Agreement as a Fallible Operation

by

Omer Preminger

B.Sc., Computer Science and Linguistics, Tel-Aviv University, 2004

M.A., Linguistics, Tel-Aviv University, 2006

Submitted to the Department of Linguistics and Philosophy
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Linguistics

at the

Massachusetts Institute of Technology

September 2011

© 2011 Omer Preminger. All rights reserved.

The author hereby grants to MIT permission to reproduce and to distribute publicly paper and electronic
copies of this thesis document in whole or in part in any medium now known or hereafter created.

Signature of Author ....
Omer Preminger
Department of Linguistics and Philosophy

Certified by ....
Sabine Iatridou
Professor of Linguistics
Thesis Supervisor

Certified by ....
David Pesetsky
Professor of Linguistics
Thesis Supervisor

Certified by ....
Norvin Richards
Professor of Linguistics
Thesis Supervisor

Accepted by ....
David Pesetsky
Professor of Linguistics
Chair of the Linguistics Program

Agreement as a Fallible Operation

by

Omer Preminger

Submitted to the Department of Linguistics and Philosophy on July 15th, 2011 in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Linguistics

Abstract

In this thesis, I argue that the obligatory nature of agreement in φ-features (henceforth, *φ-agreement*) cannot be captured by appealing to "derivational time-bombs"—elements of the initial representation that cannot be part of a well-formed, end-of-the-derivation structure, and which are eliminated by the application of φ-agreement itself (as in Chomsky's 2000, 2001 *uninterpretable features* approach, for example). Instead, it requires recourse to an *operation*—one whose invocation is obligatory, but whose successful culmination is not enforced by the grammar.

I then discuss the implications of this conclusion for the analysis of defective intervention by dative nominals. These results lead to a novel view of the interaction of φ-agreement with case, furnishing an argument that both φ-agreement and so-called "morphological case" must be computed within the syntactic component of the grammar.

Finally, I survey other domains where the same *operations*-based logic proves well-suited to model the empirical state of affairs; these include *Object Shift*, the *Definiteness Effect*, and long-distance *wh*-movement.

The thesis examines data from the Kichean languages of the Mayan family (primarily from Kaqchikel), as well as from Basque, Icelandic, and French.

Thesis Supervisor: Sabine Iatridou
Title: Professor of Linguistics

Thesis Supervisor: David Pesetsky
Title: Professor of Linguistics

Thesis Supervisor: Norvin Richards
Title: Professor of Linguistics

Contents

Acknowledgements

One of my professors, who shall remain nameless for a brief moment, has always been relentless in reminding me that research papers and presentations should not be written autobiographically: "Your audience doesn't necessarily care in what order the discoveries were made, especially if it makes the flow of the argument more confusing." I think the one exception that even this person would endorse is writing one's thesis acknowledgements. I will therefore begin at what is, as far as my life in linguistics, the beginning.

I first learned what generative linguistics is from Tal Siloni at Tel-Aviv University, and my suspicion is that this has more than a little to do with the fact that today, almost 10 years later, I am still in this field. Tali was the person who impressed upon me just how exciting it was that there were things in language that were irreducible to properties of meaning and/or sound; and for the most part, this is what I still find most exciting about linguistics, to this day, and it probably shapes a lot of my choices about what to work on. That has a lot to do with Tali's personality, and her phenomenal teaching; but perhaps most of all, it has to do with her unrivaled ability to impart an understanding of the "big picture", even to an audience of hundreds of undergrads who have never heard of generative linguistics before.

Despite this crowded beginning, I later had the opportunity to work more closely with Tali, both as a teaching assistant, and as an M.A. advisee, not to mention taking every single advanced class with her that was offered. Though I have told her this in person, it bears repeating: if I can call myself a linguist today, I owe that to her, first and foremost.

Tali was not the only professor at TAU who influenced me greatly. In my second semester as an undergrad, I had the privilege of taking a Foundations of Linguistics course taught by Tanya Reinhart. If there was any doubt in my mind, at this point, that linguistics was the coolest thing ever (and there was little of it), this course did away with that doubt. It's hard to explain, to someone who was not there, how someone can teach in a style that is somehow simultaneously fire-and-brimstone and amusing, but that's exactly what that course was like. Tanya later co-advised my M.A. thesis, which was situated within an approach to argument-structure that she had created, the Theta System.

My third syntax teacher at TAU was Julia Horvath. To this day, there has been no single course in which I learned as much as I did in her Contemporary Linguistics class. The notes that students took in class that semester were circulated among TAU linguistics grad students under the heading, "the syntax bible".

Irena Botwinik was a senior teaching assistant when I got to TAU, but was teaching her own courses by the time I was an M.A. student. Unfailingly encouraging, challenging and insightful as a teacher and linguist, today I have the privilege of calling her a friend.

Finally, those years at TAU would have been much more difficult, and not nearly as fun, without the friendship and support of my fellow grad students and teaching assistants there: Aya Meltzer, Alyona Belikova, Tal Kedar, Lior Laks, Jenny Birger, and Julie Fadlon.

On to MIT we go —

It is hard to overstate just how great an advisor David Pesetsky is. Perhaps the most telling instantiation of this is his ability to enthusiastically and effectively advise research even when that research stands in contradiction with the results of his own work. I can only hope that one day, if I'm in that position, I will be able to do the same. There are, of course, many other things that make David an amazing advisor, not the least of which are his knowledge, his intellect, his patience, and his willingness to delve with you into new and remote empirical domains just to hear what you have to say about them (though he still complains on occasion about the complexity of Basque agreement morphology...). Some of the intellectually most exciting moments of the past few years, as well as some of the most frustrating ones, occurred in David's office, and both are a testament to just how invaluable having him as an advisor has been. (He is also the aforementioned relentless proponent of non-autobiographical writing.)

One of the many pitfalls of conducting one's doctoral research, I think, is the depths to which we plunge into very particular and detailed research questions, and risk missing the proverbial forest for the proverbial and non-proverbial trees. Unfailingly, Sabine Iatridou has pushed me to keep my focus on the big questions, continually challenging me to remind myself (and my readers) why my work should interest someone without, say, a vested interest in agreement. In fact, working with Sabine, for me, has often been an exercise in pushing myself outside of my "comfort-zone": as someone with whom I share the vast majority of background assumptions, but who works on a mostly separate set of research questions, showing my work to Sabine has always been the ultimate test of "do I have something here, or not". Given that this lack of overlap is obviously reciprocal—Sabine doesn't generally work on agreement in Mayan languages and in Basque—her ability to seamlessly dive right into my in-progress, unpolished and sometimes unorganized research, and instantly provide the most valuable of feedback, is a testament to her abilities both as an advisor and as a linguist. I truly believe that there is nothing in linguistics that Sabine cannot instantly grasp and contribute to (yes Sabine, even phonology). I would be remiss if I didn't also mention Sabine's extraordinary patience and wisdom, for the advisor-advisee relationship is one that is conducted between humans, not between research programs—and more often than not, Sabine has been the one to have to deal with any frustrations and disgruntlednesses that arose throughout my years as a student at MIT; and without fail, I have found her to be available, attentive, and willing to engage in discussions of anything that's on a graduate student's mind. I really don't know what I would have done without her.

Quantitatively, my meetings with Norvin were probably the fewest among my three thesis advisors; but there is something misleading about that. Norvin has often been the ideal to which I can only aspire, for how to be at once both an empirically grounded linguist, extremely proficient an knowledgeable in the empirical minutiae of paradigms and morphemes and phrasing, and simultaneously address (and his case, sometimes revolutionize) theoretical issues of the highest order. There is nothing like the occasional meeting with Norvin to provide an empirical reality-check, where your theory will be confronted with a wide array of typological facts that you have not looked at (or were not even aware of)—and simultaneously,

with theoretical concepts that you had not even begun to consider. The trajectory of my last five years has very much been about a renewed appreciation for the gains that can be made by "getting one's hands dirty" with morphologically-careful syntactic analysis, and there is nothing like having Norvin around as a shining (and bearded) beacon of how to do that right.

Among my MIT professors, I also want to thank Irene Heim, Adam Albright, Danny Fox, Kai von Fintel, and Donca Steriade, who at different times provided me with different mixes of theoretical, professional, and personal advice that I could not have done without. Special thanks to Irene Heim, who was in charge of MIT Linguistics throughout my time here as a graduate student, and who was always willing to listen, consider, and help with whatever was on my mind.

There is more to being in Cambridge, MA, linguistically, than just MIT. At various stages throughout the past few years, faculty members at the Harvard Linguistics Department have given me their time and attention, contributing their own unique (and often, different) perspectives on my work in progress. These include Andrew Nevins, Masha Polinsky, Jay Jasanoff, and Cedric Boeckx (whose interest in typologically unusual agreement patterns is what got me started on working on Basque, in the first place).

Even beyond the geographical confines of Cambridge, many people have taken the time to read drafts, answer nagging questions, and sometimes explain complicated theoretical concepts over email; these include: Milan Rezac, Elena Anagnostopoulou, Karlos Arregi, Andrew Nevins (again), Ricardo Etxepare, Itziar Laka, and Jeroen van Craenenbroeck.

Finally, and squarely in the "last-but-not-least" department, my fellow grad-students. The MIT graduate student body, I feel, gets a bad rap; allegedly, we are all at each other's throats, competitive and full of animosity. Well, they must be talking about a different Massachusetts Institute of Technology, because the one I was in was nothing like that. Whether it was someone to bounce an idea off of, someone to commiserate with, or someone to share a few beers with—I've always found the graduate student body in the linguistics department to be, quite simply, a community. My more-or-less contemporaries: Gillian Gallagher, Jessica Coon, Maria Giavazzi, Bronwyn Bjorkman, Alya Asarina, Claire Halpert, Kirill Shklovsky, Peter Graff, Jeremy Hartman, Sam Al-Khatib, and Patrick Grosz (also, special thanks to Bronwyn for inspiring the dissertation haiku); the "new blood": Mitcho Erlewine, Edwin Howard (who must have put up with a thousand different random office conversations when I needed someone to bounce an idea off of), Coppe van Urk, Iain Giblin, Hadas Kotek, and Sam Steddy; and not to be forgotten, the folks on the other side of Cambridge: Clemens Mayr, Peter Jenks, Lauren Eby Clemens, and Pedro Mateo Pedro. You have all, at different times and in different capacities, helped me along (maybe more than you realize), and I owe you a huge thank you.

My co-author, collaborator and friend, Jessica Coon, deserves special mention here. Over the years, Jessica and I got into the habit of meeting and talking about pretty much every little thing we were working on at any given time. It's hard to overstate how helpful and valuable these conversations have been, and it was through them that several of our joint projects came about. These conversations are also how I got started working on Mayan—first with Jessica, and eventually on my own as well. Without Jessica's infectious love of Mayan languages and Mayan linguistics, I would have never gotten to work on Kichean, which constitutes the central case-study of this thesis.

And then there's life outside of linguistics (no, really!). This is not the place for any detailed discussion of that. But it would be artificial to pretend that any of this would have been possible without a kind of support that has nothing to do with agreement or φ-features. Thank you Gillian, for all the love and patience. Thank you Jessica, Jess, Peter, and Michael, for your friendship, and for occasionally helping me get myself out of my own head. And thank you Spike and little Ella, for being so small and cute.

. . . .

There are many people not listed above, who have at one point or another provided comments and discussion about this work, or about its logical precursors. A non-exhaustive list includes: Judith Aissen, Pranav Anand, Rajesh Bhatt, Marcel Den Dikken, Robert Henderson, Idan Landau, Halldór Ármann Sigurðsson, Lisa Travis, Susi Wurmbrand, and Hedde Zeijlstra, as well as two anonymous *LI* reviewers and two anonymous *Lingua* reviewers.

I owe special thanks to Ana Lopez de Mateo, for Kaqchikel data and judgments, to Ricardo Etxepare, Aritz Irurtzun, and Itziar Laka, for Basque data and judgments, and to Halldór Ármann Sigurðsson, for Icelandic data and judgments.

Any errors are my own.

Abbreviations

ABS	absolutive
ACC	accusative
ACT	active
ADV	adverbial
AOR	aorist
AP	antipassive
ART	article
AUX	auxiliary
BEN	benefactive
CAUS	causative
CLF	classifier
DAT	dative
DEM	demonstrative
DET	determiner
ERG	ergative
EVID	evidential
EXCL	exclusive
EXPL	expletive
FEM	feminine
FUT	future
GEN	genitive
HAB	habitual
IMPF	imperfective
INCL	inclusive
LOC	locative
MASC	masculine
NOM	nominative
NMZ	nominalization
OBL	oblique
PASV	passive

PCL	particle
PERF	perfect
pl/PL	plural
POSS	possessive
PREP	preposition
PRES	present
PRFV	perfective
PRT	participle
RN	relational noun
SC	small-clause
sg/SG	singular

The thesis, in the form of a haiku

Agreement can fail,
You just have to attempt it.
No "crashes" arise.

Overview

The central question investigated in this thesis is how the obligatory nature of agreement in φ-features (henceforth, *φ-agreement*) is enforced by the grammar, and the main claim is that a theory that models φ-agreement as an *operation*—one whose invocation is obligatory, but whose successful culmination is not enforced by the grammar—fares better than alternative accounts.

First, I examine φ-agreement in the Agent-Focus construction of the Kichean languages (Mayan; Dayley 1978, 1985, Mondloch 1981, Norman and Campbell 1978, Smith-Stark 1978). The behavior of this construction demonstrates the inadequacy of accounts that enforce the obligatoriness of φ-agreement through "derivational time-bombs": elements of the initial representation that cannot be part of a well-formed, end-of-the-derivation structure, and which are eliminated by the application of agreement itself—including, but not limited to, Chomsky's (2000, 2001) *uninterpretable features* approach. The core insight is that there are empirical patterns that cannot be handled without recourse to agreement being attempted, and failing, in an utterance that is nonetheless grammatical (a result that is independently supported by the analysis of Basque unergatives, in Preminger 2009, to appear).

Next, I examine the typology of *defective intervention* by dative nominals, showing that it not only provides converging evidence for failed agreement in grammatical utterances, but also favors an account of φ-agreement as an *operation* proper (rather than, say, a violable constraint). Building on Bobaljik's (2008) observation that φ-agreement is *case-discriminating*, I show that the typology of quirky-subject and non-quirky-subject languages arises from movement to canonical subject position relying or not relying on this φ-agreement operation to identify the moving noun-phrase, and that this correctly derives the typology of when defective intervention does and does not give rise to outright ungrammaticality.

Bobaljik shows that the notion of case that is relevant to the *case-discrimination* property of φ-agreement is so-called "morphological case" (Marantz 1991), rather than *abstract case*. The fact that φ-agreement feeds movement to canonical subject position, as noted above, means that φ-agreement must operate within syntax (contra Bobaljik's own claim). Taken together, these results mean that the calculus that gives rise to "morphological case" must operate within syntax, as well (and that the term "morphological case" is therefore a misnomer). Converging evidence for this conclusion is presented from Baker and Vinokurova's (2010) analysis of case in Sakha (Turkic).

A purely syntactic implementation of the calculus that leads to "morphological case" is then proposed, which has the added benefit of potentially deriving the *disjunctive case hierarchy* of Marantz 1991 from the way arguments are introduced into syntactic structure.

From a broader perspective, the logic of *operations*—which φ-agreement is shown to adhere to—might appear to cast φ-agreement as an "outlier" among other syntactic phenomena; and crucially, relegating φ-agreement to some other component of the grammar is impossible, given that it relies on case and feeds syntactic movement. However, it turns out that the logic of *operations* is not all that rare among syntactic phenomena, in the first place: long-distance *wh*-movement, the interaction of *Object Shift* and specificity, and the interaction of subjecthood and the *Definiteness Effect*, all prove to be amenable to similar treatment—as operations that must be invoked, but whose failure is tolerated by the grammar.

Chapter 1

Failed agreement, and why we should be interested in it

1.1. What we mean when we say "agreement"

This thesis deals with <u>agreement</u>. Traditionally, this term was used to refer to a certain kind of relation between verbs, or verb-like elements, and core clausal arguments (usually nominals). In the linguistic literature of the last couple of decades, however, the use of this term has expanded: agreement, or the theoretical machinery used to derive it (for example, *Agree*; Chomsky 2000, 2001), has been exploited to account for a much wider array of phenomena. Examples include: noun-modifier concord (e.g. Carstens 2000, Mallen 1997); negative concord (e.g. Zeijlstra 2004); fake indexicals (e.g. Kratzer 2009); and even deriving Binding Theory itself (e.g. Reuland 2011, Rooryck and Vanden Wyngaerd in press). It is an open question, in my view, whether these phenomena are best captured in terms of agreement proper (see Norris 2011, to appear for some discussion). Therefore, for the purposes of this thesis, I adopt the following more narrow working definition:

(1)   *"AGREEMENT" (OR "φ-AGREEMENT"):*
       The appearance of a morpheme on a verb or TAM marker, whose form co-varies with
       the φ-features of (at least) one nominal argument in the clause.
       where: ○ TAM   = tense/aspect/mood
               ○ φ-features = *person, number, gender,* etc.

1.2. Agreement and the logic of obligatoriness

Agreement has consequences for grammaticality. This is a relatively obvious claim, and indeed one need not look too far to find evidence for it; consider the following, rather trivial example:

(2)   a.   ha-necig-im   dibr-u   (Hebrew)
           the-representative-PL spoke-3pl
           'The representatives spoke.'
      b. * ha-necig-im   diber
           the-representative-PL spoke(3sg.M)

The question I would like to pose in this thesis is a deceptively simple-looking one: **What is it in the grammar that assigns *grammatical* status to a sentence like (2a), but *ungrammatical* status to a sentence like (2b)**?

1.2.1. The *Obligatory Operations* model

I will argue that the correct answer to the question posed above, regarding how the obligatory nature of φ-agreement is enforced by the grammar, is in terms of an obligatory φ-agreement operation (or by other names, an obligatory "transformation" or "rule")—the overt product of which, in an example like (2a), is the agreement marker "*-u*" ('-3pl') on the verb.

The ungrammatical status of a sentence like (2b), then, is the result of failing to invoke the φ-agreement operation, despite the fact that it is obligatory. In other words, (2b) is ungrammatical because there is no derivation that leads to this particular string, in which all operations that are obligatory have been invoked.

This model requires a grammar where operations can be specified as *obligatory*, which means that the grammar must be able to refer to the operations, directly.

It is important to note that in this kind of a model, just because an operation is obligatory, this does not mean that it applies *in every derivation*; operations have structural conditions on their application. Consider, for example the FINAL DEVOICING operation, given in (3):

(3)   FINAL DEVOICING[1]

$$\underset{[-son]}{C} \rightarrow [\text{-voice}] \Big/ \_\_\#$$

The fact that an operation (or "rule") like (3) fails to effect any change to word-medial obstruents—or to words that end in a vowel, for that matter—is considered immaterial in evaluating the status of (3) as *obligatory* or *optional*. The obligatoriness of an operation like (3) can only be evaluated with respect to structures that meet the relevant structural conditions (in this case, the existence of an obstruent in a word-final position).

I will refer to this as the *obligatory operations* approach.

1.2.2. The *Derivational Time-Bombs* model

Perhaps the most popular approach to agreement is one that enforces its obligatory nature by means of a crash-inducing representational device.

Suppose that the initial representation of a sentence like (2) contains an element (or a "feature") that cannot be part of a well-formed, end-of-the-computation structure; and that the agreement relation has the effect of eliminating this offending element from the representation. Assuming that φ-agreement is the *only* thing capable of eliminating this particular offending element, the result will be that φ-agreement cannot be avoided (in a well-formed utterance).

This is a sub-case of a class of grammatical theories in which the generative engine is not "crash-proof" (cf. Frampton and Gutmann 2002); instead, these theories employ a logic that can be described as (over-)generation-followed-by-filtration: the grammar generates

---

[1]As an aside, it is the case that many phonologists no longer think of phenomena like FINAL DEVOICING in these terms; however, the FINAL DEVOICING rule is used here only for the purpose of illustrating the operations-based logic, and therefore whether or not it ends up being the correct account for a given phonological phenomenon is not directly relevant.

representations that may contain offending elements of the sort discussed above; the derivational engine is free to deploy whatever operations it has at its disposal, at any stage, and these operations might have the effect of eliminating these offending elements; finally, those derivations which culminate in a structure that is not well-formed (i.e., one that retains offending elements) are filtered out. This logic is employed extensively in Chomsky and Lasnik 1977, but can be traced back at least as far as Perlmutter 1971.

A concrete example of a treatment of φ-agreement along these lines is the *uninterpretable features* approach of Chomsky (2000, 2001). It is based on the idea that agreement probes—for example, the Infl^0 node in (4), below—enter the derivation bearing a set of φ-features that are <u>uninterpretable</u> (meaning, literally, that they cannot be interpreted at the semantic interface). Being uninterpretable, these features would cause semantic ill-formedness if they were allowed to remain on the agreement probe, at the point at which the structure containing the agreement probe were subjected to semantic interpretation. In this system, φ-agreement is taken to be a response to this state of affairs: it renders the φ-features on the probe <u>interpretable</u> (or perhaps, deletes them altogether).

(4)
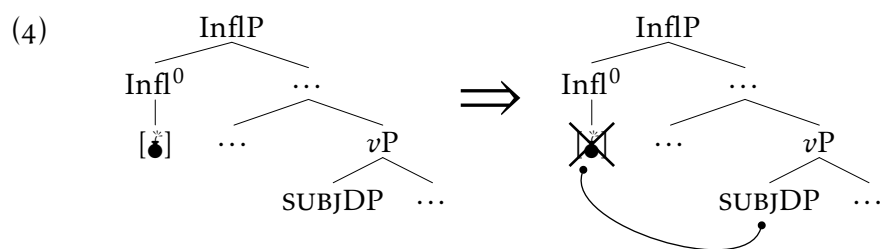
Consequently, agreement *must* apply in a structure like (4) (or a sentence like (2))—because if it did not apply, the uninterpretable feature would persist, and would lead to ill-formedness.

In this model, there is still an operation (*Agree*, per Chomsky 2000, 2001), needed for Infl^0 and its nominal target (SUBJDP, in (4)) to enter into a formal relation. Crucially, however, the status of this operation as *obligatory* is never specified directly. Its obligatoriness is derivative—a result of the ill-formedness of the elements ("features") that its invocation eliminates from the representation. Thus, in such a model, the ungrammatical status of a sentence like (2b) is not a (direct) reflex of the failure of *Agree* to apply; its direct cause is the uninterpretable feature(s) on Infl^0 not having been tended to.

I will refer to this as the <u>*derivational time-bombs*</u> approach—the intuition being that the offending element (e.g. an uninterpretable feature) is a "time-bomb" that had better be defused by the time the derivation culminates, if well-formedness is to be achieved.

It should be noted that this approach is a sub-case of a family of models that relate φ-agreement to grammaticality in a bi-conditional manner (perhaps with some provisions for constructions or languages where no overt agreement is ever observed, such as English infinitives or Mandarin Chinese). Thus, unification-based theories of grammar (e.g. HPSG, LFG), insofar as they posit φ-features as part of the set of features that must undergo unification between the predicate and its argument(s), fall under the same umbrella (in this case, the "time-bomb" would be any failure to comply with the logic of unification, as it pertains to φ-features).

1.2.3. The *Violable Constraints* model

We might view the obligatory nature of agreement in terms of a constraint, and opt for a constraint-based formalism to capture it. Perhaps the best studied family of constraint-based formalisms (in the domain of theoretical linguistics) are those based in *violable constraints*; and among these, perhaps the best known is *Optimality Theory* (*OT*) (McCarthy and Prince 1995, Prince and Smolensky 1993). The obligatory nature of agreement could then be derived from a constraint along the lines of (5):

(5)   HAVEAGR: Assign one violation mark for every failure to represent the φ-features of
                  the designated argument on a finite verb.

Abstracting away, for now, from interactions with other constraints and phenomena, we would arrive at the following trivial schema for enforcing agreement:

(6)

the-representative-PL spoke-␣	HAVEAGR
a. ☞ the-representative-PL spoke-3pl	
b. the-representative-PL spoke(3sg.M)	*!

In this model, the ungrammaticality of a sentence like (2b) is the result of selecting a sub-optimal candidate, such as candidate (b) in (6).

The reader will notice that evaluating HAVEAGR, in terms of the analysis presented in §1.2.2, amounts to counting the heads that bear unchecked *uninterpretable features*.[2] This equivalence—while potentially useful, computationally—does not render the two models identical: in a <u>violable constraints</u> model, HAVEAGR (or the need to minimize the number of unchecked uninterpretable features) could be suspended in favor of a more highly-ranked constraint. No mitigation of this sort is possible in the <u>derivational time-bombs</u> model.

1.3. *Failed agreement*

The alternatives surveyed in §1.2.1–§1.2.3 were raised, in this context, as ways to enforce the normally obligatory nature of agreement. When it comes to failed agreement, however, it turns out that they do not all fare equally.
    Let me first explain what the term *failed agreement* is meant to refer to:

(7)   <u>FAILED AGREEMENT</u> (a descriptive characterization)
        An utterance which is grammatical despite failing to adhere to what is otherwise an
        obligatory pattern of agreement (in the language in question), **and for which there is
        no grammatical variant where agreement proceeds normally**.

---

[2]Alternatively, it amounts to counting the uninterpretable features themselves, if one adopts a system where different φ-features can be checked independently from one another; see §2.4 for an example of such a system.

This definition excludes, for example, "slips of the tongue" or other production errors—or even instances where a lack of agreement is tolerated by the hearer due to a processing difficulty—since for all of these, an alternative utterance will exist where agreement is not disrupted.

Consider how each of the models presented in §1.2.1–§1.2.3 might contend with *failed agreement*. Under the obligatory operations approach (§1.2.1), *failed agreement* is predicted to exist precisely (and only) when the structural conditions on the operation of φ-agreement are not met. Thus, in this model, we are in need of a theory of the structural conditions on the application of φ-agreement.

Under the violable constraints model (§1.2.3), *failed agreement* would be taken as compliance with some constraint whose violation would be more costly than violating the agreement-enforcing constraint, HAVEAGR—given in (8), and repeated here:

(8)   HAVEAGR: Assign one violation mark for every failure to represent the φ-features of the designated argument on a finite verb. *[=(5)]*

We could then derive *failed agreement* as follows:

(9)

	SOMECONSTRAINT	HAVEAGR
a. ☞ *non-agreeing candidate*		*
b. *agreeing candidate*	*!	

What we need, under the violable constraints model, is a theory of the set of possible constraints whose violations might be more costly than violating HAVEAGR, and would consequently inhibit agreement in a particular structure.

Under the derivational time-bombs model (§1.2.2), the situation is quite different. Suppose that the normally obligatory nature of φ-agreement is indeed a matter of the representation containing a derivational time-bomb—a component of the representation which cannot be part of a well-formed end-of-the-computation structure, and which can be eliminated from the representation only by the agreement relation. If so, then in a derivation where φ-agreement has not obtained, the "time-bomb" should remain in its non-"defused" state; this, in turn, should give rise to ungrammaticality.[3]

What the derivational time-bombs approach categorically excludes, then, is a grammatical utterance in which the same derivational time-bomb is present in the initial representation, but φ-agreement has not obtained. This suggests that we might be able to tease apart these different models—or at least, distinguish between the derivational time-bombs model and the other two—through a careful examination of cases that appear to instantiate *failed agreement*.

A case-study involving data of this type will be the focus of chapters 2–3.

---

[3]The same result carries over to unification-based approaches (e.g. HPSG, LFG), where this state of affairs would amount to a failure to unify the φ-features of the predicate with those of its argument(s). This scenario would therefore be predicted to result in ungrammaticality on these approaches, as well; see §1.2.2.

Chapter 2

Omnivorous agreement in the Kichean Agent-Focus construction

In this chapter, I take a detailed look at a particular construction in the Kichean languages (of the Mayan family), which exhibits so-called *omnivorous agreement* effects. This construction, known as *Agent-Focus*, will turn out to be a useful proving ground for the different models of agreement outlined in chapter 1. First, however, we must acquaint ourselves with the behavior of the Agent-Focus construction itself, which is the topic of this chapter.

I will argue that person and number in Kichean are separate φ-probes (independent evidence for this separation, from within the Mayan language family itself, is presented in the APPENDIX, §2.A). Each probes separately, and each is specified—unlike their counterparts in more familiar languages/constructions—to look only for the marked member of their respective feature-geometries (namely, [participant] and [plural], respectively). This yields a behavior that while unusual for φ-agreement, is quite familiar from other empirical domains, for example *wh*-probing: just as a *wh*-probe is able to skip noun-phrases that do not bear a [*wh*] feature, these person and number probes are able to skip arguments that do not bear [participant]/[plural] features.

Furthermore, I will demonstrate that "skipping" of this sort (i.e., agreement with a lower target in lieu of a structurally closer one that lacks the relevant features) cannot be successfully reanalyzed in terms of agreement with both arguments (i.e., *Multiple Agree*), at least not in this empirical domain.

Finally, I will provide evidence that the actual agreement markers found in the presence of 1st/2nd-person arguments (i.e., bearers of [participant]) in the Agent-Focus construction, as well as in other instances of absolute agreement in Kichean, are not the exponence of the person and number probes themselves; instead, they are the product of clitic-doubling, triggered when the 1st/2nd-person argument is probed by the person probe (as in Béjar and Rezac's 2003 account of indirect object agreement). I will show that the same is not true of the 3rd-person agreement markers, which are the exponence of the number probe itself. This, I will demonstrate, explains an interesting distinction in the actual morpho-phonological form of these agreement markers—namely, that the 1st/2nd-person markers resemble the strong pronouns in the language (because they are clitics; literally, reduced pronouns), whereas the 3rd-person agreement markers do not.

Thus, the featural properties of the person and number probes, in conjunction with existing proposals on the nature and distribution of clitic-doubling (Béjar and Rezac 2003, Preminger 2009), yield an account of both the distribution and the morpho-phonological forms of the relevant agreement markers.

I begin with an introduction, by way of Georgian number agreement, to the concept of *omnivorous agreement* (§2.1). The rest of the sections in this chapter are devoted to the Kichean Agent-Focus construction, concentrating first on person agreement (§2.2), then extending the discussion to include number agreement (§2.3), arriving finally at a comprehensive account of agreement in this construction, as well as in regular intransitives/transitives in Kichean (§2.4).

Once the analysis of Kichean Agent-Focus is in place, the stage will be set for a critical comparison of different models of agreement (chapter 3).

2.1. An introduction to omnivorous agreement: Number in Georgian

I use the term *omnivorous agreement* following Nevins (2010), where it defined as follows:

(10)   *OMNIVOROUS AGREEMENT*
       Any scenario where the marked member of a given agreement paradigm (e.g. a marker of verbal φ-agreement indicating the plurality of a nominal argument) can be triggered by the relevant feature whether it appears on the *subject* or on the *object*, or *both*.

Perhaps the best-known example of omnivorous agreement comes from number agreement in Georgian (Anderson 1992, Béjar 2003, Halle and Marantz 1993, Nevins 2010):

(11)   g-xedav
       2OBJ-saw
       'I saw you(sg.) / He saw you(sg.).'

(12)   g-xedav-**t**
       2OBJ-saw-**PL**
       'I saw y'all / We saw y'all / He saw y'all / We saw you(sg.).'

As shown in (12), the suffix "*-t*" can reflect plurality of the subject, of the object, or of both arguments (and thus satisfies the definition of *omnivorous agreement* in (10)). Note that the person features of the subject are not overtly expressed, which gives rise to some of the ambiguity attested in (11–12); crucially, however, (12) is ambiguous beyond the person-features of the subject, with respect to which of the two core arguments are plural (the subject, the object, or both)—and it is this ambiguity that one would characterize as omnivorous agreement in number features.[1]

There is, however, at least one important confound. First, notice that certain interpretations are missing from (12). Some of these are ruled out on binding-theoretic grounds ("*y'all saw you(sg.)*", etc.); but some binding-theoretically possible combinations still cannot be expressed using the "*-t*" suffix: these are the ones involving a 3rd-plural subject:

---

[1]Other examples of omnivorous number agreement have been reported for Barceloní Catalan (a DO-IO interaction, rather than SUBJECT-OBJECT); the Soazza and Eastern Abruzzese dialects of Italian; Onondaga; and others. See Nevins (2010) for details and discussion.

(13)   g-xedav-**t**
       2OBJ-saw-**PL**
       *'They saw you(sg.) / They saw y'all.' *(unavailable interpretations)*

To achieve these interpretations, the verb must carry a different suffix, "*-en*":

(14)   g-xedav-**en**
       2OBJ-saw-**3PLSUBJ**
       'They saw you(sg.) / They saw y'all.'

The suffix "*-en*" is a specialized form of verbal agreement for 3rd-plural subject; this much is clear. Crucially, however, it does not appear alongside the regular plurality-indicating suffix "*-t*" (to form the unattested *"xedav-t-en"* or *"xedav-en-t"*), but in its place.

 We could characterize this state of affairs as one in which "*-t*" and "*-en*" are competing for a single position, where only one of them can be overtly expressed. Whether this is due to phonological processes preventing faithful expression of the segmental material from both suffixes, or—in the spirit of the analysis of these data by Halle and Marantz (1993)—due to the most featurally-specific affix winning out, it is clear that some "competition" of this sort is taking place.

 This poses a problem for viewing this pattern as *omnivorous agreement* proper: once we allow for multiple morphemes to compete for a slot in the verbal complex where only one is expressed—whether such competition is phonologically- or morphologically-mediated—nothing prevents a competition-based analysis for the original pattern in (11–12), as well. Suppose there is a morpheme indicating plurality of the subject (15a), and a morpheme indicating plurality of the object (15b), both of which compete for the suffix slot (as with "*-en*", above):

(15)   a.   [+pl, +NOM]   →   /-*t*/
       b.   [+pl, +ACC]   →   /-*t*/

If these two morphemes happen to be homophonous (certainly not an unreasonable hypothesis, when dealing with inflectional paradigms), we will get the *impression* of omnivorous agreement.

 There are, it turns out, patterns of *omnivorous agreement* that are resistant to this kind of confound. I turn to one such pattern—omnivorous person-agreement in the Agent-Focus construction in Kichean—in the following section.

2.2. Person agreement in the Kichean Agent-Focus construction

2.2.1. Some basic facts about Kichean, and about Agent-Focus in Kichean

The remainder of this chapter discusses data from Kaqchikel, K'ichee' and Tz'utujil, three Mayan languages of the Kichean branch, spoken in Guatemala. The Kichean branch, narrowly defined, also includes the language Achi', not discussed here; the superordinate branch, known as Greater Kichean, also includes the languages Q'eqchi', Uspantek, Poqomchi', Poqomam, Sakapultek, and Sipakapense (Campbell and Kaufman 1985).

According to recent estimates, Kaqchikel has approximately 450,000 speakers; K'ichee' has approximately 2,300,000 speakers; and Tz'utujil has approximately 84,000 speakers.[2]

Like other languages in the Mayan family, these languages are head-marking—i.e., there is no overt case-marking on full noun-phrases—and exhibit an ergative agreement pattern (the examples below are from Kaqchikel; "Ø" indicates a phonologically-empty exponent):[3,4]

(16) TRANSITIVE

    a. rat   x-**Ø**-**aw**-axa-j   ri   achin

        you(sg.) PRFV-**3sgABS**-**2sg.ERG**-hear-ACT the man

        'You(sg.) heard the man.'

    b. ri   achin x-**a**-**r**-axa-j   rat

        the man   PRFV-**2sg.ABS**-**3sg.ERG**-hear-ACT you(sg.)

        'The man heard you(sg.).'

(17) INTRANSITIVE

    a. ri   achin x-**Ø**-uk'lun

        the man   PRFV-**3sg.ABS**-arrive

        'The man arrived.'

    b. rat   x-**at**-uk'lun

        you(sg.) PRFV-**2sg.ABS**-arrive

        'You(sg.) arrived.'

As can be seen in (16–17), the single argument of the unaccusative ("*uk'lun*" 'arrive') receives the same marking as the object of the transitive ("*axa*" 'hear'): Ø (empty) for *3sg* arguments, "*-a(t)-*" for *2sg* ones; while the subject of the transitive receives a different marking: "*-r(u)/u-*" for *3sg* arguments, "*-a(w)-*" for *2sg* ones. Note that the absolutive agreement marker in Kichean *precedes* the ergative one; thus, in the transitive verb, one finds a '-<OBJ>-<SUBJ>-' order of agreement markers.

As mentioned at the beginning of this chapter, there is a construction known as *Agent-Focus* in the Kichean languages, which turns out to provide a unique proving ground for various theoretical treatments of agreement. This construction is in some sense a response to a restriction preventing A-bar dependencies from being established that target ergative

---

[2]<http://www.ethnologue.com/show_family.asp?subid=1227-16> (retrieved May 30th, 2011).

[3]Data in this chapter that are not otherwise attributed come from my meetings with Ana Lopez de Mateo, a speaker of the Patzún variety of Kaqchikel; similar patterns have been noted in the literature on Kichean and other Mayan languages (Aissen to appear, Davies and Sam-Colop 1990, Dayley 1978, 1985, Mondloch 1981, Norman and Campbell 1978, Pye 1989, Smith-Stark 1978, Stiebels 2006). Unless otherwise stated, everything presented in this section holds of Kaqchikel, K'ichee' and Tz'utujil equally.

One difference I did find in Kaqchikel was a strong preference for SV(O) word-order in declaratives—a departure from the verb-initial word order that is pervasive across the Mayan family (including in K'ichee' and Tz'utujil, for example; see Dayley 1978, Mondloch 1978, Norman and Campbell 1978, among others).

Another difference is that in the *absolutive antipassive* (exemplified in (18), below, for K'ichee'), this dialect of Kaqchikel seems to generally disallow realization of the demoted Patient—whether it is oblique or not.

Whether these properties extend to all speakers of the Patzún variety of Kaqchikel remains to be seen.

[4]The morphological structure of the verbal forms in (16–17) is actually more complex than presented here, in particular with regard to the suffixes on the verbal stem known as "status suffixes". See Aissen (to appear) and Henderson (to appear) for details.

arguments. This restriction is not unique to the Kichean languages; it is found in many (though not all) ergative languages, in and outside of the Mayan family.[5]

Before turning to the Agent-Focus construction itself, I note that the Kichean languages have other means of circumventing this restriction, as well; all that is needed is that the External Argument surface as something other than an ergative noun-phrase. One way of achieving this is by using an antipassive construction, where the Patient will show up as an oblique phrase (if at all)—and as a result, the External Argument will be absolutive, rather than ergative (as evinced by the fact that the head-marking that co-indexes the External Argument on the verb, in this case, is identical to the head-marking that co-indexes the *object* in a regular transitive; cf. (16a–b)):

(18) xači:n š-Ø-čap-an   [č-e:h   le: ts'unun   ]   (K'ichee')
      who   PRFV-3sg.ABS-capture-AP   3sg.POSS-RN the hummingbird
      'Who caught the hummingbird?'   [*Sam-Colop 1988:88*, *via Campbell 2000:268*]

However, by far the most common way for speakers of Kichean to realize an External Argument so that it does not end up as ergative—and thus, to allow the formation of A-bar dependencies targeting the External Argument—is by using *Agent-Focus*, the construction which will be at the center of the discussion in this chapter and the next. This construction is characterized by a particular suffix (glossed here as 'AF') on the verb.[6]

While sometimes called the *Focus Antipassive* or the *Agentive Antipassive*, Agent-Focus is actually not an antipassive at all—as argued in detail by Smith-Stark (1978), Craig (1979), and Aissen (to appear). While antipassives normally involve "demotion" of the Patient (the original direct object), this is not the case here; in this construction, both core arguments (Agent and Patient) are not demoted, and can appear as full-fledged, non-oblique noun-phrases:[7]

(19) ja **ri tz'i'** x-Ø-etzela-n   **ri sian**
      FOC **the dog** PRFV-3sg.ABS-hate-AF **the cat**
      'It was the dog that hated the cat.'

(20) ja **ri xoq**   x-Ø-tz'et-ö   **ri achin**
      FOC **the woman** PRFV-3sg.ABS-see-AF **the man**
      'It was the woman who saw the man.'

Let us now turn to the issue that is at the center of this section—namely, the behavior of verbal agreement in this construction. For expository purposes, the current discussion will be

---

[5]Even those Mayan languages that lack this prohibition exhibit the same ergative agreement alignment that was demonstrated for Kaqchikel in (16–17). See Stiebels 2006, and references therein, for the distribution of these effects across the Mayan family. See also Coon, Mateo Pedro, and Preminger in prep., where it is argued that this prohibition—in Mayan—is best characterized not as a property of the ergative argument itself, but rather as a restriction against extracting anything but the direct object out of a transitive verb-phrase, based on the fact that the distribution of this prohibition across the Mayan family correlates with the structural height of absolutive case/agreement (as detailed in Tada 1993).

[6]In Kaqchikel, this suffix comes in two forms, "*-ö*" and "*-n*"; in K'ichee', the forms are "*-ow*" and "*-n*"; and in Tz'utujil, they are "*-o(w)*" and "*-n*".

[7]A related fact, which constitutes an argument in its own right against viewing Agent-Focus as an antipassive, is that either the Agent or Patient may control agreement on the finite verb, given the right argument/person combination (Aissen to appear); see below for a detailed discussion of agreement in the Agent-Focus construction.

limited to instances where both core arguments are *singular*; the discussion will be expanded to include *plural* noun-phrases in §2.3.

The behavior of agreement in Agent-Focus clauses is strikingly different from agreement in regular transitive clauses (exemplified by (16a–b), above). Instead of the two agreement morphemes carried by a regular transitive verb (an absolutive one and an ergative one), the Agent-Focus verb carries only a single agreement marker, taken from the absolutive series.

This immediately raises the question of which of the two core arguments (the subject and the object, both of which are non-oblique) will be co-indexed by this single agreement marker. This problem, and the intricate ways in which Kichean goes about solving it, were originally observed in work by Dayley (1978), Mondloch (1981), Norman and Campbell (1978), and Smith-Stark (1978).

Consider first the pair in (21–22):

(21) ja   rat   x-**at/*Ø**-axa-n   ri   achin
      FOC you(sg.) PRFV-**2sg/*3sg.ABS**-hear-AF the man
      'It was you(sg.) that heard the man.'

(22) ja   ri   achin x-**at/*Ø**-axa-n   rat
      FOC the man   PRFV-**2sg/*3sg.ABS**-hear-AF you(sg.)
      'It was the man that heard you(sg.).'

In (21), the Agent is 2nd-person and the Patient is 3rd-person; in (22), the reverse is true—the Agent is 3rd-person and the Patient is 2nd-person. Crucially, however, the agreement morphology borne by the verb is the same in both sentences: the agreement-slot in between the aspectual prefix ("*x-*" 'PRFV-') and the verbal stem ("*axa*" 'hear') contains the "*-at-*" infix, glossed here as '2sg.ABS', in both cases.[8]

The same behavior is attested when one of the arguments is 1st-person and the other is 3rd-person: the verb will carry the 1st-person agreement marker "*-in-*" regardless of whether the 1st-person argument is the Agent or the Patient:

(23) ja   yïn x-**in/*Ø**-axa-n   ri   achin
      FOC me PRFV-**1sg/*3sg.ABS**-hear-AF the man
      'It was me that heard the man.'

(24) ja   ri   achin x-**in/*Ø**-axa-n   yïn
      FOC the man   PRFV-**1sg/*3sg.ABS**-hear-AF me
      'It was the man that heard me.'

The reader might wonder regarding the fate of Agent-Focus clauses where one argument is 1st-person and the other is 2nd-person; such combinations, it turns out, are impossible in this construction—an issue to which I return, shortly (see the discussion of (25), below).

Given the facts surveyed here, and following the discussion in §2.1, we could say that in the Agent-Focus construction, the Kichean languages exhibit *omnivorous agreement* in [person] features—or *omnivorous person*, for short (for a discussion of "salience"-based approaches to these effects, and why such approaches are problematic, see §2.4.5). Within the Mayan family,

---

[8]Thanks to Lauren Eby Clemens for bringing the existence of such patterns, originally in K'ichee', to my attention; and to Robert Henderson, for teaching me that this pattern extends to Kaqchikel, as well.

this behavior is not absolutely unique to the Kichean languages; see Stiebels 2006 for a recent review of these and similar effects across the Mayan family. The Kichean pattern, however, has certain properties that make it an especially interesting proving ground for theories of φ-agreement.

For example, the Kichean languages provide a way to rule out an account of the kind sketched in §2.1 for Georgian number-agreement, where what looks like *omnivorous agreement* is actually handled in terms of competition—whether morphological or phonological—of two agreement markers for a single slot in the verbal complex. The reason is as follows: the form of the 2nd-singular object agreement marker in Kaqchikel is "*-a(t)-*", exactly the marker that shows up in (21–22) (which is why it is glossed here as '2sg.ABS'). The form of the 2nd-singular subject agreement marker, however, is "*-aw-*"; and as demonstrated by (16a) (repeated below), "*-aw-*" has no problem appearing in the precise phonological environment instantiated in (21–22)—namely, between the aspectual prefix ("*x-*" 'PRFV-') and the verbal stem ("*axa*" 'hear').

(16) a. rat   x-**Ø**-**aw**-axa-j   ri achin
         you(sg.) PRFV-**3sgABS**-**2sg.ERG**-hear-ACT the man
         'You(sg.) heard the man.'

Thus, if patterns like (21–22) were the result of a subject agreement marker and an object agreement marker competing for a single slot in the verbal complex, we would falsely predict a kind of *pseudo-Kaqchikel*, where in the Agent-Focus construction, "*-aw-*" would surface when the subject was 2nd-person, but "*-a(t)-*" would surface when the object was 2nd-person.

