Breatnach, 61–219. Roinn na Sean-Ghaeilge, Coláiste Phádraig, Maigh Nuad.

Noonan, Máire. 1992. Case and syntactic geometry. Doctoral dissertation, McGill University, Montreal, Canada.

Noonan, Máire. 1994. The *that*-trace filter and WH-agreement in Irish. MS., York University, Toronto, Talk presented to the International Conference on

Language in Ireland, University of Ulster, Jordanstown, Northern Ireland, June 1994.

Noonan, Máire. 1997. Functional architecture and wh-movement: Irish as a case in point. *Canadian Journal of Linguistics*, 42:111–139.

Noonan, Máire. 1999. What is the true nature of successive cyclic WH-movement? MS., York University, Toronto., Paper Presented to the Eighteenth Annual Meeting of the West Coast Conference on Formal Linguistics, University of Arizona, Tucson.

Ó Cadhlaigh, Cormac. 1940. *Gnás na Gaeilge*. Dublin: Oifig an tSoláthair.

Ó Curnáin, Brian. 1996. Aspects of the Irish of Iorras Aithneach, county Galway. Doctoral dissertation, University College Dublin, Dublin, Ireland.

Ó Nolan, Gerald. 1920. *Studies in Modern Irish, part 1*. Dublin: The Educational Company of Ireland, Limited.

Ó Siadhail, Mícheál. 1989. *Modern Irish: Grammatical structure and dialectal variation*. Cambridge and New York: Cambridge University Press.

Postal, Paul. 1998. *Three investigations of extraction*. MIT, Cambridge, Mass.

Potts, Christopher. 2002. The syntax and some of the semantics of *as*-parentheticals. *Natural Language and Linguistic Theory*, 20:623–689.

Rizzi, Luigi. 1990. *Relativized minimality*. Cambridge, Mass.: MIT Press.

Rizzi, Luigi. 1991. Argument/adjunct (a)symmetries. MS., Université de Genève and SISSA, Trieste.

Rizzi, Luigi. 1996. Residual verb second and the *wh*-criterion. In *Parameters and functional heads. essays in comparative syntax*, ed. Adriana Belletti and Luigi Rizzi, 63–90. Oxford and New York: Oxford University Press.

Ross, John R.. 1967. Constraints on variables in syntax. Doctoral dissertation, MIT, Cambridge, Mass. Published as *Infinite Syntax!* Norwood: N.J.: Ablex (1986).

Sells, Peter. 1984. Syntax and semantics of resumptive pronouns. Doctoral dissertation, University of Massachusetts, Amherst.

Shlonsky, Ur. 1992. Resumptive pronouns as a last resort. *Linguistic Inquiry*, 443–468.

Stenson, Nancy. 1981. *Studies in Irish syntax*. Tübingen: Max Niemeyer Verlag.

Stenson, Nancy. 1989. Irish autonomous impersonals. *Natural Language & Linguistic Theory*, 7:317–359.