One might consider the possibility that both noun-phrases in the Agent-Focus construction are simultaneously marked with *absolutive* case; and that as a result, both arguments trigger agreement using the series of morphemes that includes "*-a(t)-*", rather than the one that includes "*-aw-*". It is doubtful that such an account could be maintained, however, given that the Kichean languages are what Legate (2008) terms "ABS=NOM" languages (Coon, Mateo Pedro, and Preminger in prep., building on Tada 1993). In "ABS=NOM" languages, absolutive case is assigned by Infl^0, and does not have the distribution of "default" or freely-available case. Instead, such languages are characterized by a one-to-one relation between the presence of Infl^0 and the presence of an absolutive noun-phrase—as evidenced, for example, by the unavailability of absolutive case in non-finite clauses (see Aldridge 2004, Legate 2008). It would therefore be entirely unexpected that a single clause would contain two noun-phrases whose abstract case was *absolutive*.

This, of course, raises the question of what the case-markings of the subject and the object in the Agent-Focus construction actually are. Coon, Mateo Pedro, and Preminger (in prep.) provide an argument that in the Agent-Focus construction, the object receives structural case from a dedicated head (whose overt realization is the Agent-Focus suffix), and the subject is left to bear absolutive.

The point here, however, is that any analysis that assumes two absolutive noun-phrases, where there is only one Infl^0 to be found, is highly unlikely for Kichean. Since both arguments trigger the same "absolutive" agreement morphology, however, we must derive this pattern of *omnivorous agreement* from something other than such competition between morphemes.

There is another fact that suggests an account of these *omnivorous person* effects that is not based in morpheme competition of this sort. It turns out that the person values of the two core arguments in the Agent-Focus construction cannot freely combine; in particular, the following restriction is observed:

(25)   *AGENT-FOCUS PERSON RESTRICTION*
        In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person. [Davies and Sam-Colop 1990, Dayley 1978, Norman and Campbell 1978, Smith-Stark 1978, Stiebels 2006]

Thus, the examples in (26–27) are ungrammatical regardless of the agreement marker chosen to occupy the agreement-slot:

(26)   * ja   rat   x-**in/at/Ø**-axa-n   yin
          FOC you(sg.) PRFV-**1sg/2sg/3sgABS**-hear-AF me
          Intended: 'It was you(sg.) that heard me.'

(27)   * ja   yin x-**in/at/Ø**-axa-n   rat
          FOC me   PRFV-**1sg/2sg/3sgABS**-hear-AF you(sg.)
          Intended: 'It was me that heard you(sg.).'

This state of affairs differs from the *omnivorous number* pattern found in Georgian, and discussed in §2.1; there, the appearance of the plural marker was compatible not only with the subject or object being plural, but also with *both* the subject and object being plural. Note, however, that this is a distinction between *person* and *number*, not between Kichean and Georgian. As will be shown in §2.3–§2.4, number agreement in the Kichean Agent-Focus also exhibits *omnivorous agreement* effects, but is like the Georgian pattern in §2.1 in allowing plural subjects and objects in the same clause. I return to the nature of this difference in §2.4.3.

Returning to the Agent-Focus person restriction, different languages in the Kichean branch choose different options to realize intended meanings like the ones in (26–27). Tz'utujil makes use of the absolutive antipassive (cf. the K'ichee' (18), above)—a construction in which the Patient is realized as an oblique phrase, and is therefore ineligible for agreement:

(28)   atet   x-**at**-ch'ey-o   [**w**-xiin   ]   (Tz'utujil)
          you(sg.) prfv-**2SG.ABS**-hit-AF **1sg**.GEN-of
          'It was you(sg.) who hit me'   [*Dayley 1978:38*]

In Kaqchikel, on the other hand, the prohibition against A-bar operations targeting the ergative noun-phrase appears to simply be lifted when such argument combinations arise—i.e., when both the subject and the object are 1st/2nd-person:

(29)   ja   rix   x-**ix-qa**-tz'et
          FOC y'all PRFV-**2pl.ABS-1pl.ERG**-see
          'It was y'all who we saw.'   [*class-notes from Field Methods class;[9] MIT, 2011*]

Let us set aside, for now, the question of which alternative means are used in each language to express these interpretations (which are rendered impossible in the Agent-Focus construction due to (25)). Instead, let us concentrate on the restriction in (25), itself: if the

---

[9]<http://fieldwork.mit.edu/wiki/Kaqchikel#Contexts_of_AF> (retrieved April 28th, 2011).

omnivorous person effects in Kichean were simply the result of competition among multiple morphemes for a single slot in the verbal complex, then we would expect the combination of one 1st-person argument with another 2nd-person argument to result in the same sort of competition, between a 1st-person agreement marker and a 2nd-person agreement marker.

However, as shown in (26–27), this is not the case: no choice of agreement marker salvages 1st-person/2nd-person argument combinations (in the Agent-Focus construction). Of course, it is logically possible that the source of the restriction in (25) would be extrinsic to the mechanism responsible for the *omnivorous person* effects, in the first place; nevertheless, an account that derives the two from the same underlying mechanism would clearly be preferable. An account of this sort will be presented in §2.2.2, below.

2.2.2. Relativized probing

2.2.2.1. What's good for [*wh*] is good for [participant]

I have been using the term *omnivorous agreement*, following Nevins (2010), to characterize the behavior of person-agreement in the Agent-Focus construction in Kichean. That is because this agreement system exhibits a property that is often not found in the domain of verbal agreement: informally, we could characterize this property as the ability to skip over the subject—if it does not bear the right feature-combination—en route to the object. This was demonstrated in examples like (22) and (24), above.

There is another perspective one could take on these facts, though, that makes them seem much less exceptional. Consider the behavior of a *wh*-probe on C^0, in examples like (30a–c):

(30) a. $\left[C^0 \text{ [who]}_{<+wh>} \text{ gave [this dish] to [Bob]} \right]$

$\longrightarrow$ $\left[C^0 \text{ [who]}_{<+wh>} \text{ gave [this dish] to [Bob]} \right]$

$\longrightarrow$ Who gave this dish to Bob?

b. $\left[C^0 \text{ [John] gave [what]}_{<+wh>} \text{ to [Bob]} \right]$

$\longrightarrow$ $\left[C^0 \text{ [John] gave [what]}_{<+wh>} \text{ to [Bob]} \right]$

$\longrightarrow$ What did John give to Bob?

c. $\left[C^0 \text{ [John] gave [this dish] to [who]}_{<+wh>} \right]$

$\longrightarrow$ $\left[C^0 \text{ [John] gave [this dish] to [who]}_{<+wh>} \right]$

$\longrightarrow$ Who did John give this dish to?

In each of the sentences in (30a–c), there are (at least) three target XPs that the *wh*-probe is in principle able to reach; and some of these targets are closer to the probe, in structural terms, than others are. Crucially, the probe has the ability to skip over targets that do not bear the right feature-combination—in this case, [*wh*]—en route to a target that does. This observation is hardly new, of course; it is simply the "relativized" part of *Relativized Minimality* (Rizzi 1990, Frampton 1991) at work.

Now consider the agreement patterns of Agent-Focus in Kichean—as discussed in §2.2.1, and exemplified by (21–22), repeated here:

(21) ja   **rat**   x-**at**-axa-n   ri achin
      FOC **you(sg.)** PRFV-**2sg.ABS**-hear-AF the man
      'It was you(sg.) that heard the man.'

(22) ja   ri achin x-**at**-axa-n   **rat**
      FOC the man   PRFV-**2sg.ABS**-hear-AF **you(sg.)**
      'It was the man that heard you(sg.).'

Let us assume that at the relevant stage of the derivation of these examples, both the subject and the object are located below Infl^0—an almost unavoidable assumption, given some version of the *vP/VP-Internal Subject Hypothesis*. If so, both this Agent-Focus pattern and the interrogative C^0 pattern discussed above involve a probe (Infl^0 in one case, C^0 in the other) that is looking for target XPs that bear a particular feature ([participant] in one case, [*wh*] in the other), and is able to skip over XPs that lack the relevant feature.[10] A pair like (21–22) can therefore be analyzed in the same way as (30a–c):

(31) a. $\left[\textbf{Infl}^0 \; [\textbf{you}]_{<+prtc.>} \; \textbf{V}^0 \; [\textbf{the man}]\right]$
          $\longrightarrow$ $\left[\text{Infl}^0 \; [\text{you}]_{<+prtc.>} \; \text{V}^0 \; [\text{the man}]\right]$ $\longrightarrow$ (21)

      b. $\left[\textbf{Infl}^0 \; [\textbf{the man}] \; \textbf{V}^0 \; [\textbf{you}]_{<+prtc.>}\right]$
          $\longrightarrow$ $\left[\text{Infl}^0 \; [\text{the man}] \; \text{V}^0 \; [\text{you}]_{<+prtc.>}\right]$ $\longrightarrow$ (22)

I therefore propose that the derivation of these *omnivorous person* effects is essentially the same as that of their *wh*-probe counterparts: the φ-probe—namely, Infl^0—is specified for the [participant] feature; it will therefore ignore DPs that do not bear this feature, much like an interrogative C^0 will ignore XPs that do not carry the [*wh*] feature. I will refer to this property of interrogative C^0 and Kichean Infl^0 as <u>relativized probing</u>, following the use of the term "relativized" by Rizzi (1990).

   At this point, one might wonder about indirect objects in Kichean, and their effects on agreement in the Agent-Focus construction (in other words, regarding the [participant]-probing counterpart of (30c), above). It turns out that Kichean does not have true indirect objects; Source/Goal arguments in Kichean can be realized only as oblique phrases, headed by a preposition which takes a relational noun as its complement:[11]

(32) a. Juan x-Ø-u-ya'   ri wuj [**ch-a**   **xta Maria**]
          Juan PRFV-3sg.ABS-3sg.ERG-give the book **PREP-RN CLF Maria**
          'Juan gave the book to Maria.'

      b. Juan x-Ø-u-ya'   ri wuj [**cha-w-a**]
          Juan COM-3sg.ABS-3sg.ERG-give the book **PREP-2sg.GEN-RN**
          'Juan gave the book to you(sg.).'

---

[10]The notation [participant] refers to the relevant feature in the φ-geometry that distinguishes "speech act participants"—i.e., 1st/2nd-person arguments—from 3rd-person noun-phrases (following Harley and Ritter 2002, and much subsequent work). See §2.2.2.2, below, for further discussion.

[11]Examples (32–33) are Kaqchikel data due to Robert Henderson (p.c.).

When the indirect object is 3rd-person, it appears as a complement to the relational noun, as in (32a); when the indirect object is pronominal, it appears as possessor agreement on the relation noun, as in (32b) (note that across the Mayan family, ergative agreement and possessive/genitive agreement are identical).

Since the Source/Goal argument is oblique, it does not interact with the agreement marking on the finite verb. This is already seen in (32a–b), where the change from a 3rd-person Goal to a 2nd-person one is not reflected in the verbal morphology. The same is true in the Agent-Focus construction in Kichean: the Source/Goal argument does not interact with agreement on the Agent-Focus verb. Thus, even if it is the only argument that is not 3rd-person, the Source/Goal argument fails to trigger 1st/2nd-person agreement on the Agent-Focus verb:

(33) Ja   ri   Juan x-**Ø**-y-on   ri   wuj [**cha-w-a**]
      FOC the Juan PRFV-**3SG.ABS**-give-AF the book **PREP-2SG.GEN-RN**
      'It was Juan that gave the book to you.'

The agreement morphology on the Agent-Focus verb in (33) ("*x-Ø-y-on*" 'PRFV-3SG.ABS-give-AF') is identical to the agreement morphology on an Agent-Focus verb with only a subject and object, both of which are 3rd-person—cf. (19–20), repeated here:

(19) ja   **ri   tz'i'** x-Ø-etzela-n   **ri   sian**
      FOC **the dog** PRFV-3sg.ABS-hate-AF **the cat**
      'It was the dog that hated the cat.'

(20) ja   **ri   xoq**   x-Ø-tz'et-ö   **ri   achin**
      FOC **the woman** PRFV-3sg.ABS-see-AF **the man**
      'It was the woman who saw the man.'

In summary, Source/Goal arguments in Kichean are irrelevant to the Infl^0 probe (both in regular finite clauses, and in the Agent-Focus construction), just as any other oblique phrase would be.

Cross-linguistically, not all Source/Goal arguments behave in this fashion, of course. In many languages, Source/Goal arguments (along with other dative nominals) exhibit a more complex interaction with φ-probing, known as *defective intervention*, which I set aside for the purposes of this chapter (and the next). This more complex pattern will be the central topic of chapter 4.

2.2.2.2. Feature relativization in a feature-geometric approach

Before turning to more detailed derivations of examples like (31a–b), I would like to briefly discuss the status of this <u>relativized probing</u> proposal with respect to the cross-linguistic typology of agreement. At first glance, it might seem like this proposal—while assimilating φ-agreement in Kichean Agent-Focus clauses to probing by interrogative C^0—makes this particular instance of φ-agreement out to be a complete outlier; after all, from a typological perspective, omnivorous agreement patterns are the exception, not the norm. We might therefore ask why the effects of <u>relativized probing</u> are absent in the usual case, where φ-agreement targets the subject and cannot target the object under any circumstances.

The answer, I believe, is that they are *not* absent; <u>relativized probing</u> is alive and well in the standard subject-agreement paradigm—the relevant probe is simply feature-relativized to a higher point in the φ-geometry, one that can be satisfied by a larger set of potential targets. Consider examples like the following:

(34)   There **seems/??seem** [to every attorney$_i$] to be [some client of his$_i$ who is innocent].

Examples like this illustrate a familiar point: probing by Infl^0 in English—presumably responsible for 3rd-singular agreement on the verb "*seem*"—is capable of skipping certain nodes, such as the dative experiencer in (34) (the variable-binding relation is there to verify that the subject is c-commanded by the dative experiencer).[12] The same point can be made with unselected PPs, as well:

(35)   There **are/??is** likely [in every class] to be [two troublemakers].

In fact, even in a much simpler example, where there is no intervening PP, any rudimentary investigation of the syntactic structure reveals that there are several nodes along the syntactic spine that must be skipped by the φ-probe en route to its eventual target:

(36)   There **are/??is** [$_{v\text{P/VP}}$ likely [$_{\text{TP}}$ to [$_{v\text{P/VP}}$ be [two troublemakers] here]]].

The underlined nodes in (36) are bona fide syntactic projections, closer to the φ-probe than the actual target ("*two troublemakers*"), and yet the φ-probe is able to skip them when searching for an agreement target.[13]

These effects are perhaps most naturally handled in terms of categorial distinctions (namely, the Infl^0 probe searching for a DP, rather than a TP, vP/VP, or PP). If, however, category-membership is nothing but featural specification (Chomsky 1995b, among many others), then the essential structure of examples like (34–36) is no different than the *wh*-probing or Agent-Focus examples we have been looking at: they all involve a probe which

---

[12]Recent work by Hartman (2011, to appear) suggests that examples like (34) might constitute the exception, and that PP arguments other than the *to*-experiencer of "*seem*" and "*appear*" do intervene in English—just as they do in French, Italian, Spanish, Greek, and other languages (Anagnostopoulou 2003, Holmberg and Hróarsdóttir 2003, Rizzi 1986, Torrego 1996, among others; see chapter 4 for a more detailed discussion of defective intervention by dative nominals). If this is true, then (34) is not directly relevant to the argument in the main text; but note that the more general point made with regard to (36), about skipping other projections along the clausal spine, holds of (34) as well.

[13]The argument in the main text goes through even if φ-agreement in expletive-associate constructions like (34–36) is handled by agreement of Infl^0 with the expletive "*there*", rather than agreement directly with the associate. If the expletive is base-generated alongside the associate and subsequently moves to the matrix subject position (Hartmann 2005, Hazout 2004, Hoekstra and Mulder 1990, Kayne 2006, Moro 1991, 1997, 2007, Williams 1994, among others), then the probe that dislocates the expletive must be able to skip the dative experiencer (in (34)) or the adjunct (in (35)), and the same *relativized probing* property holds; but even if the expletive is base-generated in its surface position, there must be some mechanism that transmits the φ-features of the associate to the expletive (since it is the features of the associate that ultimately determine the form of the finite verb in (34–36); see, for example, Chomsky 1986, Den Dikken 1995, Lasnik and Saito 1991). This transmission mechanism will itself need to be feature-relativized in the same way, to prevent transmission of the features of the dative/adjunct instead of the features of the actual associate.

is specified to look for a particular feature, and this probe is able to skip potential targets when these targets do not bear the feature in question.

It is important to note that the effect demonstrated in (34–36) for English is present in Kichean, as well, as shown by the invisibility of oblique Source/Goal arguments for agreement purposes (see §2.2.2.1). In other words, the kind of "skipping" we find in English is replicated in Kichean; the effect in Kichean is simply stronger, in that it extends beyond PPs, to include 3rd-person DPs as well. We can therefore characterize the "skipping" effects found in English as a *subset* of those found in Kichean.

This subset-superset relation between the relativized probing effects found in English and in Kichean suggests a way of capturing the difference between the two kinds of languages based on the notion of a *feature geometry*. Suppose, following Harley and Ritter (2002), that the domain of φ-features is internally structured. Let us assume the following feature geometry, a simplified version of the φ-feature geometry proposed by Harley and Ritter (see also McGinnis 2005, Béjar and Rezac 2009):

(37)   *A SIMPLIFIED φ-FEATURE GEOMETRY*

$$[\varphi]$$

$$\left([\text{PERSON}] \right) \quad \left([\text{NUMBER}] \right)$$

$$[\text{participant}] \qquad\qquad [\text{plural}]$$

$$[\text{author}]$$
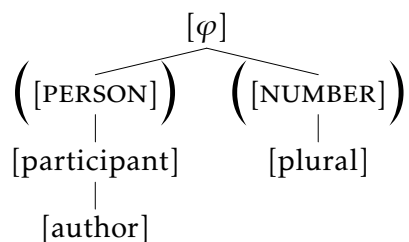
The feature [plural] is what distinguishes plural noun-phrases from singular ones. The feature [participant] is what distinguishes 1st/2nd-person pronouns from 3rd-person pronouns and other noun-phrases (as assumed in §2.2.2.1), and the feature [author] further distinguishes 1st-person from 2nd-person; since [participant] dominates [author], the latter cannot arise without the former, ruling out the logically incoherent "non-participant author". The root of the feature geometry, $[\varphi]$, is the node shared by all nominals. The remaining nodes, [PERSON] and [NUMBER], are included here only for completeness, and can be ignored for the time being (see §2.4 for the significance of these nodes).

Crucially, the nodes in this feature-geometry are *privative features*. Thus, a 1st-person plural noun-phrase ("*we/us*") would carry [participant], [author], and [plural] features; a 2nd-person plural noun-phrase ("*y'all*") would carry [participant] and [plural] features, but no [author] feature; a 1st-person singular noun-phrase ("*I/me*") would carry [participant] and [author] features, but no [plural] feature; and so forth.

Following Béjar and Rezac (2009), I assume that this feature-geometry is relevant not only to the morphological realization of nominals—as proposed by Harley and Ritter—but is also the way φ-features are represented within syntax proper.

If English Infl^0 is relativized to the root of the geometry, any φ-bearing phrase would constitute a viable target (i.e., any DP, but not PPs); and since the subject is always closer to Infl^0 than the object, the object will never be targeted for φ-agreement. Thus, while English does not have *omnivorous agreement* in the sense of agreement with objects in lieu of certain

subjects, English $Infl^0$ can be seen as *omnivorous* with respect to $[\varphi]$: it skips phrases such as PPs, whose head does not carry it.[14]

Unlike its English counterpart, $Infl^0$ in Kichean is <u>relativized</u> to [participant] (as argued in §2.2.2.1, above). It therefore skips not only non-DPs (as its English counterpart does), but also DPs that are non-1st/2nd-person—giving rise to what has been characterized as *omnivorous agreement* (agreement with objects in lieu of certain subjects).[15]

On this feature-geometric view of φ-agreement, the reason the kinds of phrases skipped by the φ-probe in English are a *subset* of the kinds of phrases skipped by the φ-probe in Kichean is because the node English $Infl^0$ is <u>relativized</u> to *dominates* the node to which Kichean $Infl^0$ is <u>relativized</u>, within the φ-feature geometry.

Once we adopt a feature-geometric approach to φ-features in syntax (or in fact, any approach that takes φ-features in syntax to be privative, rather than bivalent), we must modify our notion of *valuation*. In this type of system, valuation involves the copying of privative features (if present) from the nominal to the φ-probe, rather than the copying of $[+/-]$ values. We must therefore ask ourselves how a probe with unvalued φ-features (say, before it has actually probed) differs from a probe that has entered into a successful φ-agreement relation with a nominal that happens not to be specified for [participant], [plural], and so forth.

This question can be answered straightforwardly, however, if valuation is itself a feature-geometric process, and involves copying snippets of φ-geometry, rather than copying individual features. Suppose that instead of "unvalued φ-features", φ-probes enter the derivation with a placeholder for a piece of φ-feature-geometry; and that valuation is simply the process of copying the snippet of φ-geometry borne by a nominal onto the φ-probe:

(38) *VALUATION AS A φ-GEOMETRIC NOTION*
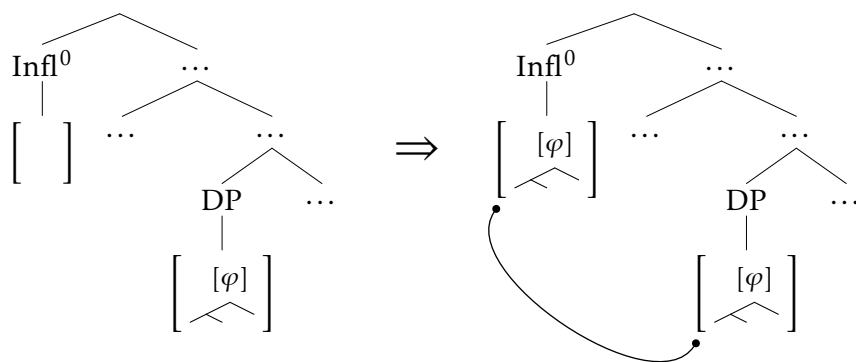
On this view of valuation, <u>relativized probing</u> would amount to specifying what the root of the piece of φ-geometry copied onto $Infl^0$ would have to be. In English, any piece of φ-geometry

---

[14]Though see §4.3.2, for a more nuanced view of whether or not P^0/PPs carry φ-features.

[15]As Gillian Gallagher and David Pesetsky have independently pointed out to me, the term *omnivorous agreement* might not be such a good fit for this phenomenon. The agreement probe, in these cases, is not behaving like an "omnivore" at all; rather, it is being extremely picky, willing to go to the end of the "buffet line" (or to the end of the clausal structure) to find what it is looking for (e.g. plural number). It might therefore make more sense to call this "vegan agreement", or something along those lines. I will, however, keep to the term *omnivorous agreement*, in the interest of not introducing new terminology where previous terminology already exists.

rooted in $[\varphi]$ would be able to be copied onto Infl^0, meaning any nominal could be used for valuation:

(39) *φ-GEOMETRIC VALUATION: ENGLISH*
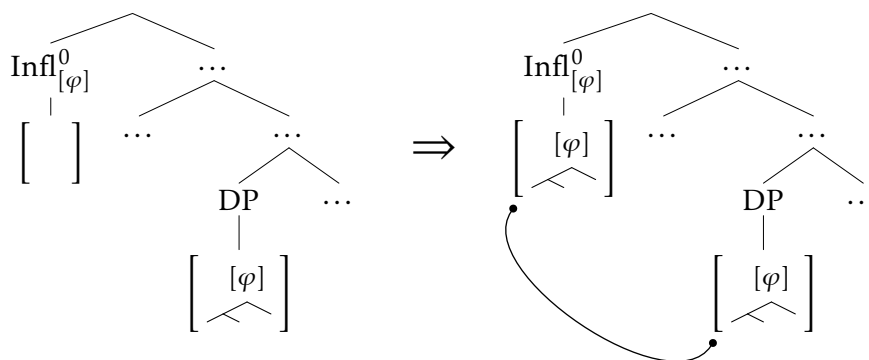
In Kichean, on the other hand, only pieces of φ-geometry rooted in [participant] would be able to be copied onto Infl^0, meaning only 1st/2nd-person nominals could be used for valuation:

(40) *φ-GEOMETRIC VALUATION: KICHEAN* $\big([\text{prtc}] = [\text{participant}]\big)$
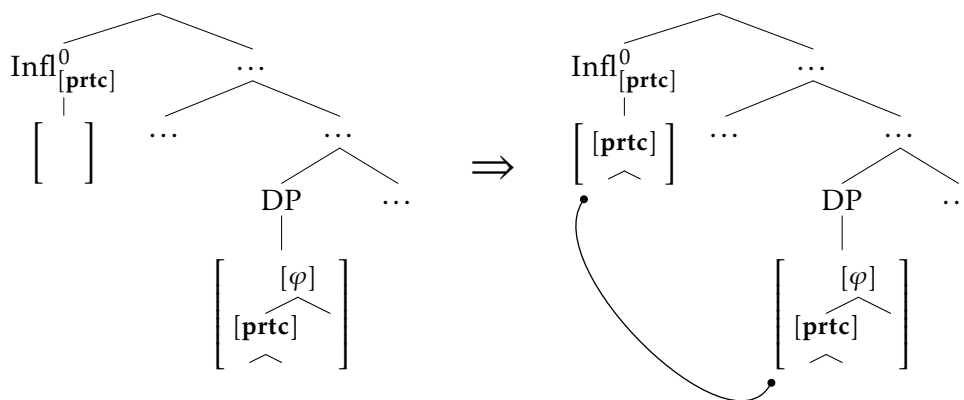
An "unvalued" φ-probe, in this approach, would be one whose placeholder has not been filled with a snippet of φ-geometry.

Note that this modification to the mechanism of valuation does not fundamentally change the question posed in chapter 1, regarding how the obligatoriness of φ-agreement is enforced by the grammar. For example, the *uninterpretable features* approach (Chomsky 2000, 2001)—an instance of the more general <u>derivational time-bombs</u> model—could easily be adapted to state that φ-geometric placeholders are *uninterpretable* (and cause ungrammaticality unless filled), whereas actual snippets of φ-geometry are *interpretable* (and therefore do not cause ill-formedness).

The significance of the feature-geometric approach is in unifying the patterns of which nodes can and cannot be skipped by the φ-probe in a language like English with those found in a language like Kichean. I will therefore continue to use, in prose, non-geometric shorthand such as "unvalued φ-features" and "probing for [participant] features" as stand-ins

for the relevant feature-geometric notions (in this case, "empty φ-geometric placeholders" and "probing for a piece of φ-geometry rooted in [participant]", respectively).

In summary, we have examined the omnivorous person effects found in the Kichean Agent-Focus construction. In §2.2.2.1, these effects were assimilated to the behavior of interrogative C^0 (in particular, its ability to skip non-*wh* phrases). This property—namely, the ability of a probe to skip targets that lack the feature it is looking for—was termed <u>relativized probing</u> (following the use of the term "relativized" in *Relativized Minimality*; Rizzi 1990).

In this sub-section we have gone further, in assimilating the categorial relativization of probes like English Infl^0 (i.e., the targeting of DPs but not PPs) to the same <u>relativized probing</u> mechanism. Such categorial relativization is in need of an account, one way or another; but given the idea that categorial membership is nothing more than featural specification, the division between categorial relativization and other kinds of relativization (such as carrying or not carrying a [*wh*] feature) is theoretically immaterial, in the first place—strengthening the need for a unified account.

If φ-features are organized in a feature-geometry (Harley and Ritter 2002, McGinnis 2005, Béjar and Rezac 2009), then <u>relativized probing</u> accounts naturally for the subset-superset relations among the kinds of phrases skipped by different probes: if a probe like English Infl^0 is <u>relativized</u> to [φ], which dominates the [participant] node to which Kichean Infl^0 is <u>relativized</u>, then the kinds of phrases skipped by the former will be a proper subset of the kinds of phrases skipped by the latter.

From this perspective, the singling out of patterns like the Kichean one examined here (as well as the Georgian pattern examined in §2.1) as "omnivorous agreement" is misleading; on the current view, ***all probes are "omnivorous"***—it is just that different probes are <u>relativized</u> to different features, resulting in different patterns of what is and is not skippable.

2.2.2.3. The derivation of *omnivorous person* in Agent-Focus

Let us now turn to a more detailed illustration of the relevant derivations in Agent-Focus clauses in Kichean. Given a clause structure along the lines of (41), below, the subject is closer to the [participant] probe (i.e., Infl^0) than the object is:

(41)   *BASIC CLAUSE STRUCTURE*
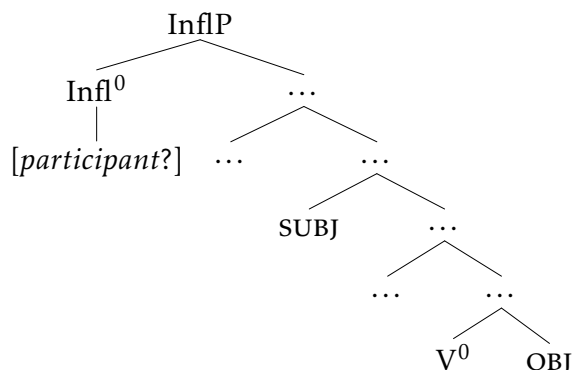
The probe therefore inspects the subject first. If the subject is 1st/2nd-person—and thus, bears a [participant] feature—the probe will find what it is looking for on the subject, and the object will not be probed:

(42) *SCENARIO A: 1ST/2ND-PERSON SUBJECT*

InflP
- Infl⁰ — [*participant*?] ⋯
- ⋯ — ⋯ / SUBJ$_{1st/2nd}$ ⋯ / V⁰ OBJ
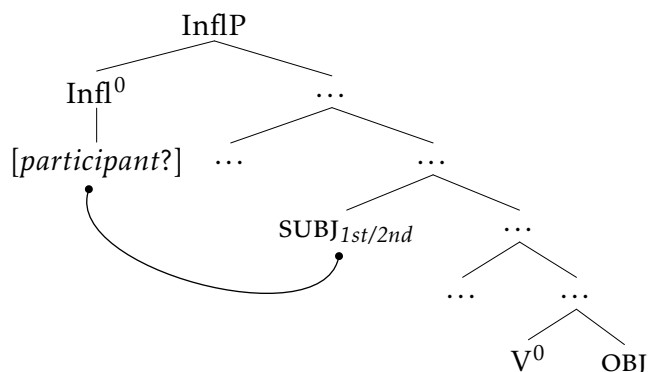
This is akin to the behavior of the interrogative C⁰ probe in cases where the subject is a *wh*-phrase—as in (30a), above.

If, on the other hand, the subject is 3rd-person, the [participant] probe will ignore it (much like interrogative C⁰ skipping a non-*wh* constituent), and move on to inspect the object. Thus, the probe will able to reflect [participant] features found on the object just as it would [participant] features found on the subject:

(43) *SCENARIO B: 3RD-PERSON SUBJECT, 1ST/2ND-PERSON OBJECT*

InflP
- Infl⁰ — [*participant*?] ⋯
- ⋯ — ⋯ / SUBJ$_{3rd}$ ⋯ / V⁰ OBJ$_{1st/2nd}$
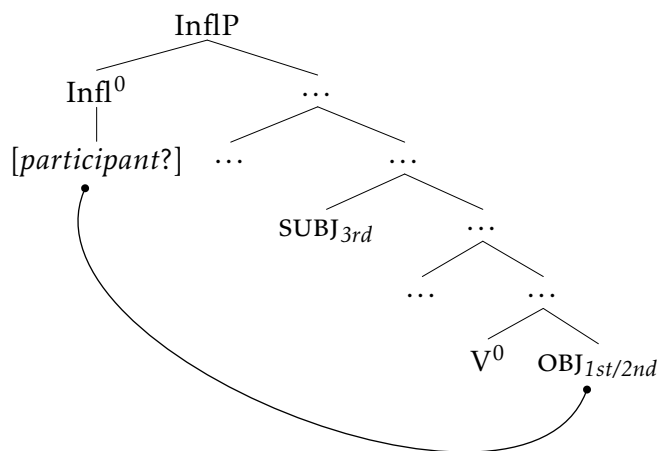
Thus, the agreement markers found in an example like (21) and in an example like (22) (agreement with a 2nd-person subject, and with a 2nd-person object, respectively) are quite literally instances of the same features being expressed on the same probe; they just happen to have been found on different noun-phrases, in each of the two cases.

Recall that the forms of the agreement markers in the Agent-Focus construction do not depend on whether it was the subject or object that bore the relevant person features (contra the hypothetical—and unattested—*pseudo-Kaqchikel*, discussed in §2.2.1, which would exhibit omnivorous person effects, but where the form of the resulting agreement markers would still vary depending on whether the relevant features were found on the subject or on the object). Under this approach, the reason for this is that there is simply no "record" on the probe of where it happened to find the features that it was seeking.

The reader will also notice that this result would not change if we were to follow Béjar and Rezac's (2009) *Cyclic Agree* proposal in assuming that the relevant φ-probe is not Infl^0, but instead some node located between the subject and object—such that the object is probed first, and the subject is probed (via *Cyclic Expansion*) only if the features sought were not found on the object. The logical progression outlined in (41–43) would run in reverse, but would generate *omnivorous person* effects all the same. Given this equivalence, and in the interest of establishing a parallelism with *wh*-probing (as detailed in §2.2.2.1, above), I will adhere throughout this thesis to the account where both potential targets are situated below the φ-probe—though as far as I can tell, nothing crucially hinges on this choice.

An important benefit of the <u>relativized probing</u> account proposed here involves the person restriction presented in (25) (and demonstrated in (26–29), above)—repeated here:

(25)   *AGENT-FOCUS PERSON RESTRICTION*
        In the Agent-Focus construction in Kichean, at most one of the two core arguments can
        be 1st/2nd-person. [Davies and Sam-Colop 1990, Dayley 1978, Norman and Campbell 1978,
        Smith-Stark 1978, Stiebels 2006]

On the current <u>relativized probing</u> approach, the probe only ever enters into an agreement relation with one nominal target; in particular, when Infl^0 exhibits agreement with the object, it is because it has skipped the subject altogether (in much the same way that a C^0 dislocating a *wh*-phrase in object position skips a non-*wh* subject altogether).

It is often argued that speech-act participants (i.e., 1st/2nd-person pronouns) must be formally licensed by entering into an agreement relation with an appropriate functional projection. This assumption is part and parcel of virtually every syntactic account of the *Person Case Constraint* (*PCC*), for example (see §2.4.1 for an description of the PCC). For concreteness, I will adopt Béjar and Rezac's (2003) formulation here:

(44)   *PERSON LICENSING CONDITION (PLC)*
        Interpretable 1st/2nd-person features must be licensed by entering into an *Agree*
        relation with an appropriate functional category.   [*Béjar and Rezac 2003*]

Given that (44) is motivated independently of Kichean in general and the Agent-Focus construction in particular, we can apply it to the data at hand: to license both a 1st/2nd-person subject and a 1st/2nd-person object in the same derivation, both DPs would have to enter into an agreement relation. Suppose that the object is 1st/2nd-person. Given (44), this means the object must enter into an agreement relation. Recall that given the current proposal, Agent-Focus clauses that exhibit agreement with the object involve a probe that has skipped the subject altogether.[16] If so, the subject in the same clause cannot be of the kind that requires its own licensing by way of agreement—in other words, it cannot be 1st/2nd-person.

Conversely, if the subject is 1st/2nd-person (i.e., the subject bears [participant], and is therefore the kind of target that the probe is searching for), standard minimality considerations apply. As a result, the single argument with which the probe enters into an agreement relation must be the subject. Consequently, the object cannot be of the kind that requires its own licensing by way of agreement—in other words, it cannot be 1st/2nd-person.

---

[16]On the possibility that the φ-probe could exhibit overt agreement with the object, but also have entered into an agreement relation with the subject (i.e., *Multiple Agree*), see §2.2.3.1, below.

Thus, the *relativized probing* approach sketched here, coupled with common assumptions regarding the licensing of speech act participants (such as the PLC, in (44)), derives the restriction in (25) on argument/person combinations in the Agent-Focus construction.

In summary, I have argued in §2.2.1–§2.2.2 that the Kichean Agent-Focus construction exhibits so-called "omnivorous person" effects because of a φ-probe that is <u>relativized</u> to probe specifically for [participant] features, resulting in 3rd-person arguments being skipped, just as non-*wh* phrases are skipped by an interrogative C^0 probe.

Non-DPs are also skipped by this φ-probe, just as they are in more familiar languages. Both facts, I have argued, can be captured by specifying <u>relativized probing</u> according to a φ-feature geometry (Harley and Ritter 2002, McGinnis 2005, Béjar and Rezac 2009). The more familiar pattern involves <u>relativized probing</u> for [φ] (the feature that distinguishes nominals from non-nominals), while "omnivorous person" is simply <u>relativized probing</u> for the [participant] daughter-node of [φ], within the φ-feature geometry.

Finally, I have argued that the Agent-Focus person restriction in (25)—the requirement that at most one of the arguments in the Agent-Focus construction be 1st/2nd-person—is derivable on the current account, given fairly standard assumptions regarding the licensing of 1st/2nd-person arguments. In particular, the fact that the argument not agreed with in this construction is actually skipped by the φ-probe entirely, coupled with the requirement that 1st/2nd-person arguments must be agreed with (the PLC, in (44)), derives the observed restriction.

There are obviously several issues that remain to be addressed, at this point—including a discussion of Agent-Focus clauses involving two 3rd-person arguments, and the behavior of number agreement the Agent-Focus construction. Before turning to these, however, I wish to address several alternative analyses of this *omnivorous person* pattern, and discuss how each of them fares.

2.2.3. Some alternative approaches

2.2.3.1. Multiple Agree

The discussion in §2.2.2 took it for granted that what *looks* like a probe skipping a potential target XP is really that. Probes like an interrogative C^0 looking for [*wh*]-bearing XPs, or an $Infl^0$ looking for [participant]-bearing DPs, appear to enter only into a single agreement relation— with the appropriate target they eventually find.

This assumption can be questioned, however. There are proposals in the literature that appeal to a one-to-many agreement relation between probes and goals, dubbed *Multiple Agree* (Anagnostopoulou 2005, Hiraiwa 2001, 2004, among others). In the spirit of these proposals, one might hypothesize that the derivation of Agent-Focus clauses involving a 3rd-person subject and a 1st/2nd-person object involves *Multiple Agree* of $Infl^0$ with both core arguments:

(45)

InflP

Infl^0

SUBJ$_{3rd}$

OBJ$_{1st/2nd}$
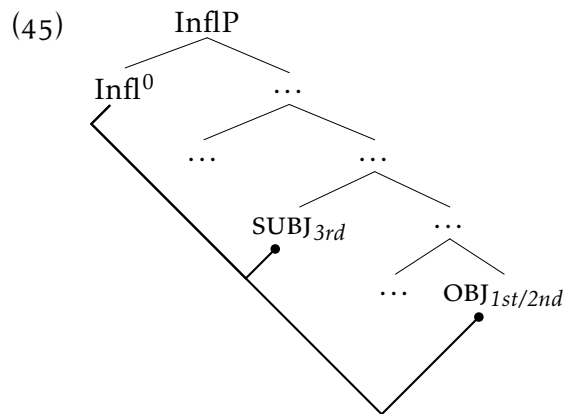
There are several reasons to doubt such an analysis of omnivorous person in the Agent-Focus construction, some of them theoretical and some empirical.

On the theoretical side, those cases that *Multiple Agree* has been put forth to account for all adhere to a particular restriction regarding the feature combinations borne by the different targets involved—namely, that the second target in a *Multiple Agree* relation cannot carry φ-featural content that is not already present on the first target. This restriction is used by Anagnostopoulou (2005), for example, in her account of the *Person Case Constraint* (*PCC*), to rule out 3rd-person indirect objects (which lack [participant] features) occurring with 1st/2nd-person direct objects (which carry [participant] features), in configurations where the indirect object is structurally higher than the direct object:

(46)　*A RESTRICTION ON* Multiple Agree (Anagnostopoulou 2005)

F^0

∗

α_{3rd}

$\beta_{1st/2nd}$
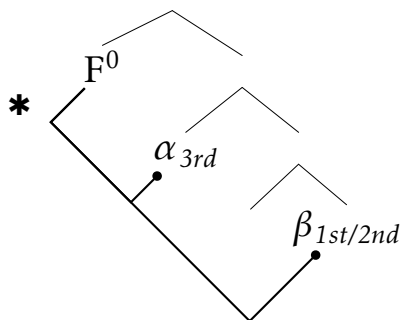
However, modulo differences in labeling, this is exactly the structural configuration we are faced with in an example like (22), repeated below as (47): the probe dominates two possible targets, the higher of which is 3rd-person (in this case, the subject), and the lower of which is 1st/2nd-person (in this case, the object). Crucially, the omnivorous person effects, which *Multiple Agree* would be an attempt to derive, still obtain in an example like (47)—despite its incompatibility with the restriction in (46).

(47)　ja　ri　achin x-at-axa-n　　　　rat
　　　FOC the man　PRFV-2sg.ABS-hear-AF you(sg.)
　　　'It was the man that heard you(sg.).' *[=(22)]*

Thus, if the *Multiple Agree* relation responsible for omnivorous person in the Agent-Focus construction is to be understood as the same *Multiple Agree* relation proposed in the literature (which obeys the restriction in (46)), it cannot account for the observed facts in Kichean.

It is conceivable (if not theoretically pleasing) that there would be a second one-to-many agreement relation—call it *Multiple Agree$_2$*—that is not subject to the restriction exemplified by (46). Let us consider what the properties of *Multiple Agree$_2$* would have to be, in order to account for the facts at hand. If *Multiple Agree$_2$* encounters a 3rd-person target first, it keeps probing; a subsequent 1st/2nd-person target will overwrite the values on the probe. If it encounters a 1st/2nd-person target first, it does not keep probing—or at least, subsequent 3rd-person targets will not affect the features on the probe (otherwise a 1st/2nd-person subject with a 3rd-person object would result in '3sg.ABS' agreement, contra to fact; see (21), above).

As far as I can see, this renders *Multiple Agree$_2$* almost identical to *Single Agree*, given relativized probing (§2.2.2). This, coupled with the ad-hoc nature of *Multiple Agree$_2$* (in particular, the ways in which it differs from any kind of *Multiple Agree* operation implicated in the literature) might already constitute an argument against *Multiple Agree$_2$*.

Its theoretical status aside, there is an empirical argument against *Multiple Agree$_2$* as an account of agreement in the Kichean Agent-Focus construction. The argument comes from the *Agent-Focus person restriction* presented in (25), above (and demonstrated in (26–29)), which prohibits more than one 1st/2nd-person argument from appearing in the Agent-Focus construction. In §2.2.2, I showed how a relativized probing account, where the probe only ever enters into a relation with a single argument in the clause, is able to derive this restriction. In particular, given that account, when the probe exhibits overt agreement with the object, it has skipped the subject altogether. I then showed how given an independently motivated assumption such as Béjar and Rezac's (2003) *Person Licensing Condition* (*PLC*), this relativized probing account was able to derive the Agent-Focus person restriction.

The same cannot be done using *Multiple Agree$_2$*: if the probe is able to agree with more than one argument, then more than one argument can enter into an agreement relation with the relevant functional category. If so, given the PLC, more than one argument should be allowed to be 1st/2nd-person, contra to fact (see the discussion of (44), in §2.2.2).[17]

We could instead attempt to eschew the PLC, and derive the Agent-Focus person restriction directly from the condition on *Multiple Agree* mentioned earlier—namely, the requirement that the second target in a *Multiple Agree* relation not bear any φ-featural content not already borne by the first target. We have already seen that Kichean Agent-Focus can have a 3rd-person subject with a 1st/2nd-person object, in apparent violation of this requirement; but suppose for a moment that 3rd-person targets were, in some sense, "ignored" for these purposes— and that the effects of this requirement were thus restricted to combinations of 1st-person and 2nd-person arguments.

Given the φ-feature geometry presented in §2.2.2, the φ-features borne by 2nd-person arguments (namely, {*participant*}) that is a proper subset of the φ-features borne by 1st-person

---

[17]One could entertain an elaboration of the PLC (in (44)), whereby the agreement relation that licenses a 1st/2nd-person pronoun must have a distinct overt reflex—and that this is why *Multiple Agree$_2$* with both the subject and the object cannot license both arguments, PLC-wise. I hope the reader would agree that at this point, we will have reached a reductio of the *Multiple Agree* approach, where the "Multiple" part has been voided of any testable consequence whatsoever.

ones (namely, {*participant*, *author*}). Therefore, we would expect a 2nd-person argument to be able to serve as the second target in a *Multiple Agree* relation where the first target was a 1st-person argument; but this is not the attested behavior when it comes to the Agent-Focus person restriction: the restriction is entirely symmetric, ruling out combinations of a 1st-person subject with a 2nd-person object, as well as combinations of a 2nd-person subject with a 1st-person object.

The same problem arises in an alternative φ-geometry, where 2nd-person arguments are distinguished from 1st-person ones by an [addressee] feature borne by the former, but not by the latter. In other words, to derive the Agent-Focus person restriction from *Multiple Agree*, we need a φ-geometry where *neither* 1st-person arguments nor 2nd-person ones bear a subset of the φ-features of the other.

Conceivably, we could adopt a φ-geometry that includes <u>both</u> an [author] feature and an [addressee] feature; thus, 1st-person arguments would be specified for {*participant*, *author*}, while 2nd-person ones would be specified for {*participant*, *addressee*}. The problem with this alternative is the one identified by McGinnis (2005): in no language that lacks a distinction between 1st-person *inclusive* and 1st-person *exclusive*, is the 2nd-person plural pronoun used to refer to pluralities that include both the addressee and the speaker. A φ-geometry that includes both [author] and [addressee] nodes, however, affords this possibility;[18] therefore, McGinnis argues, the unmarked φ-geometry includes only an [author] node below [participant], and an [addressee] node is only added by the learner in the face of positive evidence—namely, a distinction between 1st-person *inclusive* and 1st-person *exclusive*. Crucially, Kichean lacks such a distinction, meaning it cannot have both an [author] node and an [addressee] node in its φ-geometry.

To summarize, a *Multiple Agree* approach to agreement in the Agent-Focus construction would have to posit a new kind of one-to-many relation, which I have dubbed *Multiple Agree$_2$*, that differs from the *Multiple Agree* relation found in the literature. The properties that one would need to assume for *Multiple Agree$_2$* render it nearly indistinguishable from *Single Agree*, given relativized probing (§2.2.2)—with one exception: *Multiple Agree$_2$* fares worse than *Single Agree* in deriving the Agent-Focus person restriction.

It is beyond the scope of the current work to address the question of whether *Multiple Agree* is ever an available operation (see Haegeman and Lohndal 2010 for discussion); the point of this sub-section is merely to argue that it is not the correct account of agreement with Infl^0 in the Kichean Agent-Focus construction.

---

[18]To see this, suppose that the lexical entry for "*we*" was specified as {*plural*, *participant*}, while the lexical entry for "*y'all*" was specified as {*plural*, *participant*, *addressee*}. Given a system where more specified lexical entries take precedence over less specified ones (as is the case in *Distributed Morphology*, for example; Halle and Marantz 1993), we predict that "*y'all*" would be used to refer to any plurality that includes the addressee. It is conceivable, of course, that it is merely an idiosyncratic fact about the lexical entries of English pronouns that "*we*" is specified for {*plural*, *participant*, *author*}, while "*y'all*" is specified only for {*plural*, *participant*}; but the fact that there is no language where pluralities that include both the addressee and the speaker are collapsed with "pure" 2nd-person pluralities suggest that this is more than an idiosyncrasy—which is the core of McGinnis' (2005) argument.
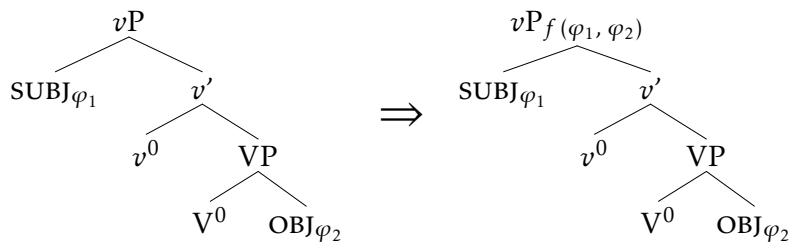
2.2.3.2. Feature percolation

There is an approach to the omnivorous person effects found in the Agent-Focus construction that I have not discussed so far, involving so-called *feature percolation*. Suppose that features from a given XP could, under certain circumstances, make their way (or "percolate") onto the YP node most closely dominating XP (see Chomsky 1973, Cowper 1987, Gazdar et al. 1985, Grimshaw 2000, Kayne 1983, Webelhuth 1992, among others):

(48) *FEATURE PERCOLATION*

$$
\begin{array}{ccc}
\text{YP} & & \text{YP}_{\{\alpha,\beta,\dots\}} \\
\diagdown & \Longrightarrow & \diagdown \\
\text{Y}^0 \quad \text{XP}_{\{\alpha,\beta,\dots\}} & & \text{Y}^0 \quad \text{XP}_{\{\alpha,\beta,\dots\}} \\
\dots & & \dots
\end{array}
$$
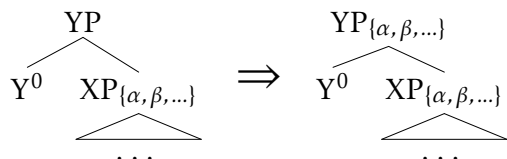
It is not entirely clear that *feature percolation* is a needed or attested part of the syntactic apparatus (see Heck 2004, Cable 2007, 2010). However, if it is, one might use it to derive what looks like *omnivorous agreement* in the following fashion:

(49) *OMNIVOROUS AGREEMENT AS FEATURE PERCOLATION: STEP 1*

$$
\begin{array}{ccc}
v\text{P} & & v\text{P}_{f(\varphi_1,\,\varphi_2)} \\
& \Longrightarrow & \\
\text{SUBJ}_{\varphi_1} \quad v' & & \text{SUBJ}_{\varphi_1} \quad v' \\
\qquad v^0 \quad \text{VP} & & \qquad v^0 \quad \text{VP} \\
\qquad\quad \text{V}^0 \quad \text{OBJ}_{\varphi_2} & & \qquad\quad \text{V}^0 \quad \text{OBJ}_{\varphi_2}
\end{array}
$$

In the first step, features from both the subject and the object percolate to a node that dominates both core arguments, as in (49). Here, I have chosen vP as the dominating node in question, though not much depends on this particular choice.

The precise feature-specification that results on vP will depend on how φ_1 and φ_2, the feature-specifications of the subject and object, are combined to form a single feature bundle—an issue to which I will return shortly. However, given that features from both the subject and the object are now potentially present on vP, agreement of Infl^0 with vP may result in the appearance of omnivorous agreement—since the actual φ-features that find their way to Infl^0 may have originated on either the subject or the object (the defining property of *omnivorous agreement*).

(50) *OMNIVOROUS AGREEMENT AS FEATURE PERCOLATION: STEP 2*

$$
\begin{array}{c}
\text{InflP} \\
\diagdown \\
\text{Infl}^0{}_{f(\varphi_1,\,\varphi_2)} \quad v\text{P}_{f(\varphi_1,\,\varphi_2)} \\
\text{SUBJ}_{\varphi_1} \quad v' \\
v^0 \quad \text{VP} \\
\text{V}^0 \quad \text{OBJ}_{\varphi_2}
\end{array}
$$
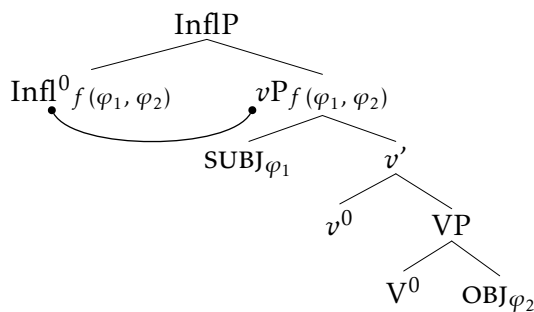
The crucial question then becomes what the function $f(\varphi_1, \varphi_2)$ in (49–50) is, that combines the feature bundles on the subject and object into a single feature bundle. The function in question must be able to distinguish a pair of feature bundles like (51) from a pair like (52)—since the former is possible in the Agent-Focus construction, but the latter is not:

(51) $SUBJECT_{\varphi_1}$ $OBJECT_{\varphi_2}$ (possible)

    3rd-person: Ø   1st-person: $\begin{Bmatrix} participant \\ author \end{Bmatrix}$

(52) $SUBJECT_{\varphi_1}$ $OBJECT_{\varphi_2}$ (ruled out)

    2nd-person: {participant}   1st-person: $\begin{Bmatrix} participant \\ author \end{Bmatrix}$

In this system, [participant] and [author] features on the subject and object are never licensed by direct agreement (cf. §2.2.2), since $Infl^0$ never enters into agreement with the subject and the object themselves; it only enters into an agreement relation with the node to which their features have percolated (in this rendition, vP). If there is any agreement-based licensing of these features, under this approach, it must take place at this higher node (vP); and since this node invariably enters into an agreement relation with $Infl^0$ (regardless of whether it is the φ-features of the subject or the object that end up overtly represented on the probe), licensing should always go through.

We would therefore need to stipulate an independent condition that governs which pairs of feature bundles can and cannot enter into $f(\varphi_1, \varphi_2)$, such that (52) is ruled out and (51) is ruled in, for example. The condition required here is formally identical to the one required by the *Multiple Agree* account (§2.2.3.1). Consequently, this account would raise the same problems—namely, recourse to an extrinsic condition that amounts to listing admissible and inadmissible combinations—in contrast to the *Single Agree* approach sketched in §2.2.2, which derives these effects with recourse only to the independently motivated PLC.

2.2.3.3. A positional account of omnivorous agreement

Another alternative to the relativized probing account presented in §2.2.2 is to assume that agreement always targets the closest target—that is to say, "minimality, non-relativized"—and that the *omnivorous agreement* effects observed in Kichean Agent-Focus are the result of [participant]-bearing arguments always moving closer to the probe than their non-[participant] counterparts.

Consider Agent-Focus configurations where the verb ends up agreeing with the object—namely, combinations of a 3rd-person subject with 1st/2nd-person object. Suppose that in these structures, the object moves across the subject *prior to* probing by $Infl^0$:

(53)

InflP
- Infl^0
- FP
  - OBJ
  - F'
    - F^0
    - vP
      - SUBJ
      - v'
        - v^0
        - VP
          - V^0
          - t$_{OBJ}$
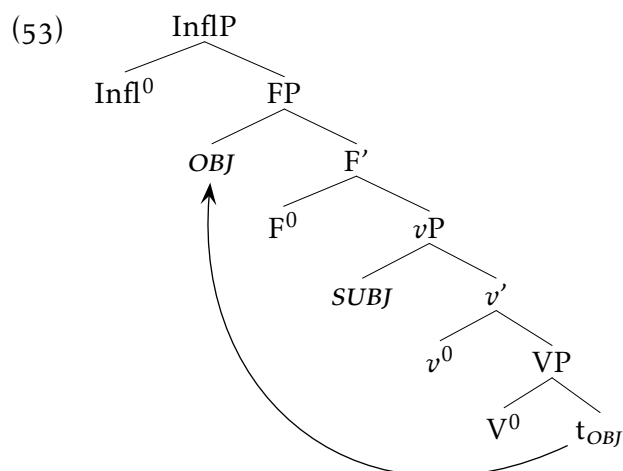
If so, when Infl^0 probes, it will target the object by virtue of minimality/*Closest*, and no recourse to <u>relativized probing</u> is necessary:[19]

(54)

InflP
- Infl^0
- FP
  - OBJ
  - F'
    - F^0
    - vP
      - SUBJ
      - v'
        - v^0
        - VP
          - V^0
          - t$_{OBJ}$
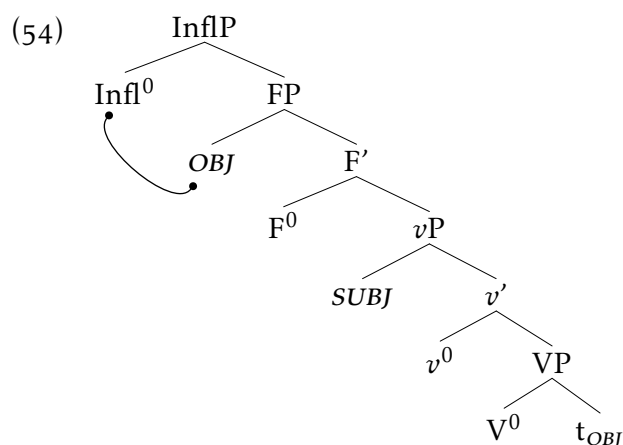
Subsequent movement could undo the [*object » subject*] order created by (53), so we might not expect to see this order in the spelled out string.[20]

While I am not aware of any evidence in Kichean in favor of movement of the kind shown in (53) (i.e., movement of the object across the subject, when the object but not the subject is 1st/2nd-person), that does not mean it does not occur. However, this analysis—even if true— does not really do away with <u>relativized probing</u> (§2.2.2); it simply relegates it from Infl^0 to whatever triggers the movement of the object in (53)—in this rendition, F^0. The reason is that F^0 must be able to skip the subject and instead attract the object to [Spec,FP], exactly when the object but not the subject carries a [participant] feature; but it must not do so when the subject does carry a [participant] feature (otherwise, we would predict that Infl^0 would invariably exhibit object-agreement, contra to fact). In other words, this makes probing by F^0 out to be *omnivorous*.

---

[19]Here and throughout, I use *Closest* as a cover-term for the *Minimal Link Condition* (Chomsky 1995b, et seq.), or whatever alternative mechanism derives the same effects (see also Richards 2001).

[20]For example, the variety of Kaqchikel discussed here exhibits *Verb-Second* behavior (Lauren Eby Clemens, p.c.); in Kaqchikel, then, subsequent movement to the clause-initial, pre-verbal position may or may not undo the [*object » subject*] order shown in (53–54), depending on which phrase it is that is fronted.

To put it another way: this alternative involves a selective movement operation, whose application facilitates a treatment of agreement by Infl^0 as determined by minimality/*Closest* alone, with no recourse to <u>relativized probing</u> by Infl^0; but <u>relativized probing</u> is then required to handle the behavior of the syntactic probe responsible for moving the relevant argument to its closest-to-Infl^0 position. Moreover, the same conclusions that will be argued in chapter 3 to follow from the behavior of the φ-probe (Infl^0) can be drawn on the basis of the behavior of the movement probe (F^0), if the alternative sketched here turns out to be independently preferable.

Given that I know of no positive evidence in favor of this alternative (i.e., in support of movement of the kind shown in (53)), I will—at least for expository purposes—continue to follow the variant presented in §2.2.2, rather than the alternative sketched here.

At this juncture, we have completed an initial analysis of the *omnivorous person* effects found in Kichean Agent-Focus. As mentioned at the start of this chapter, the behavior of this construction with respect to *failed agreement* will prove crucial in teasing apart different possible accounts of the obligatory nature of agreement.

In fact, the ingredients needed to embark on such a discussion are now in place; however, we have restricted our investigation so far to instances of the Agent-Focus construction where all the arguments are singular. Therefore, in the interest of completeness, I turn first to the analysis of number agreement in Kichean Agent-Focus.

2.3. *Number* in Kichean Agent-Focus

2.3.1. The basic pattern

So far, we have been looking only at Agent-Focus clauses involving singular noun-phrases as arguments. Let us now consider the behavior of number agreement in Kichean Agent-Focus.

In regular transitive clauses—those that do not involve Agent-Focus—Kichean exhibits full number agreement with both core arguments (the subject and the object). The ergative and absolutive agreement paradigms have different forms depending on the plurality of the corresponding arguments:

(55)   *Kaqchikel ergative agreement paradigm*

	sg	pl
1st	*-n/w-*	*-q(a)-*
2nd	*-a(w)-*	*-i(w)-*
3rd	*-r(u)/u-*	*-k(i)-*

(56) *KAQCHIKEL ABSOLUTIVE AGREEMENT PARADIGM*

	sg	pl
1st	*-i(n)-*	*-oj-*
2nd	*-a(t)-*	*-ix-*
3rd	*-Ø-*[21]	*-e-*

This is demonstrated below using all four possible combinations involving a 2nd-person subject and a 1st-person object (note that in Kichean, as in many other Mayan languages, the absolutive agreement marker *precedes* the ergative one, resulting in an '-<OBJ>-<SUBJ>-' order of agreement markers before the transitive verb; see Tada 1993, Woolford 2000):

(57) a. x-**in-aw**-axa-j
          PRFV-**1sg.ABS-2sg.ERG**-see-ACT
          'You(sg.) heard me.'

      b. x-**oj-aw**-axa-j
          PRFV-**1pl.ABS-2sg.ERG**-see-ACT
          'You(sg.) heard us.'

      c. x-**oj-iw**-axa-j
          PRFV-**1pl.ABS-2pl.ERG**-see-ACT
          'Y'all heard us.'

      d. x-**in-iw**-axa-j
          PRFV-**1sg.ABS-2pl.ERG**-see-ACT
          'Y'all heard me.'

As noted in §2.2.1, the Agent-Focus construction is characterized—among other things—by the presence of only one agreement marker, taken from the absolutive series of morphemes, despite the appearance of a non-oblique subject and a non-oblique object.

If we view the "omnivorous person" effects discussed in §2.2 as a response to this constriction, in the domain of person agreement, then we might expect a similar response in the domain of number agreement. In other words, we might expect Kichean Agent-Focus to exhibit "omnivorous number", as well. If we look at Agent-Focus clauses involving only 3rd-person arguments, this is precisely what we find:[22]

(58) Ja   rje'   x-**e/*Ø**-tz'et-ö   rja'
      FOC them PRFV-**3pl/*3sg.ABS**-see-AF him
      'It was them who saw him.'

(59) Ja   rja'   x-**e/*Ø**-tz'et-ö   rje'
      FOC him PRFV-**3pl/*3sg.ABS**-see-AF them
      'It was him who saw them.'

---

[21]I will argue in chapter 3 that in Kichean, there is no 3rd-person singular absolutive marker per se, and the absence of phonological material in what we would descriptively call the "*3sg* cell" of this paradigm arises as the result of a failure to locate an agreement target bearing [participant] or [plural] features.

[22]As pointed out to me by Robert Henderson (p.c.), the behavior of plural agreement with inanimate absolutives in Kaqchikel follows a more complicated pattern, and appears at least in some cases to be optional. I therefore concentrate on animate arguments, here. Thanks to Daeyoung Sohn for help with these data.

As (58–59) show, the Agent-Focus verb will exhibit plural agreement regardless of whether the plural argument is the subject or the object (precisely the definition of *omnivorous number*, following Nevins 2010; see §2.1).

Crucially, however, these effects seem to disappear in the presence of 1st/2nd-person arguments; in particular, if there is an argument that controls overt person agreement on the Agent-Focus verb (in the manner discussed and analyzed in §2.2), the same argument also determines number agreement on the verb—regardless of the plurality of the other argument in the clause. Thus, a 3rd-plural argument will fail to trigger plural agreement on the verb in the presence of a 1st-singular or 2nd-singular argument, regardless of which of the two is the subject and which is the object:

(60)   a.   Ja   rje'   x-**i**-tz'et-ö   yïn
            FOC them PRFV-**1sg.ABS**-see-AF me
            'It was them who saw me.'

       b. * Ja   rje'   x-**oj/Ø/e**-tz'et-ö   yïn
            FOC them PRFV-**1pl/3sg/3pl.ABS**-see-AF me

(61)   a.   Ja   yïn x-**i**-tz'et-ö   rje'
            FOC me PRFV-**1sg.ABS**-see-AF them
            'It was me who saw them.'

       b. * Ja   yïn x-**oj/Ø/e**-tz'et-ö   rje'
            FOC me PRFV-**1pl/3sg/3pl.ABS**-see-AF them

(62)   a.   Ja   rje'   x-**a**-tz'et-ö   rat
            FOC them PRFV-**2sg.ABS**-see-AF you
            'It was them who saw you.'

       b. * Ja   rje'   x-**ix/Ø/e**-tz'et-ö   rat
            FOC them PRFV-**2pl/3sg/3pl.ABS**-see-AF you

(63)   a.   Ja   rat x-**a**-tz'et-ö   rje'
            FOC you PRFV-**2sg.ABS**-see-AF them
            'It was you who saw them.'

       b. * Ja   rat x-**ix/Ø/e**-tz'et-ö   rje'
            FOC you PRFV-**2pl/3sg/3pl.ABS**-see-AF them

It is not the case, however, that 1st/2nd-person arguments inhibit plural agreement altogether; if the 1st/2nd-person argument itself is plural, it will trigger plural agreement, regardless of the number features of the other core argument (for the sake of brevity, only the counterpart of (60) is given here; other combinations behave analogously, and the full range of logical combinations is summarized in (65), below):

(64)   a.   Ja   rja' x-**oj**-tz'et-ö   röj
            FOC him PRFV-**1pl.ABS**-see-AF us
            'It was him who saw us.'

       b. * Ja   rja' x-**i/Ø/e**-tz'et-ö   röj
            FOC him PRFV-**1sg/3sg/3pl.ABS**-see-AF us

The full paradigm of agreement in the Kichean Agent-Focus construction, as a function of the φ-features of the subject and the object, is given below:

(65) *FULL AGREEMENT PARADIGM FOR KICHEAN AGENT-FOCUS*

{SUBJ, OBJ} φ-features	$\Rightarrow$	agreement morphology on the Agent-Focus verb
{3sg, 3sg}	$\Rightarrow$	3sg
{3pl, 3sg}	$\Rightarrow$	3pl
{3pl, 3pl}	$\Rightarrow$	3pl
{1sg, 3sg}	$\Rightarrow$	1sg
{2sg, 3sg}	$\Rightarrow$	2sg
{1pl, 3sg}	$\Rightarrow$	1pl
{2pl, 3sg}	$\Rightarrow$	2pl
{1sg, 3pl}	$\Rightarrow$	1sg
{2sg, 3pl}	$\Rightarrow$	2sg
{1pl, 3pl}	$\Rightarrow$	1pl
{2pl, 3pl}	$\Rightarrow$	2pl

Notes:

a. In the notation $\{\varphi_1, \varphi_2\}$, above, which of the φ-feature specifications belongs to the subject and which to the object is fully commutative.

b. Combinations not listed here are ruled out either on binding-theoretic grounds (e.g. {1sg, 1pl}), or due to the *Agent-Focus person restriction* (e.g. {1sg, 2sg}; see (25), in §2.2.1).

The facts summarized in (65) have led some scholars to claim that agreement in the Kichean Agent-Focus construction obeys a "salience" hierarchy (Dayley 1978, Mondloch 1981, Norman and Campbell 1978, Smith-Stark 1978; and see Stiebels 2006 for a recent review):

(66) *"SALIENCE" HIERARCHY IN KICHEAN AGENT-FOCUS*
      1st/2nd-person $\gg$ 3rd-plural $\gg$ 3rd-singular

The theoretical status of scales (or "salience" hierarchies) such as (66), as explanations for patterns of agreement, will be addressed in detail in §2.4.5. For the time being, however, I wish to highlight a specific drawback of viewing agreement in Kichean Agent-Focus through the prism in (66): it misses an important fact about the morpho-phonology of agreement in Agent-Focus clauses, and of absolutive agreement in Kichean in general: 1st/2nd-person absolutive agreement markers in Kichean bear a striking similarity to the corresponding strong pronouns, while the 3rd-person ones do not (the relevant data are presented in §2.3.2, below).

The reason an approach based on (66) cannot capture these morpho-phonological distinctions is because (66) is designed to factor out the choice of which argument will be targeted from φ-agreement itself. In other words, (66) treats agreement in Agent-Focus clauses with different φ-featural combinations as a uniform phenomenon, but for the choice of agreement target. An examination of the morpho-phonology of the resulting agreement markers reveals that this is not the case. This is the topic of the next sub-section.

2.3.2. The morpho-phonology of Kichean agreement morphology

As noted above, some (but not all) absolutive agreement markers in Kichean bear a striking resemblance to the corresponding strong pronouns. Take Kaqchikel, for example—compare the series of absolutive agreement markers in Kaqchikel to the corresponding strong pronouns:

(67)   *A COMPARISON OF STRONG PRONOUNS AND* **ABSOLUTIVE** *AGREEMENT MORPHEMES*

	ABS agreement marker	strong pronoun
1sg	*-i(n)-*	*yïn*
1pl	*-oj-*	*röj*
2sg	*-a(t)-*	*rat*
2pl	*-ix-*	*rïx*
3sg	*-Ø-*[23]	*rja'*
3pl	*-e-*	*rje'*

In the 1st/2nd-person, the strong pronouns are identical to the absolutive agreement morphemes but for the addition of an initial approximant (the liquid "*r-*" or the glide "*y-*").[24] Notice that with the exception of the 1st-singular ("*yïn*"), all Kaqchikel pronouns—even those in the 3rd-person—begin with "*r-*", which is likely a truncated version of the determiner "*ri*". Assuming that this is indeed the source of this initial approximant, we could then say that 1st/2nd-person absolutive agreement morphemes in Kaqchikel are determiner-less versions of the strong pronouns.

   This is, admittedly, a small sample to begin with; the comparison of 1st/2nd-person pronouns and their absolutive agreement counterparts involves four pair-wise comparisons, and one of them—the 1st-singular pronoun "*yïn*"—shows a slight deviation from the general pattern. Therefore, it is instructive to consider what a paradigm in which such similarity were not found would look like, to convince ourselves that there is indeed something significant about (67). Fortunately, Kaqchikel itself affords us an adequate control, in the form of the series of ergative agreement morphemes:

---

[23]See fn. 21.

[24]I suspect that this has been noticed by virtually every scholar who has ever worked on Kichean; the first mention of it that I was able to locate, with the help of Robert Henderson, is by Kaufman (1977). A similar observation is reported by Woolford (2000:fn. 14), in support of her argument that the absolutive agreement morphemes in Kichean are clitics.

(68) *A COMPARISON OF STRONG PRONOUNS AND **ERGATIVE** AGREEMENT MORPHEMES*

	ERG agreement marker	strong pronoun
1sg	*-n/w-*	*yïn*
1pl	*-q(a)-*	*röj*
2sg	*-a(w)-*	*rat*
2pl	*-i(w)-*	*rïx*
3sg	*-r(u)/u-*	*rja'*
3pl	*-k(i)-*	*rje'*

When juxtaposed with (68), it becomes quite clear that the similarities in (67) are more than a coincidence.

I will assume here that the change in the quality of the approximant in the 1st-singular pronoun "*yïn*" (from "*r-*" to "*y-*") has a phonological source, at least diachronically; in any event, even with this minor complication, the 1st-singular conforms to the more general pattern whereby the absolutive agreement morpheme is identical to the strong pronoun with its initial approximant truncated. The exceptions to this generalization are the 3rd-singular and 3rd-plural forms, repeated here:

(69) *STRONG PRONOUNS AND **ABSOLUTIVE** AGREEMENT MORPHEMES – 3RD-PERSON*

	ABS agreement marker	strong pronoun
3sg	*-Ø-*[25]	*rja'*
3pl	*-e-*	*rje'*

There is no trace of the [a] vowel of the 3rd-singular pronoun "*rja'*" in the 3rd-singular absolutive agreement morpheme; and we can be reasonably certain that the issue is not a phonological one, since as shown by the 3rd-plural absolutive agreement morpheme, a lone vowel can survive in the phonological environments occupied by the absolutive agreement marker. Moreover, the consonant [j], found in both 3rd-person pronominal forms, is not found in either of the 3rd-person absolutive agreement morphemes.

It is clear, then, that the 3rd-person absolutive agreement morphemes do not stand in the same relation to their pronominal counterparts as the 1st/2nd-person ones do. On the other hand, in contrast to their 1st/2nd-person counterparts, these 3rd-person forms might contain hints of independent number morphology. To see this, consider first the 1st/2nd-person forms once more:

---

[25]See fn. 21.

(70)   *STRONG PRONOUNS AND **ABSOLUTIVE** AGREEMENT MORPHEMES − 1ST/2ND-PERSON*

	ABS agreement marker	strong pronoun
1sg	*-i(n)-*	*yïn*
1pl	*-oj-*	*röj*
2sg	*-a(t)-*	*rat*
2pl	*-ix-*	*rïx*

One of the interesting properties of the forms in (70) is that there is no identifiable "plural morpheme"; the alternation between *singular* and *plural* forms in (70) is entirely suppletive.

In (69), on the other hand, we may be able to identify an "*-e*" suffix which indicates plurality: in the agreement morphology column, this suffix turns the (empty) "*-Ø-*" 3rd-singular marker into "*-e-*", the 3rd-plural marker; in the pronoun column, it turns "*rja'*" ('him') into "*rje'*" ('them'), perhaps via an intermediate step of [a]-deletion. There is also evidence from other Mayan languages that the so-called *3rd-person plural* absolutive agreement marker is really just a generic plural marker: in Tzotzil (a Mayan language of the Tseltalan family), for example, the *3pl* absolutive marker "*-ik*" can also be used to encode the plurality of 2nd-person plural arguments, in the event that person agreement with those arguments has been spelled out elsewhere (see Aissen 1987, Woolford to appear; see §2.A for details).

We have seen that 1st/2nd-person absolutive agreement markers in Kichean are simply reduced forms of the corresponding pronouns, while the 3rd-person ones are not. Moreover, we have seen that the difference between the 3rd-person plural absolutive agreement marker and its singular counterpart might be analyzable as an independent plural morpheme in the language (namely, "*-e-*"), whereas the 1st/2nd-person absolutive agreement markers encode number in an entirely suppletive fashion, with no identifiable sub-part corresponding to the *singular/plural* distinction.

The absolutive agreement markers that arise when the agreement target is a 1st/2nd-person argument thus differ, in their morpho-phonological properties, from the markers that arise when the target is a 3rd-person argument.

An analysis of agreement in Kichean should account for this; in the next section, I present an account that derives these distinctions, arguing that the 1st/2nd-person absolutive agreement markers arise through clitic-doubling of the relevant argument (which is why they are, quite literally, reduced pronouns), whereas the 3rd-person ones are just the spellout of a particular φ-probe. Importantly, the account does not require any new syntactic machinery, and is based entirely on the results of §2.2, when combined with Béjar and Rezac's (2003) proposal on person and number agreement.

2.4. A derivational account of absolutive agreement in Kichean

Consider once more the possibility of analyzing agreement in Kichean Agent-Focus using scales or "salience" hierarchies, of the kind given in (66) and repeated here:

(66)   *"SALIENCE" HIERARCHY IN KICHEAN AGENT-FOCUS*
       1st/2nd-person ≫ 3rd-plural ≫ 3rd-singular

In such an approach, the choice of which argument will be agreed with is an autonomous component of φ-agreement, governed by a mechanism along the lines of (66). In other words, φ-agreement is treated as a uniform phenomenon, but for the choice of agreement target.

Recall the distinctions observed in §2.3.2: the 1st/2nd-person agreement markers resemble the corresponding strong pronouns, whereas 3rd-person ones do not; 1st/2nd-person ones encode number suppletively, while 3rd-person ones may not. To explain these distinctions, an approach along these lines would not only have to stipulate (66) itself[26]—it would need a separate stipulation to account for why the first member of the hierarchy gives rise to different morpho-phonology than the other two members of the hierarchy do.

The same morpho-phonological distinctions in the form of the absolutive agreement markers are found in regular transitives and intransitives in Kichean (i.e., outside of the Agent-Focus construction)—since after all, Agent-Focus makes use of the standard series of absolutive agreement paradigm in each Kichean language. If these morpho-phonological distinctions come from (66), it would be unexpected to find them in a domain where there are no actual hierarchy effects to speak of, and the subject and object are each rigidly co-indexed by a single agreement marker—as is the case with regular transitives and intransitives in Kichean.

If, on the other hand, these morpho-phonological distinctions have a different underlying source, then it is worth wondering whether this same source can also account for the very effects that (66) was posited to account for—rendering (66) redundant (as well as any attempt to derive (66) from other sources, such as Stiebels 2006 for example). In the sub-sections that follow, I propose an account of exactly this sort for the interaction of person and number in Kichean Agent-Focus—one that does not make reference to scales or "salience" hierarchies, and which derives the observed morpho-phonological distinctions in the forms of the absolutive agreement markers in Kichean in and outside of the Agent-Focus construction.

The proposal is closely based upon Béjar and Rezac's (2003) account of the *Person Case Constraint* (*PCC*), a phenomenon which has already been mention in connection with the Agent-Focus person restriction (in §2.2.2), and will be explained in detail below. There are, of course, many competing accounts of the PCC in the literature, each with its own advantages and disadvantages, and its own particular set of stipulations (a non-exhaustive list includes Adger and Harbour 2007, Anagnostopoulou 2003, 2005, Bonet 1991, 1994, Nevins 2007, 2010, Richards 2005, Walkow to appear). What is interesting about Béjar and Rezac's account, for the current purposes, is this: despite the fact that the Kichean data at hand is superficially quite different from PCC-related interactions among multiple internal arguments, it turns out that their account derives the behavior of agreement in the Agent-Focus construction—with hardly any modifications that have not already been motivated in the course of the discussion in §2.2.

In other words, I will show that given the results of §2.2, combined with Béjar and Rezac's account, the behavior of agreement in the Kichean Agent-Focus construction falls out naturally. As discussed at the beginning of this chapter, the importance—in this context—of having an adequate account of agreement in Kichean Agent-Focus is to set the stage for a comparison among the different models of agreement surveyed in chapter 1, a comparison that will be carried out in detail in the next chapter.

---

[26]See §2.4.5, on why the scale in (66) cannot actually be a matter of cognitive salience.

2.4.1. The PCC, and Béjar and Rezac's (2003) account of it

The *Person Case Constraint* (*PCC*) is the name for a family of restrictions involving the person features of arguments in relation to one another, usually affecting the two internal arguments of a ditransitive. In this sub-section, I present first a description of the PCC itself, and then Béjar and Rezac's (2003) account of it.[27]

   I will illustrate the PCC using Basque, which exhibits the so-called "strong" version of the constraint:

(71)   THE "STRONG" PCC IN BASQUE
       In Basque clauses in which a dative argument is higher than the absolutive argument
       (which includes all Basque ditransitives), the absolutive must be 3rd-person.
                                    [*see* Rezac 2008b; *definition of "strong" PCC follows* Bonet 1991:182]

The effects of (71) are most strikingly illustrated using what Rezac (2008b) calls *applicative unaccusatives*: verbs that take two internal arguments, but no external argument. These verbs come in two types in Basque: one type in which the dative argument is structurally higher than the absolutive one, and another type in which these hierarchical relations are reversed. The latter option arises only with *applicative unaccusatives*, never with true (triadic) ditransitives (Rezac 2008b:72).

   Rezac provides a battery of diagnostics that elucidate which of the two hierarchical configurations is realized with a given *applicative unaccusative* verb (Rezac 2008b:74–77). Using these diagnostics, the Basque verb "*gusta*" ('like') can be shown to be a *dative-over-absolutive* verb; as such, it exhibits the PCC effect described in (71): the absolutive argument of "*gusta*" must be 3rd-person, as in (72).

(72)   Miren-i   gozoki-ak   gusta-tzen Ø-zai-zki-o.
       Miren-DAT sweet-ART$_{pl}$(ABS) like-IMPF   3.ABS-$\sqrt{}$-pl.ABS-3sg.DAT
       'Miren likes candy.'

(73)   */?? Ni   Miren-i   gusta-tzen na-tzai-Ø-o.
            me(ABS) Miren-DAT like-IMPF   1.ABS-$\sqrt{}$-sg.ABS-3sg.DAT
            'Miren likes me.'   [*Albizu 1997:21*, *Rezac 2003:73*]

As shown by Albizu (1997) and Rezac (2008b), these *applicative unaccusatives* provide a particularly vivid illustration of the deeply syntactic nature of the PCC. That is because the very same auxiliary form that is impossible in (73) can be used felicitously with an absolutive-over-dative verb, where it successfully expresses the very same φ-feature combination that it fails to express in (73):

(74)   Ni   Peru-ri   hurbildu na-tzai-Ø-o.
       me(ABS) Peru-DAT approach 1.ABS-$\sqrt{}$-sg.ABS-3sg.DAT
       'I approached Peru.'   [*Rezac 2008b:73*]

---

[27]The *Person Licensing Condition* (*PLC*), referenced in §2.2.2, is part of Béjar and Rezac's (2003) account, as will be shown below.

The fact that the very same auxiliary that is ruled out by the PCC in (73) can be used felicitously in (74) all but eliminates any possibility of accounting for the PCC as a morphological filter (cf. Bonet 1991, 1994).

There are other properties of the Basque data in (72–74) that are worth noting, especially for readers more familiar with the Indo-European pattern. As argued by Arregi and Nevins (2008, in prep.) and in Preminger 2009, the dative and ergative agreement morphemes on the Basque auxiliary come about by way of *clitic-doubling* of the relevant full noun-phrase (e.g. "*Peru-ri*" 'Peru-DAT', in (74)); but unlike the patterns of clitic-doubling familiar from Romance or Greek for example, these instances of clitic-doubling are not conditioned by any semantic property of the noun-phrase in question. The dative argument can be animate or inanimate, new or given, specific or non-specific, etc.; it will undergo clitic-doubling all the same. The only conditions on clitic-doubling in Basque are structural ones (roughly, the availability of a clausemate host; see Preminger 2009).

The agreement morphemes identified by Arregi and Nevins and in Preminger 2009 as clitics obey none of the semantic restrictions on clitic-doubling that are familiar from Indo-European, yet they exhibit all of the morpho-syntactic properties known to distinguish cliticization from agreement (see Anagnostopoulou 2006, Arregi and Nevins in prep., and references therein). What this suggests is that the semantic properties associated with clitic-doubling in Indo-European (see Suñer 1988, and subsequent literature) are not intrinsic properties of clitic-doubling, per se. Instead, the availability of clitic-doubling seems to vary cross-linguistically from completely impossible (English, some varieties of Italian, etc.), to semantically restricted (Spanish, Greek), to completely unrestricted (Basque).[28]

A related difference between the Basque pattern and some of the more familiar Indo-European patterns concerns the obligatoriness of clitic-doubling: the dative clitics found in Basque, including in (72) and (74), are in no way optional. The presence of these clitics on the finite auxiliary is a necessary condition for grammaticality, regardless of whether or not the full noun-phrase is *pro*-dropped. Cross-linguistically, obligatory clitic-doubling is not unique to Basque; as noted by Arregi and Nevins (in prep.), it is also attested with strong object pronouns in Spanish (Jaeggli 1982, Suñer 1988), as well as with all subjects in certain Northern Italian dialects (Poletto 2000).

This is why, traditionally, the morphemes that arise as the result of this process are sometimes referred to as "indirect object agreement", to highlight their obligatory nature.

Turning now to Béjar and Rezac's (2003) account (henceforth, B&R): the point of departure is the idea that the φ-probe for person probes separately from—and prior to—the φ-probe for number. The ability of person and number to probe separately from each other has been argued for—in one form or another—by many authors, including Anagnostopoulou (2003), Béjar (2003), Chomsky (2000), Laka (1993a), Shlonsky (1989), Sigurðsson (1996), Sigurðsson and Holmberg (2008), and Taraldsen (1995).

---

[28] A way of making sense of languages like Spanish or Greek, against the backdrop of this typology, is by recasting the semantic properties in question in structural terms. Clitic-doubling in Romance, for example, seems to be conditioned by the *specificity* of the doubled noun-phrase (Suñer 1988); if specific noun-phrases are located higher in the structure than non-specific ones (following Diesing 1992), then even the sensitivity of clitic-doubling to the specificity of the doubled noun-phrase can be thought of purely in terms of locality (crucially, locality restrictions on clitic-doubling are observable even in Basque, where the semantic restrictions on clitic-doubling are absent; see Preminger 2009).

The order of probing, in B&R's system, is achieved by extrinsically ordering the different φ-features that occupy a single syntactic head, such that person is ordered before number.[29] Here, I deviate from their implementation slightly, by simply placing the two probes on separate syntactic heads (see also Béjar 2003): π^0 will be the head that probes for person features, and $\#^0$ will be the head that probes for number features. If we assume π^0 must be merged before $\#^0$, then by virtue of cyclicity, π^0 must probe first. To some extent, this is an expository issue: we have replaced one stipulation, involving the order in which multiple features located on a single head engage in probing, with another stipulation, namely the order in which π^0 and $\#^0$ must be merged. Note, however, that stipulations regarding the order of merger of different heads are commonplace in syntactic theory (cf. the ordering of functional projections along the spine of a single clause).

Note also that within a feature-geometric approach to φ-features, of the kind pursued in §2.2.2, the existence of φ-probes that probe only for person features or only for number features is just another instance of <u>relativized probing</u>. Recall the φ-feature geometry presented in §2.2.2.2, following Harley and Ritter (2002), McGinnis (2005), and Béjar and Rezac (2009), and repeated here:

---

[29]At first glance, there seems to be an inherent tension between Béjar and Rezac's (2003) proposal and that of Sigurðsson and Holmberg (2008). While both argue for a separation between person and number φ-probes— and Sigurðsson and Holmberg go as far as to place the two in separate syntactic heads, which they label Pn^0 and Nr^0—the internal ordering seems to be at odds. As noted above, Béjar and Rezac argue that person probes before number. Sigurðsson and Holmberg's Nr^0, on the other hand, is merged before Pn^0; and so, by virtue of cyclicity, Nr^0 probes first.

I am not entirely convinced, however, that this tension is real. Both sets of authors are interested in explaining why dative noun-phrases intervene in person probing, but not number probing. For Béjar and Rezac, this is achieved by person probing first, and triggering clitic-doubling of the dative, rendering it invisible by the time number probes (this will be described in more detail, below). For Sigurðsson and Holmberg, this is achieved by the dative intervener moving to a position higher than Nr^0, but still lower than Pn^0. So in one account, the intervener stays in situ, and number intervention is avoided through clitic-doubling; and in the other, the intervener moves across one of the probes, and therefore avoids intervening for the purposes of that probe. The two sets of authors are obviously addressing different data sets: PCC effects in Indo-European, as well as Basque and Georgian, for the former, and agreement with low nominatives in Icelandic, for the latter; and it is independently observable that clitics occur in PCC contexts, and that Icelandic datives undergo A-movement.

However, it might be the case that the two approaches are more similar than they first seem to be. First, as Boeckx (2000) and Anagnostopoulou (2003) have noted, the desideratum is quite similar: an argument that is separated from the φ-probe by a dative (the Theme of a ditransitive, or a low nominative in Icelandic) can be agreed with for number, but not for person. If a coherent view of clitic-doubling as XP movement is possible (as has been argued by Alexiadou and Anagnostopoulou 1997, Anagnostopoulou 1994, Sportiche 1992, 1996, among others), then we might be able to view these two seemingly opposed analyses as merely notational variants of one another: in both cases, the intervener moves to a position where it can no longer be probed by number (in the PCC case, this is because it has adjoined to a head on the clausal spine; in the Icelandic case, it has simply moved across the probe itself); and so, when number probes, the intervener acts as if it is simply not there.
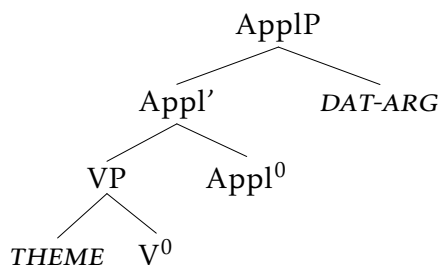
(75)   *A SIMPLIFIED φ-FEATURE GEOMETRY*   *[=(37)]*

```
                    [φ]
              ┌──────┴──────┐
         [PERSON]        [NUMBER]
            │                │
       [participant]      [plural]
            │
        [author]
```
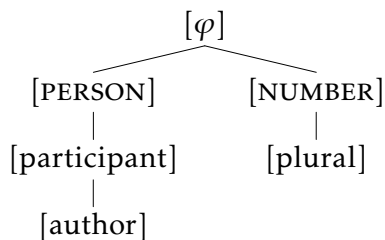
Given (75), if a φ-probe can be <u>relativized</u> to the [participant] node (as was argued in §2.2.2 to be the case in Kichean), as well as to the [φ] node (as was argued to be the case in English), then the possibility of a probe being <u>relativized</u> to the [PERSON] node (which corresponds to Béjar and Rezac's 2009 "[π]" node), or to the [NUMBER] node (which corresponds to Harley and Ritter's 2002 "[INDIVIDUATION]" node), should be equally available—giving rise to the person and number probes π^0 and $\#^0$, described above.

We are now in a position to present B&R's analysis of the PCC (which as mentioned earlier, will serve as the basis for a unified account of person and number agreement, once we return to Kichean Agent-Focus). Consider the base-generated structure of a verb-phrase with two internal arguments (as is the case in ditransitives, or in *applicative unaccusatives*), in which the dative argument is structurally higher than the Theme:[30]

(76)   *TWO INTERNAL ARGUMENTS: BASE-GENERATION*

```
                    ApplP
              ┌───────┴───────┐
           Appl'           DAT-ARG
        ┌────┴────┐
       VP       Appl⁰
     ┌──┴──┐
  THEME   V⁰
```

Next, π^0 is merged, and probes for person features. The presence of a dative argument that is structurally closer than the Theme results in defective intervention:

---

[30]Since diagrams like (76) are meant to represent the structure of Basque sentences like (72–74), these structures are head-final—though nothing in the analysis hinges on this.

(77) *TWO INTERNAL ARGUMENTS: PERSON PROBING*
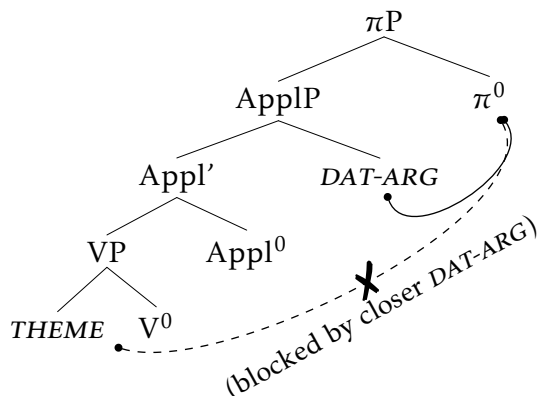
It is cross-linguistically quite common for dative nominals to be unable to transfer their actual φ-feature values to the clausal φ-probe. This issue will be taken up in more detail in chapter 4; but for the current purposes, it means that π^0 in (77) will be unable to reflect anything other than the unmarked feature combination—namely, 3rd-person—regardless of the features of the dative nominal itself. More importantly, π^0 has failed to enter into a formal relation with the Theme argument; given the PLC, presented in §2.2 and repeated in (78), 1st/2nd-person Theme arguments can no longer be licensed. These two effects—the absence of person agreement, and the inability to license non-3rd-person Theme arguments—together constitute the *Person Case Constraint* (*PCC*).

(78) <u>*PERSON LICENSING CONDITION (PLC)*</u>   *[=(44)]*
      Interpretable 1st/2nd-person features must be licensed by entering into an *Agree*
      relation with an appropriate functional category.   [*Béjar and Rezac 2003*]

Importantly, had the dative argument not been present, π^0 in (77) would have been able to probe the Theme, and these effects would not arise; this is how B&R derive the fact that the PCC is typically confined to verb-phrases with two internal arguments, rather than one (i.e., the fact that these restrictions on the [person] of the Theme disappear in the absence of a Source/Goal argument).

Continuing the derivation in (77), the fact that the dative is probed by π^0, according to B&R, also triggers clitic-doubling of the dative—resulting in a clitic on π^0 that reflects the full φ-set of the dative argument. Recall from the earlier discussion that this clitic-doubling process—at least, in a language like Basque—is neither optional, nor is it conditioned by particular semantic properties of the doubled noun-phrase (such as specificity or animacy), yielding so-called "indirect object agreement".

(79)   *TWO INTERNAL ARGUMENTS: PERSON PROBING OF DATIVE* ⇒ *CLITIC-DOUBLING*

$$\text{[tree diagram]}$$

πP
├── ApplP
│   ├── Appl'
│   │   ├── VP
│   │   │   ├── THEME
│   │   │   └── V⁰
│   │   └── Appl⁰
│   └── <DAT-ARG[φ_i]>
└── π⁰–CL[φ_i]   *clitic-doubling*
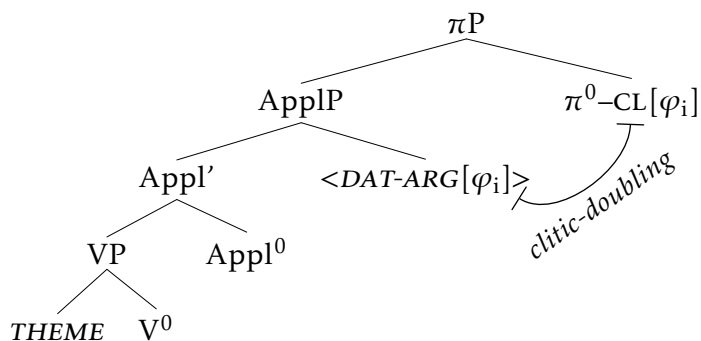
There is an implicit property of B&R's account that I would like to make explicit, at this juncture: in (77), the dative argument is probed by π^0, a head that only probes for person features (as discussed earlier); however, it is more than just the person features of the dative argument that are morphologically reflected on-or-near π^0—in the form of a clitic—in (79). The pronominal form created when the dative argument is probed reflects the *entire* φ-feature set of the dative argument, not just its person features.

This might seem trivial, if one thinks of clitic-doubling in terms of pronominalization—but it is worth highlighting, for reasons that will become apparent once we return to Kichean. Further support for this particular distinction between clitic-doubling and "pure" agreement will be provided in §2.4.2; for now, in the context of B&R's account of the PCC, I will take it as a given.

It is well-established in the literature on clitic-doubling that the doubled noun-phrase behaves like the trace of an A-chain—for example, for binding-theoretic purposes (Alexiadou and Anagnostopoulou 1997, Anagnostopoulou 1994, Sportiche 1996, 1998). Another aspect of the behavior of the full noun-phrase under clitic-doubling that recalls the behavior of A-traces is that it ceases to count as an intervener for the purposes of A-movement and agreement (see Anagnostopoulou 2003; cf. Holmberg and Hróarsdóttir 2003 on A-traces). The generated clitic cannot intervene either, presumably because it is head-adjoined to its host (this means that viewing clitic-doubling as a movement chain *per se* is problematic, since it would constitute a chain whose tail is phrasal but whose head is not; see Anagnostopoulou 2006, and references therein, for discussion).

As a result, when $\#^0$ is merged, it is able to probe the Theme—and so no analogous effects arise with respect to number:

(80)   *TWO INTERNAL ARGUMENTS: NUMBER PROBING*
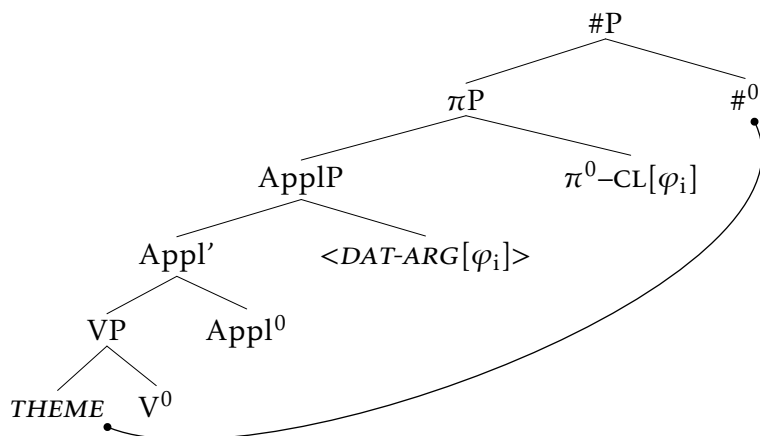
This asymmetry between person and number—and in particular, the cross-linguistic absence of a *Number Case Constraint*, analogous to the PCC—is the reason for B&R's stipulation about the order of φ-probing (namely, person before number). While this ordering is stipulative in the context of accounting for the PCC, the success of PCC accounts that adopt it (see also Anagnostopoulou 2003) can be seen as support for applying a similarly ordered derivation to other empirical domains, which is exactly the approach pursued in §2.4.3 (though see Nevins 2007, 2010 for a dissenting view).

Let us review the results of the derivation sketched in (76–80). First, in the absence of a dative argument, both the person probe (π^0) and the number probe ($\#^0$) would probe the Theme argument without impediment; the resulting feature values on the probes would therefore faithfully reflect the φ-features of the Theme.

In the presence of a dative argument, however, probing by the person probe (π^0)—which probes first by stipulation—fails to reach the Theme, targeting the closer dative argument instead. This triggers clitic-doubling of the dative argument, resulting in a pronominal form that reflects the entire φ-set of the dative argument (and not just its person features), and sometimes identified as "indirect object agreement". As far as the features on the person probe (i.e., on π^0 itself, rather than on the dative clitic) are concerned, these will not be 1st/2nd-person—regardless of the actual φ-features of the dative nominal, or of the Theme; that is because the closer dative prevents π^0 from targeting the Theme, but cannot transmit its own feature values to the φ-probe (this property of datives will be explored in detail in chapter 4). Finally, having been clitic-doubled, the dative argument is rendered invisible for the purposes of intervention; thus, by the time the number probe ($\#^0$) scans the structure, it is able to successfully target the Theme argument.

In summary, the following agreement morphology has been generated: **(i)** the same person-morphology as one finds with a 3rd-person Theme in a mono-transitive (which by virtue of the PLC, forces the Theme to indeed be 3rd-person, hence the Person Case Constraint); **(ii)** number-morphology that faithfully reflects the number features of the Theme; **(iii)** a clitic that reflects the full φ-set of the dative argument.

As mentioned earlier, B&R's proposal, when combined with the results of §2.2, yields a complete account of φ-agreement in Kichean Agent-Focus—one that derives the so-called

scale or *hierarchy* effects, but crucially, also accounts for the morpho-phonological distinctions observed in §2.3 between the 1st/2nd-person agreement markers found in the Kichean Agent-Focus construction, and the 3rd-person ones. I will show that 1st/2nd-person agreement markers (which resemble the corresponding strong pronouns, and encode number distinctions suppletively) arise via the exact same clitic-doubling mechanism implicated in B&R's proposal, while 3rd-person ones (which do not resemble the corresponding pronouns, and may involve an isolable plural morpheme), are simply the spellout of the number probe, $\#^0$. The account will be presented in detail in §2.4.3; but first, there is an implicit component of B&R's account itself (as well as many other accounts involving cliticization) that I would like to highlight, in the next sub-section.

2.4.2. On the featural coarseness of clitic-doubling

An implicit component of B&R's account of the PCC, highlighted in the discussion in §2.4.1, is a distinction between the featural granularity of "pure" agreement, and the featural coarseness of clitic-doubling. Since the account of φ-agreement in Kichean Agent-Focus that will be presented in §2.4.3 makes use of the same clitic-doubling mechanism implicated in B&R's account, I would like to discuss this distinction in greater detail, first.

If a syntactic probe H^0 is <u>relativized</u> to look for some particular subset F of the entire φ-set, it seems reasonable to assume that only the values of features belonging to F will be copied onto H^0 from whatever target it finds (this was an explicit part of the feature-geometric approach sketched in §2.2.2, for example). This contrasts with clitic-doubling: if clitic-doubling is a form of pronominalization, it is expected to behave like other forms of pronominalization in treating the φ-set of the doubled noun-phrase as an atomic unit, which must be copied as a whole. It should therefore be impossible, under clitic-doubling, to tease apart different sub-parts of the φ-set, and copy some but not all of the φ-features of the noun-phrase onto the clitic (see related discussion in Rezac 2004, 2010). We can formalize this observation as follows:

(81) *THE COARSENESS PROPERTY OF CLITIC-DOUBLING*[31]
      If CL^0 is the result of clitic-doubling of some noun-phrase α, then CL^0 will reflect the full set of φ-features on α.

---

[31]One concern that arises with respect to (81) involves the morphological operation of *Fission* (Halle 1997, Noyer 1997). Fission refers to the process where a vocabulary item realizes only a sub-part of the φ-features contained in a given node of the morphological structure, leaving the remainder of the features to be realized by subsequent instances of Vocabulary Insertion. If we were to let Fission apply to clitics in an unrestricted manner, (81) would be weakened to the point of vacuity. However, even within morphological theories that employ Fission, it is recognized that the application of such an operation must be severely restricted:

> "Fission of morphemes during Spell-out in some cases allows multiple phonological pieces to correspond to single morphemes, further obscuring the morphosyntactic structure. Nevertheless, these departures are considered marked options within a grammar, and therefore are assumed to require (substantial) positive evidence during acquisition."
>
> [*Harley and Noyer 1999*]

Just as Fission obscures the correspondence of morphological nodes to vocabulary items, so does it obscure the effects of (81); but instances of Fission are the marked option, which following Harley and Noyer, will only be posited during the acquisition process when they cannot be avoided.

Thanks to Karlos Arregi, Andrew Nevins, and Milan Rezac for illuminating discussions of this and other related points.

This difference between clitic-doubling and "pure" agreement is immaterial if φ-probes always probe for, and copy, φ-feature sets in their entirety; but once we allow person and number features to probe separately, as in B&R's account and in §2.4.1, this distinction becomes relevant.[32]

Importantly, insofar as clitic-doubling is a reflex of being probed by a particular syntactic head (as proposed by B&R, and detailed in §2.4.1), the specific set of features sought by the probe—or in feature-geometric terms (§2.2.2), the point in the φ-feature geometry to which the probe is <u>relativized</u>—will not affect this result. The reason is that regardless of how it is triggered, clitic-doubling is ultimately a type of pronominalization. We therefore expect there to be mismatches (at least in some cases), where a syntactic head is <u>relativized</u> to search only for a proper subset of the φ-feature geometry, but being probed by this head triggers clitic-doubling which copies the entire φ-set.

If we examine B&R's account again, we see that exactly such a mismatch exists in the case of the person probe, π^0: there, π^0 probes for person features only, to the exclusion of number features; but when a dative nominal is the structurally closest agreement target, this results in clitic-doubling—as schematized in (77) and (79), repeated here:

(77)   *TWO INTERNAL ARGUMENTS: PERSON PROBING*
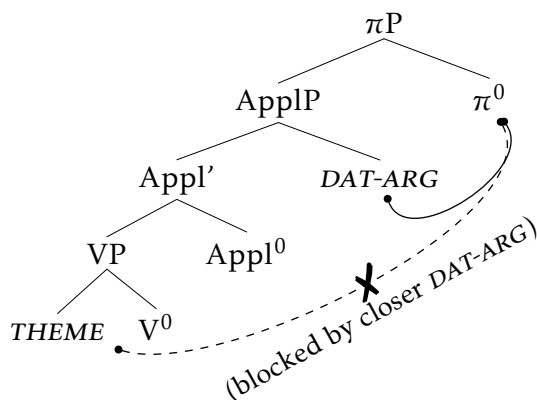
(79)   *TWO INTERNAL ARGUMENTS: PERSON PROBING OF DATIVE $\Rightarrow$ CLITIC-DOUBLING*
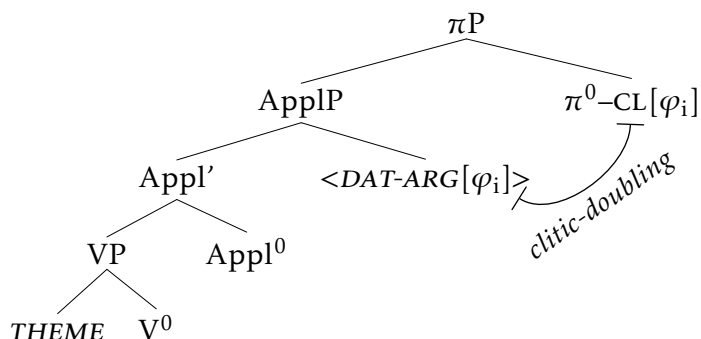
Crucially, the resulting dative clitic matches the dative nominal in all its φ-features, person and number features alike. This is precisely the behavior we expect given the *featural coarseness* of clitic-doubling, as given in (81).

---

[32]This distinction between "pure" agreement and clitic-doubling recalls the shift from agreement as X^0-movement, as in Chomsky 1995b, to agreement as valuation, as in Chomsky 2000.

Independent support for the featural coarseness of clitic-doubling can be found in Basque, and in particular in the form of Basque agreement morphology. The Basque auxiliary carries agreement morphology corresponding to the φ-features of each core argument (absolutive, ergative, and dative, or whatever subset of the three is present in a given clause):

(82) Gu   amama-ri   joan **ga- tzai- zki-   o**.
      we(ABS) grandmother-DAT gone **1.ABS- √-   pl.ABS- 3sg.DAT**
      'We have gone to grandmother.'   [*Laka 1996*]

As argued in Preminger 2009, not all the agreement morphemes found in Basque arise in the same way. The dative and ergative agreement morphology is the result of clitic-doubling of the corresponding noun-phrases. The absolutive agreement morphology, on the other hand, arises via "pure" agreement by separate person and number probes, essentially following B&R's proposal (see Preminger 2009:655–662). Similar conclusions have been reached, on largely independent grounds, by Arregi and Nevins (2008, in prep.).

An interesting property of absolutive agreement morphology in the Basque auxiliary is that exponents reflecting different parts of the absolutive φ-set sometimes show up on opposite sides of the auxiliary root. This is the case for the ABS-DAT auxiliary in the present-indicative, for example:[33]

(83) *ABS-DAT PRESENT-INDICATIVE AUXILIARY PARADIGM*

	ABS person	ROOT (have)	ABS number	ABS "number+"	DAT all φ-features
1sg	*na*	*tzai*			*t*
2sg	*ha*	*tzai*			*{k,n}*
3sg		*zai*			*o*
1pl	*ga*	*tzai*	*zki*		*gu*
2pl	*za*	*tzai*	*zki*		*zu*
2pl+	*za*	*tzai*	*zki*	*te* ↝	*zue*
3pl		*zai*	*zki*		*e*

The status of the first absolutive morpheme—i.e., the first column in (83)—is subject to some disagreement in the literature. In Preminger 2009, I claimed that this morpheme is the exponence of person agreement, despite being subject to number-conditioned contextual allomorphy; Arregi and Nevins (2008, in prep.), on the other hand, claim that this morpheme is an absolutive clitic. What both analyses agree upon, however, is that the morpheme in the third column ("*-zki*") is *not* a clitic: for Preminger 2009, it is the exponent of number agreement; for

---

[33]The table in (83) shows how to assemble an auxiliary form for a present-indicative finite clause containing absolutive and dative arguments (but no ergative argument), based on the φ-features of the arguments in question. The person-number combination of *2pl*, while formally plural, is used for polite addressing of 2nd-person singular individuals (cf. French "*vous*"). To differentiate actual 2nd-person plurality from mere "polite" uses of *2pl*, Basque adds another pluralizing morpheme, which I have labeled "*number+*". I refer to this person-number configuration as "*2pl+*". Dative (as well as ergative) 2nd-singular agreement morphemes alternate based on gender. The meaning of the '↝' symbol is that "*-te*", corresponding to the "*number+*" feature of the absolutive argument, appears after the DAT morpheme (rather than before it). This is particular to the paradigm in (83).

Arregi and Nevins (2008, in prep.), it is part of the spellout of valued features on T^0; in either case, it is the reflex of "pure" agreement, not clitic-doubling.

Let us therefore concentrate on the difference between this morpheme ("*-zki*") and the dative agreement morphology—i.e., the final column of (83)—which consists of a single exponent expressing all the relevant φ-featural distinctions. Note that much like 1st/2nd-person absolutive agreement morphology in Kichean, these dative agreement morphemes (as well as the ergative ones found in other auxiliary paradigms) bear a strong resemblance to the corresponding strong pronouns in Basque. If, as argued by Arregi and Nevins (2008, in prep.) and in Preminger 2009, dative (as well as ergative) agreement morphology on the auxiliary in Basque is the result of clitic-doubling, it follows from the *featural coarseness* property of clitic-doubling (in (81), above) that a morpheme like "*-zki*", if it is found anywhere, could only be found in the domain of absolutive agreement.

We have seen that the morphological make-up of the Basque auxiliary provides support for the generalization given in (81), concerning the *featural coarseness* of clitic-doubling. As mentioned earlier, this property of clitic-doubling is already implicit in accounts such as B&R's, where being probed by π^0—a probe that searches only for person features—gives rise to a clitic reflecting the full set of φ-features borne by the dative nominal.[34]

I will therefore take (81) to be correct, as we turn to the discussion of agreement morphology in Kichean Agent-Focus, below. As discussed earlier, the proposal by B&R—meant to account for the PCC—when combined with the results of §2.2, yields a comprehensive account of φ-agreement in the Kichean Agent-Focus construction. This account will not only derive the so-called *scale* or *hierarchy* effects (without recourse to an extrinsic device of that sort), but also derive the morpho-phonological distinctions observed in §2.3.2, between 1st/2nd-person absolutive agreement markers in Kichean (which resemble the corresponding strong pronouns, and encode number distinctions suppletively), and 3rd-person ones (which do not resemble the corresponding pronouns, and exhibit what may be an isolable plural morpheme). This account is the topic of the next sub-section.

2.4.3. Applying Béjar and Rezac's (2003) account to Kichean

In this sub-section, I combine the results of §2.2 with B&R's account of the PCC, to yield an account of φ-agreement in the Kichean Agent-Focus construction. This account will be based on the idea that the 1st/2nd-person absolutive agreement marker in Kichean arises via clitic-

---

[34]Andrew Nevins (p.c.) suggests that Romance might provide independent support for the same conclusion, regarding the featural coarseness of cliticization. In many Romance languages, participial agreement targets [number] and [gender], while finite agreement targets [number] and [person]—two different subsets of the full set of φ-distinctions available in Romance. On the other hand, Romance clitics, for the most part, express all three distinctions ([number], [person], and [gender]).

As pointed out to me by Karlos Arregi, there are instances where Romance clitics fail to express certain available φ-featural distinctions—which is unexpected given the coarseness property—such as dative clitics that fail to make any [gender] distinctions. We might hypothesize that this is a matter of lexical inventory—namely, that there happen to be no vocabulary items in the relevant dative clitic paradigm whose insertion rules make distinctions for [gender]. This would be ad-hoc, however; and more importantly, once we allow for such "vocabulary-based impoverishment", the claim regarding featural coarseness of cliticization/clitic-doubling loses its predictive power.

I leave the resolution of these issues with respect to Romance morphosyntax for future research.

doubling triggered by the person probe, π^0 (akin to the dative clitic in B&R's account of the PCC), while the 3rd-person absolutive agreement marker—in particular, the 3rd-person plural absolutive marker—is the overt spellout of the number probe, $\#^0$.

Importantly, it will be shown that this account not only derives the effects sometimes attributed to a *scale* or "*salience*" *hierarchy*, but also accounts for which agreement markers do and do not resemble the relevant strong pronouns, and where an isolable number morpheme can and cannot be identified within the overt agreement morphology—making it empirically superior to an account based directly on *scales* or "*salience*" *hierarchies* (a detailed comparison with the latter type of approach will be undertaken in §2.4.5).

Recall that the same agreement markers that show up in the Agent-Focus construction are also found in regular transitives and intransitives in Kichean (as noted in §2.3.1, above); the account proposed here derives this, as well, as will be detailed in §2.4.4. However, in this sub-section, I concentrate on the Agent-Focus construction, since it is in some sense the limiting case as far as the complexities of the agreement system are concerned.

Suppose that in the Kichean, probing for person features occurs separately from—and prior to—probing for number features, just as in B&R's account of the PCC (for evidence from within Mayan for the separation of person and number agreement, see §2.A). Given that the discussion in §2.2 was restricted to person features (the discussion of number in Kichean Agent-Focus was intentionally set aside until §2.3), the probe identified there as *Infl*^{0} is—when adapted to the terms of B&R's account—none other than the person probe, π^0:

(84)   *BASIC CLAUSE STRUCTURE IN KICHEAN AGENT-FOCUS* (cf. (41), in §2.2.2)
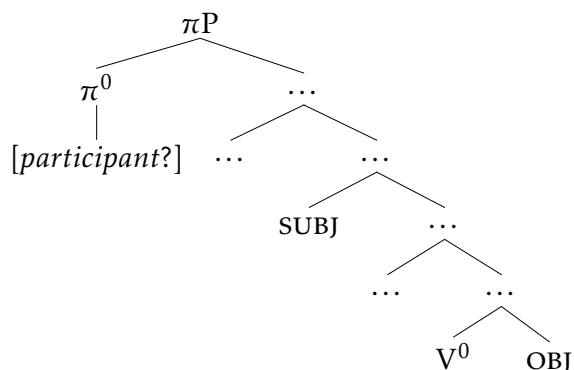
It was shown in §2.2 that this probe—π^0, by its new name—is feature-relativized to target only noun-phrases that bear a [participant] feature (i.e., 1st/2nd-person arguments). Importantly, this was demonstrated independent of any particular account of the PCC, or any differences or similarities with respect to such an account.

Now recall that in B&R's system, being probed by π^0 results in clitic-doubling. Recall also that this clitic-doubling need not be *optional*, nor is it necessarily dependent on any particular semantic properties of the doubled noun-phrase (Basque, for instance, provided an example of obligatory and indiscriminate clitic-doubling of the dative noun-phrase).

In B&R's account of the PCC, the noun-phrase probed by π^0 is always the structurally closest one—namely, the dative argument—and therefore this is also invariably the noun-phrase that is clitic-doubled. Since π^0 in Kichean is feature-relativized to [participant], however, it will not necessarily be the closest noun-phrase in (84) that is probed by π^0. In

particular, when the subject is 3rd-person (and therefore bears no [participant] feature) but the object is 1st/2nd-person, the noun-phrase probed by π^0 will be the object—as argued in detail in §2.2.2.
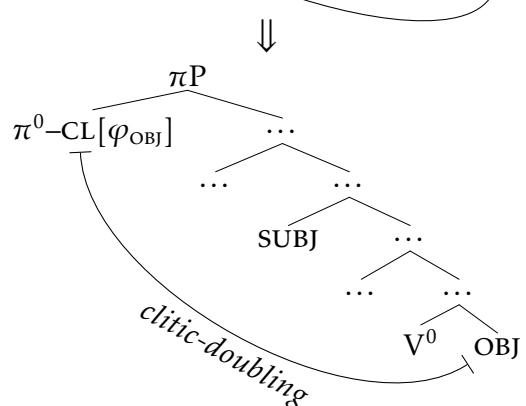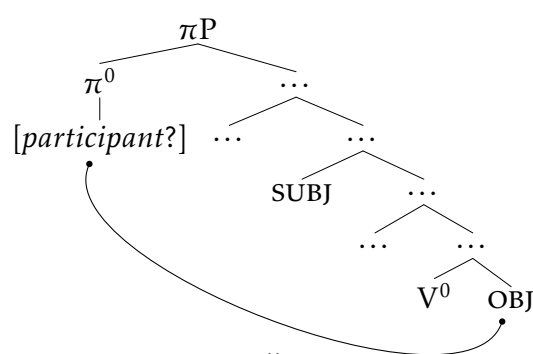
Holding constant the notion, from B&R, that being probed by π^0 triggers clitic-doubling, we would predict that in Kichean Agent-Focus, it would be the closest bearer of [participant] that is clitic-doubled:

(85)   *CLITIC-DOUBLING IN KICHEAN AGENT-FOCUS*
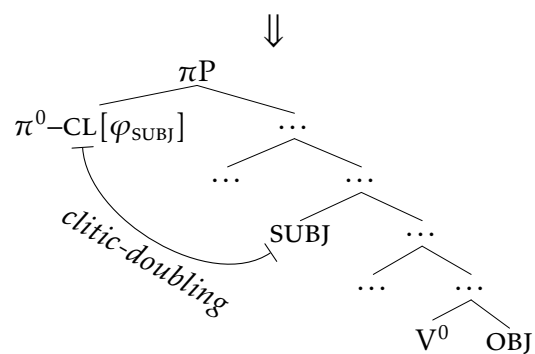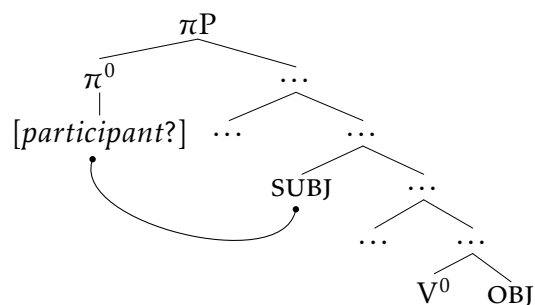
     a.   *1ST/2ND-PERSON SUBJECT*   b.   *3RD-PERSON SUBJECT,*
                                                          1ST/2ND-PERSON OBJECT

As argued in §2.4.2, clitic-doubling is featurally "coarse", in that it must copy the entire φ-feature set of the doubled noun-phrase, even if clitic-doubling was triggered by a probe that was only searching for a subset of the φ-feature geometry (this assumption was shown to be implicitly present in B&R's account, as well; see §2.4.1). Thus, while π^0 in Kichean probes only for [participant] features, the clitic whose creation is triggered by this probe will reflect **the full φ-set of the [participant]-bearing target**.

This means that in (85a–b), the generated clitic will reflect the number features of the [participant]-bearing argument, as well as its person features. As shown in §2.3.1, this is precisely what one finds in Kichean Agent-Focus:

(86)   Ja   rje'   x-**i**-tz'et-ö   yïn
       FOC   them   PRFV-**1sg.ABS**-see-AF   me
       'It was them who saw me.' *[=(60a)]*

(87) Ja   rja'   x-**oj**-tz'et-ö   röj
      FOC him PRFV-**1pl.ABS**-see-AF us
      'It was him who saw us.' *[=(64a)]*

Furthermore, as discussed in detail in §2.3.2, the forms of the agreement markers found with [participant]-bearing (i.e., 1st/2nd-person) arguments show no sign of an independent plural morpheme: the morpho-phonological relation between the *singular* 1st/2nd-person agreement markers and the *plural* 1st/2nd-person agreement markers is entirely suppletive. The fact that there is no independent plural morpheme can be naturally accommodated if the morphology in question comes about as the result of clitic-doubling, and therefore involves the copying of complete φ-sets.

   The strongest source of support for clitic-doubling, however, might come from the actual forms of the agreement markers. Recall that these agreement markers—namely, the 1st/2nd-person members of the absolute series of agreement markers—bear a striking resemblance to the corresponding strong pronouns:

(88) *STRONG PRONOUNS AND ABS. AGREEMENT MORPHEMES – 1ST/2ND-PERSON [=(70)]*

	ABS agreement marker	strong pronoun
1sg	*-i(n)-*	*yïn*
1pl	*-oj-*	*röj*
2sg	*-a(t)-*	*rat*
2pl	*-ix-*	*rïx*

The current approach derives this fact: according to the derivation sketched in (84–85), these morphemes come about as the result of clitic-doubling; and clitics, of course, are nothing but reduced pronouns (as noted earlier, the same mechanism will also derive the appearance of the same forms in regular transitives and intransitives in Kichean; see §2.4.4 for details).

   Notice that given this analysis, the overt agreement morphology found in the presence of 1st/2nd-person arguments—whose appearance is triggered by the probing of π^0—is *not* the spellout of valued features on the syntactic probe, but rather a clitic. There is no reason to think that the features on π^0 are not also valued when a [participant]-bearing argument is found; after all, both arguments in the Agent-Focus construction are non-oblique (§2.2.1). The natural question to ask is why these valued features receive no phonological expression. At this juncture, I will make the one assumption required in the current account that is not independently supported by either B&R's analysis, or the analysis presented in §2.2: I propose that there is a morphological restriction allowing only one morpheme to surface in the slot we would descriptively identify as the "absolutive agreement slot". In other words, the clitic generated in (85) competes with π^0—as well as with $\#^0$, which probes next—for a single morphological slot, and phonologically expressing the clitic takes precedence (perhaps due to a general preference for expressing pronominal material at the expense of functional material, rather than the other way around).

   The idea that the person marker (or more accurately, on the current account, the clitic) blocks the exponence of $\#^0$ from appearing finds some support in the behavior of verbal

agreement in Tzotzil, where a morpheme indicating plurality *can* surface in the same verbal complex as the corresponding person marker, exactly when the person marker is prefixal but the plural marker is suffixal (see §2.A).

Returning to Kichean, it is important to note that morphological competition of this sort between a clitic and the exponence of $\#^0$ does not undo the earlier observations regarding the absence of an independently identifiable plural morpheme in the forms of the 1st/2nd-person agreement markers. The crucial point was that these agreement markers do express number distinctions—they just do so through suppletion; and it was the suppletive nature of these morphological distinctions (as well as the form of the morphemes themselves) that aligned well with a clitic-doubling analysis.

In the portion of the derivation sketched up to this point, only π^0 (the probe that searches for [participant] features) has probed. As discussed in §2.4.1, the next head merged will be $\#^0$, the number probe. Given the assumption stated above, regarding morphological competition between the generated clitic and the overt spellout of the syntactic φ-probes, the effects of probing by $\#^0$ will not be observable unless no clitic was generated. Recall from the discussion of B&R's analysis that being probed by π^0 results in clitic-doubling, but being probed by $\#^0$ does not. Therefore, if π^0 fails to trigger clitic-doubling for some reason, the agreement slot will in principle be available for the exponence of $\#^0$.

Consider the derivation of Agent-Focus clauses in which both the subject and the object are 3rd-person. Given that π^0 in Kichean is feature-relativized to [participant], it will be unable to target either of the two core arguments (since neither bears this feature). I leave aside for now the question of what, if anything, *is* targeted by π^0 in such a derivation; this issue will be the focus of chapter 3. However, if neither argument can be targeted by π^0, then we expect that no clitic-doubling would be triggered; this, in turn, means that exactly in this kind of derivation— where both core arguments are 3rd-person—we would have a chance to see the valued features on π^0 and/or $\#^0$ spelled out overtly (since there is no clitic to compete with them for the single available agreement slot).

Conceivably, π^0 and $\#^0$ might compete amongst themselves for overt spellout in this agreement slot; but recall from the earlier discussion of the morpho-phonology of the Kichean absolutive agreement paradigm (§2.3.2), that this paradigm contains no overt morphology that one could associate with 3rd-person. Thus, the only overt material that stands to appear in this agreement slot is the spellout of $\#^0$. This is exactly what we find: as discussed in §2.3, in Kichean Agent-Focus clauses where both the subject and the object are 3rd-person, we find either **(i)** no overt agreement morphology; or **(ii)** the morpheme "-*e*-", which outside of the Agent-Focus construction serves as the 3rd-plural absolutive agreement marker, and can be plausibly analyzed as an independent plural morpheme (see §2.3.2).

The distribution of this plural marker with respect to the arguments of the Agent-Focus verb creates a picture that should by now be familiar, from the behavior of [participant] features in this construction. When neither of the arguments is plural, we do not find "-*e*-"; but it is enough for either the subject or the object to be plural, for "-*e*-" to appear:[35]

---

[35]See fn. 22, in §2.3.1, for a caveat related to animacy.

(89) ja   ri   xoq   x-**Ø/*e**-tz'et-ö   ri   achin
     FOC the woman PRFV-**3sg/*3pl.ABS**-see-AF the man
     'It was the woman who saw the man.' *[=(20)]*

(90) Ja   **rje'**   x-**e/*Ø**-tz'et-ö   rja'
     FOC **them** PRFV-**3pl/*3sg.ABS**-see-AF him
     'It was them who saw him.' *[=(58)]*

(91) Ja   rja' x-**e/*Ø**-tz'et-ö   **rje'**
     FOC him PRFV-**3pl/*3sg.ABS**-see-AF **them**
     'It was him who saw them.' *[=(59)]*

If we take "*-e-*" to be the overt spellout of a $\#^0$ head that has found a [plural]-bearing target, we must conclude that $\#^0$ is capable of skipping a subject that does not bear the feature it is searching for, en route to the object.[36] In terms of the analysis developed in §2.2, we can say that $\#^0$ is <u>relativized</u> to [plural]. If the subject bears a [plural] feature, it will be targeted by $\#^0$; if it does not, but the object does, then the object will be targeted by $\#^0$:
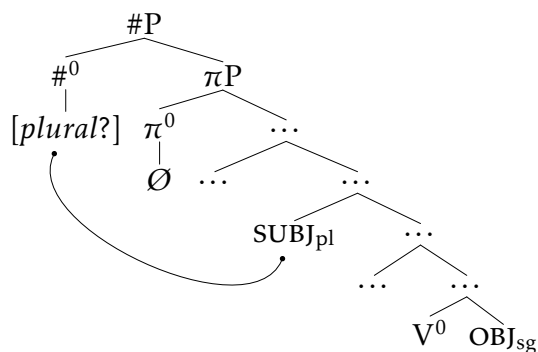
---

[36]One concern that might arise about identifying "*-e-*" as the overt exponence of $\#^0$ is that "*-e-*" is *TAM-invariant*: it shows no allomorphy or suppletion based on the tense or aspect of the clause in which it appears. Compare (i.a) and (i.b), for example:

(i) a. x-**e**-wär
         PRFV-**3pl.ABS**-sleep
         'They have slept.'

     b. y-**e**-wär
         IMPF-**3pl.ABS**-sleep
   'They are sleeping.'

Following Arregi and Nevins (2008, in prep.), *TAM-invariance* seems to be the most reliable diagnostic for distinguishing clitics from the spellout of agreement heads—and on this diagnostic, "*-e-*" appears to pattern with clitics; but crucially, *TAM-invariance* is only a one-way implication. While it rules out clitics that exhibit TAM-based allomorphy or suppletion, it does not rule out agreement heads whose spellout does not show such variation.

(92) *RELATIVIZED PROBING FOR [PLURAL]*

   a. *PL SUBJECT, SG OBJECT*   b. *SG SUBJECT, PL OBJECT*
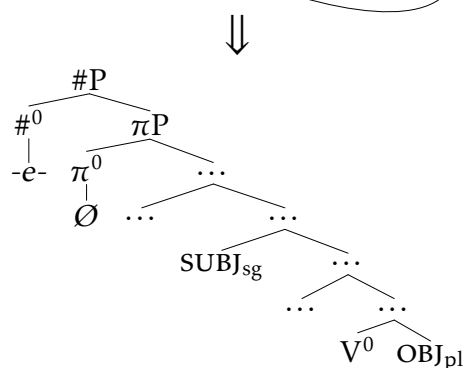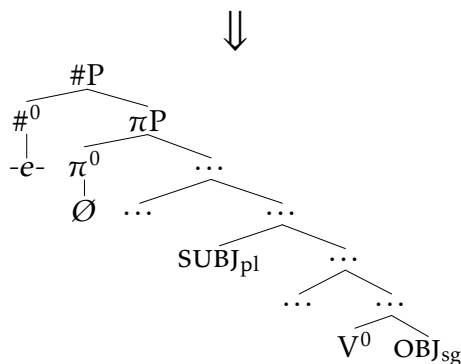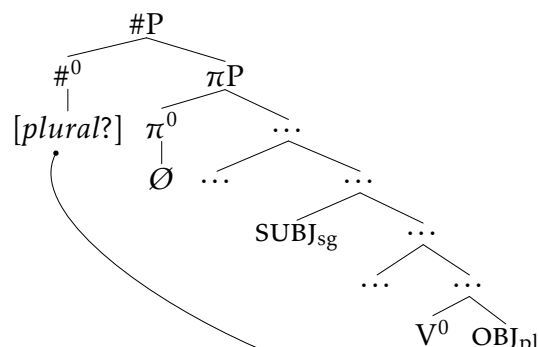
Despite the overwhelming similarities observed here between the mechanisms that apply to [participant] and [plural] in Kichean, there is one important difference, having to do with argument licensing. Recall the *Agent-Focus person restriction*, repeated here:

(93) <u>*AGENT-FOCUS PERSON RESTRICTION*</u> *[=(25)]*
      In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person. [Davies and Sam-Colop 1990, Dayley 1978, Norman and Campbell 1978, Smith-Stark 1978, Stiebels 2006]

In §2.2, I argued that (93) derives from the fact $Infl^0$ in Kichean—or π^0, as it has been renamed here—enters into only a single agreement relation (see, in particular, §2.2.3.1), along with the fact that 1st/2nd-person arguments must be licensed by agreement, following Béjar and Rezac's (2003) PLC:

(94) <u>*PERSON LICENSING CONDITION (PLC)*</u>   *[=(44)]*
      Interpretable 1st/2nd-person features must be licensed by entering into an *Agree* relation with an appropriate functional category.   *[Béjar and Rezac 2003]*

Two asymmetries arise from (93–94). First, while π^0 is a licensor for the purposes of (94), $\#^0$ cannot be. If it could, then there would in principle be a chance for two 1st/2nd-person arguments to be licensed in the same Agent-Focus clause (provided that binding-theoretic restrictions were obeyed)—one by π^0, and one by $\#^0$—contra the observed restriction in (93). That this is not the case is already implied by the formulation of (94): not any agreement relation is sufficient to license [participant]-bearing (i.e., 1st/2nd-person) noun-phrases. In

particular, I will assume that the agreement relation must involve the [participant] feature itself. Thus, a probe that enters only into agreement relations involving the [plural] feature, such as $\#^0$, is irrelevant for PLC purposes.

The need for a qualification of this sort becomes even clearer if one considers relations beyond the scope of φ-agreement to also involve syntactic agreement: it is quite obvious that agreement with a *wh*-probe, or a *Focus* probe, could not and should not license a [participant] feature on a noun-phrase; from this perspective, a [plural] probe would be no different.

The second asymmetry is, in some sense, the other side of the same coin: just as the [plural] probe ($\#^0$) fails to license 1st/2nd-person arguments for the purposes of (93–94), it is also the case that there is no restriction corresponding to (93) on the appearance of multiple plural arguments in a single Agent-Focus clause in Kichean. This is demonstrated in (95), below:

(95) Ja rje' x-**oj**-tz'et-ö   röj
     FOC them PRFV-**1pl.ABS**-see-AF us
     'It was them who saw us.'

In other words, it seems that in Kichean, [plural] features cannot license arguments, and do not require licensing.

This means that in an Agent-Focus clause where both the subject and the object are plural, no problem arises if the $\#^0$ probe simply targets the closer of the two plural noun-phrases; the other plural noun-phrase, whose [plural] feature does not participate in an agreement relation, does not require licensing:

(96) *PL SUBJECT, PL OBJECT*
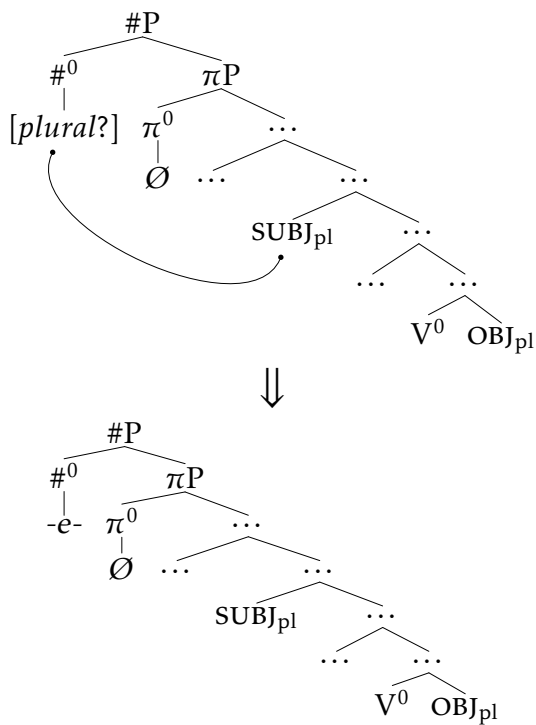
Recall that by hypothesis, the clitics that arise in the presence of 1st/2nd-person arguments compete for the single agreement slot with the exponents of $\#^0$ (and in principle, π^0 as well).

Therefore, we can assume that the agreement relations illustrated in (92a–b, 96) obtain even when one of the arguments is 1st/2nd-person, and $\#^0$ simply cannot be spelled out overtly. This is made particularly clear by examples like (95), above, where both the subject and the object are plural, but "*-e-*" does not appear. On the current account, $\#^0$ in an example like (95) behaves exactly as shown in (96); the agreement slot is simply occupied by a 1st-plural clitic, "*-oj-*" (a reduced form of the 1st-plural pronoun, "*röj*"; see §2.3.2), and this prevents "*-e-*" from surfacing.

See also the discussion of Tzotzil, where the equivalent of Kaqchikel "*-e-*" is a *suffix*, rather than a prefix—and *is* able to co-occur with the relevant person markers (§2.A).

We have arrived at a comprehensive account of agreement in the Kichean Agent-Focus construction. To summarize, the derivation involves separate π^0 and $\#^0$ probes, which are <u>relativized</u> to [participant] and [plural], respectively (see §2.A for evidence from within the Mayan family for the separation of person agreement and number agreement). As shown in §2.2.3, when the probe fails to find the features it is looking for on the subject, it skips the subject altogether, entering into a single agreement relation with the object (at least when the object does bear the features in question).

Following Béjar and Rezac (2003), being probed by π^0 triggers clitic-doubling of the probed argument, one of two asymmetries between π^0 and $\#^0$; the other asymmetry involves whether or not the features in question interact with licensing, as in the Agent-Focus person restriction and the PLC (in (93–94)). Since π^0 will skip arguments that do not bear a [participant] feature (i.e., 3rd-person arguments), such arguments will not be clitic-doubled, leaving the single agreement slot available for the overt exponence of $\#^0$ (in the event that the latter is overt).

This accounts for the morpho-phonological distinctions observed in §2.3.2: the 1st/2nd-person agreement markers resemble the corresponding strong pronouns (since clitics are, quite literally, reduced pronouns), while the 3rd-person ones do not; conversely, agreement with 3rd-person arguments in the Agent-Focus construction exhibits what may be an isolable plural morpheme in Kichean (since it is the overt spellout of $\#^0$), whereas 1st/2nd-person agreement markers encode number suppletively (which is consistent with the idea that the 1st/2nd-person agreement markers arise via clitic-doubling, which treats the entire φ-set of the doubled noun-phrase as an atomic, indivisible unit; §2.4.2).

The results of this account are summarized in (97):

(97)   *VERBAL MORPHOLOGY GENERATED IN AGENT-FOCUS– KAQCHIKEL*

SUBJ/OBJ φ-features	probing for [participant] (by π^0) finds a target?	clitic whose creation is triggered		probing for [plural] (by $\#^0$) finds a target?	exponent of $\#^0$	actual morph. found in agreement slot
{1sg, 3sg}	*yes*	*-i(n)-*	(1sg)	*no*		*-i(n)-*
{2sg, 3sg}	*yes*	*-a(t)-*	(2sg)	*no*		*-a(t)-*
{1pl, 3sg}	*yes*	*-oj-*	(1pl)	*yes*	*-e-*	*-oj-*
{2pl, 3sg}	*yes*	*-ix-*	(2pl)	*yes*	*-e-*	*-ix-*
{1sg, 3pl}	*yes*	*-i(n)-*	(1sg)	*no*		*-i(n)-*
{2sg, 3pl}	*yes*	*-a(t)-*	(2sg)	*no*		*-a(t)-*
{1pl, 3pl}	*yes*	*-oj-*	(1pl)	*yes*	*-e-*	*-oj-*
{2pl, 3pl}	*yes*	*-ix-*	(2pl)	*yes*	*-e-*	*-ix-*
{3sg, 3sg}	*no*	*N/A*		*no*		Ø
{3pl, 3sg}	*no*	*N/A*		*yes*	*-e-*	*-e-*
{3pl, 3pl}	*no*	*N/A*		*yes*	*-e-*	*-e-*

As before, the notation $\{\varphi_1, \varphi_2\}$ is fully commutative, since there is never any difference between the agreement morphology found with <SUBJ[x], OBJ[y]> and <SUBJ[y], OBJ[x]> in Kichean Agent-Focus, for any pair of φ-feature bundles x and y (a result of <u>relativized probing</u>, on the account presented here). Combinations not listed in (97) are ruled out either on binding-theoretic grounds (e.g. {1pl, 1sg}), or due to the *Agent-Focus person restriction* (e.g. {2sg, 1sg}; see (25), in §2.2.1).
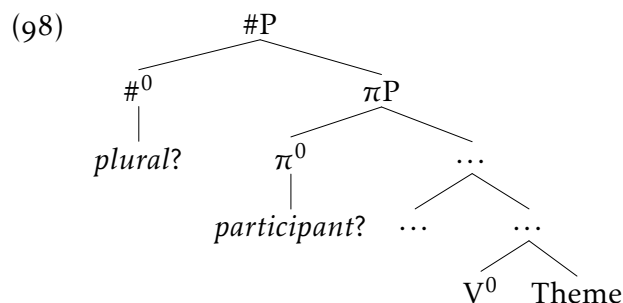
The final column in (97), representing the actual morphology found on the Agent-Focus verb in each case, is the result of the aforementioned competition for the single agreement slot: if there is a morpheme in the *clitic* column, the agreement slot (i.e., the final column) will contain that clitic; only in the event that no clitic is generated does the morpheme in the $\#^0$ column (if it is non-null) stand to appear in the agreement slot. The reader will notice that this derives the complete pattern of agreement in the Kichean Agent-Focus, given earlier in (65) (§2.3.1).

As noted at the beginning of §2.4, this account compares favorably to an account of the same *omnivorous person* and *omnivorous number* effects in terms of scales or "salience" hierarchies. This comparison is the topic of §2.4.5. First, however, I would like to spell out how the same assumptions successfully derive agreement with absolutive noun-phrases in regular transitives and intransitives in Kichean.

2.4.4. Absolutive agreement in regular transitives and intransitives

The account proposed in §2.4.3 captures the syntactic and morphological properties of agreement in the Kichean Agent-Focus construction. It turns out that the same account derives the behavior of absolutive agreement in Kichean transitives and intransitives, as well.

In intransitives, there is of course only one noun-phrase in the domain of the [participant] and [plural] probes, π^0 and $\#^0$:

(98)

```
                      #P
              ┌───────┴───────┐
             #⁰              πP
              │         ┌──────┴──────┐
           plural?     π⁰            ···
                        │        ┌────┴────┐
                   participant?  ···      ···
                                      ┌────┴────┐
                                     V⁰      Theme
```

   Suppose that the very same derivational sequence that was argued for in the Agent-Focus construction occurs here, as well. First, π^0 probes for a noun-phrase that carries a [participant] feature. In this case, the only noun-phrase that could possibly be targeted is the Theme, since there are no other nominals in the domain of the probe. Thus, if the Theme is 1st/2nd-person (and therefore, carries a [participant] feature), it will be successfully targeted by π^0.

   As argued in §2.4.1–§2.4.3, being successfully probed by π^0 results in clitic-doubling of the probed argument; therefore, if the Theme is indeed 1st/2nd-person, a clitic will be generated that reflects the full φ-feature set of the Theme (due to the *featural coarseness* property of clitic-doubling; see §2.4.2). As before, this clitic will occupy the absolutive agreement slot, and no other overt morphology—in particular, the overt spellout of $\#^0$—will be able to appear in that slot.

   If the Theme is 3rd-person, on the other hand, it cannot be targeted by π^0; recall that π^0 is <u>relativized</u> to probe for [participant] features, and therefore skips 3rd-person arguments entirely—as evinced by its behavior in Agent-Focus contexts (§2.2.1–§2.2.2). As a result, no clitic will be generated in this case, and the agreement slot will be available for the spellout of other morphological material.

   Recall once more that in Kichean (and in fact, in all of Mayan), the absolutive agreement paradigm contains no overt morphology that one could associate with 3rd-person (§2.3.2). Thus, if anything stands to appear in the agreement slot in this scenario, it will be the overt spellout of $\#^0$ (as was the case in Agent-Focus clauses where both the subject and the object were 3rd-person). As before, $\#^0$ is <u>relativized</u> to probe for [plural]. Thus, if the Theme is plural, $\#^0$ will be able to target it. This would presumably occur whether a clitic was generated or not (i.e., whether the plural Theme is a 1st/2nd-person argument or a 3rd-person one); but if no clitic was generated, the overt exponence of a $\#^0$ head that has successfully targeted a plural nominal (namely, "*-e-*") will be able to be spelled out in the agreement slot.

   We have therefore seen that the same derivational sequence proposed in §2.4.3 for the Agent-Focus construction, when applied in a derivation where there is only a single argument in the domain of the φ-probes π^0 and $\#^0$, correctly predicts that the same agreement markers will be found in intransitive clauses in Kichean. On the current proposal, the 1st/2nd-person agreement markers in intransitives arise via the same clitic-doubling operation, triggered by probing by the same π^0 [participant] probe, as the 1st/2nd-person agreement markers in the Agent-Focus construction do. The 3rd-person agreement marker—in particular, the 3rd-person plural marker—is the spellout of the same $\#^0$ [plural] probe as in the Agent-Focus construction. As shown in §2.2.1/§2.3.2, this is indeed the case.

   These results are summarized in (99) (cf. (97), above):

(99)   *VERBAL MORPHOLOGY GENERATED IN INTRANSITIVES – KAQCHIKEL*

Theme φ-features	probing for [participant] (by π^0) finds a target?	clitic whose creation is triggered		probing for [plural] (by $\#^0$) finds a target?	exponent of $\#^0$	actual morph. found in agreement slot
1sg	*yes*	*-i(n)-*	(1sg)	*no*		*-i(n)-*
2sg	*yes*	*-a(t)-*	(2sg)	*no*		*-a(t)-*
1pl	*yes*	*-oj-*	(1pl)	*yes*	*-e-*	*-oj-*
2pl	*yes*	*-ix-*	(2pl)	*yes*	*-e-*	*-ix-*
3sg	*no*	*N/A*		*no*		*Ø*
3pl	*no*	*N/A*		*yes*	*-e-*	*-e-*

As in (97), the final column in (99) (representing the actual morphology found on the intransitive verb in each case) is generated by the same logic of morphological competition: if probing by π^0 is successful in finding a [participant]-bearing noun-phrase, the result is clitic-doubling of that noun-phrase, and this clitic will occupy the agreement slot (the final column of (99)); in the event that no such clitic is generated (i.e., when the Theme is 3rd-person), the exponence of $\#^0$ has a chance to appear in the agreement slot.

Turning now to transitives, not much needs to be changed. All that is necessary is that π^0 and $\#^0$ be unable to see the External Argument (the ergative noun-phrase). There are at least two ways of achieving this result—and moreover, the two are not mutually incompatible (i.e., it could be the case that both hold).

Before outlining these two alternatives, let me first address a potential solution that might seem intuitive, but ultimately proves to be inadequate: we might conjecture that the probes that I have labeled π^0 and $\#^0$ together correspond roughly to what is usually thought of as v^0 (which is the approach taken in Preminger 2009 for Basque), rather than Infl^0 (which is the approach taken here). If this is the case, then given the *Little-v Hypothesis* (Hale and Keyser 1993, Chomsky 1995b, Kratzer 1996, Marantz 1997, Harley 2009, Coon and Preminger to appear, among others), the base position of the External Argument would be higher than both π^0 and $\#^0$; and therefore, no interactions between these two probes and the External Argument would be expected. The problem is that the same logic could be applied to Agent-Focus clauses—but there, the External Argument is quite plainly visible to π^0 and $\#^0$, which is what gives rise to the *omnivorous agreement* effects discussed throughout this chapter.[37]

This suggests that the lack of interaction between π^0 and $\#^0$ and the subject of a transitive is not about the subject being an External Argument, per se, but rather about ergative case (recall that the External Argument in the Agent-Focus construction is crucially not ergative-marked; see §2.2.1). We might therefore conclude that the ergative noun-phrase is invisible to probing by π^0 and $\#^0$ either because ergative case is *inherent case* (Aldridge 2004, Legate

---

[37]It is conceivable, of course, that the External Argument is generated in a different position in the Agent-Focus construction than it is in a regular transitive clause (in violation of *UTAH*, the *Uniformity of Theta Assignment Hypothesis*; Baker 1988). However, while there are many differences between Agent-Focus clauses and regular transitive clauses in Kichean, I know of no independent evidence that points specifically to a difference in the position of the External Argument.

2008, Woolford 1997), or because ergative case is an oblique case.[38] The problem with this kind of approach is that oblique cases—as opposed to full-fledged PPs—are not truly invisible to phi-agreement (as will be discussed in detail in chapter 4).

Instead, suppose that the External Argument in a transitive clause—but not in the Agent-Focus construction—is A-moved out of its base-position prior to probing by π^0 and $\#^0$ (perhaps due to ergative case-assignment taking place in a dedicated projection; see, for example, Merchant 2006, Preminger to appear). As shown by Holmberg and Hróarsdóttir (2003), the trace of an A-moved phrase is invisible to φ-probes, at least in certain cases; if the trace of the A-moved ergative argument behaves in this fashion, we would not expect it to interact with probing by π^0 and $\#^0$.

We would therefore expect no interaction between the φ-probes π^0 and $\#^0$ and the ergative argument in a regular transitive clause. This correctly predicts that when only the absolutive argument is considered, the behavior of the "absolutive agreement marker"—which on this account, is a composite of the clitic generated by probing by π^0 in some cases, and the overt exponence of $\#^0$ in others—would be the same in transitives as it is in intransitives.

This does not address the question, of course, of how the ergative agreement morphemes in Kichean come about—in particular, whether they are clitics, or the exponence of a φ-probe. While I have little to say about this question here, it is interesting to note that the ergative agreement paradigm, repeated below, encodes number distinctions suppletively in all three persons (contra the absolutive agreement paradigm):

(100) *KAQCHIKEL ERGATIVE AGREEMENT PARADIGM [=(55)]*

	sg	pl
1st	-n/w-	-q(a)-
2nd	-a(w)-	-i(w)-
3rd	-r(u)/u-	-k(i)-

This suggests that these agreement markers are either **(i)** clitics; or **(ii)** the overt exponence of a single probe H^0, which probes for both number and person features simultaneously. These markers are also *TAM-invariant* (i.e., they do not show allomorphy based on the tense or aspect of the host; see Arregi and Nevins 2008, in prep., as well as fn. 36), which provides at least a hint that they may be clitics. Since the precise nature of these agreement markers is immaterial to the central point of this thesis, I leave this question aside for now.

To summarize, we have seen that the same derivational sequence proposed in §2.4.3 to account for agreement in the Agent-Focus construction correctly predicts that the same agreement markers will be found in constructions where there is only a single argument in the domain of the φ-probes, π^0 and $\#^0$, as is the case in intransitives, and—given certain fairly reasonable assumptions—in transitives, as well.

---

[38]That oblique phrases are the diachronic genesis of ergatives has been argued extensively in the literature (Anderson 1977, Chung 1978, Clark 1976, Comrie 1978, Dixon 1979, 1994, Johns 1992, among others); but see recent work by Polinsky (2011) for arguments that the same property is detectable in the synchronic grammars of at least a sub-group of ergative languages.

2.4.5. On scales and "salience" hierarchies

As noted in §2.3.1, the behavior of agreement in the Agent-Focus construction in Kichean has often been described in terms of a *scale* or *"salience" hierarchy* (Dayley 1978, Mondloch 1981, Norman and Campbell 1978, Smith-Stark 1978, Stiebels 2006)—recall (66), repeated here:

(66) *"SALIENCE" HIERARCHY IN KICHEAN AGENT-FOCUS*
       1st/2nd-person ≫ 3rd-plural ≫ 3rd-singular

While I take no issue with the usefulness of (66) as a descriptive tool that can be used to discuss Kichean agreement, thinking of it as an actual *account* of agreement in Kichean Agent-Focus faces serious problems. I will survey these problems here.

First, if it is "salience"—in the cognitive sense—that is relevant, it is quite puzzling that such a scale would surface nowhere else in the language except in the Agent-Focus construction.

Even more puzzling for an account based on cognitive salience is the following fact from K'ichee', noted by Stiebels (2006:526, fn. 13):

> "[K'ichee'] has developed a second person formal pronoun, which does not behave as a second person with respect to the salience hierarchy, i.e. it does not outrank third person."

If determining which argument is targeted for agreement in the Agent-Focus construction were a matter of cognitive salience, then we would expect expressions referring to speech-act addressees to all pattern alike, contra to fact. The claim here is not that there is no possible story regarding the K'ichee' 2nd-person formal pronoun that would assimilate its "salience" to that of 3rd-person arguments; the point is that the one concrete prediction made by an appeal to cognitive salience is, in fact, not borne out.

Next, note that an approach along the lines of (66) would have little to say about the Agent-Focus person restriction:

(101) *AGENT-FOCUS PERSON RESTRICTION [=(25)]*
       In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person. [Davies and Sam-Colop 1990, Dayley 1978, Norman and Campbell 1978, Smith-Stark 1978, Stiebels 2006]

There is nothing about (66) that predicts that two arguments with high "salience" would not be able to co-occur; indeed, languages and constructions that exhibit behavior that is superficially very similar to (66) (e.g. main verb agreement in Algonquian) do not have a restriction along the lines of (101). The account presented in §2.4.3, however, derives both (101), and the effects of (66) from the same underlying source (namely, a probe relativized to [participant] features, which can therefore license [participant] features on exactly one argument).

Most importantly, an approach based on (66) would not account for the particular morpho-phonological distinctions between the forms of 1st/2nd-person agreement markers (which look like the corresponding pronouns, and encode number distinctions suppletively), and 3rd-person agreement markers (which do not), as detailed in §2.3.2. One could contend that (66) should not account for these distinctions, since the same agreement markers found in the

Agent-Focus construction are used in regular transitives and intransitives in Kichean, as well; but that would mean that these distinctions must have a different source. If this independent source turns out to also account for the effects that (66) was designed to capture, it removes the need for (66) itself.

In §2.4.3–§2.4.4, I presented an account of these morpho-phonological differences based on the idea that the 1st/2nd-person absolutive agreement markers are actually clitics, which come about as the result of clitic-doubling triggered by the [participant] probe (π^0), while the 3rd-person agreement absolutive agreement markers were the actual exponence of the [plural] probe ($\#^0$). Crucially, this account also derives the very effects that (66) was meant to account for, within the Agent-Focus construction—rendering (66) entirely redundant.

This redundancy extends to attempts to view scales like (66) as an emergent property of a ranked set of constraints—as in, for example, the system proposed by Stiebels (2006). Just like accounts that make direct reference to a *scale* or *"salience" hierarchy*, the point of accounts such as Stiebels' is to factor out the choice of agreement target from φ-agreement itself, treating it as an autonomous component of the φ-agreement process (in this case, a component based on a system of ranked constraints). Thus, φ-agreement in Kichean Agent-Focus is treated as a uniform phenomenon, but for the choice of which argument will be targeted.

Therefore, like their scale-based counterparts, such approaches cannot account for the fact that different choices of agreement targets result in agreement markers with different morpho-phonologically properties (see also §3.4). As before, the fact that these morpho-phonological distinctions extend beyond the realm of Agent-Focus to all instances of agreement with absolutive arguments (i.e., in regular transitives and intransitives, as well) suggests that they have a separate source; but if this source also derives the choice of agreement target in the Agent-Focus construction (as it was shown in §2.4.3–§2.4.4 to do), then the system of ranked constraints is unnecessary, in the first place.

We have arrived at a comprehensive account of agreement in Agent-Focus clauses in Kichean, and the pieces are in place to explore instances of *failed agreement* (§1.3) in this construction. In the next chapter, I use such instances to help address the central question of this thesis—namely, how to correctly model the normally obligatory nature of φ-agreement.

2.A. *Appendix*: Evidence from Tzotzil for separate *person* and *number*

In §2.4, I proposed an account of φ-agreement in Kichean based on the idea that person and number are syntactically separable, and that they probe independently of one another. In this appendix, I show evidence for syntactic separability of person and number that comes from within the Mayan language family.

Tzotzil is a Mayan language of the Tseltalan family, a somewhat distant relative of the Kichean languages which are at the center of this chapter. As discussed by Aissen (1987) and Woolford (to appear), Tzotzil has two sets of absolutive agreement markers, one that appears in the prefixal field (as in (102a)), and one that appears in the suffixal field (as in (102b)):[39]

(102) a. ch-   a-   s-   mil
          IMPF- 2.ABS- 3.ERG- kill
          'He is going to kill you.'

      b. j-   mala -oj   -oxuk
          1.ERG- wait -PERF -2pl.ABS
          'I have waited for y'all.'

<div align="right">[Aissen 1987:48, 62]</div>

As noted by Woolford, Tzotzil is exceptional in exhibiting both patterns within one language; other Mayan languages generally exhibit one pattern or the other (Bricker 1977, Tada 1993).

The reader will notice that the gloss of the prefixal agreement markers does not include a number distinction; indeed, the suffixal forms in Tzotzil encode number distinctions, but the prefixal forms (including all ergative/genitive markers, not shown below) do not:

(103) *TZOTZIL ABSOLUTIVE PREFIXES*

1	i-
2	a-
3	Ø-

(104) *TZOTZIL ABSOLUTIVE SUFFIXES*

1sg	-on
1pl.INCL	-otik
1pl.EXCL	-otikotik
2sg	-ot
2pl	-oxuk
(3)sg	-Ø
(3)pl	-ik

<div align="right">[Aissen 1987, Woolford to appear]</div>

Consider now the marker "*-ik*", which is listed in (104) as *(3)pl*. First, note that the segmental content of "*-ik*" is present in the other plural members of (104) (modulo the change of [*i*] to another high vowel, [*u*], in "*-oxuk*" '2pl.ABS'), already suggesting that "*-ik*" functions as an all-purpose plural marker in Tzotzil.

More strikingly, "*-ik*" can signal plurality of both 3rd-person arguments (as in (105)), and under particular circumstances, of 2nd-person arguments, as well (as in (106)):

---

[39]I thank Jessica Coon for turning my attention to this pattern, and its relevance to the arguments made in this chapter.

(105) ʔi-   j-   mil -ik
       PRFV- 1.ERG- kill -(3)pl.ABS
       'I killed them.'

(106) ch-   a-   j-   mil -ik
       IMPF- 2.ABS- 1.ERG- kill -(3)pl.ABS
       'I am going to kill y'all.'

<div align="right">[*Aissen 1987:49*]</div>

The factors governing the choice of prefixal versus suffixal absolutive agreement morphology in Tzotzil are beyond the scope of the current work; I refer the reader to Aissen (1987) and Woolford (to appear) for discussion.[40] What is crucial here is (106), where the φ-features of the 2nd-person plural object are expressed discontinuously, by two morphemes—one that reflects its person features ("*a-*" '2.ABS'), and one that reflects its number features ("*-ik*" '(3)pl.ABS'). The same holds with 1st-person plural absolutive arguments, modulo the aforementioned morphological decomposition:

(107) a. "*-otik*" ('1pl.INCL.ABS') =
               "*-o{n,t}*" ('1.ABS') + "*-ik*" ('(3)pl.ABS')

       b. "*-otikotik*" ('1pl.EXCL.ABS') =
               "*-o{n,t}*" ('1.ABS') + "*-ik*" ('(3)pl.ABS') + "*<REDUPL>*" ('EXCL.ABS')

(108) a. l-   i-   s-   pet -<u>ot</u>   -<u>ik</u>   (=-<u>otik</u>)
           PRFV- 1.ABS- 3.ERG- carry -1.ABS -(3)pl.ABS
           'He carries us(incl.).'

       b. ch-   i-   s-   mil -<u>ot</u>   -<u>ik</u>   -<REDUPL> (=-<u>otikotik</u>)
           IMPF- 1.ABS- 3.ERG- kill -1.ABS -(3)pl.ABS -EXCL.ABS
           'He is going to kill us(excl.).'

<div align="right">[*Aissen 1987:1,47*]</div>

Of course, due to the absence of an overt 3.ABS prefix, one cannot test the discontinuous expression of φ-features with 3rd-person plural absolutive arguments—but at the very least, they do not counter-exemplify the generalization that plural is expressed by an independent morpheme (see (105), above).

We have seen that absolutive agreement in Tzotzil can be expressed discontinuously—in which case it consists of a prefix expressing person features only, and a set of suffixes consisting of a number morpheme, and potentially other morphemes related to the 1st-person inclusive/exclusive distinction.[41]

---

[40]Broadly speaking, prefixal absolutive agreement morphology in Tzotzil is parasitic on the presence of a prefixal aspect marker (Aissen 1987, Woolford to appear). There is one exception to this generalization, involving 1st-person absolutive agreement in conjunction with 2nd-person ergative agreement; Woolford (to appear) claims that this exception is phonologically motivated, though I find her dismissal of a syntactic account (assimilating this pattern to, say, the *Inverse* system of Algonquian) to be inconclusive.

[41]I assume that the appearance of a 1st-person suffix in cases like (108a–b) is merely a form of morphological support for expressing the inclusive/exclusive distinction, rather than an actual person marker—as evinced by the absence of a suffixal person marker in the discontinuous agreement construction involving 2nd-person (where there is no inclusive/exclusive distinction), as in (106).

Note the similarity between this pattern and the Basque agreement data, presented in §2.4.2 and repeated here:

(109) Gu   amama-ri   joan **ga-**   tzai- **zki-**   o.
       we(ABS) grandmother-DAT gone **1.ABS-** √-   **pl.ABS-** 3sg.DAT
       'We have gone to grandmother.' *[=(82)]*   [*Laka 1996*]

(110) *ABS-DAT PRESENT-INDICATIVE AUXILIARY PARADIGM*   *[=(83)]*

	ABS person	ROOT (have)	ABS number	ABS "number+"	DAT all φ-features
1sg	*na*	*tzai*			*t*
2sg	*ha*	*tzai*			*{k,n}*
3sg		*zai*			*o*
1pl	*ga*	*tzai*	*zki*		*gu*
2pl	*za*	*tzai*	*zki*		*zu*
2pl+	*za*	*tzai*	*zki*	*te* ⤳	*zue*
3pl		*zai*	*zki*		*e*

As shown in (109–110), the absolutive plural marker "*-zki*" in the Basque absolutive-dative present indicative auxiliary paradigm shows up on the opposite side of the auxiliary root from absolutive person marking—much like in the Tzotzil data discussed here. In Preminger 2009, I argued that this is the result of "*-zki*" being the spellout of a separate head, #⁰, when that head has successfully targeted an absolutive noun-phrase bearing [plural].

It is not impossible to handle cases where different φ-features of the agreement target are expressed discontinuously, as in the examples shown here, within a purely morphological approach (e.g. using the *Fission* operation of Distributed Morphology; Halle 1997, Noyer 1997; see also fn. 31, in this chapter). However, this separability of person and number— and in particular, the fact that they sometimes surface on opposite sides of the stem—is at least suggestive that the two are independent of one another in syntax as well.

The importance of these Tzotzil data, in particular, is that they provide support from within the Mayan language family for this separation of person and number, which constitutes part of the account proposed in §2.4 for φ-agreement in Kichean.

Importantly, the state of affairs in Tzotzil contrasts with Kichean, where the appearance of person morphology (which on the account proposed in §2.4, arises through clitic-doubling that is triggered by the [participant] probe) crucially blocks the plural marker from appearing. Importantly, the Kichean plural marker (e.g. "*-e-*", in Kaqchikel) is not suffixal: when it appears in the verbal complex, it is in the same prefixal slot that in other cases is occupied by the person marker. Whether or not the plural marker can appear in the same derivation as the person marker therefore appears to depend on whether or not they are both prefixal— lending some support to the idea that in Kichean, one blocks the appearance of the other (as proposed in §2.4.3).

Chapter 3

Why *uninterpretable features* (and other derivational time-bombs) won't work

Based on the detailed investigation of agreement in the Kichean Agent-Focus construction conducted in chapter 2, we are now in a position to present an argument against approaches that enforce the obligatoriness of φ-agreement through <u>derivational time-bombs</u>, such as the *uninterpretable features* approach of Chomsky (2000, 2001). This argument is the focus of the current chapter.

I begin by laying out the argument against a <u>derivational time-bombs</u> for φ-agreement from person agreement in the Kichean Agent-Focus construction (§3.1). I then present a very similar argument based on number agreement in Kichean Agent-Focus (§3.2).

Next, I address the possibility of salvaging the <u>derivational time-bombs</u> (or *uninterpretable features*) account by proposing that these representational devices are only selectively present (and crucially, absent in those cases that look like failed agreement), showing that such an account cannot be generally maintained (§3.3).

Finally, I sketch two implementations of φ-agreement—one within the <u>obligatory operations</u> approach, and one within the <u>violable constraints</u> approach—which unlike their <u>derivational time-bomb</u> counterpart, can deal with the empirical patterns surveyed here (§3.4).

In the ᴀᴘᴘᴇɴᴅɪx (§3.A), I provide a brief historical survey of how syntactic theory came to regard *uninterpretable features* as having anything to do with the obligatoriness of φ-agreement, in the first place.

3.1. Failed person agreement in Kichean Agent-Focus

Agreement with 1st/2nd-person arguments in Kichean was analyzed in §2.4 as clitic-doubling, triggered when these arguments are probed by the [participant]-probe π^0. As in many more familiar paradigms, agreement with 1st/2nd-person arguments in Kichean is obligatory; its absence results in ungrammaticality. This is demonstrated in (111–112) using examples from the Kichean Agent-Focus construction:

(111) a. ja   rat   x-**at/*Ø**-axa-n   ri achin
       FOC you(sg.) PRFV-**2sg/*3sg.ABS**-hear-AF the man
       'It was you(sg.) that heard the man.' *[=(21)]*

    b. ja   ri achin x-**at/*Ø**-axa-n   rat
       FOC the man PRFV-**2sg/*3sg.ABS**-hear-AF you(sg.)
       'It was the man that heard you(sg.).' *[=(22)]*

(112) a. ja   yïn x-**in/*Ø**-axa-n   ri achin
       FOC me PRFV-**1sg/*3sg.ABS**-hear-AF the man
       'It was me that heard the man.' *[=(23)]*

    b. ja   ri achin x-**in/*Ø**-axa-n   yïn
       FOC the man PRFV-**1sg/*3sg.ABS**-hear-AF me
       'It was the man that heard me.' *[=(24)]*

Recall now the three models of obligatoriness surveyed in chapter 1—and in particular, the derivational time-bombs model, exemplified by Chomsky's (2000, 2001) *uninterpretable features* approach to the obligatoriness of agreement. In this model, inflectional probes enter the derivation bearing uninterpretable φ-features; these features, in their uninterpretable state, cannot be part of a well-formed, end-of-the-derivation structure. Establishing a successful φ-agreement relation has the effect of rendering these features *interpretable*—or perhaps, deleting them altogether—thereby avoiding ill-formedness.

Given this model, and given the obligatory nature of person agreement in Kichean Agent-Focus (as demonstrated in (111–112)), we must assume that π^0 in Kichean is inserted into the derivation bearing an *uninterpretable* [participant] feature. Upon entering into an agreement relation with a 1st/2nd-person argument, this uninterpretable [participant] feature is either deleted, or rendered *interpretable*. Thus, the reason the non-agreeing variants of (111–112) are ungrammatical is because no agreement relation has been established, and so nothing has altered the *uninterpretable* state of the [participant] feature on π^0; and since uninterpretable features that have not been tended to give rise to ill-formedness, ungrammaticality arises.

As noted above, I argued in §2.4 that overt agreement with 1st/2nd-person arguments in the Agent-Focus construction (as well as agreement with regular absolutive arguments) in Kichean is actually not the spellout of π^0 itself, but rather clitic-doubling of the 1st/2nd-person argument that is triggered when the argument is probed by π^0. This does not, however, affect the logic of feature-checking, agreement, and grammaticality: just like the clitic-doubling observed in Basque, this clitic-doubling is neither *optional*, nor is it dependent on the particular semantic properties of the doubled noun-phrase, such as animacy or specificity (see §2.4 for discussion). Indeed, if there were any possibility of suppressing or opting out of this clitic-doubling, the non-agreeing variants of examples like (111–112) would be grammatical. Instead, clitic-doubling is inescapably triggered when the relevant argument is probed by π^0, meaning the presence of agreement morphology is a reliable indicator of π^0 finding an appropriate agreement target. In other words, the clitic-doubling account does not alter the way an *uninterpretable features* account (or any account based on derivational time-bombs) would apply to these data.

If the ungrammaticality of the non-agreeing variants of (111–112) is the result of the uninterpretable feature(s) on π^0 going unchecked, we are left to wonder regarding the fate of the same feature(s) in examples where both arguments are 3rd-person:[1]

(113) ja   ri   tz'i' x-Ø-etzela-n   ri   sian
       FOC the dog   PRFV-**3sg.ABS**-hate-AF the cat
       'It was the dog that hated the cat.' *[=(19)]*

(114) ja   ri   xoq   x-Ø-tz'et-ö   ri   achin
       FOC the woman PRFV-**3sg.ABS**-see-AF the man
       'It was the woman who saw the man.' *[=(20)]*

I set aside the possibility that π^0 in (113–114) is generated without the relevant uninterpretable feature(s); as will be shown in §3.3, there is no generally tenable approach of this sort to φ-agreement in Kichean.

Crucially, this possibility aside, examples like (113–114) should be ungrammatical unless some node or other has checked the relevant feature(s) on π^0. There are no 1st/2nd-person agreement targets in (113–114) (nor does any 1st/2nd-person agreement morphology show up in these examples), therefore the putative checker of the uninterpretable feature(s) on π^0 must be some 3rd-person node; but π^0 was shown in §2.2 to systematically skip 3rd-person targets. We are therefore left with the conclusion that *nothing* could have checked the uninterpretable feature(s) on the probe, falsely predicting that (113–114) should be ungrammatical.

It is important to note that this is not an artifact of the particular technical implementation chosen in chapter 2, where the φ-probe in Kichean is relativized to a particular node in the φ-feature geometry (namely, [participant]). Any approach to agreement in Kichean Agent-Focus that is based on *uninterpretable features* (and in fact, any approach based on probing, in general) would have to include some provision whereby 3rd-person targets are ignored by the relevant φ-probe. The reason is as follows: the *uninterpretable features* approach is meant to enforce the obligatory nature of probing by inflectional nodes, and consequently, the obligatoriness of φ-agreement in language (§1.2.2). If 3rd-person subjects could check the uninterpretable feature(s) on the φ-probe, then they could—by hypothesis—cause the probe to stop searching for a target. The *omnivorous person* effects that were the subject of §2.2 would then never arise (or at least, they would be optional). We would predict that the subject could control agreement in examples like (111b, 112b), since it is unambiguously closer to the φ-probe than the object; but this is not the case, as the agreement morphology in (111b, 112b) demonstrates.[2]

---

[1]Note that these combinations do not run afoul of the *Agent-Focus person restriction*, given in (25) (§2.2.1) and repeated here:

(i) *AGENT-FOCUS PERSON RESTRICTION*
     In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person.
     [Davies and Sam-Colop 1990, Dayley 1978, Norman and Campbell 1978, Smith-Stark 1978, Stiebels 2006]

The restriction in (i) has nothing to say about Agent-Focus clauses where both the subject and the object are 3rd-person—and such examples are, in fact, felicitous.

[2]If one opts for an analysis in the spirit of Béjar and Rezac's (2009) *Cyclic Agree* proposal—where the φ-probe is situated in between the subject and object, and the object is the one probed first—then the same

Finally, any account of these omnivorous person effects which assumes that 3rd-person subjects can check the uninterpretable feature(s) on the probe, but the probe then continues searching for a 1st/2nd-person object, is also untenable. First, note that such an account would require a separate mechanism to force the probe to continue searching after the closer subject has checked its uninterpretable feature(s) (otherwise we would falsely predict that the omnivorous person effects would be optional)—in which case, this separate mechanism can be used throughout to enforce φ-agreement, rendering the *uninterpretable features* mechanism redundant. More importantly, such an account would fall under the purview of *Multiple Agree*; and as shown in §2.2, accounts based on *Multiple Agree* fail to capture the *Agent-Focus person restriction*, whereby only one of the two core arguments in the Agent-Focus construction can be non-3rd-person (see §2.2.3 for a detailed discussion).

To conclude, there is **no viable account of agreement in the Kichean Agent-Focus construction where the φ-probe responsible for person agreement enters into an agreement relation with any 3rd-person arguments whatsoever**.

Thus, any probing-based account of agreement in Kichean Agent-Focus must result in the φ-probe *skipping* 3rd-person targets. In §2.2.2, I compared this to the behavior of interrogative C^0 in skipping non-*wh* phrases (§2.2.2.1), and the behavior of more familiar instances of $Infl^0$ in skipping categories other than DP (§2.2.2.2); and I used the term <u>relativized probing</u> to describe this generalized property of syntactic probes.

For the current purposes, however, it means that none of the 3rd-person arguments in examples like (113–114) could have checked the uninterpretable φ-feature(s) on the probe. Moreover, it means that **no 3rd-person target whatsoever could have checked the feature(s) on the probe**. This also rules out, for example, agreement with a covert expletive, or agreement with some clausal/predicational projection containing both the subject and object, as a way to salvage the *uninterpretable features* account: since no 1st/2nd-person agreement morphology is found on the verb in (113–114), the covert expletive or clausal/predicational projection would have to count as 3rd-person, for agreement purposes; but the idea that a 3rd-person node would be targeted for agreement in the Kichean Agent-Focus construction runs into the same set of problems discussed above.

In summary, there is simply no syntactic node that could have checked the uninterpretable φ-feature(s) on π^0 in (113–114), which means that these examples should be ungrammatical— contra to fact.

It is possible, of course, that there exists some repair mechanism capable of eliminating unchecked uninterpretable features from the representation before they have a chance to cause ungrammaticality (e.g. Béjar's 2003 *Default Valuation* operation); but such a mechanism must be a *last resort*, otherwise agreement is predicted to always be optional.

In other words, we need to distinguish cases where agreement has scanned the structure and failed to find a suitable target (as in (113–114)), from cases that we might descriptively characterize as "gratuitous non-agreement"—where there is an available accessible agreement target, but agreement is not instantiated. Examples of "gratuitous non-agreement" would be

---

conclusion follows, only the relevant examples are (111a, 112a), rather than (111b, 112b). See the discussion of the *Cyclic Agree* variant in §2.2.2.3.

the non-agreeing variants of (111–112), above—as well as an example like (115b), repeated from chapter 1:

(115) a. ha-necig-im   dibr-u   (Hebrew, *[=(2)]*)
        the-representative-PL spoke-3pl
        'The representatives spoke.'

    b. * ha-necig-im   diber
         the-representative-PL spoke(3sg.M)

To make sure that this repair mechanism is only allowed as a *last resort* (and in particular, to prevent it from applying to cases of "gratuitous non-agreement"), the system must keep track of whether agreement has been *attempted*, independently of whether it has culminated successfully (which is what is tracked by the uninterpretable/interpretable or unchecked/checked distinctions). In other words, there must be a separate mechanism that enforces that φ-agreement be attempted, independently of its successful culmination; but this renders the uninterpretable/interpretable status of φ-features entirely redundant, for the purposes of enforcing the obligatoriness of agreement.[3]

The conclusion is therefore that *uninterpretable features* cannot be what is responsible for the obligatory nature of person agreement in examples like (111–112).

3.2. Failed number agreement in Kichean Agent-Focus

Number agreement in Kichean Agent-Focus furnishes a very similar argument against *uninterpretable features* as the one furnished by person agreement (§3.1). Concentrating on Agent-Focus clauses where both the subject and object are 3rd-person, we observed *omnivorous agreement* effects with respect to the feature [plural] (examples repeated from §2.3.1):

(116) Ja   rje'   x-**e/*Ø**-tz'et-ö   rja'
    FOC them PRFV-**3pl/*3sg.ABS**-see-AF him
    'It was them who saw him.' *[=(58)]*

(117) Ja   rja'   x-**e/*Ø**-tz'et-ö   rje'
    FOC him PRFV-**3pl/*3sg.ABS**-see-AF them
    'It was him who saw them.' *[=(59)]*

As in the examples of person agreement in §3.1, number agreement in (116–117) is obligatory (at least with animate arguments; see fn. 22 in §2.4.3).

As before, if the ungrammaticality of the non-agreeing variants of (116–117) is the result of the uninterpretable feature(s) on the φ-probe going unchecked, we are left to wonder regarding the fate of the same feature(s) in examples like (113–114), repeated here:

(113) ja   ri   tz'i' x-**Ø**-etzela-n   ri   sian
    FOC the dog PRFV-**3sg.ABS**-hate-AF the cat
    'It was the dog that hated the cat.' *[=(19)]*

---

[3]In fact, this separate principle will likely take the form of a rule or constraint—the two models given in chapter 1 as alternatives to the derivational time-bombs model (to which the *uninterpretable features* approach belongs), and which form the basis of the alternatives that are proposed in §3.4.

(114) ja   ri   xoq   x-**Ø**-tz'et-ö   ri   achin
      FOC the woman PRFV-**3sg.ABS**-see-AF the man
      'It was the woman who saw the man.' *[=(20)]*

Again, I set aside the possibility that the φ-probe in (113–114) is generated without the relevant uninterpretable feature(s); as will be shown in §3.3, this is not a tenable approach to examples of this sort.

This leads to what should be, by now, a familiar impasse: examples like (113–114) should be ungrammatical unless some syntactic node or other has checked the relevant feature(s) on the φ-probe; however, given that plural agreement morphology ("*-e-*") does not appear in examples like (113–114)—and there is no 1st/2nd-person clitic there to compete with number morphology over the single agreement slot—this putative checker of the uninterpretable feature(s) could not have been plural. Therefore, to salvage an approach based on *uninterpretable features*, one must assume that some projection that is formally singular has checked the relevant features on the φ-probe; but if formally singular projections could check the uninterpretable feature(s) in this construction, we would falsely predict that the probe would agree with the singular subject in an examples like (117), thereby eliminating the need for the probe to search any further (if the checking of uninterpretable features were the mechanism responsible for enforcing the obligatoriness of agreement, in the first place).

Finally, any account where a singular subject can check the uninterpretable feature(s) on the probe, but the probe will keep searching for a plural object, will raise a familiar set of problems. First, it would require a separate mechanism to force the probe to continue searching after the subject has already checked the uninterpretable feature(s), a mechanism which could then be used more generally to enforce the obligatoriness of φ-agreement, rendering the *uninterpretable features* mechanism redundant. Second, an account of this sort is a sub-case of *Multiple Agree*, which as mentioned in §3.1, was shown to be an inadequate account of φ-agreement in Kichean Agent-Focus (see §2.2.3).[4]

We are therefore left to conclude that singular targets cannot check the uninterpretable feature(s) on the probe, leading to the false expectation that examples like (113–114) would be ungrammatical.

---

[4]As noted in the text, the argument against *Multiple Agree* in Kichean Agent-Focus in §2.2 was based on the *Agent-Focus person restriction*, given in (25) and repeated here:

(i) *AGENT-FOCUS PERSON RESTRICTION*
     In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person.
     [Davies and Sam-Colop 1990, Dayley 1978, Norman and Campbell 1978, Smith-Stark 1978, Stiebels 2006]

In other words, the argument against *Multiple Agree* was based on the behavior of person agreement, rather than number agreement. It is therefore theoretically possible that while person agreement in Kichean Agent-Focus adheres to a *Single Agree* logic, number agreement still involves *Multiple Agree*. This would be entirely ad-hoc, however, and amount to little more than a restatement of the fact that person features are involved in licensing relations, while number features are not (a point discussed in greater detail in §2.4.3). Moreover, it would not affect the more general point made here and in §3.1, regarding the *Multiple Agree* approach: if a 3rd-person agreement target can defuse the derivational time-bomb(s) on the φ-probe (or check the *uninterpretable feature(s)* on the φ-probe), there must be a separate mechanism that forces the probe to continue searching for the object when the subject is 3rd-person—but this mechanism could then be used to drive φ-agreement in general, rendering derivational time-bomb(s) (or *uninterpretable features*) redundant.

This impasse obtains regardless of whether the syntactic node hypothesized to check the uninterpretable φ-feature(s) in (113–114) is the subject, the object, or some other formally singular target (such as a covert expletive, or a clausal/predicational projection).

As before, it is possible to amend this with a last-resort mechanism that tends to unchecked uninterpretable features; but to ensure that this mechanism only applies as a last-resort, there would need to be a device other than the *uninterpretable features* themselves that ensures that agreement be attempted—rendering the uninterpretable status of these features redundant for the purposes of driving φ-agreement, in the first place. See §3.1 for a more detailed discussion.

3.3. Against selectively-present inducers of agreement

The discussion in §3.1–§3.2 tacitly assumed that if *uninterpretable features* are what enforces the obligatory nature of agreement, then they must be present in *every* derivation (at least in finite clauses; see Aissen 1992, as well as Coon, Mateo Pedro, and Preminger in prep., regarding agreement in non-finite clauses in Mayan).

One might explore the possibility of relaxing this assumption, as a way of salvaging an approach based on *uninterpretable features*. Suppose that the probe carries uninterpretable φ-features exactly in those derivations where it is able to find an appropriate agreement target.[5] Thus, in a derivation in which agreement is possible, the probe would carry the relevant uninterpretable feature(s), rendering φ-agreement obligatory; but in a derivation where φ-agreement is not possible (e.g. due to the absence of an appropriate agreement target, as is the case in examples like (113–114)), the corresponding head would be merged without those features—or alternatively, not be merged at all—and therefore no "crash" would arise.

It is interesting to note that this logic mirrors almost exactly the logic routinely employed in minimalist treatments of long-distance *wh*-movement, as proposed for example by Chomsky (2000, 2001) and McCloskey (2002) (see also Bošković 2007 and Frampton and Gutmann 2002, and references therein, for discussion of the issues raised by such treatments). Under the assumption that *wh*-movement is feature-driven and successive-cyclic—and that syntactic structure is built incrementally from the bottom up—the embedded declarative C^0 in an example like (118) must carry a *<wh>* feature, to attract the *wh*-element to the periphery of the embedded declarative:

(118) What did Mary say [t_{what} [$_{C^0}$ that]$_{<+wh>}$ John wanted t_{what}]?

This movement to the periphery of the embedded clause in (118) cannot be the result of the featural specification on the matrix C^0, since the matrix C^0 has yet to be merged at the relevant point in the derivation.

However, if the obligatoriness of *wh*-movement out of the embedded declarative in (118) is derived by means of *<wh>* being a <u>derivational time-bomb</u> (e.g. by being *uninterpretable*), then the same C^0 should cause ungrammaticality in an example like (119), in which there is no *wh*-element to be found—contra to fact:

(119) Mary said [[$_{C^0}$ that] John wanted an armadillo].

---

[5]This analytical possibility was independently suggested to me by David Pesetsky and by Heidi Harley.

The solution proposed by Chomsky and McCloskey is to assume that there are two variants of declarative C^0, one of which is equipped with a *<wh>* feature, and one of which is not; and to posit that the *<wh>*-bearing variant is merged in exactly those derivations where there is a *wh*-element to be found—thereby avoiding a "crash" in those declaratives that do not contain a *wh*-element:[6]

(120) Mary said [[$_{C^0}$ that]$_{<\emptyset>}$ John wanted an armadillo].

I believe the similarity between these two empirical domains (the obligatory-when-possible nature of φ-agreement, and the obligatory-when-possible nature of *wh*-extraction) is not accidental—a point to which I return in chapter 7 (see, in particular, §7.2.3).

For this approach to work, we need a principle that tells us under which circumstances each variant of the probe can and cannot be merged. If the feature-free version of the probe could be merged in every derivation, we would predict that agreement, as well as *wh*-movement, would never be obligatory. In the domain of *wh*-extraction, the proposals cited above provide an explanation for how the choice of the correct variant of C^0 is enforced:

(121) * Mary said [[$_{C^0}$ that]$_{<+wh>}$ John wanted an armadillo].

(122) * [$C^0_{<+wh>}$ Mary say [[$_{C^0}$ that]$_{<\emptyset>}$ John wanted what]]

In (121), a *<wh>*-bearing C^0 was chosen in an embedded clause with no *wh*-element to be found; this results in ungrammaticality, then, because of an unchecked uninterpretable feature on this embedded C^0. In (122), an embedded C^0 without a *<wh>* was chosen; this results in no *wh*-element being displaced to the periphery of the embedded clause. This is fine insofar as the derivation of the embedded clause is concerned, but once we reach the periphery of the matrix clause (which is interrogative in (122), and therefore bears its own *<wh>* feature, just as in (118), above), there is no accessible *wh*-element that could check the uninterpretable *<wh>* feature on the matrix C^0, and this unchecked uninterpretable feature gives rise to ungrammaticality.

A system of this sort might raise problems of computational lookahead, depending on ones view of Chomsky's (2000, 2001) overgeneration-followed-by-filtration approach (see Frampton and Gutmann 2002 for discussion), but I leave these issues aside for now.

Returning to the agreement facts at hand, we must now ask what it is that prevents the feature-free version of the φ-probe—or no φ-probe at all—from being merged when agreement is possible (recall that if nothing prevented this, we would falsely predict that agreement would never be obligatory). In the domain of person agreement, it seems we have already encountered a viable candidate for enforcing the merger of the feature-bearing version of the φ-probe. Recall Béjar and Rezac's (2003) *Person Licensing Condition* (PLC):

(123) *PERSON LICENSING CONDITION (PLC)*   [=(44)]
       Interpretable 1st/2nd-person features must be licensed by entering into an *Agree*
       relation with an appropriate functional category.   [*Béjar and Rezac 2003*]

If the PLC constitutes a necessary condition on the merger of 1st/2nd-person arguments, then merging the feature-free variant of the φ-probe (or no φ-probe at all) when a 1st/2nd-person

---

[6]See §7.2.3, on the question of whether the morphology of the Irish complementizer system constitutes evidence in favor of this particular implementation (McCloskey 2002).

agreement target is available would result in ungrammaticality due to a failure to license the
argument in question:

(124) *UNGRAMMATICALITY DUE TO UNLICENSED [+PARTICIPANT] ARGUMENTS*

    a. * $\left[\pi^0{}_{<\varnothing>}\ \boxed{[\textbf{you}]_{<+\textit{prtc.}>}}\ V^0\ [\text{the man}]\right]$ (cf. (111a))

    b. * $\left[\pi^0{}_{<\varnothing>}\ [\text{the man}]\ V^0\ \boxed{[\textbf{you}]_{<+\textit{prtc.}>}}\right]$ (cf. (111b))

The same logic cannot be employed, however, when it comes to number agreement. The
reason is an asymmetry between person features and number features in Kichean Agent-
Focus that has already been highlighted in §2.4.3: while Agent-Focus allows at most one
[participant]-bearing argument (the *Agent-Focus person restriction*, (25) in §2.2.1), it allows
both arguments to bear [plural]. If the ungrammaticality of the non-agreeing version of an
example like (125), below, is the result of a failure to license a [plural]-bearing argument, then
at least one of the [plural]-bearing arguments in (126) should be unlicensed as well, regardless
of the form of the verb; but crucially, (126) is grammatical (on the inadequacy of a *Multiple
Agree* approach, where the φ-probe is able to enter into an agreement relation with both core
arguments, see §3.1–§3.2, as well as fn. 4).

(125) Ja   rja'   x-**e/*Ø**-tz'et-ö   **rje'**
       FOC him PRFV-**3pl/*3sg.ABS**-see-AF **them**
       'It was him who saw them.' *[=(59)]*

(126) Ja   rje'   x-**oj**-tz'et-ö   röj
       FOC them PRFV-**1pl.ABS**-see-AF us
       'It was them who saw us.' *[=(95)]*

Note that the same considerations rule out a related but distinct account for the obligatory
nature of φ-agreement—one that is based on the noun-phrases themselves, rather than the
φ-probes, carrying underlined derivational time-bombs. If the obligatoriness of agreement with a plural
argument, as exemplified by (125), were the result of a underlined derivational time-bomb borne by the
plural noun-phrase itself, we would again predict that examples like (126) (where at most, one
of the two plural arguments has been agreed with) would be ungrammatical, contra to fact.

    In other words, once we allow the finite verb in Kichean to occur *without* uninterpretable
number features, there seems to be no way of enforcing agreement in an example like (125)
that does not falsely predict ungrammaticality for (126).

    I therefore conclude that selectively-present inducers of agreement, while they may
occur in other empirical domains, are not a viable way of salvaging the *uninterpretable
features* approach to agreement in the Kichean Agent-Focus construction—and therefore, the
arguments provided against this approach in §3.1–§3.2 stand.

3.4. Taking stock: Obligatory operations and violable constraints

We have seen that the particular patterns of φ-agreement observed in the Agent-Focus
construction in Kichean rule out an account of the obligatoriness of φ-agreement in terms
of the kind of representational device I have termed underlined derivational time-bombs, including the

uninterpretable features proposal of Chomsky (2000, 2001) (another case-study that supports the same conclusion, involving failed agreement in Basque, will be presented in chapter 6).

This result actually extends to any approach where φ-agreement and grammaticality are bi-conditionally related to one another, since what we have uncovered is the existence of grammatical utterances in which the agreement host (the finite verb) has demonstrably failed to find a suitable target with which to agree (as was shown to be the case in Agent-Focus clauses where both arguments are 3rd-person and/or singular; see, for example, (113–114) above).

It is also worth pointing out that this result means that φ-agreement—and by extension, any notion of *case* where the assignment of case is parasitic on φ-agreement—cannot have anything to do with the licensing of arguments or noun-phrases in Kichean. This is already suggested by the existence of two non-oblique noun-phrases in the Agent-Focus construction, with only one agreement slot on the verb (in contrast with regular transitives in Kichean, which have separate agreement markers for the subject and the object; see §2.3.1). It is even more striking, though, now that we have shown that there are Agent-Focus clauses where no successful agreement has taken place at all. Note also that the arguments in the relevant examples (e.g. in (114), "*ri xoq*" 'the woman' and "*ri achin*" 'the man') are both full DPs, rather than bare nominals. This might raise the question of why it seemed that φ-agreement had anything to do with DP-licensing, in the first place (outside of the licensing of 1st/2nd-person arguments, as discussed above); I will offer a possible answer to this question in §5.3.1.

We are now in need of an account that enforces the obligatoriness of φ-agreement, but is also compatible with the grammaticality of utterances in which φ-agreement has demonstrably failed. Of the three models presented in chapter 1, this leaves the obligatory operations and violable constraints models.

If we opt for the obligatory operations approach (§1.2.1), we could posit an operation whose effects are—as in Chomsky's (2000, 2001) *Agree*—the valuation of φ-features on the agreement host (the "probe") using the feature-values on the agreement target (or their feature-geometric equivalents; see below). Crucially, however, this would differ from *Agree* in two important respects: first, its invocation would be obligatory (recall that in Chomsky's model, the obligatoriness of *Agree* is derivative, a side-effect of the crash-inducing nature of *uninterpretable features*; see §1.2.2); and second, it would be allowed to fail, with no adverse effects on the derivation. This operation is formalized in (127), below:[7]

(127) FIND(f): given an unvalued feature f on a head H^0, find an XP bearing a valued
               instance of f, and assign that value to H^0

As in §2.2.2, the terms "unvalued feature f" and "XP bearing a valued instance of f" in (127) are to be taken as shorthand for the corresponding feature-geometric notions (namely, a placeholder for a piece of feature-geometry rooted in f, and an XP that is specified for the privative node f in the feature-geometry, respectively; see §2.2.2.2 for a more detailed discussion).

Now recall that π^0 and $\#^0$ in Kichean seek [participant] features and [plural] features, respectively (as detailed in §2.4). Thus, when π^0 and $\#^0$ are merged, they trigger obligatory invocation of the operation in (127)—in particular, FIND([participant]) and FIND([plural]),

---

[7]As pointed out to me by David Pesetsky, an important precursor to this line of thinking can be found in the work of López (2007), though the arguments there are of a different nature than the ones presented here.

respectively. Given this model, if nothing in the derivation carries valued [participant] or [plural] features, then FIND([participant]) and FIND([plural]) will simply fail; this is the case when both the subject and object are 3rd-person singular, as in (128–129), for example:
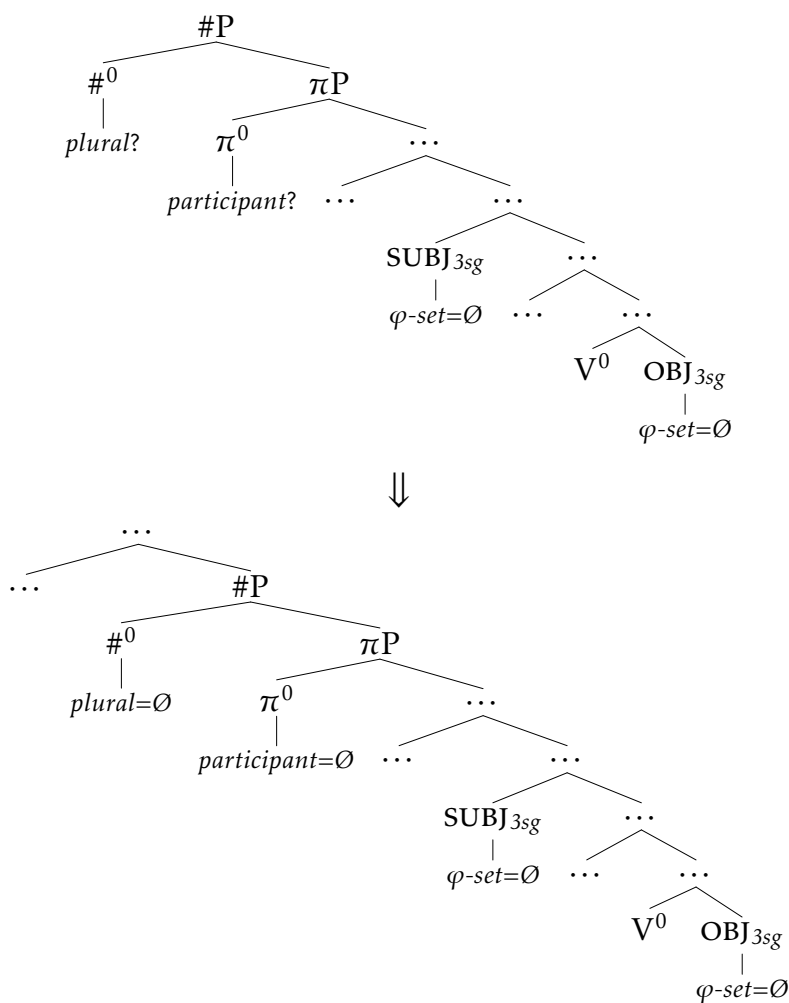
(128) ja   ri   tz'i' x-Ø-etzela-n   ri   sian
      FOC the dog PRFV-**3sg.ABS**-hate-AF the cat
      'It was the dog that hated the cat.' *[=(19)]*

(129) ja   ri   xoq   x-Ø-tz'et-ö   ri   achin
      FOC the woman PRFV-**3sg.ABS**-see-AF the man
      'It was the woman who saw the man.' *[=(20)]*

In this case, failure of (127) simply means that no [participant] and [plural] values will be assigned to π^0 and $\#^0$, respectively. This lack of valuation does not give rise to ill-formedness, nor does it afford any special status to π^0 and $\#^0$, or assign any "ungrammaticality diacritic" to them; the derivation simply continues unhindered:

(130) *FAILURE OF FIND([participant]) AND FIND([plural]) DUE TO LACK OF*
       SUITABLE TARGETS[8]   [$\equiv$(128–129)]

$$
\begin{array}{c}
\text{\#P} \\
\diagup \quad \diagdown \\
\text{\#}^0 \qquad \pi\text{P} \\
| \\
\textit{plural?} \quad \pi^0 \qquad \cdots \\
| \\
\textit{participant?} \quad \cdots \qquad \cdots \\
\text{SUBJ}_{3sg} \quad \cdots \\
| \\
\varphi\text{-set}=\varnothing \quad \cdots \qquad \cdots \\
\text{V}^0 \quad \text{OBJ}_{3sg} \\
| \\
\varphi\text{-set}=\varnothing
\end{array}
$$

$$\Downarrow$$

$$
\begin{array}{c}
\cdots \\
\diagup \quad \diagdown \\
\cdots \qquad \text{\#P} \\
\diagup \quad \diagdown \\
\text{\#}^0 \qquad \pi\text{P} \\
| \\
\textit{plural}=\varnothing \quad \pi^0 \qquad \cdots \\
| \\
\textit{participant}=\varnothing \quad \cdots \qquad \cdots \\
\text{SUBJ}_{3sg} \quad \cdots \\
| \\
\varphi\text{-set}=\varnothing \quad \cdots \qquad \cdots \\
\text{V}^0 \quad \text{OBJ}_{3sg} \\
| \\
\varphi\text{-set}=\varnothing
\end{array}
$$

The invocation of (127) is syncategorematically triggered by the merger of a lexical item that carries unvalued φ-features, and is therefore obligatory whenever such an item is merged. The obligatoriness of the rule correctly rules out "gratuitous non-agreement", as in the non-agreeing variants of (131–132), for example:
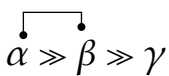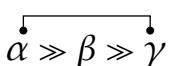
(131) a. ja   rat   x-**at/*Ø**-axa-n   ri   achin
           FOC you(sg.) PRFV-**2sg/*3sg.ABS**-hear-AF the man
           'It was you(sg.) that heard the man.' *[=(21)]*

       b. ja   ri   achin x-**at/*Ø**-axa-n   rat
           FOC the man   PRFV-**2sg/*3sg.ABS**-hear-AF you(sg.)
           'It was the man that heard you(sg.).' *[=(22)]*

---

[8]The derivation schematized in (130) abstracts away from the fact that π^0 and $\#^0$ are merged separately from one another (see §2.4 for a detailed discussion); therefore, FIND([participant]) and FIND([plural]) will each be triggered in separate derivational steps.

(132) a. Ja   rje'   x-**e/*Ø**-tz'et-ö   rja'
           FOC them PRFV-**3pl/*3sg.ABS**-see-AF him
           'It was them who saw him.' *[=(58)]*

       b. Ja   rja'   x-**e/*Ø**-tz'et-ö   rje'
           FOC him PRFV-**3pl/*3sg.ABS**-see-AF them
           'It was him who saw them.' *[=(59)]*

This is an important point: the ungrammatical variants of (131–132), in this approach, are not ruled out due to some offending diacritic or representational property that they carry; they are ruled out because there is simply no derivational sequence allowed by the grammar in which (127) is not invoked—and thus, no derivational sequence in which the available [participant] features in (131) and the available [plural] features in (132) are not copied onto π^0 and $\#^0$, respectively (in the case of π^0, triggering concomitant clitic-doubling; see §2.4).

Note that this idea—that a particular structure would be ruled out not because of any offending element or diacritic, but because there is no well-formed derivation that leads to this structure—is also present in virtually every account involving minimality/*Closest*. In these cases, some node α can in principle establish a relation with either of two possible targets, β and γ; but if β is structurally closer, the representation in which α has established a relation with γ is ruled out:

(133) a. $\alpha \gg \beta \gg \gamma$

       b. * $\alpha \gg \beta \gg \gamma$

Crucially, what rules out a structure like (133b) is not some unchecked feature or other representational diacritic—but rather, the fact that there is no well-formed derivation (in this case, one that obeys minimality/*Closest*) that leads to this structure; see Richards 2001, and references therein, for many examples of this logic at work.

On the current proposal, the ill-formedness of "gratuitous non-agreement" (as in, for example, the non-agreeing variants of (131–132)) is a similar sort of effect: there is simply no well-formed derivation leading to that surface representation (in this case, due to the fact that FIND(f) must be invoked).

The same logic extends to other cases of "gratuitous non-agreement"—as in the Hebrew data repeated here:

(134) a.   ha-necig-im   dibr-u   (Hebrew, *[=(115)]*)
             the-representative-PL spoke-3pl
             'The representatives spoke.'

       b. * ha-necig-im   diber
             the-representative-PL spoke(3sg.M)

Assuming that agreement in Hebrew is triggered by unvalued φ-features on the finite verb/Infl^0, the invocation of FIND([φ]) will find valued φ-features on the subject ("*ha-necig-im*" 'the-representative-PL') when it is still within the verb-phrase. Following the definition of

FIND(f) in (127), this will result in valuation of the φ-features on the finite verb/Infl^0, whose overt expression is the agreement marker "-*u*" ('-3pl').

The same logic also rules out instances that can be described as "gratuitous agreement"—namely, plural or 1st/2nd-person agreement morphology in a derivation where no plural or 1st/2nd-person target can be found by FIND(f):

(135) ja   ri   tz'i'   x-**Ø/*at/*e/*ix/...**-etzela-n   ri   sian   (Kaqchikel)
       FOC the dog PRFV-**3sg/*1sg/*3pl/*2pl/...ABS**-hate-AF the cat
       'It was the dog that hated the cat.'

(136) ja   ri   xoq   x-**Ø/*at/*e/*ix/...**-tz'et-ö   ri   achin
       FOC the woman PRFV-**3sg/*1sg/*3pl/*2pl/...ABS**-see-AF the man
       'It was the woman who saw the man.'

(137) ha-nacig   diber/*dibar-ti/*dibr-u/*dibar-tem/...   (Hebrew)
       the-representative spoke(3sg.M)/*spoke-1sg/*spoke-3pl/*spoke-2pl/...
       'The representatives spoke.'

The ungrammatical instances of (135–137) are ruled out because a derivation in which FIND(f) is invoked and finds valued [plural], [participant], or [author] features simply does not exist.

Given that FIND(f) is allowed to terminate without having succeeded (for example, due to the absence of an appropriate target), the absence of a derivation that leads to an observed string—as in the ungrammatical variants of (131–132, 134) and (135–137)—is generally the only way for agreement-related ungrammaticality to arise, on this account. This will prove crucial once the empirical picture is broadened to include instances of *defective intervention*, which are the topic of chapter 4.

As an alternative to FIND(f), one could opt for a solution within the violable constraints model. In §1.2.3, I sketched an account based on a constraint such as HAVEAGR, in (138):

(138) HAVEAGR: Assign one violation mark for every failure to represent the φ-features of
                the designated argument on a finite verb. *[=(5)]*

Instances of "gratuitous non-agreement", on this view, would incur violations of HAVEAGR that do not satisfy any higher ranked constraint. To be predictive, this approach would ultimately require a theory of the set of constraints that could conceivably dominate and interact with HAVEAGR, as well as a theory of GEN (the function that generates the set of competing candidates for a given input).

On the other hand, it is easy to see that a structure like (139)—the representation of an Agent-Focus sentence where both arguments are 3rd-person singular, as in (128–129)—does not incur any violations of HAVEAGR at all: neither the inflectional nodes associated with finiteness (π^0 and #^{0}) nor any of the arguments in (128–129)/(139) bear any φ-feature values, meaning HAVEAGR is vacuously satisfied.

(139)
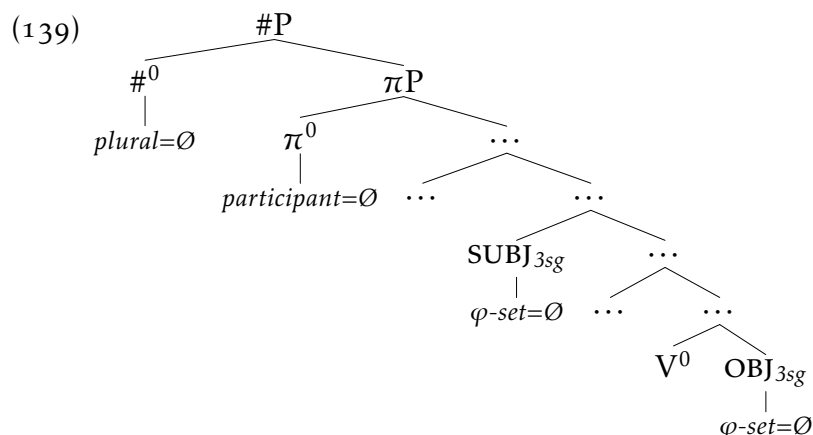
Assuming no violations of other relevant constraints are incurred by a structure like (139), this candidate will harmonically bound its competitors (i.e., outperform them regardless of the constraint ranking), correctly predicting the well-formedness of examples like (128–129).

Before concluding this chapter, I would like to address an apparent similarity between this last constraint-based model, and the idea that agreement in the Agent-Focus is driven by a *scale* or *"salience" hierarchy* (Dayley 1978, Mondloch 1981, Norman and Campbell 1978, Smith-Stark 1978, among others):

(140) *"SALIENCE" HIERARCHY IN KICHEAN AGENT-FOCUS*   *[=(66)]*
      1st/2nd-person ≫ 3rd-plural ≫ 3rd-singular

In chapter 2, I provided empirical arguments against such an approach—most importantly, the morpho-phonological differences between the 1st/2nd-person agreement markers (which resemble the corresponding strong pronouns, and which encode *singular/plural* distinctions suppletively) and the 3rd-person ones (which do not resemble the corresponding pronouns, and which may contain an isolable plural morpheme). These differences between the relevant agreement markers arise within and outside of the Agent-Focus construction, suggesting that they have a source other than (140); but in §2.4, I presented an account of these morpho-phonological differences that also derives the supposed "hierarchy" effects, rendering a formalism like (140) entirely redundant.

With respect to the current discussion, one may notice that a scale like (140) bears at least superficial similarity to a <u>violable constraints</u> model; indeed, one could model the same scale using a series of ranked constraints:

(141) HAVEAGRWITH1/2 ≫ HAVEAGRWITHPL ≫ HAVEAGR
      where –

HAVEAGRWITH1/2:	Assign one violation mark for every failure to represent the φ-features of a 1st/2nd-person argument on the finite verb.
HAVEAGRWITHPL:	Assign one violation mark for every failure to represent the φ-features of a plural argument on the finite verb.
HAVEAGR:	Assign one violation mark for every failure to represent the φ-features of the designated argument on a finite verb. *[=(138)]*

A proposal of this sort is advanced, for example, by Stiebels (2006). As with approaches based directly on *scales* or *"salience" hierarchies*, this approach separates the choice of agreement target from φ-agreement itself—the choice of target is treated as an autonomous component of φ-agreement (in particular, one that is governed by the logic of violable ranked constraints, like the ones in (141)). As discussed in §2.4.5, such an approach cannot account for the fact that the markers that arise when the agreement target is 1st/2nd-person (which resemble the corresponding strong pronouns, and encode number distinctions suppletively) have different morpho-phonological properties than those that arise when the target is 3rd-person (which do not resemble the corresponding pronouns, and may involve an isolable plural morpheme). The account presented in §2.4 derives both these morpho-phonological distinctions, and the hierarchy effects that a system like (141) is meant to account for, in the first place.

Crucially, the same considerations do not extend to a generalized HAVEAGR constraint, which only enforces that φ-agreement occur—since the φ-agreement process itself can still be a non-uniform process, where the choice of agreement target interacts with the nature of the resulting agreement morphology. In particular, it is compatible with 1st/2nd-person agreement markers arising via clitic-doubling, but 3rd-person (plural) ones arising by direct exponence (as proposed in §2.4.3–§2.4.4), and can therefore handle the fact that the former markers resemble the corresponding Kichean pronouns, but the latter markers do not.

It seems then that two models, the obligatory operations model and the violable constraints model, are still in contention. To be able to distinguish between the two, we will have to consider a different sort of failed agreement—namely, *defective intervention*, which is the topic of the next chapter.

3.A. *Appendix*: How did we get here? A historical interlude

In light of the inadequacy—as demonstrated in this chapter—of Chomsky's (2000, 2001) *uninterpretable features* proposal (a sub-case of the more general <u>derivational time-bombs</u> model; §1.2.2) as a means of enforcing the obligatoriness of φ-agreement, we might ask ourselves how it is that this proposal originally came about. This appendix aims to address that question.

Recent work in generative linguistics has seen a shift towards a radically reduced inventory of *operations*—down to perhaps only two: *Agree* and *Merge* (see, for example, Chomsky 2008). As an almost inescapable result, the explanatory burden has shifted onto more and more articulated *representations*.[9] The remaining *operations*, in turn, are seen as neither "obligatory" nor "optional", in any meaningful sense, but rather deployed freely by the computational system in the interest of ultimately creating a well-formed representation.

Thus, while ultimately untenable on empirical grounds (§3.4), the *uninterpretable features* approach took the obligatoriness of φ-agreement to be a property not of the operation that manipulates φ-features (*Agree*; Chomsky 2000, 2001), but of the φ-features themselves.

This representationally-driven approach to syntax was preceded, in the course of the development of syntactic theory, by a transformational approach which shares interesting similarities with the <u>obligatory operations</u> model espoused in §3.4. Thus, *wh*-movement for example was seen as a *transformation* (or by other names, a *rule* or *operation*) labeled "Move *wh*-phrase" (Chomsky 1977:72), whose obligatoriness was a matter of the transformation itself, not a property of *wh*-phrases per se.

Historically, the shift from this transformational approach to the representational approach discussed above coincided with a crucial shift in the perspective on **movement**. The various empirical patterns that fall under the umbrella of *Relativized Minimality* (Rizzi 1990)—for example, superiority effects in multiple-*wh* questions—prompted a shift to viewing movement as a response to the needs of the landing-site, or an "attractor" structurally adjacent to the landing-site (see Frampton 1991). Eventually, this led to the probe-goal model of how pairs of positions come to be related in syntax (Chomsky 2000), a model used throughout this thesis, as well.

An additional observation was then made regarding at least some of these probe-goal relations—in particular, those that are referred to here as φ-agreement (§1.1)—regarding the semantic contributions of the features that enter into these relations. The observation was that features like [plural] or [participant] are meaningful on a noun-phrase, but they are not meaningful on a verb or TAM-marker, even if they are morphologically expressed there (Chomsky 1995b:277–278).[10] In other words, the idea was that φ-features can be *interpreted* on the goal, but not on the probe—hence the terms *interpretable* and *uninterpretable*.

---

[9]A prime example of this shift is the exploded inventory of functional projections known as "cartography", espoused by authors like Rizzi (1997), Belletti (2004), and Cinque (1999) (see also Starke's 2009 "Nanosyntax" program, which represents perhaps the most extreme manifestation of this approach). Authors like Neeleman and van de Koot (2008) and van Craenenbroeck (2006) have shown not only that these exploded functional inventories can be dispensed with, given much more modest expansions to the inventory of operations, but that such alternatives actually provide empirical coverage that is superior to their "cartographic" counterparts.

[10]This distinction might ultimately prove to be too simplistic, once issues such as pluractionality are considered; it is presented here as a matter of historical faithfulness, not as a theoretical commitment.

Given that accounting for the obligatory nature of φ-agreement is a desideratum for any theory (§1.2), Chomsky moved to derive it from this interpretive asymmetry—based on the conjecture that *uninterpretable features* cannot be handled by the semantic interface, and would cause ill-formedness if they were still present at the point of semantic interpretation. Agreement (or *Agree*), on this view, would serve to eliminate these problematic features from the representation, or at least change their *uninterpretable* status (see §1.2.2). In other words, the obligatoriness of φ-agreement had been "tethered" to the *uninterpretability*.

In this discussion, we have touched on two specific changes that have taken place in the theory of syntax: the shift to a probe-goal perspective on syntactic relations, and the tethering of obligatoriness to *uninterpretability*. Crucially, the former is logically independent of the latter; indeed, the FIND(f) proposal advanced in §3.4 is probe-goal based, but eschews *uninterpretable features*—as will the refinement of this proposal that will be pursued in the next chapter. Instead, this proposal implements probe-goal relations as a matter of valuation (see, in particular, §2.2.2.2), but with no special status afforded to as-of-yet-unvalued probes, beyond not having a value (in particular, they are not considered to carry an "ungrammaticality diacritic").

Furthermore, while the arguments for probe-goal were empirical in nature (superiority patterns, etc.), the arguments for tethering obligatoriness to *uninterpretability* were purely conceptual. It was an attempt to explain one observed phenomenon (the obligatoriness of φ-agreement) in terms of another (interpretive differences between φ-features on the probe and φ-features on the goal), and thus a completely reasonable null-hypothesis to pursue; but one that can and should be abandoned in the face of contradictory evidence, which is exactly what we have seen in this chapter.

I remain agnostic as to where the flaw lurks, exactly, in Chomsky's argument. Perhaps φ-features on verbs/TAM-markers are not "uninterpretable" in the first place; or alternatively, perhaps *uninterpretable features* do not cause ill-formedness at the syntax-semantics interface, and instead are simply ignored by the interpretive procedure. I leave these question for future research. What is clear, following the results of §3.4, is that *uninterpretable features*, if such a thing exists, cannot be responsible for the obligatory nature of φ-agreement. See chapter 7—and in particular, §7.3—for further discussion regarding the status of *uninterpretable features* in syntactic theory, in general.

What this shows us is that the extreme shift of the explanatory burden onto representations and away from the derivational engine is ill-conceived, at least in the domain of φ-agreement; and that perhaps, the "representationalist tide" discussed here should be reversed, or at least stemmed.

Chapter 4

Datives, defective intervention, and case-discrimination

In this chapter, we turn to another phenomenon that bears the hallmarks of failed agreement—one that actually features much more prominently in the literature on φ-agreement than patterns of the kind discussed in chapters 2–3 do—namely, *defective intervention*.

Descriptively, this term refers to instances where a particular phrase—in most of the cases discussed, a dative DP/PP—is able to block agreement from targeting a more embedded noun-phrase, but is unable to transfer its own φ-features to the agreement host. Whether examples of this sort constitute a true failure of agreement is a matter of analysis, of course, and that analysis is the topic of this chapter.

I will highlight a particular point of cross-linguistic variation in the behavior of defective intervention—namely, that when movement is involved, defective intervention gives rise to ungrammaticality, whereas when the putative agreement target is in situ, it gives rise to "default" (e.g. 3rd-person singular) agreement. This property, I will argue, is best captured if defective intervention is an instance of *failed agreement* proper: a case where φ-agreement (or the operation responsible for it) is invoked, but fails to culminate successfully—just like the Kichean Agent-Focus cases discussed in chapter 3.

The proposal will revive a common intuition in the analyses of movement and agreement, that movement to canonical subject position is somehow parasitic on φ-agreement (see, for example, Chomsky 1995b); but in the current proposal, this will be parametrized—a property only of non-quirky-subject languages (e.g. French, English), crucially not of quirky-subject languages (e.g. Icelandic). I will show that this independently-observable parameterization correctly predicts the distribution of ungrammaticality versus "default" agreement with respect to defective intervention.

I begin with a discussion of the phenomenon of defective intervention itself (§4.1–§4.2), followed by a survey of different theoretical approaches to this phenomenon (§4.3). In §4.3.3, I highlight recent work by Bobaljik (2008) which shows—independently of defective intervention—that any theory of φ-agreement must allow agreement to be discriminant regarding the case-marking borne by its putative targets, a property I refer to as *case-discrimination*.[1] I show that while the particular extension of *case-discrimination* proposed by

---

[1]While *case-discrimination* requires a theory of case that is independent of φ-agreement, the need for such a theory of case has been demonstrated by Marantz (1991), Zaenen, Maling, and Thráinsson (1985), and others,

Bobaljik to handle defective intervention falls short (§4.3.3.2), the same *case-discrimination* property he argues for—coupled with the results of chapter 3, regarding the existence of tolerated failed agreement in grammatical utterances—furnishes a theory of defective intervention that yields the correct results regarding the distribution of ungrammaticality and "default" agreement. In §4.4, I detail how this would work based on the obligatory operations model outlined in chapter 1, and in particular, the operation FIND(f), proposed in chapter 3.

Finally, in §4.5, I argue that this behavior of defective intervention can distinguish between this model and the violable constraints model (recall the conclusion of chapter 3, showing that obligatory operations and violable constraints were the models capable of handing the empirical patterns of failed agreement discussed there; see §3.4). I show that the behavior of defective intervention, in particular in those instances where it gives rise to ungrammaticality, favors an account in terms of obligatory operations over one based on violable constraints.

Section §4.6 provides a summary.

4.1. The inability of datives to value features on a φ-probe

Icelandic provides a clear case where dative noun-phrases are unable to transfer their own φ-features to the finite verb (Bobaljik 2008, Holmberg and Hróarsdóttir 2003, Sigurðsson 1993, 1996, among others).[2] To see this, consider first the following example:

(142) Morgum studentum   liki/*lika   verkið   (Icelandic)
       many   students.PL.DAT like.3sg/*3pl the.job.NOM
       'Many students like the job.'   [*Harley 1995*]

We can convince ourselves that examples like (142) are not a matter of some "preference" to agree with a nominative, when possible; the same effect arises in the absence of a nominative noun-phrase altogether:

(143) Strákunum   leiddist/*leiddust
       the.boys.PL.DAT bored.3sg/*3pl
       'The boys were bored.'   [*Sigurðsson 1996*]

The choice of the verb "*leiddist*" ('be.bored') in (143) (a choice due to Sigurðsson, *op. cit.*) is particularly instructive, since the same stem has a second use in which it takes a nominative argument, and means 'walk hand in hand'; and in this second use, the verb obligatorily agrees with its single nominative argument:

(144) Strákarnir   leiddust/*leiddist
       the.boys.PL.NOM walked.hand.in.hand.3pl/*3sg
       'The boys walked hand in hand.'   [*Sigurðsson 1996*]

This pattern has received various treatments in the literature. For some, it is taken to be the result of the *Activity Condition* (Chomsky 2001): the φ-features on the dative nominal

---

who show that nominative case in a language like Icelandic can arise on noun-phrases that φ-agreement has demonstrably failed to reach (see also §3.4, where a similar finding is demonstrated independently of defective intervention).

[2]The inability of dative noun-phrases to transfer their own φ-features to the finite verb is not cross-linguistically invariant; see Rezac 2008a, as well as §4.3.2, for further discussion.

enter into a checking relation with a silent preposition (McGinnis 1998), or with the K^0 head of a dative Kase Phrase (Bayer, Bader, and Meng 2001, Bittner and Hale 1996), rendering them *inactive* and unable to enter a φ-agreement relation with the finite verb; this approach is discussed further in §4.3.1. For others, it is a matter of locality: datives are PPs, and PPs are locality domains (Baltin 1978, van Riemsdijk 1978, Abels 2003, among others), preventing the features of the enclosed nominals from being accessed from outside the PP (see, for example, Rezac 2008a); this approach is discussed further in §4.3.2. For others yet, it has been taken as evidence that φ-agreement discriminates among its potential targets based on their (morphological) case-marking (Bobaljik 2008, revising and extending the cross-linguistic typology of agreement targets originally observed by Moravcsik 1974, 1978); this approach is discussed further in §4.3.3.

Interestingly, while these approaches each offer explanations for why the features of the (enclosed) dative nominal cannot be accessed from the outside, they underdetermine what will happen instead. Attempts to establish agreement with a dative target could conceivably result in **(i)** ungrammaticality; **(ii)** default (e.g. 3rd-person singular) features on the agreement host; or **(iii)** agreement with the next-closest potential agreement target in lieu of the dative (e.g. a nominative noun-phrase that is the structurally closest target other than the dative). Teasing apart these different possibilities is the topic of the next section.

4.2. The Dative Paradox: Datives as defective interveners

While datives cannot transfer their own φ-feature values to the probe (§4.1), they do count as potential targets for the calculus of *Relativized Minimality* (Frampton 1991, Rizzi 1990) and its contemporary counterparts (e.g. Chomsky's 1995b *Minimal Link Condition*, referred to here as *Closest*). In other words, the same datives that appear inert for the purposes of φ-feature valuation, are simultaneously able to prevent the probe from searching further for a non-inert target with which to agree.

Consider the Icelandic *transitive-expletive* construction, a construction in which the subject position of the finite clause is occupied by the expletive "það". In this construction, just as in (142–144), the dative cannot value the φ-features on the finite verb:[3]

(145) það finnst(/*finnast) [mörgum stúdentum]$_{DAT}$ [$_{SC}$ tölvan   ljótar].
       EXPL find.SG/*find.PL many   students.PL.DAT   the.computer.SG.NOM ugly
       'Many students find the computer ugly.'   [*Holmberg and Hróarsdóttir 2003:1000*]

However, the dative experiencer in this construction precludes the φ-probe from searching any further, and valuing its φ-features using the feature values found on the low nominative:

---

[3]There is one possible exception to this generalization, involving "dative harmony": plural agreement on the finite verb is judged as marginally acceptable by some speakers, provided that both the dative intervener and the putative nominative target are plural (Holmberg and Hróarsdóttir 2003:fn. 6). A very similar effect is attested in Basque (see Etxepare 2006, which is also where the term "case harmony" is coined). The fact that this is the only part of the grammar where plural agreement on the finite verb depends on the plurality of two arguments simultaneously, suggests that "dative harmony" might be more of a production/processing effect.

(146) það finnst(/*finnast) [einhverjum stúdent]$_{\text{DAT}}$ [$_{\text{SC}}$ tölvurnar   ljótar].
      EXPL find.SG/*find.PL some   student.SG.DAT   the.computers.PL.NOM ugly
      'Some student finds the computers ugly.'   [*Holmberg and Hróarsdóttir 2003:1000*]

Compare the state of affairs in (146) with (147), where the dative has been moved out of its intervening position, and agreement with the low nominative goes through:

(147) [Einhverjum stúdent]$_1$ finnast t$_1$ [$_{\text{SC}}$ tölvurnar   ljótar].
      some   student.SG.DAT find.PL   the.computers.PL.NOM ugly
      'Some student finds the computers ugly.'   [*Holmberg and Hróarsdóttir 2003:1000*]

This state of affairs differs crucially from the patterns discussed in chapter 2. Setting aside φ-agreement for a moment, recall the behavior of *wh*-probing, as outlined in §2.2.2:

(148) a. $\left[\text{C}^0 \text{ [who]}_{<+wh>} \text{ gave [this dish] to [Bob]} \right]$ [=(30)]
         $\longrightarrow$ $\left[\text{C}^0 \text{ [who]}_{<+wh>} \text{ gave [this dish] to [Bob]} \right]$

              $\longrightarrow$ Who gave this dish to Bob?
      b. $\left[\text{C}^0 \text{ [John] gave [what]}_{<+wh>} \text{ to [Bob]} \right]$
         $\longrightarrow$ $\left[\text{C}^0 \text{ [John] gave [what]}_{<+wh>} \text{ to [Bob]} \right]$

              $\longrightarrow$ What did John give to Bob?
      c. $\left[\text{C}^0 \text{ [John] gave [this dish] to [who]}_{<+wh>} \right]$
         $\longrightarrow$ $\left[\text{C}^0 \text{ [John] gave [this dish] to [who]}_{<+wh>} \right]$

              $\longrightarrow$ Who did John give this dish to?

In (148a–c), we see that phrases that lack the feature that the *wh*-probe is searching for do not preclude the probe from searching further, a property I have labeled <u>relativized probing</u>; the same was observed in chapter 2 for [participant]-probes and [plural]-probes.

   With respect to the behavior of datives under φ-agreement, this means that it cannot be the case that datives are truly bereft of the features that the φ-probe is searching for. This might seem trivially true in the sense that dative noun-phrases can be singular or plural, 1st/2nd/3rd-person, etc.; but that is not the sense that is relevant here: the question here is whether datives, when viewed "from the outside" by a probe searching for an agreement target, behave like a node that carries φ-features or not.

   The results surveyed in §4.1 might suggest that whatever φ-features are contained within a dative noun-phrase, they are not visible to outside probes—since, after all, they cannot be transfered to an agreement host; but the difference between (145–147) and patterns like (148a–c) suggests otherwise. If datives behaved as nodes with no φ-features at all (for the purposes of agreement "from the outside"), they would be skipped by φ-probes entirely, much like the non-*wh* phrases in (148a–c). Recall from the discussion in §2.2.2 that if projections that completely lacked φ-features were relevant for φ-probing, then the φ-probe would not even be able to look past nodes like VP, intransitive vP, etc., along the clausal spine; we must therefore

conclude that projections that lack φ-features entirely do not interact with φ-probing, and concomitantly, that this cannot be the status of the outermost projection of a dative argument.

This is, in essence, the reason for the term *defective* in "defective intervention": datives cannot be thought of as non-bearers of φ-features, because they interact with φ-probing; but they cannot be thought of as full-fledged bearers of φ-features, since they quite plainly do not behave as such, as detailed in §4.1 (see also Preminger 2009, for evidence from Basque that defective intervention by datives is indeed sensitive to structural prominence, rather than to the linear sequence of elements, just like relativized probing). This leads to an apparent paradox: how can a node simultaneously bear φ-features and not bear them? In what follows, I will refer to this as the *dative paradox*.

In §4.4, I will argue that the existence of failed agreement in grammatical utterances—argued for independently of defective intervention, in chapter 3—holds the key to a cross-linguistically viable account of the dative paradox. First, however, I turn to a survey of several existing treatments of the dative paradox, in §4.3.

4.3. Existing treatments of the Dative Paradox

There are several approaches to the dative paradox (§4.2) that one finds in the literature. In this section, I survey and critique these different approaches.

4.3.1. The *Activity Condition*

One approach to the dative paradox, already mentioned in §4.1, is the *Activity Condition*. The basic idea is that features that have already entered into a φ-agreement relation are *inactive*, and therefore unable to enter into additional φ-agreement relations. As it pertains to datives, one could assume that the φ-features on the dative nominal have already entered into a φ-agreement relation with a local case assigner (a null preposition, or the head of a Kase Phrase; see §4.1), rendering them *inactive*.

Crucially, however, if this is to serve as a solution to the dative paradox, then having *inactive* φ-features must be syntactically distinguishable from having no φ-features at all (cf. having no *wh*-features at all, as in (148a–c)). This means that *activity* is, in essence, a diacritic: φ-features enter this derivation with the diacritic set to "on", and the first agreement relation they enter into sets it to "off"; coupled with the assumption that valuation can only occur when the diacritic on the target is set to "on", we get the effect in (145)—namely, the inability of datives to transfer their φ-feature values to the finite verb (in Chomsky's 2000, 2001 original implementation of the *Activity Condition*, the activity diacritic was unified with the *uninterpretable case feature* borne by the nominal; but such an approach is untenable given the existence of nominals that are successfully case-marked without being agreed with; see Marantz 1991, Zaenen, Maling, and Thráinsson 1985, among others, as well as the discussion of DP licensing in Kichean in §3.4).

The fact that *(in)activity* is a diacritic is not necessarily a fatal flaw in the *Activity Condition* approach; alternative approaches to the dative paradox require similarly stipulative moves. It is simply meant to highlight that the *Activity Condition* approach, too, is rooted in a stipulation. Thus, the decision between this approach and others will have to be based on other factors.

This is where empirical comparisons between the different approaches come into play. It turns out that the *Activity Condition* is empirically problematic, independently of the dative paradox. I will demonstrate this point using data from Tsez, as discussed by Polinsky and Potsdam (2001). Tsez is not necessarily unique in providing evidence against the *Activity Condition*; instances of so-called *hyper-raising* may furnish a similar argument, depending on their precise analysis (see Ferreira 2000 and Rodrigues 2004 on Brazilian Portuguese, for example). Tsez, however, furnishes perhaps the clearest case against the *Activity Condition*.

As shown in (149a–b), the verb in Tsez agrees in noun-class (I–IV) with the absolutive argument (the subject of an intransitive / object of a transitive):

(149) a. **ziya**   **b**-ik'i-s
           cow.III.ABS III-go-PAST.EVID
           'The cow left.'

       b. eniy-ā   **ziya**   **b**-išer-si
           mother-ERG **cow.III.ABS III**-feed–PAST.EVID
           'The mother fed the cow.'   [*Polinsky and Potsdam 2001:586*]

However, as Polinsky and Potsdam show, arguments in Tsez can trigger overt φ-agreement on more than one agreement host; in particular, embedded topics trigger agreement on the embedding predicate, as well:

(150) a. eni-r   [**uži**   **ø**-āy-ru-łi]   **ø**-iy-xo
           mother-DAT **boy.I.ABS I**-arrive-PAST.PRT-NMZ I-know-PRES
           'The mother knows that as for the boy, he arrived.'

       b. eni-r   [už-ā   **magalu**   **b**-āc'-ru-łi]   **b**-iy-xo
           mother-DAT boy-ERG **bread.III.ABS III**-eat-PAST.PRT-NMZ **III**-know-PRES
           'The mother knows that as for the bread, the boy ate it.'

[*Polinsky and Potsdam 2001:606*]

A few comments are in order about these data. First, notice that this "secondary" agreement on the embedding predicate does not come instead of agreement on the embedded predicate. In an example like (150b), both the matrix verb "*b-iy-xo*" ('III-know-PRES') and the embedded verb "*b-āc'-ru-łi*" ('III-eat-PAST.PRT-NMZ') exhibit overt agreement with the embedded absolutive noun-phrase "*magalu*" ('bread.III.ABS'). Second, if topichood of the relevant embedded noun-phrase is forced, this "secondary" agreement is obligatory (see Polinsky and Potsdam 2001 for details).

These data do not involve datives, of course, and in fact datives cannot be agreed with in Tsez, just as in Icelandic and other languages; this therefore sheds no particular light on the dative paradox itself. It does, however, show that φ-features that have entered into an agreement relation with the embedded predicate are not *inactivated*, but rather active and available to be agreed with by subsequent agreement hosts. Note that verbs in Tsez only ever agree with their arguments in noun-class. Thus, in examples like (150a–b), the sets of features that enter into agreement with the embedded predicate and with the matrix verb are the same set. Making an ad-hoc distinction between the agreement found on the embedded predicate and the agreement found on the matrix predicate—positing that one is "defective" or "partial", while the other is "complete"—would be little more than a description of the observed fact,

that the φ-features on the nominal can enter into more than one agreement relation. I therefore take these facts to show that the *Activity Condition* cannot be correct.

Regarding whatever residual empirical coverage the *Activity Condition* might have, outside of the domain of datives, I refer the reader to Nevins 2004 for an illustration that better empirical coverage can be achieved by independently motivated alternatives.

4.3.2. Functional Shells

A potentially more promising approach, mentioned in §4.2, involves the idea that datives come enclosed in additional functional structure—structure that is either absent in non-oblique DPs, or at least has different properties than the structure found in those cases. The ideas in this sub-section are largely adapted from Rezac 2008a, who draws on Richards 2004 regarding the approach to defective intervention.

In what follows, I discuss an implementation where datives are enclosed in a PP structure, following Rezac (2008a); but nothing significant would change if we opted instead for a Kase Phrase approach (Bayer, Bader, and Meng 2001, Bittner and Hale 1996), where the particular type of K^0 head associated with dative case would replace P^0_{DAT} in all the relevant respects.

Suppose that the structure of dative nominals is as follows:

(151) *FUNCTIONAL STRUCTURE AROUND DATIVE NOUN-PHRASES*
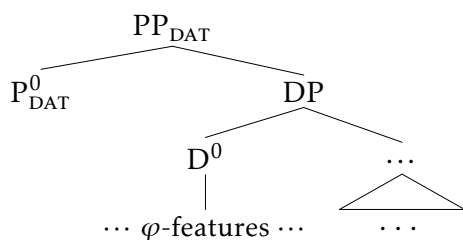
I assume the null hypothesis, that the DP enclosed in this structure is like any other DP, and so its full set of φ-features is visible at the DP level (i.e., on D^0). This abstracts away from which of these features (if any) were base generated on D^0, and which of them got there derivationally (as in Ritter 1991, 1992, and much subsequent work); whichever mechanisms are responsible for transferring these features to D^0 in structurally case-marked DPs (nominatives, absolutives, etc.) will presumably operate here as well.

If PPs constitute a locality domain (for example, a *phase*)—as argued by Baltin (1978), van Riemsdijk (1978), Abels (2003), and others—then the features on D^0 are not visible to probes outside of the PP. Now, if P^0_{DAT} has no φ-features of its own, then the PP in its entirety should be invisible for the purposes of φ-probing (like a non-*wh* noun-phrase in the *wh*-probing case; see §4.2). Given that this is not the behavior of datives vis-à-vis agreement, we must conclude that P^0_{DAT} has some φ-featural content.

A similar conclusion obtains if PPs do *not* constitute a locality domain: if a probe outside of PP can see into the complement of P^0_{DAT}, then in the absence of intervening φ-featural content on P^0_{DAT}, the features on D^0 can and will be probed. Given that is not the behavior of datives vis-à-vis agreement, either, we must again conclude that P^0_{DAT} has φ-featural content of its own.

There are thus two logical possibilities: P^0_{DAT} could be inserted into the derivation bearing valued φ-features, or bearing unvalued ones (within a feature-geometric view of φ-features, the latter case is actually represented by a placeholder looking for a piece of φ-geometry with which to be filled; see §2.2.2). Insofar as the approach presented in this sub-section is correct, it seems that both possibilities are attested.

In the usual case, intervention by a dative noun-phrase triggers "default agreement" on the finite verb, meaning 3rd-person singular (abstracting away from [gender], for the purpose of the current discussion); see, for example, the Icelandic data in §4.1–§4.2. Within a feature-geometric approach to φ-features—as proposed by Harley and Ritter (2002), McGinnis (2005), and Béjar and Rezac (2009), and discussed in §2.2.2—3rd-person singular corresponds to the root of the φ-geometry, $[\varphi]$. Thus, if we stipulate that dative P^0_{DAT} carries valued $[\varphi]$, we are able to derive both sides of the dative paradox: on the one hand, datives count for φ-probing (contra non-*wh* phrases in *wh*-probing), because their head (P^0_{DAT}) carries a valued φ-feature; on the other hand, the enclosed nominal cannot transfer its own features to the finite verb, because the φ-features on P^0_{DAT} will be closer, in structural terms, to any probe located outside of the PP.

On this view, the reason "default morphology" (3rd-person singular) is found in defective intervention scenarios is that P^0_{DAT} is valued for $[\varphi]$, not for some more-specified point on the φ-feature geometry. This is schematized below:

(152) *FUNCTIONAL STRUCTURE AROUND DATIVE NOUN-PHRASES:*
        THE USUAL CASE $[=(145–146)]$
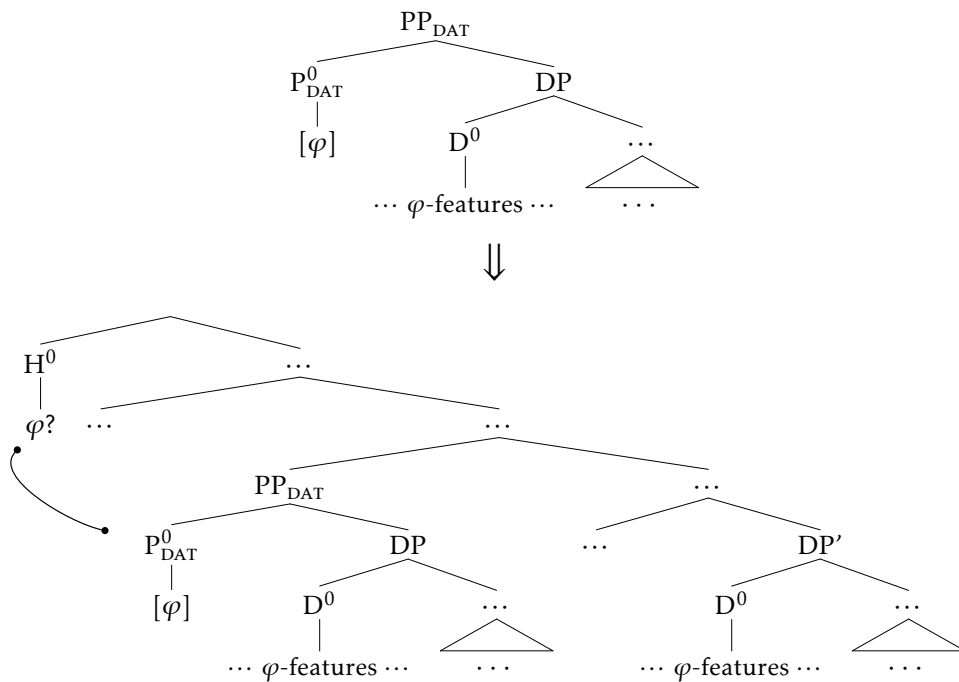
An important property of this approach is that it takes defective intervention to be an instance of successful φ-agreement: the φ-probe in (152) successfully agrees with the structurally closest agreement target, P^0_{DAT} (which bears valued $[\varphi]$, and therefore acts like any other 3rd-person singular agreement target).

In the complementary scenario, P^0_{DAT} would be base-generated bearing unvalued φ-features (or the feature-geometric counterpart thereof; see above), which would result in P^0_{DAT} acting as a φ-probe in its own right. Given that its complement is a regular DP, there is no obstacle to P^0_{DAT} valuing its own features with the values found on that DP. This would render the PP layer "transparent", in some sense, since it would bear the same φ-feature values as the enclosed nominal; the dative would then be able to agree as if it were a bare DP.

Something like this seems to be going in the languages that Dryer (1986) refers to as *primary-/secondary-object* languages. In these languages, the agreement morphology controlled by the Patient in a mono-transitive is obligatorily controlled by the applicative argument in ditransitives and other applicative constructions (with the Patient controlling no overt φ-agreement in those cases). Such languages are sometimes thought of as having only a *double-object construction*, but no "true datives". An example of such a language is Chol (Mayan):

(153) *AGREEMENT WITH APPLICATIVE ARGUMENT IN LIEU OF PATIENT*

    a. Tyi   aw-ilä-**yoñ**   (Chol)
         PRFV 2.ERG-see-**1.ABS**
         'You saw me.'

    b. Tyi   i-ch'äx-be-**yoñ**   ja'   x-'ixik
         PRFV 3.ABS-boil-APPL-**1.ABS** water CLF-woman
         'The woman boiled me water.'

                                  [*Coon 2010a:34, 199; glosses simplified slightly*]

Let us refer to behavior of this sort, where the dative controls agreement morphology normally controlled by the Patient, as *agreement displacement* (following Rezac 2008a).

If applicative arguments are generated in the specifier of a dedicated ApplP projection (Anagnostopoulou 2003, Collins 1997, Marantz 1993, McGinnis 1998, Pylkkänen 2002, Ura 1996, among others), and are therefore structurally closer to the φ-probe than the Patient is, a dative PP whose P^0_{DAT} bears φ-feature values that it copied from the enclosed dative DP will appear to have subsumed the duties of "direct object agreement" (as in (153a–b)):

(154) *AGREEMENT WITH APPLICATIVE ARGUMENT IN LIEU OF PATIENT – DERIVATION*
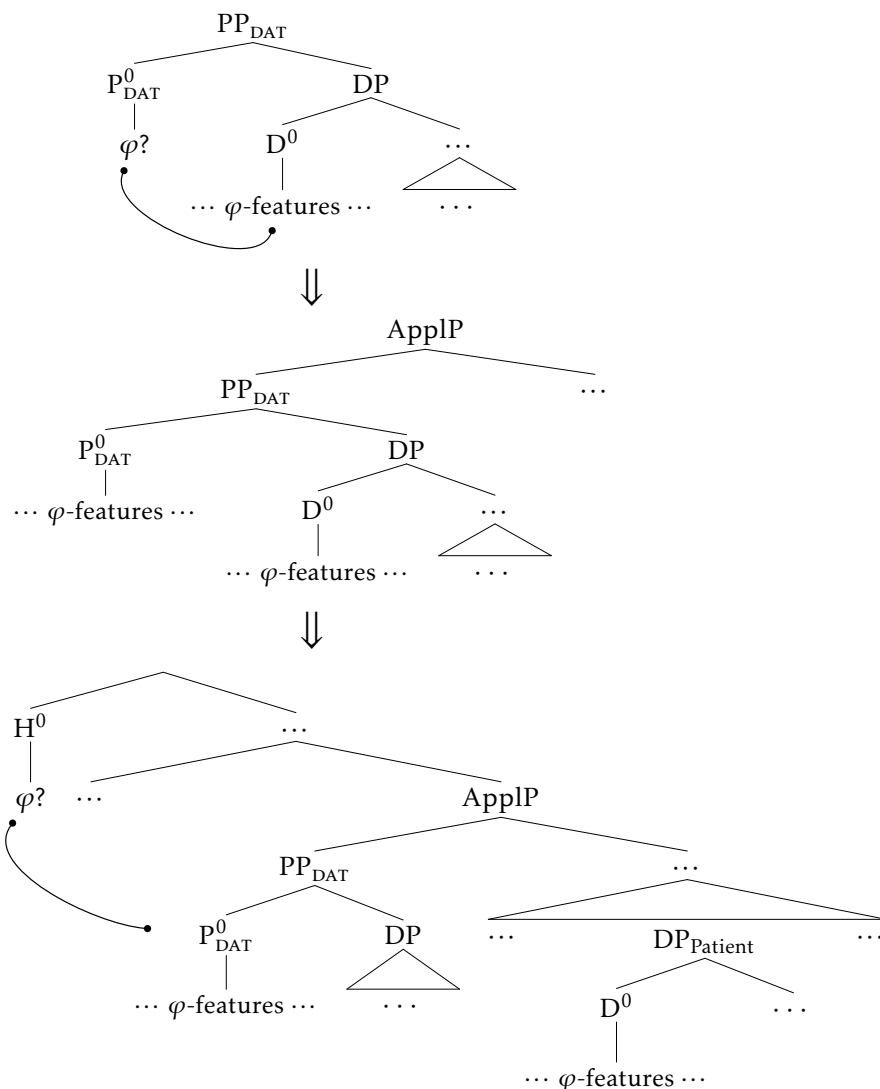
In (154), the dative PP asymmetrically c-commands the Patient DP; since this PP bears φ-features, minimality/*Closest* dictates that the finite verb must agree with it—yielding the apparent agreement displacement (i.e., the dative controlling the agreement morphology that is controlled, in mono-transitives, by the Patient).

There exist more complicated patterns, where certain φ-feature combinations on the dative nominal trigger agreement displacement of the kind shown above, but other φ-feature combinations do not. These are handled by Rezac (2008a), within a similar system to the one outlined above, by positing a P^0_{DAT} probe that is searching not for $[\varphi]$ (the root of φ-geometry), but rather for some other node in the φ-geometry—such as [participant] or [author]. This is essentially the PP-internal counterpart of <u>relativized probing</u>, as it was formulated in §2.2.2.

Unfortunately, this approach—as a solution to the dative paradox—runs into several problems. I will review these in rising order of severity. First, to handle the standard defective intervention data, we had to stipulate that P^0_{DAT} carries valued $[\varphi]$. The problem

is not the stipulation itself; as discussed in §4.3.1, above, it seems that any approach to the dative paradox will have to make one stipulation or another. The point is that this particular stipulation leads to the expectation that in some languages, P_{DAT}^0 will bear other valued φ-featural combinations—meaning we expect some language where datives are invariably agreed with as, say, 2nd-person plurals, regardless of the φ-features of the actual dative nominal; I know of no such language.

While this concern could potentially be handled in terms of markedness—by appealing to the special status of $[\varphi]$ as the root of the φ-geometry—similar solutions are not available, it seems to me, to the problems that follow.

The next problem is a morphological one. On the approach sketched here, agreement displacement cases (where the dative subsumes the agreement duties normally associated with the Patient) are a matter of the P_{DAT}^0 head entering into its own PP-internal agreement relation with the enclosed dative DP. It is therefore surprising that the languages that show complete agreement displacement with datives are often languages where there is no dative morphology to speak of (as is the case, for example, in Chol; see (153)). If agreement displacement were a matter of a featurally rich PP-internal φ-probe, one would expect such cases to show richer dative morphology; but in fact the opposite is true: Icelandic, for example, has overt dative morphology, and unlike Chol, exhibits standard defective intervention effects (and not agreement displacement). Recall (145), repeated here:

(145) það finnst(/*finnast) [mörgum stúdentum]$_{DAT}$ [$_{SC}$ tölvan   ljótar].
      EXPL find.SG/*find.PL many   students.PL.DAT   the.computer.SG.NOM ugly
      'Many students find the computer ugly.'   [*Holmberg and Hróarsdóttir 2003:1000*]

Finally, the most important problem with this approach is that it predicts that intervention by a dative should never lead to ungrammaticality, because—as noted earlier—defective intervention is taken to be an instance of formally successful agreement with P_{DAT}^0 that bears valued $[\varphi]$ (i.e., 3rd-person singular, φ-geometrically). This seems consistent with what we have seen so far, but crucially, there are instances of defective intervention that do result in ungrammaticality:

(155) a. Il   semble (à Marie) [que Jean a du talent].   (French)
         Jean seems to Marie   that Jean has of talent
         'It seems (to Marie) that Jean has talent.'

      b. Jean$_1$ semble (?*à Marie) [t$_1$ avoir   du talent].
         Jean seems   to Marie   have.INF of talent
         'Jean seems (to Marie) to have talent.'   [*McGinnis 1998:90–91*]

While the verb "*semble*" ('seem') in French generally allows an optional dative experiencer, as in (155a), the same dative experiencer causes ungrammaticality in (155b). This particular data set is taken from McGinnis 1998, but similar patterns have been observed in Spanish (Torrego 1996), Greek (Anagnostopoulou 2003), Italian (Rizzi 1986), and even in English (Hartman 2011, to appear).

Of course, examples like this differ from the examples we have been examining up until this point in another important way: (155b) involves not only φ-agreement across a dative, but also **movement** across that dative. We could therefore explore the possibility *that it is movement, rather than φ-agreement, whose disruption dooms an example like (155b)*.

Crucially, if we continue to pursue the hypothesis that datives are interveners by virtue of the featural content of their outermost head—P^0_{DAT}, in the current implementation—then we are faced with a familiar choice, this time with respect to movement of the dative PP: either P^0_{DAT} bears the kind of features that the attractor seeks, or it does not (the latter option would make sense, for example, if the EPP amounted to a need to match a D^0 feature). If it does not bear the relevant feature, we predict that the intervener will simply be skipped, which means that (155b) should be grammatical, contra to fact.

We must therefore conclude that P^0_{DAT} does bear the features relevant to the attractor. In this case, however, we would predict that in French (as well as in the other languages where this behavior arises, such as Spanish, Italian, and Greek), datives could move to canonical subject position. In other words, we predict that these languages would be quirky-subject languages, like Icelandic. This is not the case, either; the corresponding derivations where the dative has moved to subject position, in lieu of the non-dative argument, are no better:

(156) * [À Marie]$_1$ semble t$_1$ [Jean avoir   du talent]
         to Marie   seem   Jean have.INF of talent

<div align="right">[McGinnis 1998:90]</div>

As demonstrated by McGinnis (1998), the ungrammaticality of (156) is not a matter of some licensing failure of the embedded subject, "*Jean*"; this much is already suggested by comparison with the corresponding example in Icelandic, a language where datives can move to canonical subject position:

(157) [Einhverjum stúdent]$_1$ finnast t$_1$ [$_{SC}$ tölvurnar   ljótar].
        some   student.SG.DAT find.PL   the.computers.PL.NOM ugly
        'Some student finds the computers ugly.' *[=(147)]*   [*Holmberg and Hróarsdóttir 2003:1000*]

Even within French, however, the concerns regarding the licensing of the embedded subject can be independently assuaged, by changing the embedded clause to a finite clause; crucially, this does not improve the status of a dative in canonical subject position:

(158) * [À Marie]$_1$ semble t$_1$ [que Jean a   du talent].
          to Marie   seem   that Jean has of talent
          'It seems to Marie that Jean has talent.'   [*McGinnis 1998:91*]

We must therefore conclude, under the approach pursued in this sub-section, that there is a second kind of defective intervention—one that cannot be handled only in terms of the featural content of the outermost head of the dative argument. Manipulating this featural content can only lead to two kinds of behavior—being ignored by the attractor, or being targeted by the attractor—neither of which is the correct result for data like (155–156, 158) and its counterparts in other languages. Instead, this second kind of intervention causes what looks like a breakdown of the probing process itself, leading in this case to outright ungrammaticality.

The obvious question, then, is the following: given that this second kind of intervention is independently necessary, is there a way to subsume the first kind of intervention (the kind that gives rise to what looks like default φ-agreement, e.g. 3rd-person singular) under the latter kind (which causes breakdown of the probing process). In §4.4, I propose a way of doing exactly that, building on recent observations by Bobaljik (2008), as well as the results of chapters 2–3. I begin by discussing Bobaljik's proposal itself, which is the topic of the next sub-section.

4.3.3. Case-Discrimination

As noted in §4.2, a recent proposal by Bobaljik (2008) offers an alternative explanation for why it is that dative nominals—as in the Icelandic data in §4.1–§4.2, for example—cannot transfer their own φ-feature values to the finite verb. This proposal revises and extends observations that are originally due to Moravcsik (1974, 1978).

4.3.3.1. **Bobaljik's (2008) proposal**

The point of departure for this proposal is the *Moravcsik Hierarchy*, a set of proposed implicational universals concerning which arguments can and cannot be targeted for φ-agreement in a given language (Moravcsik 1974):

(159) *THE MORAVCSIK HIERARCHY*
       Subject ≫ Direct Object ≫ Indirect Object ≫ Adverbs

The way to read (159) is as follows: no language has agreement with the direct object without also having sentences in which the subject is agreed with; no language has agreement with the indirect object without also having sentences in which the subject is agreed with, and sentences in which the direct object is agreed with; and so forth.

These universals are largely confirmed by typological surveys, with two important caveats. The first caveat concerns quirky-case languages. Notice that (159) is stated over *grammatical function* (subject, direct object, etc.), not over case-markings (nominative, accusative, etc.). In many languages, this distinction is immaterial, at least in finite clauses (which are the ones that typically exhibit overt φ-agreement in the first place). In other words, in a finite clause in a language without quirky subjects, the subject is always nominative and the nominative is always the subject. Therefore reformulating (159) as (160) would not change its coverage:

(160) *THE MORAVCSIK HIERARCHY, FIRST REVISION*   (Bobaljik 2008)
       nominative ≫ accusative ≫ dative ≫ (other) obliques

However, we have already seen a language in which this is not true. Icelandic is a quirky-case language, meaning it has finite clauses where the subject bears case other than nominative:

(161) Morgum studentum   liki   verkið   (Icelandic)
       many   students.PL.DAT like.3sg the.job.NOM
       'Many students like the job.' *[=(142)]*   [*Harley 1995*]

I will not review here the evidence showing that phrases such as the dative "*morgum studentum*" ('many students.PL.DAT') in (161) are indeed grammatical subjects; the reader

is referred to the literature on quirky subjects in Icelandic, beginning with Andrews (1976), Thráinsson (1979), Zaenen, Maling, and Thráinsson (1985), and Sigurðsson (1989), for extensive evidence to this effect (see also Thráinsson 2007, for a recent review).

What is crucial for the current purposes—and has already been demonstrated, in §4.1—is that these non-nominative subjects never control agreement in Icelandic. Moreover, when the clause has a quirky subject of this sort, a nominative non-subject (if present) will still control agreement (the reader is again referred to the aforementioned sources for arguments that the dative argument of "*líka*" 'like' is indeed a grammatical subject):

(162) Jóni   líkuðu   [þessir sokkar]
      Jon.DAT liked.PL [these socks   ].NOM
      'Jon liked these socks.'   [*Jónsson 1996:143*]

Data like (162) do not falsify the original formulation of the Moravcsik Hierarchy outright. This example exhibits agreement with a direct object (see Harley 1995 and Jónsson 1996 for arguments that the nominative noun-phrase in an example like (162) is indeed a direct object); and it is clearly true that Icelandic has agreement with subjects in some of its sentences (namely, in every finite clause where the subject does not have quirky case). Data of this sort is therefore technically in compliance with (159). However, as argued by Bobaljik (2008), this way of viewing things misses an important generalization—namely, that in every instance where *grammatical function* and *morphological case* diverge, φ-agreement appears to quite neatly track *morphological case*, more or less disregarding *grammatical function*.

Thus, through the prism of the revised Moravcsik Hierarchy (based on *morphological case*, as in (160)), Icelandic is a perfectly well behaved agreement-with-nominatives-only language— no different in that respect from, say, English (a fact that has been observed in the literature on Icelandic going back to Sigurðsson 1993).

The second way in which the original formulation of the Moravcsik Hierarchy is imprecise concerns ergative languages. In ergative languages, the notion "subject" conflates two case-markings, namely absolutive (in an intransitive clause) and ergative (in a transitive clause). Once again, the problem is not necessarily the outright falsification of the original formulation of the Moravcsik Hierarchy, based on *grammatical function*. Consider a language that exhibits agreement with the absolutive argument only, such as Tsez (examples repeated from §4.3.1):

(163) a. **ziya**   **b**-ik'i-s
         cow.III.ABS III-go-PAST.EVID
         'The cow left.' *[=(149a)]*

      b. eniy-ā   **ziya**   **b**-išer-si
         mother-ERG **cow.III.ABS III**-feed–PAST.EVID
         'The mother fed the cow.' *[=(149b)]*   [*Polinsky and Potsdam 2001:586*]

If we classify an example like (163b) as agreement with a direct object, Tsez is technically in compliance with the original formulation, since it also has agreement with the subject in some sentences (e.g. (163a)).

The problem is, once again, that the characterization in terms of *grammatical fashion* misses an important generalization—in this case, the fact that there are no languages that exhibit agreement *only* with ergative noun-phrases, to the exclusion of absolutive ones (see also

Woolford 2000). This possibility should be allowed, given the original Moravcsik Hierarchy, since it is a sub-case of agreement with subjects only. As Bobaljik observes, however, the implicational universal in (164)—given here in both its *grammatical function* and *morphological case* forms—has a counterpart on the ergative side, in (165):

(164) a. *agreement with objects* $\implies$ *agreement with subjects*

      b. *agreement with accusatives* $\implies$ *agreement with nominatives*

(165) *agreement with ergatives* $\implies$ *agreement with absolutives*

The idea is therefore to combine (164b) and (165) under a single, case-based formulation. To do this, Bobaljik appeals to the *disjunctive case hierarchy*:

(166) *DISJUNCTIVE CASE HIERARCHY* (Marantz 1991)

      lexical/oblique case → dependent case → unmarked case

Regarding the motivations behind this hierarchy, the reader is referred to Marantz 1991, as well as §5.1; I will summarize only the results of that discussion here. The term *lexical/oblique case* refers to any case-marking whose appearance is idiosyncratically associated with a specific lexical item (rather than, say, an entire lexical category). Case assigned by prepositions falls under this rubric (in particular, in a language like German, where different prepositions govern different case-markings on their nominal complements), as do quirky verbs such as the Icelandic "*líka*" ('like') discussed earlier, as well as more widespread patterns involving lexically-determined case on the complement of verbs (e.g. the dative case often found on the complement of a verb like "*help*", cross-linguistically).

    The term *dependent case* refers to case-marking whose appearance is contingent, roughly speaking, on the presence of two distinct non-*lexical/oblique*-marked nominals in a single clausal domain (see Marantz 1991, as well as §5.1, for a more careful formulation). This is the category to which accusative and ergative case belong.[4]

    Finally, the term *unmarked case* refers to case-markings that do not fall in either of the previous categories—namely, nominative and absolutive. While sometimes confused with the notion of "default case" or "citation form", this is not what *unmarked case* refers to: in English, for example, fragment answers and other free-standing forms appear in accusative(/objective) ("*Who came to the party? Him/*He.*"). Instead, the term *unmarked case* refers to case-marking whose appearance, in the context of a clause, is neither idiosyncratically conditioned, nor dependent on the appearance of other nominals in the clause.

    As its name suggests, *unmarked case* is often phonologically null, or phonologically lighter than the other members of the *disjunctive case hierarchy*—though that is a tendency, rather than a universal.

    Given the *disjunctive case hierarchy*, we can unify (164b) and (165) under a single formulation:

---

[4]Normally, the appearance of accusative or ergative is conditioned by the appearance of a nominative or absolutive noun-phrase, respectively; but as examples like (i) demonstrate, this is not always the case. In this example, accusative(/objective) case can be conditioned by the appearance of a distinct noun-phrase that is also marked with accusative(/objective):

(i)   It is possible for <u>her</u> to meet <u>him</u>.

(167) *THE MORAVCSIK HIERARCHY, SECOND (AND FINAL) REVISION*   (Bobaljik 2008)
       unmarked case ≫ dependent case ≫ lexical/oblique case

As we have seen, the virtues of this formulation are twofold. First, it captures the behavior of instances in which *grammatical function* and *morphological case* diverge (since agreement is shown to track *morphological case*, in those instances; see the discussion of quirky subjects in Icelandic, above). Second, it allows us to capture the implicational universals in a nominative-accusative language/construction (as in (164)) and in an ergative-absolutive language/construction (as in (165)) in a unified manner.

Note that this formalism is not meant to replace the notion of structural prominence, or minimality/*Closest*; there will be situations in which more than one argument in the domain of a single agreement host will be deemed by (167) as accessible for agreement—and in these situations, it is the structurally highest argument that will be targeted for φ-agreement.

Bobaljik provides an example of such an interaction, from Nepali. In terms of (167), Nepali makes the accessibility cutoff after the second member of the hierarchy; finite φ-agreement in Nepali can target nominals bearing either unmarked case (labeled "NOM", in the glosses below), or dependent case (labeled "ERG"). Crucially, when both are present in a given clausal domain, structural prominence determines which of the two will actually be targeted, as demonstrated by (170a–b), below:

(168) *AGREEMENT ACCESSIBILITY: NEPALI*   (*cf. Icelandic, below*)

       unmarked case ≫ dependent case ≫ lexical/oblique case
       _____
                    accessible for
                    φ-agreement

(169) *AGREEMENT ACCESSIBILITY: ICELANDIC*

       unmarked case ≫ dependent case ≫ lexical/oblique case
       _____
        accessible for
        φ-agreement

(170) a. **ma**   [yas   pasal-mā] patrikā   kin-ch-**u**   (Nepali)
          1sg.NOM   DEM.OBL store-LOC   newspaper.NOM buy-NONPAST-**1sg**
          'I buy the newspaper in this store.'

      b. **maile**   [yas   pasal-mā] patrikā   kin-**ē**/*kin-**yo**
          1sg.ERG   DEM.OBL store-LOC   newspaper.NOM buy.PAST-**1sg**/*buy.PAST-**3sg.M**
          'I bought the newspaper in this store.'

                                                                    [*Bickel and Yādava 2000:348*]

The same interaction of case with structural prominence is shown by Bobaljik to derive yet another typological fact, concerning the possible alignments of case and agreement within a single language:

(171) *A TYPOLOGICAL GAP IN CASE VS. AGREEMENT ALIGNMENTS* (Dixon 1994)

		agr. alignment	
		NOM-ACC	ERG-ABS
case alignment	NOM-ACC	✔ (English, Icelandic)	✗
	ERG-ABS	✔ (Warlpiri, Chukchi)	✔ (Basque, Tsez)

It is rather well-known that there are languages that show a mismatch between case-alignment and agreement-alignment: in Warlpiri, DP arguments show an ergative-absolutive case-marking system, but agreement exhibits a nominative-accusative alignment (i.e., a morpheme that co-indexes the subject, regardless of whether it is the subject of an intransitive or a transitive, and a morpheme that co-indexes the transitive object when present; see Legate 2002). The converse is unattested: no language exhibits a nominative-accusative alignment in its case-marking, while showing an ergative-absolutive alignment in its agreement system.[5]

Importantly, Bobaljik's approach derives this gap. Suppose a language has a nominative-accusative alignment in its case-marking. If this language makes the cutoff between the first and second members of the revised Moravcsik Hierarchy (in (167)), only the unmarked noun-phrase will be able to serve as an agreement target, meaning we will see agreement with the nominative noun-phrase only (as is the case in English). If it makes the cutoff after the second member in the hierarchy, both the subject and the object will be accessible (in a transitive clause)—but structural prominence still dictates that if anything will control agreement, it will be the subject. Thus, deriving an ergative-absolutive alignment for such a language is impossible, in this system, deriving the desired gap.

Compare this with the converse (and attested) scenario, involving ergative-absolutive languages. If such a language makes its cutoff after the second member in the hierarchy, both the ergative and the absolutive will be accessible for agreement. Given that the subject is still structurally higher than the object, the ergative noun-phrase will be targeted for agreement in a transitive clause, while the single absolutive argument will be targeted in an intransitive clause—yielding a nominative-accusative pattern of agreement.

The conclusion is therefore that **agreement is *case-discriminating***: the case-marking borne by potential agreement targets plays a role in whether or not they will actually be targeted for φ-agreement. This was already made clear, to some extent, by the dative paradox itself; what is highlighted by (167) is that it is case-related properties in particular (rather than, say, thematic or argument-structural properties) that are responsible for these effects.[6]

---

[5]The one potential counter-example of which I am aware is Kutchi Gujarati; however, there is evidence that the apparently exceptional examples might involve a different mechanism altogether. The reason is that these examples exhibit so-called "semantic" agreement, ignoring grammatical gender and tracking semantic gender instead (Patel 2008). The correct analysis of these examples is beyond the scope of the current work.

[6]David Pesetsky (p.c.) points out that strictly speaking, it does not follow from Bobaljik's (2008) argument that the determining factor in the calculus of φ-agreement is morphological case *per se*; it is possible that there

This view would be incoherent in a system where the assignment of case is contingent on, or even caused by, φ-agreement (see, for example, Chomsky 1995b); but Icelandic data of the sort discussed here demonstrate quite clearly that such a view is untenable, in the first place (an observation that goes back to Zaenen, Maling, and Thráinsson 1985). We have seen that nominative noun-phrases can exist where φ-agreement has demonstrably failed to reach them (see also the discussion in §3.4, regarding φ-agreement and the licensing of arguments in Kichean). We therefore need a theory where case-assignment does not depend on φ-agreement (at least any kind of φ-agreement that is overtly detectable); Marantz (1991) provides a theory of this sort, and an adaptation of that theory will be discussed and defended in chapter 5.

The astute reader will also notice that this view of the interplay of case and φ-agreement appears to have profound implications regarding the modular locus of φ-agreement; indeed, the thrust of Bobaljik's proposal as it is originally written concerns this point. If morphological case is computed post-syntactically (as Marantz 1991 contends), then any operation that relies on morphological case as its input must be post-syntactic as well (notice that what the Icelandic quirky-case examples demonstrate is that *abstract case* cannot be the notion that is relevant to a hierarchy like (167)). However, the premise—that morphological case is computed post-syntactically—will be shown in §5.2 to be flawed; I therefore set aside this modularity issue for the purposes of the current discussion.

4.3.3.2. Prospects for solving the dative paradox

Turning to the dative paradox itself, this proposal clearly accounts for one half of it—namely, why datives (at least in some languages) are unable to value the φ-features on the finite verb. If the set of possible agreement targets in a given language is determined according to the hierarchy in (167), then in any language that makes the cutoff between the first and second members of the hierarchy, or between the second and third, φ-agreement will not be able to target datives—which generally fall into the third category, *lexical/oblique case*.

The converse behavior, termed *agreement displacement* in §4.3.2, involves the dative argument obligatorily controlling the agreement morphology that in a mono-transitive is controlled by the Patient. As noted in §4.3.2, this behavior tends to arise in languages that lack any overt dative morphology to speak of. The revised Moravcsik Hierarchy in (167) makes sense of this pattern: in such a language, dative case would be indistinguishable from *unmarked/dependent* cases—or at least, it would not count as *oblique case*. In a language like Chol, then, the absence of any dative case to speak of results in the *case-discrimination* mechanism being unable to distinguish Source/Goal and other applicative arguments from noun-phrases bearing unmarked or dependent case (both of which are generally accessible for φ-agreement in Chol; see Coon 2010a). The behavior of agreement in ditransitives/applicatives in Chol therefore arises naturally in this system, given the

---

is some third property, internal to the syntactic computation, which **(a)** uniquely determines morphological case, once morphological spellout is reached, and **(b)** serves as the conditioning property for φ-agreement, following a logic similar to (167). Note, however, that positing such a third property would only be meaningful if morphological case is indeed computed outside of syntax (as claimed by Marantz 1991); if it is computed within syntax, there is no need for a separate property of this sort, and it would in fact constitute an unwarranted duplication. Given that this is exactly what I argue in chapter 5 regarding morphological case, a third property of this sort is unnecessary here.

independently-motivated provision that applicative arguments are introduced higher in the structure than Patient arguments (data repeated from §4.3.2):

(172) *AGREEMENT WITH APPLICATIVE ARGUMENT IN LIEU OF PATIENT [=(153)]*

    a. Tyi   aw-ilä-**yoñ**   (Chol)
       PRFV 2.ERG-see-**1.ABS**
       'You saw me.'

    b. Tyi   i-ch'äx-be-**yoñ**   ja'   x-'ixik
       PRFV 3.ABS-boil-APPL-**1.ABS** water CLF-woman
       'The woman boiled me water.'

<div align="right">[Coon 2010a:34, 199; glosses simplified slightly]</div>

Alternatively, agreement displacement could be handled as an instance of a language making the cutoff after the third member of the revised Moravcsik Hierarchy in (167). This would probably require further articulating the hierarchy itself, since other oblique phrases (e.g. prepositional phrases headed by semantically "heavy" prepositions) in these languages still cannot be targeted for φ-agreement. This would correspond to the intuition that the dative is, in some sense, the "least oblique" of the oblique cases. This alternative, of course, would not capture the correlation between lack of overt dative case-marking and agreement displacement; but it is perhaps exactly what is going on in languages that *do* have overt dative case (such as Basque, for example), and still exhibit some degree of agreement displacement. It is especially suggestive that these are the languages where more complicated patterns of agreement displacement arise (i.e., where some φ-featural combinations on the dative nominal trigger agreement displacement, while others do not; see Rezac 2008a). It is in these instances that there might still be a PP or Kase Phrase layer that syntactically distinguishes datives from nominals bearing unmarked/dependent case, and which plays a role in "filtering" different φ-featural combinations on the enclosed nominal (see §4.3.2 for further discussion). I will not speculate on this further, here.

What is less clear, under this approach, is how the other half of the dative paradox is to be handled: why do datives—in a language where they are not viable agreement targets—interact with φ-probing at all? Bobaljik does not offer a conclusive view on this issue, instead entertaining two possible alternatives. Below, I will demonstrate that both alternatives fall short of accounting for the cross-linguistic typology of defective intervention—in particular, for the fact that intervention gives rise to outright ungrammaticality in some instances, and to "default" (e.g. 3rd-person singular) agreement morphology in others. In §4.4, I will argue that defective intervention actually arises as an interaction between *case-discrimination*, which rules out agreement with a dative, and minimality/*Closest*, which rules out agreement with anything other than the dative, ultimately resulting in *failed agreement*.

Let us first review the alternatives proposed by Bobaljik, for why datives interact with φ-agreement at all, given that they are not viable agreement targets in their own right. One involves a reinterpretation of long-distance agreement as phrasal movement where both PF and LF interpret the lower copy (building on his own work on a *single-output* syntax, starting with Bobaljik 1995; and in particular, the proposal in Bobaljik 2002). I think we can safely dismiss this possibility here, due to the same considerations discussed towards the end of

§4.3.2: if agreement is nothing but phrasal movement, the prospects of accounting for the difference between examples like the French (173) (where intervention results in outright ungrammaticality) and examples like the Icelandic (174) (where intervention results in a default/3rd-singular form of the verb) seem particularly bleak.

(173) ?* Jean$_1$ semble [à Marie]$_{DAT}$ [t$_1$ avoir du talent].
      Jean seems to Marie have.INF of talent
      'Jean seems to Marie to have talent.' *[=(155b)]*   *[McGinnis 1998:90]*

(174) það finnst(/*finnast) [einhverjum stúdent]$_{DAT}$ [$_{SC}$ tölvurnar ljótar].
      EXPL find.SG/*find.PL some student.SG.DAT the.computers.PL.NOM ugly
      'Some student finds the computers ugly.' *[=(146)]*   *[Holmberg and Hróarsdóttir 2003:1000]*

The second possibility that Bobaljik (2008) entertains is a domain-based approach: he suggests that agreement may be unable to cross *any* clausal boundaries—not even the boundaries of a non-finite clause—and thus, instances where agreement seems to target an embedded noun-phrase must be instances of restructuring/clause-union (building on work by Wurmbrand 2001, Polinsky 2003, and Bobaljik and Wurmbrand 2005). As Bobaljik points out, this approach crucially relies on the view that a single embedding verb may be a restructuring verb in some instances, and a non-restructuring verb in others, and that this difference might not be marked by any overt morphology (see, in particular, Wurmbrand 2001).

On this view, "*semble*" ('seem') in an example like (175), below, can optionally be a restructuring verb, and this is what allows agreement with (and raising of) the embedded subject "*Jean*":

(175) Jean$_1$ [$_{RD}$ semble [t$_1$ avoir du talent]].   (French; *RD=restructuring domain*)
      Jean seems have.INF of talent
      'Jean seems to have talent.' *[=(155b)]*

Compare this with an example like (173), above; there, "*semble*" takes a dative experiencer argument, and agreement with (as well as raising of) the embedded subject "*Jean*" is impossible. The restructuring analysis shown in (175) is assumed to be impossible in the presence of a dative experiencer, which is what rules out agreement (and raising) in that example.

In support of this restructuring-based approach, Bobaljik points out the fact that defective intervention effects disappear in Icelandic in true mono-clausal configurations—that is, when the dative and nominative arguments in question are co-arguments:

(176) a. það voru konungi gefnar ambáttir í vettur
        EXPL were.PL king.DAT given slaves.PL.NOM in winter
        'A king was given maidservants this winter.'
                                     [Zaenen, Maling, and Thráinsson 1985:112–113]

> b. það voru   einhverjum gefnir   þessir sokkar
>   EXPL were.PL someone.DAT given.PL these socks
>   'Someone was given these socks.'   [*Jónsson 1996:153*]

Thus, the restructuring approach assimilates examples like (175) to the mono-clausal examples in (176a–b).

However, it is not clear that the difference between examples like (176a–b), where agreement is possible (and in fact, obligatory), and examples where the dative and the nominative are not co-arguments—as in (174), above—where agreement is impossible, is a matter of the presence or absence of infinitival clause boundaries. Other syntactic treatments of defective intervention have observed that the level of granularity relevant to conditions like minimality/*Closest* is the level of maximal projections, rather than that of individual nodes:

(177) *INTERVENTION: STRUCTURAL DESCRIPTION*[7]

> A node δ can intervene in the relation between α and β only if:
>
> **(i)** δ is in the domain of α (i.e., α c-commands δ); **and,**
>
> **(ii)** the maximal projection immediately-containing β is in the domain of δ
> (i.e., there is an XP that contains β such that δ c-commands XP)
>
> > [*Anagnostopoulou 2003*, *Collins 1997*, *among others*]

This way of conceiving of intervention was proposed by Anagnostopoulou (2003) and Collins (1997) to prevent the specifier of an XP from intervening in relations targeting the phrase in [Compl,XP] (as shown in (178a), below), as well as to prevent multiple specifiers of a single XP from inducing intervention effects with respect to one another (as shown in (178b), below; see also Ura 1996):[8]

(178) a. *SPEC.-COMPL.: NO INTERVENTION*   b. *MULTIPLE SPECS.: NO INTERVENTION*
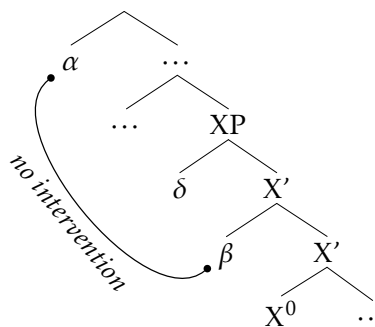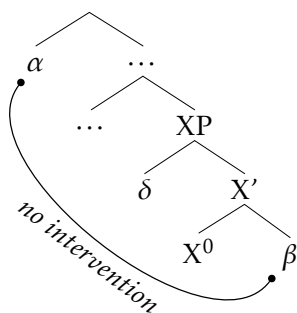
Note that (177) is not a bi-conditional: if the structural conditions on intervention are met, whether or not intervention actually arises will still depend on whether the potential intervener carries the kind of features that the probe is searching for, as discussed extensively

---

[7]Note that this condition on intervention amounts to *asymmetric m-command*.

[8]The most notable exception to this condition, as it pertains to multiple specifiers, involves multiple CP-specifiers in intermediate wh-movement (see Richards 2001). Given that proposals like Anagnostopoulou's (2003) and Ura's (1996) involve φ-agreement and/or A-movement, I take this to be a distinction, whether primary or derivable, between A-bar syntax and A-syntax.

in §2.2.2. Thus, (179a–b) are structural configurations in which intervention is possible, and will depend on whether or not δ carries the features that α is probing for:

(179) δ AND β IN SEPARATE MAXIMAL PROJECTIONS: INTERVENTION POSSIBLE
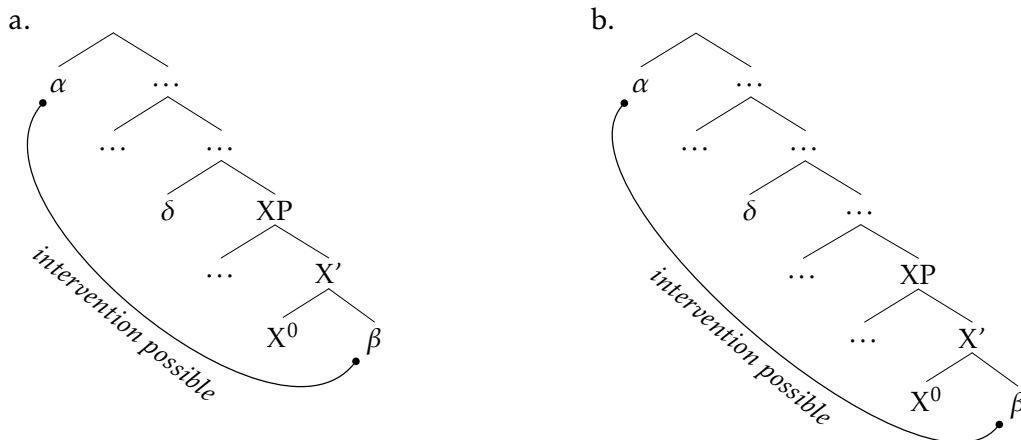
Given the co-argumenthood of the dative and the nominative in examples like (176a–b), it is reasonable to assume that at some level of representation, the two were either complement and specifier of a single projection (such as VP), or alternatively, occupied multiple specifiers of a single projection (for example, ApplP or *v*P).

On the other hand, instances where the nominative is an argument of an embedded predicate, separate from the predicate that selects the dative—e.g. (174), repeated below—do not lend themselves to an analysis of this sort:

(174) það finnst(/*finnast) [einhverjum stúdent]$_{DAT}$ [$_{SC}$ tölvurnar   ljótar].
       EXPL find.SG/*find.PL some   student.SG.DAT   the.computers.PL.NOM ugly
       'Some student finds the computers ugly.' *[=(146)]* [*Holmberg and Hróarsdóttir 2003:1000*]

The presence of a TP or small-clause layer in between the dative and the nominative gives an example like (174) the sort of structure shown in (179), predicting that the possibility of intervention would arise precisely in this type of example. This approach follows Sigurðsson and Holmberg (2008:269), who argue that the relevant difference between the co-arguments case and cases like (174) is whether or not the nominative is "*protected by its own TP*".

To summarize, a more careful examination of the structural conditions on intervention, as proposed independently by authors like Anagnostopoulou and Collins, reveals that these structural conditions make the same cut (between the case where the dative and nominative are co-arguments, and the case in which they are not) as a restructuring-based approach would—which removes these data as evidence for or against the restructuring approach (crucially, the account of the *dative paradox* that will be pursued in §4.4, while relying on *case-discrimination*, will not involve restructuring; it would therefore be relevant if there were an independent argument in favor of a restructuring-based account).

The restructuring-based approach faces a significant problem, however, when it comes to movement of the dative intervener. As brought to light by Holmberg and Hróarsdóttir (2003)

(who attribute the original observation to Halldór Ármann Sigurðsson), both A-movement and A-bar movement of the dative out of its intervening position alleviate defective intervention:

(180) [Einhverjum stúdent]$_1$ finnast t$_1$ [$_{SC}$ tölvurnar   ljótar].
         some   student.SG.DAT find.PL   the.computers.PL.NOM ugly
        'Some student finds the computers ugly.' *[=(147)]*

[*Holmberg and Hróarsdóttir 2003:1000*]

(181) Hverjum$_1$ hafa   strákanir$_2$ virst   t$_1$ [t$_2$ vera gáfaðir   ] ?
         who.DAT   have.PL the.boys.NOM seemed   be   intelligent
        'To whom have the boys seemed (to be) intelligent?'

[*Holmberg and Hróarsdóttir 2003:1010*]

It is obvious that more needs to be said about examples like (180–181), under any approach to defective intervention, to explain why the trace of a moved dative argument does not intervene in the same way that an in-situ dative argument does (cf. (174), above). However, this effect can be rather easily accommodated into standard accounts of defective intervention, by restricting intervention to heads of chains (or in *Copy Theory of Movement* terms, restricting intervention to the highest copy of a given node).

   Under the restructuring-based approach, things are not so simple. The argument structure of "*finnast*" ('find') and "*virðast*" ('seem') in (180–181) includes a dative experiencer argument (much like the instance of "*semble*" 'seem' in the French (173), above). Thus, by hypothesis, these instances of "*finnast*" and "*virðast*" should not allow restructuring—falsely predicting that agreement with (or raising of) the embedded nominative subject would be impossible.[9]

   In summary, Bobaljik's (2008) proposal provides a novel answer for one half of the dative paradox: why dative nominals fail to transfer their φ-feature values to the finite verb. These effects can be seen as an instance of a more general—and independently-motivated—property of φ-agreement: as shown above, the set of viable φ-agreement targets in a given language is best characterized in terms of morphological case, and tracks the implicational hierarchy given in (167), repeated below.

(167) *THE MORAVCSIK HIERARCHY, SECOND (AND FINAL) REVISION*   (Bobaljik 2008)
        unmarked case ≫ dependent case ≫ lexical/oblique case

I have labeled this the *case-discrimination* property of φ-agreement. On this view, the fact that datives fail to transfer their φ-feature values to the finite verb in a language like English, French, or Icelandic, is simply a sub-case of *case-discrimination* ruling out agreement with oblique phrases.

   The same view, however, has so far failed to provide a satisfactory explanation for the second half of the dative paradox: why nodes that cannot be targeted for φ-agreement due

---

[9]One might hypothesize that the restructuring variants of verbs like "*finnast*" ('find') and "*virðast*" ('seem') are like Postal's (1974) *wager*-class verbs, in that what they lack is the ability to leave the dative argument in situ, rather than the ability to project it in the first place. On this view, the only instances of a verb that are necessarily non-restructuring would be those instances where the dative argument remains in-situ. If one adopts this approach, the restructuring-based account will be able to handle data like (180–181), but it becomes a notational variant of an account based on (177)—since restructuring would then emerge precisely (and only) when a dative that is not a co-argument of the target nominative has remained in situ.

to *case-discrimination* interact with φ-probing at all. As discussed here, neither the approach that views φ-agreement as covert phrasal movement, nor the restructuring-based approach, are able to provide viable answers to this question.

Crucially, it turns out that once we allow for the possibility of failed agreement, argued for independently in chapter 3, *case-discrimination* can provide an explanation for the second half of the dative paradox, as well. This is the topic of §4.4, below.

4.4. Case-discrimination and failed agreement

In chapter 3, I argued that the behavior of φ-agreement in the Agent-Focus construction of Kichean shows that there are instances of bona fide failure of φ-agreement, that are tolerated by the grammar—despite the fact that φ-agreement is generally obligatory (when possible), even in the Kichean Agent-Focus construction itself.

Once we are forced to admit the possibility of failed agreement in grammatical utterances, a previously unavailable analytical possibility arises with respect to defective intervention—especially within a feature-geometric approach to φ-agreement, as pursued in §2.2.2 (or any other approach where φ-features are privative, rather than bivalent). This analytical possibility stems from the fact that a φ-probe that has successfully targeted a node that happens to be 3rd-person singular may not always be distinguishable, morphologically, from a φ-probe that has failed to agree in person and number altogether (I abstract away from *gender*, though the same logic extends to that domain, as well). Recall the φ-feature geometry presented in §2.2.2.2, following Harley and Ritter (2002), McGinnis (2005), and Béjar and Rezac (2009), and repeated here:

(182) *A SIMPLIFIED φ-FEATURE GEOMETRY*   *[=(37)]*

$$[\varphi]$$

[PERSON]   [NUMBER]
    | |
[participant]   [plural]
    |
[author]
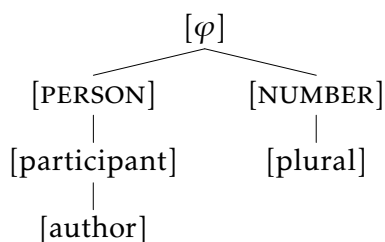
In this φ-feature geometry, [plural] distinguishes plural noun-phrases from singular ones; [participant] distinguishes 1st/2nd-person pronouns from 3rd-person pronouns and other noun-phrases, and [author] further distinguishes 1st-person from 2nd-person. Notions like "3rd-person" or "singular", then, amount to the absence of privative features like [participant] or [plural], respectively (recall that [author] cannot, by hypothesis, exist on a noun-phrase that lacks [participant]).

The valuation that occurs when a φ-probe has successfully agreed with a 3rd-person singular noun-phrase therefore consists, at most, of copying the [φ], [PERSON], and [NUMBER] nodes in the φ-geometry (and may consist of less, depending on feature relativization; see §2.2.2.2). However, even if these parent nodes are copied when agreement obtains, they may not receive overt exponence of their own; the agreement morphology identified as "3rd-person singular" in a given language may simply be the exponence assigned to a probe that lacks [plural] and [participant] features (and by extension, [author] features).

In fact, in Preminger 2009, I argued that it was generally a property of φ-agreement that when it has failed to locate an appropriate target, the result is the appearance of a morpheme exhibiting "default" φ-feature values (e.g. 3rd-person singular)—in contrast to clitic-doubling, whose failure results in the outright disappearance of the agreement morpheme (and that the two can thus be distinguished if "default" agreement in the language in question happens to be non-null):

(183) *DIAGNOSTIC FOR "PURE" AGREEMENT VS. CLITIC-DOUBLING*   (Preminger 2009)

   Given a scenario where the relation $\mathcal{R}$ between an agreement-morpheme $\mathcal{M}$ and the corresponding full noun-phrase $\mathcal{F}$ is broken—but the result is still a grammatical utterance:

   a. $\mathcal{M}$ shows up expressing "default" φ-features $\Longrightarrow \mathcal{R}$ is *"pure" agreement*
   b. $\mathcal{M}$ disappears entirely $\Longrightarrow \mathcal{R}$ is *clitic-doubling*

The distinction in (183) was illustrated in Preminger 2009 using the morphosyntax of the Basque auxiliary; to the extent that it proves to be cross-linguistically stable (see, for example, Kramer 2011, on Amharic), the property in (183a) suggests a cross-linguistic tendency for the "meta-nodes" [φ], [PERSON], and [NUMBER] to have no overt exponence of their own—and thus, for complete lack of valuation to be morphologically indistinguishable from a lack of [participant], [author], and [plural] features.

   Whether this is a cross-linguistic universal or not, however, it is clearly *possible* that in a given language, there would be no observable difference between a φ-probe that has successfully agreed with a 3rd-person singular noun-phrase, and one that has failed to agree with anything—if in this language, "3rd-person singular agreement" were simply the overt exponence given to a φ-probe that lacked [participant], [author], and [plural] features.

   The analytical possibility created by the results of chapter 3 is therefore that defective intervention, which looks like it triggers 3rd-person singular agreement on the φ-probe, is really an instance of failed agreement altogether (given the possibility of failed agreement in a grammatical utterance, which was motivated on the basis of the Kichean Agent-Focus construction, and independently of defective intervention).

   Consider the obligatory operations approach to φ-agreement, implemented through the operation FIND(f), given in §3.4 and repeated here (see §4.5, for a discussion of an alternative based on the violable constraints model):

(184) FIND(f): given an unvalued feature f on a head H^0, find an XP bearing a valued
            instance of f, and assign that value to H^0 *[=(127)]*

Recall also that the terms "unvalued feature f" and "XP bearing a valued instance of f" in (184) are shorthand for feature-geometric notions of valuation; see §2.2.2 (as well as §3.4).

   Given that *case-discrimination* (§4.3.3) was motivated by Bobaljik (2008) independently of defective intervention (for example, by the behavior of φ-agreement in quirky-subject languages, as well as by the absence of languages with an ergative-absolutive agreement alignment but a nominative-accusative case alignment; see §4.3.3), I will assume it is correct. Suppose that the way case-discrimination is implemented in the grammar is not by further constraining the XPs that (184) can target—since that would cause datives and

other discriminated-against XPs to simply be skipped, like non-*wh* phrases in *wh*-probing—but rather by causing the FIND(f) operation to abort:

(185) FIND$_\varphi$(f): given an unvalued feature f on a head H^0, find an XP bearing a valued instance of f. If such an XP is found, check whether its case is allowed by *case-discrimination* —

        yes → assign the found value to H^0

        no → ABORT.

This is admittedly a stipulative addition to (184); but as discussed in §4.3.1, it seems that any approach that would derive the dative paradox will have to make some stipulation or other.[10] The question is which stipulation actually derives the correct array of facts.

    Let us therefore investigate the consequences of (185). Consider Icelandic; as discussed in detail in §4.1 and §4.3.3, only nominative noun-phrases are ever targeted for φ-agreement in Icelandic. Thus, Icelandic makes the case-discrimination cutoff between the first and second members of the *disjunctive case hierarchy*:

(186) *CASE-DISCRIMINATION: ICELANDIC*

    unmarked case ≫ dependent case ≫ lexical/oblique case   *[=(169)]*

        accessible for
        φ-agreement

In an example like (187), below, the φ-probe searches for an XP with valued number/person features (abstracting away, for the purposes of the current discussion, from the possibility that in Icelandic, like in Kichean, person and number probe separately from one another; see Sigurðsson and Holmberg 2008):

(187) það   finnst(/*finnast) [einhverjum stúdent]$_{\text{DAT}}$ [$_{\text{SC}}$ tölvurnar   ljótar].
      EXPL find.SG/*find.PL   some   student.SG.DAT   the.computers.PL.NOM ugly
      'Some student finds the computers ugly.' *[=(145–146)]*
                                                    [*Holmberg and Hróarsdóttir 2003:1000*]

The dative nominal is unambiguously the closest XP bearing valued features of this sort (see (177), above); it therefore must be the XP identified by FIND$_\varphi$(number/person) (as formalized in (185)). This XP—the dative nominal—is then evaluated with respect to *case-discrimination*, which in Icelandic is set in the manner shown in (186), ruling out datives. The formulation of (185) then dictates that FIND$_\varphi$(number/person) be aborted, which means that no valuation of the features on the φ-probe will take place.

    Thus, no [participant], [author], or [plural] features will be copied onto the φ-probe. I will assume, as discussed above, that "3rd-person singular" agreement morphology in Icelandic is simply the spellout of a φ-probe that lacks [plural] and [participant] features (and by

---

[10]Here, I build the *case-discrimination* clause into a version of FIND(f) that is only relevant to φ-features—namely, FIND$_\varphi$(f). It is not clear to me what the counterpart of this clause would be for other kinds of features. Again, while it is stipulative to include this proviso only in the φ-version of FIND(f), this stipulation is motivated independently of defective intervention or datives: as shown in §4.3.3, the cross-linguistic typology of noun-phrases that can and cannot be targeted for φ-agreement is what leads to the formulation of *case-discrimination*—and this typology has no self-evident correlates outside the domain of φ-agreement.

extension, [author] features). The result of aborting FIND$_\varphi$(number/person) will therefore be morphologically indistinguishable from successful agreement with a 3rd-person singular noun-phrase. This is the correct result, as shown in (187).

So far, it seems we have not achieved that much beyond what was already available: we now have yet another explanation for how it is, exactly, that datives come to be inert for the purposes of φ-agreement, in a language like Icelandic; but we already had at least two possible explanations for this (namely, the functional shells approach, and Bobaljik's 2008 original proposal, which did not resort to failed agreement; recall also that the *Activity Condition* was shown to be untenable on independent grounds; see §4.3.1–§4.3.3 for detailed discussion of all three approaches).

Where these two previous approaches ran into trouble was when faced with defective intervention that seems to lead to outright ungrammaticality, as in the French examples discussed in §4.3.2–§4.3.3, which have close counterparts in languages like Spanish, Italian, and Greek:

(188) ?* Jean$_1$ semble [à Marie]$_{DAT}$ [t$_1$ avoir du talent].
Jean seems to Marie have.INF of talent
'Jean seems to Marie to have talent.' *[=(173)]*   [*McGinnis 1998:90*]

As observed earlier, these patterns—namely, those in which defective intervention gives rise to actual ungrammaticality—seem to be cross-linguistically associated with **movement** (note the difference between (188) and (187), for example).

I propose that this ungrammaticality arises precisely at the juncture of φ-agreement and movement, due in particular to the fact that defective intervention leads to the outright failure of φ-agreement.

To see this, let us first consider languages that do not have quirky subjects, such as English or French.[11] Note that for the purposes of this discussion (and in fact, throughout this thesis), I am using the term *quirky subject* to refer specifically to instances of non-nominative noun-phrases that pass the full battery of subjecthood diagnostics (as in Icelandic; Sigurðsson 1989, Zaenen, Maling, and Thráinsson 1985, among others), rather than non-nominative noun-phrases that merely c-command other noun-phrases in the clause (as is the case with certain datives in German, for example; see Haider and Rosengren 2003, Wurmbrand 2006).

What it means for a language not to have quirky subjects is that the canonical subject position (in finite clauses) is always occupied by a nominative noun-phrase; but correlation is of course not necessarily causation, and moreover, it does not dictate the directionality of causation should such causation exist. Traditionally, movement to canonical subject position (henceforth, *MtoCSP*) was seen as the *cause* of this nominatives-only property—either because canonical subject position was the locus of nominative case assignment (as in Chomsky and Lasnik 1977, for example), or because the syntactic element responsible for movement to subject position (e.g. Infl^0) was also the assigner of nominative case (as in later analyses).

---

[11]As both languages are well into the process of losing their overt case-marking, this is of course not directly observable on the basis of the forms of full noun-phrases. In both languages, the familiar move of examining the pronoun/clitic system, where the relevant distinctions are still morphologically observable, reveals this nominatives-only property.

However, once the empirical base was broadened to include languages with quirky subjects, these approaches were no longer tenable, insofar as one wished to maintain a notion of "nominative" that has anything to do with morphologically-observable distinctions (as argued in detail by Marantz 1991). In lieu of assuming that this correlation (in a non-quirky-subjects language) is just a coincidence—or perhaps caused by some third factor, which is neither the movement or the case-marking itself—one could entertain the possibility that it is nominative case that makes a noun-phrase in English or French *eligible* for MtoCSP, in the first place.

Again, such a view would be incoherent in a system where nominative case is assigned as part of, or as the result of, MtoCSP; but languages with quirky subjects make such a system untenable, in the first place. Since languages of that sort (e.g. Icelandic) require a theory of the assignment of nominative where this assignment is *not* associated with MtoCSP, I assume that such a theory generalizes to English and French, as well (which a system like that of Marantz 1991 indeed does; see chapter 5 for further discussion). It is then coherent to discuss nominative case as a precursor to—and potentially, a precondition for—MtoCSP.

If nominative case is a precondition for MtoCSP (in a language like French or English), then an interesting parallelism can be observed between φ-agreement and MtoCSP—namely, that *both* are case-discriminating. This is not an entirely new idea, of course; in theories where Infl^0 was responsible for all three properties—φ-agreement, nominative case assignment, and MtoCSP—this commonality between φ-agreement and MtoCSP was straightforwardly derived. However, given that such theories of φ-agreement and case fail to generalize (as Icelandic demonstrates), it is no longer a trivial fact that this commonality exists.

In §4.3.3, I reviewed Bobaljik's (2008) argument that φ-agreement is case-discriminating; importantly, this was demonstrated *independently* of MtoCSP—for example, by the typological gap in alignments of agreement and case, whereby languages with nominative-accusative case systems but ergative-absolutive agreement systems do not seem to exist. There are therefore three logical possibilities regarding the genesis of case-discrimination in MtoCSP: **(i)** MtoCSP is independently case-discriminating (i.e., the case-discrimination found with φ-agreement is duplicated as part of MtoCSP); **(ii)** there is an independent mechanism of case-discrimination, and both φ-agreement and MtoCSP make use of it; or **(iii)** MtoCSP is case-discriminating derivatively, because it can only see noun-phrases through the prism of φ-agreement.

Naturally, simplicity would favor (ii–iii) over (i). Crucially, there is an additional, empirical reason to favor (iii) over the other two, having to do with the typology of case-discrimination in φ-agreement and in MtoCSP, and in particular, the relation between the set of noun-phrases (in terms of their possible case markings) that can undergo MtoCSP in a given language, and the set of noun-phrases (again, in terms of possible case-markings) that can be targeted by the finite φ-probe.

Before detailing the typological issue at hand, I would like to stress that this discussion involves, on the φ-agreement side, the question of whether a *single φ-probe* can or cannot target noun-phrases with different case-markings (in other words, we are interested in what Bobaljik 2008 terms *single agreement*). Thus, examples like the Basque (189), below, are not

directly relevant, since per morphological slot on the finite auxiliary, only noun-phrases with a single case-marking are ever targeted:[12]

(189) Guraso-e-k   niri   belarritako ederr-ak   erosi [d]- i- [zki]-
      parent(s)-ART$_{pl}$-ERG me.DAT earring(s)   beautiful-ART$_{pl}$(ABS) bought [3.ABS] $\sqrt{}$- [pl.ABS]-
      [da]-   [te].
      [1sg.DAT]- [3pl.ERG]   (Basque)
      '(My) parents have bought me beautiful earrings.'   [*Laka 1996*]

Instead, an example of a single φ-probe being able to target noun-phrases with multiple different case-markings would be finite φ-agreement in Nepali (as noted in §4.3.3). Recall that on the *case-discrimination* analysis, Nepali is a language that makes the cutoff after the second member of the revised Moravcsik Hierarchy (following Bobaljik 2008):

(190) *CASE-DISCRIMINATION: NEPALI*   *(cf. Icelandic, in (186))*

      unmarked case ≫ dependent case ≫ lexical/oblique case
      ⏟
        accessible for
        φ-agreement
                                                                         [=(168)]

Thus, in Nepali, a single φ-agreement host (the finite verb) can target nominals bearing either unmarked case (labeled "NOM", here), or dependent case (labeled "ERG"):

(191) a. **ma**   [yas   pasal-mā] patrikā   kin-ch-**u**   (Nepali)
         1sg.NOM DEM.OBL store-LOC   newspaper.NOM buy-NONPAST-**1sg**
         'I buy the newspaper in this store.' *[=(170a)]*

      b. **maile**   [yas   pasal-mā] patrikā   kin-ē/*kin-**yo**
         1sg.ERG DEM.OBL store-LOC   newspaper.NOM buy.PAST-**1sg**/*buy.PAST-**3sg.M**
         'I bought the newspaper in this store.' *[=(170b)]*

                                                          [*Bickel and Yādava 2000:348*]

   Having elucidated this distinction, we are now in a position to formulate the relevant typological observation. We have already seen a language—Icelandic—where the set of noun-phrases that can undergo MtoCSP (in terms of possible case-markings) is a superset of the set of noun-phrases that can be targeted by the finite φ-probe; in Icelandic, nominatives, accusatives, datives and genitives can move to canonical subject position, but only nominatives can be agreed with (Sigurðsson 1993, 1996). We have also seen languages where the two sets converge: in English for example, only nominatives can be targeted for finite verb agreement, and only nominatives can undergo MtoCSP. I know of no language, however, where the set of noun-phrases that can undergo MtoCSP is a proper subset of the set of noun-phrases that can be targeted by the finite φ-probe:

---

[12]Exceptions to this statement involve *agreement displacement* (see Rezac 2006, 2008a, as well as §4.3.2–§4.3.3); importantly, however, agreement displacement arises in Basque only under well-defined circumstances (see Rezac 2008a for details), and we can therefore safely abstract away from it here.

(192) a. Icelandic: candidates for MtoCSP: $\supsetneq$ candidates for finite φ-agreement:
                       {NOM, ACC, DAT, ...}   {NOM}

      b. English: candidates for MtoCSP: $=$ candidates for finite φ-agreement:
                       {NOM}   {NOM}

      c. *unattested: candidates for MtoCSP: $\subsetneq$ candidates for finite φ-agreement:
                       {NOM/ABS}   {NOM/ABS, ACC/ERG, ...}

In Nepali, for example, where φ-agreement can target noun-phrases bearing unmarked or dependent case, there is crucially no MtoCSP operation that targets only unmarked noun-phrases (cf. (192c)).

Another hypothetical example of a (192c)-type language would be an inverse version of Icelandic, where the φ-probe could target nominatives, accusatives, datives or genitives, but only nominatives could move to canonical subject position. With a raising verb that also takes a dative experiencer (like the Icelandic "*finnast*" 'find', above), the dative would control agreement on the finite verb, but nothing could move to subject position (since the dative would bear the wrong case-marking, but the lower nominative subject would violate minimality/*Closest*), meaning only the expletive-associate variant of this construction would be possible; but again, this seems to be unattested.

In other words, it seems that the capacity of MtoCSP for case-discrimination is derivative of the case-discrimination exhibited by φ-agreement (as in (iii), above).

Suppose then that MtoCSP is case-discriminating precisely because it views noun-phrases through the prism of φ-agreement, and in particular, of $\text{FIND}_\varphi(f)$ (see (185), above). If MtoCSP is designed to move precisely that XP that has been identified by $\text{FIND}_\varphi(f)$, it follows that MtoCSP will manifest the same case-discrimination properties exhibited by φ-agreement. The idea that MtoCSP relies on $\text{FIND}_\varphi(f)$ for its input also recalls an intuition reflected in various existing proposals, that MtoCSP is in some sense "parasitic" on φ-agreement (see, for example, Chomsky 1995b:313).

Of course, MtoCSP is not case-discriminating in *every* language. The reason for abandoning a theory that took MtoCSP, φ-agreement, and nominative case to be intrinsically linked (such as Chomsky's 1995b theory) was the existence of quirky subject languages. As shown in §4.1–§4.3, φ-agreement and nominative case—or more accurately, *unmarked* case—remain intrinsically linked in such a language, but MtoCSP operates independently, appearing to simply target the structurally closest nominal (with certain complications that arise when the closest nominal node is in fact the trace of a moved phrase; see, for example, the discussion of (181) in §4.3.3).

There is therefore a way of thinking of the difference between quirky-subject languages and non-quirky-subject languages that goes at least one step beyond simply naming the two, tracing the difference to whether or not MtoCSP operates on the target of $\text{FIND}_\varphi(f)$:

(193) *MOVEMENT TO CANONICAL SUBJECT POSITION (MTOCSP):*
TWO TYPOLOGICAL VARIATIONS[13]

    a. <u>*IN A QUIRKY-SUBJECT LANGUAGE*</u> *(E.G. ICELANDIC)*
       MtoCSP$_{QSL}$: *Move*(closest DP)

    b. <u>*IN A NON-QUIRKY-SUBJECT LANGUAGE*</u> *(E.G. ENGLISH, FRENCH)*
       MtoCSP$_{NQSL}$: *Move*(XP targeted by FIND$_\varphi$)

It might seem at first glance that this view of the typology of MtoCSP runs into its own duplication problem, this time with respect to *Closest* (since *Closest* is part of FIND$_\varphi(f)$, but now also part of (193a), which does not involve FIND$_\varphi(f)$). Like c-command, however, *Closest* can be viewed not as an explicit condition or rule, but simply as a reflex of hierarchical structure—and in the case of *Closest*, the sequential searching of that structure. Since both FIND$_\varphi(f)$ and (193a) involve searching the structure for a particular kind of target, they will by their very definition have to obey *Closest*. A more accurate definition of (193a) would therefore take *Closest* to be a consequence, not part of the definition itself:

(194) *MOVEMENT TO CANONICAL SUBJECT POSITION (MTOCSP):*
TWO TYPOLOGICAL VARIATIONS – REVISED VERSION

    a. <u>*IN A QUIRKY-SUBJECT LANGUAGE*</u> *(E.G. ICELANDIC)*
       MtoCSP$_{QSL}$: *Move*(DP)

    b. <u>*IN A NON-QUIRKY-SUBJECT LANGUAGE*</u> *(E.G. ENGLISH, FRENCH)*
       MtoCSP$_{NQSL}$: *Move*(XP targeted by FIND$_\varphi$)

Notice also that (193b)/(194b) comes very close to certain other models proposed in the literature, in which *Move* is contingent on *Agree* (see, for example, Chomsky 2000, 2001). There are several important differences, however: **(i)** on the current view, this contingency of movement on agreement only holds in non-quirky-subject languages, crucially not in a language like Icelandic, for example; **(ii)** the kind of agreement implicated in (194b) is morphologically detectable, verb-argument agreement in φ-features—rather than an abstract formal relation that might involve features like [EPP], etc.; and perhaps most importantly, **(iii)** the agreement operation in (194b) is FIND$_\varphi(f)$, which as we have already seen (in §3.4), sometimes occurs without culminating successfully (contra Chomsky's 2000, 2001 *Agree*).

    Let us now illustrate how the model in (194) derives the typology of defective intervention, discussed earlier—and in particular, the conditions under which defective intervention gives rise to actual ungrammaticality, as opposed to a morphological "default".

    Recall the treatment of an example like (187), repeated below, within the FIND$_\varphi(f)$ model: the φ-probe searches for a φ-bearing XP; the structurally closest such XP is the dative nominal; but case-discrimination dictates that this dative nominal is an illicit φ-agreement target, causing FIND$_\varphi(f)$ to abort.

---

[13]This account relies on the idea that one operation can be specified to operate on the output of another—in this case, MtoCSP$_{NQSL}$, which must operate on the XP that FIND$_\varphi(f)$ comes up with—which recalls *functional composition* in mathematics (the composition operator is represented by "∘"):

(i) $(f \circ g)(x) = f(g(x))$

I assume here that in the grammar, too, operations can in principle operate on the output of other operations.

(187) það   finnst(/*finnast) [einhverjum stúdent]$_{\text{DAT}}$ [$_{\text{SC}}$ tölvurnar   ljótar].
      EXPL find.SG/*find.PL some   student.SG.DAT   the.computers.PL.NOM ugly
      'Some student finds the computers ugly.' *[=(145–146)]*

[*Holmberg and Hróarsdóttir 2003:1000*]

The result is a lack of valuation. Thus, the probe will lack any [plural] or [participant] features (and by extension, any [author] features), and therefore—as discussed above—will be morphologically akin to a probe that has successfully agreed with a 3rd-person singular target.

Now consider once more the French (188), repeated here:

(188) ?* Jean$_1$ semble [à   Marie]$_{\text{DAT}}$ [t$_1$ avoir   du talent].
         Jean   seems   to Marie   have.INF of talent
         'Jean seems to Marie to have talent.' *[=(173)]*   [*McGinnis 1998:90*]

In this example, the φ-probe will similarly search for a φ-bearing XP, find the dative, and abort due to case-discrimination; in terms of φ-agreement alone, then, we expect (188) to be well-formed, exhibiting some sort of default φ-agreement on the finite verb. This, however, is where examples like (187) and (188) diverge: given the surface string, MtoCSP is visibly instantiated in (188), but not (187) (and Icelandic being a quirky-subject language, MtoCSP in (187) would yield movement of the dative experiencer, not the embedded nominative subject; cf. (180), above).

We now have an explanation for the ungrammaticality of (188): it requires instantiating an operation—namely, MtoCSP$_{\text{NQSL}}$ of "*Jean*"—in a derivation where the necessary input to that operation is not available. In other words, the surface string in (188) has "*Jean*" to the left of the finite verb, meaning "*Jean*" has undergone MtoCSP$_{\text{NQSL}}$; but given the proposed formulation MtoCSP$_{\text{NQSL}}$ (as in (194b), above), it operates on the XP that has been targeted by FIND$_\varphi(f)$; and in (188), FIND$_\varphi(f)$ has been aborted, therefore not providing MtoCSP$_{\text{NQSL}}$ with an XP on which to operate.

An example like (188) is therefore similar to the examples of "gratuitous non-agreement" discussed in §3.4: it is ruled out not because of any particular diacritic or property of the representation, but because there is simply no derivation made available by the grammar that leads to this surface structure. As discussed in §3.4, ruling out certain structures on the grounds that there is simply no well-formed derivation that leads to them is independently necessary to model the effects of minimality/*Closest*; on the current view, the ungrammaticality of (188) is just another instance of the same logic at work.

In this account, the reason datives intervene in MtoCSP$_{\text{NQSL}}$ just as they intervene in φ-agreement is because MtoCSP$_{\text{NQSL}}$ can only target **that XP which has been targeted for** φ-**agreement**.

Since the account proposed here crucially implicates movement in the ungrammaticality of an examples like (188), this generates the predication that a variant of (188) in which the nominative has remained in situ would be grammatical. As pointed out by Bošković (2002, 2007), this is in fact the case. One cannot demonstrate this with a nominative noun-phrase such as "*Jean*", due to the *Definiteness Effect* (Milsark 1974, and much subsequent work; see also §7.2.2); but such examples are possible with an indefinite nominative:

(195) a. Il   semble   au   général être arrivé deux soldats en ville.
       EXPL seem(sg) to.the general to.be arrived two   soldiers in town
       'There seem to the general to have arrived two soldiers in town.'

     b. Il   semble   au   général y avoir deux soldats manquants à la   caserne.
       EXPL seem(sg) to.the general to.have two   soldiers missing   at the barracks
       'There seem to the general to be two soldiers missing from the barracks.'

<div align="right">[Bošković 2007:603]</div>

In other words, when the nominative remains in situ, French is no different from Icelandic. It is only when MtoCSP$_{\text{NQSL}}$ is forced by the surface string (i.e., the nominative noun-phrase occurs to the left of the finite verb), but the subject could not be target for φ-agreement (due to defective intervention by the dative), that ungrammaticality arises—exactly as predicted on the current account.

Before concluding this section, two notes about English are in order. First, as is well-known, English differs from French and Icelandic alike in allowing agreement across an intervening dative experiencer (as in (196)), and from French in particular in allowing raising across an intervening datives (as in (197)):

(196) a. There **seems/??seem** [to every attorney$_i$] to be [some client of his$_i$ who is innocent].

     b. There **seem/%seems** [to every attorney$_i$] to be [several clients of his$_i$ who are innocent].[14]

(197) [Some client]$_1$ seems [to every attorney] [to t$_1$ be innocent].

Recent work by Hartman (2011, to appear) suggests that this is a property of English "*seem*" and "*appear*", in particular—and it does not extend to other instances of dative intervention, even in English.

Regardless, it is worth noting that the pattern in (196–197) does not counter-exemplify the current proposal, involving MtoCSP$_{\text{NQSL}}$. The prediction of (194) is that movement to canonical subject position, in a non-quirky-subject language like English, will be able to target a noun-phrase exactly when that noun-phrase has been successfully targeted by φ-agreement (implemented here as FIND$_{\varphi}(f)$). As shown in (196), the subject of the non-finite complement of "*seem*" in English can be successfully targeted by φ-agreement; regardless of what the particular explanation of this is (see Anagnostopoulou 2003, Collins 2005, Hartman 2011 for an array of proposals), the formulation of MtoCSP$_{\text{NQSL}}$ proposed here *predicts* that this embedded subject will be able to undergo movement to canonical subject position, exactly as attested in (197).

The second point regarding English involves the overt φ-agreement found on non-past, non-participle main verbs—and in particular, the age-old observation (going back at least as far as Chomsky 1957) that the /-z/ 3rd-person singular agreement marker represents a misalignment of overtness and markedness. Again, this is an instance of exceptionality that is localizable to exactly one property, rather than a counter-exemplification of the logic of

---

[14]See Boeckx (2000) (who attributes the observations to Howard Lasnik) regarding some apparent dialectal variation with respect to the acceptability of the singular form ("*seems*"), in examples like (196b).

the current proposal. If we accept that in this paradigm, */-z/* is the overt spellout of a φ-probe that lacks [plural] and [participant] features (and by extension, [author] features), then the actual distribution of the forms in question is well-behaved, from the perspective of the current proposal.[15] In the terms used in §3.4, (198b) below is an instance of "gratuitous agreement" (in particular, plural agreement morphology in a derivation where the structurally closest noun-phrase, the subject, is singular); conversely, (199b) is an instance of "gratuitous non-agreement" (in particular, singular agreement morphology in a derivation where the structurally closest noun-phrase, the subject, is plural).

(198) a.   This boy enjoys cartoons.

      b. * This boy enjoy cartoons.

(199) a.   These boys enjoy cartoons.

      b. * These boys enjoys cartoons.

Thus, English—despite exhibiting certain characteristics that are, to some degree, unique— does not counter-exemplify the current proposal.

In summary, an approach that takes *case-discrimination* to result in the outright failure of agreement—coupled with the results of chapter 3, where by the failure of agreement does not, in itself, give rise to ungrammaticality—is able to predict which instances of defective intervention will lead to ungrammaticality, and which will not. This sets the current approach apart from its competitors, surveyed in §4.3.2–§4.3.3.

More generally, this account provides an explanation for both sides of the dative paradox: the reason dative nominals cannot transfer their own features to the finite verb (in the relevant languages) is because of *case-discrimination*, a mechanism needed independently of datives (for example, to capture the absence of languages with an ergative-absolutive agreement alignment but a nominative-accusative case alignment; see §4.3.3); the reason datives still interact with φ-probing is because the way *case-discrimination* is implemented in the grammar is through a failure condition within the φ-agreement operation (FIND$_\varphi(f)$, in the current implementation).

This failure is not, in itself, fatal to the derivation; as in the cases discussed in chapter 3, failed agreement is tolerated by the grammar, resulting only in the lack of valuation on the φ-probe; but it can *lead* to ill-formedness of derivations involving an operation that relies for its input on φ-agreement. On the account proposed here, movement to canonical subject position in a non-quirky-subject language (MtoCSP$_{NQSL}$) is such an operation; thus, a surface string that forces a parse where MtoCSP$_{NQSL}$ has taken place, but where the structure is one that would cause φ-agreement to fail, is (correctly) predicted to be ungrammatical.

---

[15]Note that saying that */-z/* is the spellout of a φ-probe that lacks [participant], [author], and [plural] features is not the same as saying that */-z/* is the spellout of [φ], [PERSON], and/or [NUMBER] (though the two may be empirically indistinguishable within English)—since the former specification can be negatively stated using [participant] and [plural] features alone, without reference to the "meta-nodes" [φ], [PERSON], and/or [NUMBER]. See the discussion earlier in this section, regarding the possibility that the "meta-nodes" in the φ-geometry never receive overt exponence of their own.

4.5. Against a *violable constraints* alternative

The reader will notice that the discussion in §4.4 has been phrased in terms of the obligatory operations implementation proposed in §3.4 (based on the FIND(f) operation). At the end of chapter 3, however, it was shown that *two* models were still in contention as viable accounts of φ-agreement—not only the obligatory operations model, but also the violable constraints model.

The account developed in §4.4, however, has relied crucially on the notion that actual failure to agree is implicated in the derivation of defective intervention by dative nominals. In this section, I briefly demonstrate why this state of affairs is incompatible with the violable constraints model.

Consider once more an example like the Icelandic (187), repeated here:

(187) það   finnst(/*finnast) [einhverjum stúdent]$_{\text{DAT}}$ [$_{\text{SC}}$ tölvurnar   ljótar].
EXPL find.SG/*find.PL some   student.SG.DAT   the.computers.PL.NOM ugly
'Some student finds the computers ugly.' *[=(145–146)]*

[*Holmberg and Hróarsdóttir 2003:1000*]
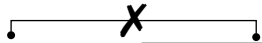
Suppose there is a constraint mitigating against agreement across a dative intervener—or more generally, across any bearer of valued φ-features:

(200)   *CROSSPHI: Assign one violation mark for each noun-phrase β located between x and
a noun-phrase α, if x bears agreement morphology that co-indexes α.
(i.e., $*x[\varphi_i] \gg \beta[\varphi_j] \gg \alpha[\varphi_i]$, where '$\gg$' indicates *c-command*)

We could then account for the impossibility of agreement with the lower nominative in (187) as follows:

(201)

… finiteverb DATDP[φ_k] NOMDP[φ_i] …	*CROSSPHI	HAVEAGR
a. ☞ … finiteverb[Ø] DATDP[φ_k] NOMDP[φ_i] …		*
b. … finiteverb[φ_i] DATDP[φ_k] NOMDP[φ_i] …	*!	

We must also prevent φ-agreement from targeting the dative itself—as demonstrated by (145), repeated here:

(145) það finnst(/*finnast) [mörgum stúdentum]$_{\text{DAT}}$ [$_{\text{SC}}$ tölvan   ljótar].
EXPL find.SG/*find.PL many   students.PL.DAT   the.computer.SG.NOM ugly
'Many students find the computer ugly.'   [*Holmberg and Hróarsdóttir 2003:1000*]

To capture these effects—a sub-case of *case-discrimination* (§4.3.3)—we could add a constraint mitigating against agreement with oblique noun-phrases:

(202)   *OBLTARGET: Assign one violation mark for each oblique noun-phrase (including
datives) targeted for φ-agreement.

In fact, it is quite straightforward to recast the entire revised Moravcsik Hierarchy (in §4.3.3) as a series of constraints mitigating against agreement with nominals bearing lexical/oblique case, *OBLTARGET, above; against agreement with nominals marked with dependent case, *DEPTARGET; and perhaps even against agreement with nominals with unmarked case, *UNMRTARGET. In a language like Icelandic, only *UNMRTARGET would be ranked below HAVEAGR, yielding the attested *case-discrimination* behavior. Note however, that the set {*OBLTARGET, *DEPTARGET, *UNMRTARGET} would have to be extrinsically ranked with respect to one another to yield the correct implicational universals; this constraint-based approach to the Moravcsik Hierarchy therefore provides no particular insight into the nature of *case-discrimination*, and I will leave it aside for now, focusing instead on *OBLTARGET in particular.

If *OBLTARGET and *CROSSPHI were both ranked above HAVEAGR, we would derive the correct behavior of agreement in the Icelandic transitive-expletive construction:

(203)

… finiteverb DATDP[φ_k] NOMDP[φ_i] …	*OBLTARGET	*CROSSPHI	HAVEAGR
a. ☞ … finiteverb[Ø] DATDP[φ_k] NOMDP[φ_i] …			*
b. … finiteverb[φ_i] DATDP[φ_k] NOMDP[φ_i] …		*!	
c. … finiteverb[φ_k] DATDP[φ_k] NOMDP[φ_i] …	*!		

This correctly predicts that the result of defective intervention, in Icelandic, is a non-agreeing form of the verb.

Let us now turn to the French example in (188), repeated here:

(188) ?* Jean₁ semble [à   Marie]_DAT [t₁ avoir   du talent].
        Jean   seems   to Marie   have.INF of talent
        'Jean seems to Marie to have talent.' *[=(173)]*   [*McGinnis 1998:90*]

As demonstrated in §4.2, the ungrammaticality of (188) is crucially tied to the presence of a dative experiencer; corresponding examples that lack a dative experiencer altogether are grammatical, as are examples where the dative experiencer is a pronominal clitic (see Anagnostopoulou 2003, McGinnis 1998). Thus, treating (188) as unrelated to other cases of defective intervention by datives (such as the Icelandic cases discussed throughout this chapter) would miss an important generalization—namely, the generalization which I have called the *dative paradox*.

Initially, the prospects for a constraint-based account of (188), along the lines of (203), seem promising: *OBLTARGET and *CROSSPHI would mitigate against agreement with the dative itself, and against agreement with the nominative *"Jean"* across the dative, just as in the Icelandic example. We could perhaps even generalize *OBLTARGET and *CROSSPHI so that they applied to agreement and movement equally, thus ruling out the raising of the dative or the nominative in (188) in the same manner that agreement with each of the two is ruled out.

The problem arises with the very logic of a violable constraints approach: in this kind of framework, no candidate is "well-formed" or "ill-formed", independently of other candidates; the candidate that is comparatively better than all of its competitors is predicted to be a viable

surface form. The only way a given string can be ungrammatical, then, is if it constitutes a sub-optimal candidate, dispreferred to another realization of the same input. Crucially, however, there is no realization involving the main verb "*semble*", a full lexical noun-phrase (rather than a pronominal clitic) as an experiencer argument, and an embedded non-finite clause [*<Jean> avoir du talent*], that results in a grammatical string.[16]

Thus, the formalism used to model φ-agreement must be capable of introducing outright ungrammaticality—whether this arises at the juncture of φ-agreement and MtoCSP (as in the account proposed in §4.4), or as part of MtoCSP itself. While this might technically be possible in a <u>violable constraints</u> model—for example, by introducing *ungrammaticality* as a candidate in its own right (the so-called "null parse"), and allowing it to compete with the other, grammatical candidates and emerge as optimal under specific circumstances—the idea is fundamentally alien to the spirit of this approach. Insofar as a <u>violable constraints</u> approach constitutes a falsifiable hypothesis, rather than an unrestrictive descriptive apparatus, this is precisely what a falsification of it would look like.

4.6. Summary

In this chapter, I have extended the account of φ-agreement proposed in chapter 3 to account for instances of defective intervention by dative nominals, and what I have called the *dative paradox* (§4.2): the fact that dative nominals interact with φ-probing at all, given the inability of dative nominals to transfer their own φ-features to the φ-probe (§4.1).

The proposal was based crucially on Bobaljik's (2008) observation that φ-agreement is *case-discriminating*: characterizing the set of noun-phrases that φ-agreement can and cannot target in terms of case (and in particular, morphological case, rather than grammatical function) predicts the behavior of φ-agreement in quirky-subject languages like Icelandic, and it also provides an explanation for the absence of languages that exhibit a nominative-accusative alignment in their system of case-marking, but an ergative-absolutive alignment in their agreement system.

---

[16]As discussed in §4.3.2, the variant of (188) in which the embedded clause is finite is grammatical (as shown in (155a)). One might therefore entertain the possibility that the finite variant is the optimal candidate that competes with and outperforms (188), resulting in the ungrammaticality of (188). However, there are interpretive differences between the finite and non-finite versions of this construction; this can be discerned by looking at cases where there is no dative experiencer, or the experiencer is cliticized to verb—in which case both the finite and non-finite variants are grammatical (Anagnostopoulou 2003, McGinnis 1998). The finite and non-finite variants differ, for example, in their temporal interpretation (as in "*It seems that Stewie will be a maladjusted adult*" vs. "*Stewie seems to be a maladjusted adult*")—as one would expect, when dealing with a distinction between a finite embedded clause and a raising infinitive. Thus, attempting to derive the finiteness of the embedded clause (as opposed to stipulating it as part of the input to the system of constraints) amounts to an attempt to use the set of violable constraints to derive the speaker's intentions.

It is also worth noting here that in French, a definite nominative like "*Jean*" cannot remain in situ with the expletive "*il*" filling the matrix subject position in its stead (as discussed in §4.4); but this cannot be the cause of ungrammaticality, in a <u>violable constraints</u> model. First, note that an expletive is not part of apparent input in an example like (188); but even if we assume that an expletive can be inserted by the computation (contra the manipulation of finiteness, as discussed above), then the inability of definites to serve as associates in French simply means there is an undominated constraint like *DEFINASSOC, preventing the an expletive from being inserted (and the definite nominative from remaining in situ). If so, some candidate should still outperform the expletive-associate candidate, emerging as the optimal one—and therefore, the point in the main text still holds.

Importantly, it was shown that existing accounts of defective intervention—such as the *Activity Condition* (Chomsky 2001) (§4.3.1), or the idea that datives are enclosed in a characteristic layer of functional structure (as exemplified by Rezac's 2008a proposal; §4.3.2), or even Bobaljik's own domain/restructuring-based approach (§4.3.3)—could not account for the fact that defective intervention causes outright ungrammaticality in some cases, but merely "default" agreement morphology in others.

This last point also proves crucial in ruling out a <u>violable constraints</u> account of agreement and its failures (§4.5). Simply put, ungrammaticality that arises through defective intervention furnishes a case of *the best not being good enough*: in this case, no possible output in the pool of candidates that can reasonably correspond to a given input turns out to be grammatical— counter-exemplifying the very logic that a <u>violable constraints</u> model is built upon (namely, that grammaticality is simply a matter of incurring the least costly set of violations among the set of competing candidates).

In §4.4, I presented an account based on the notion that *case-discrimination* causes outright failure of the operation responsible for φ-agreement (namely, $\text{FIND}_\varphi(f)$). Crucially, this failure—unto itself—results only in the absence of the effects of the operation, namely valuation of the φ-features on the probe. However, it was argued that in non-quirky-subject languages, movement to canonical subject position (MtoCSP) depends on φ-agreement to identify the moving noun-phrase (an idea for which there seems to be some direct typological support; see (192), above). Thus, a sentence (in a non-quirky-subject language) which can only receive a parse in which MtoCSP has taken place—but where defective intervention would prevent φ-agreement from obtaining—will be ungrammatical, simply because there is no derivation allowed by the grammar that would lead to such a string.

The essential components of this account are repeated below:

(204) $\text{FIND}_\varphi(f)$: given an unvalued feature f on a head H^0, find an XP bearing a valued
          instance of f. If such an XP is found, check whether its case is allowed by
          case-discrimination —   *[=(185)]*

          yes $\rightarrow$ assign the found value to H^0

          no $\rightarrow$ ABORT.

(205) *THE MORAVCSIK HIERARCHY, SECOND (AND FINAL) REVISION*   (Bobaljik 2008)
          unmarked case $\gg$ dependent case $\gg$ lexical/oblique case   *[=(167)]*

(206) *MOVEMENT TO CANONICAL SUBJECT POSITION (MtoCSP):*
          TWO TYPOLOGICAL VARIATIONS – REVISED VERSION   *[=(194)]*

   a. *IN A QUIRKY-SUBJECT LANGUAGE (E.G. ICELANDIC)*
      MtoCSP$_{\text{QSL}}$: *Move*(DP)

   b. *IN A NON-QUIRKY-SUBJECT LANGUAGE (E.G. ENGLISH, FRENCH)*
      MtoCSP$_{\text{NQSL}}$: *Move*(XP targeted by FIND_φ)

As noted earlier, the fact that MtoCSP$_{\text{NQSL}}$ (in (206b)) is computed on the basis of $\text{FIND}_\varphi(f)$ (in (204))—which in turn, makes reference to *case-discrimination*, which operates on the basis of the revised Moravcsik Hierarchy (in (205))—means that we need a case calculus capable of producing the results in (205) while operating entirely in syntax. This issue is taken up in the next chapter.

Chapter 5

Where's φ? In syntax.

In this chapter, I will argue that φ-agreement is part of syntax. While this might seem like an obvious point from certain perspectives, recall that φ-agreement was shown in chapter 4 to operate on the output of *morphological case* (based on Bobaljik's 2008 argument for *case-discrimination*; see §4.3.3), which in turn has been argued, contra *abstract case*, to be post-syntactic (part of the morpho-phonological computation; Marantz 1991). This has been argued, by Bobaljik (2008), to constitute an argument that φ-agreement itself is post-syntactic.

The significance of this question pertains to how the results of 2–4 should be interpreted. If φ-agreement is part of syntax, these results demonstrate the existence of a syntactic phenomenon whose obligatory nature cannot be modeled in terms of underived time-bombs (such as Chomsky's 2000, 2001 *uninterpretable features*; see §3.4) or in terms of violable constraints (§4.5), but instead require the logic of obligatory operations (implemented in chapter 4 in terms of the operation FIND$_\varphi(f)$). If φ-agreement were not part of syntax, then these conclusions would pertain to a different computational module entirely (and would, a fortiori, be irrelevant to *uninterpretable features*).

I will contend that the argument that morphological case (and by extension, φ-agreement) is post-syntactic is based on a false premise, that there are no examples where morphological case (rather than the syntactic structure that gives rise to it) is implicated in the computation of a process or property that in turn must be construed as part of syntax itself. I will show that the results of chapter 4 furnish precisely such a scenario: in a quirky-subject language, morphological case feeds φ-agreement (see above); however, following §4.4, φ-agreement in a non-quirky-subject language feeds movement to canonical subject position, an operation that is clearly syntactic. Thus, insofar as φ-agreement is to be treated in a cross-linguistically consistent manner, both what we have come to call "morphological case" and φ-agreement itself must be part of the syntactic computation.

This necessitates a re-envisioning of the calculus that leads to "morphological case"—and in particular, *case-competition*, and the *disjunctive case hierarchy* (Marantz 1991)—in a way that could be computed within syntax proper. As a further demonstration of this need, I review Baker and Vinokurova's (2010) argument that case in Sakha, a non-quirky-subject language, cannot be computed without *case-competition*, either—showing that *case-competition* is part of the case calculus even in a non-quirky-subject language, rather than a morphological peculiarity of quirky-subject languages alone.

I proceed to show how what we have come to know as "morphological case" can be reimplemented in syntax proper, showing that such an implementation may actually derive the *disjunctive case hierarchy* itself.

I begin by reviewing the arguments for morphological case and φ-agreement being post-syntactic, in the first place (§5.1). Next, I demonstrate that the premise that these arguments are based on—that the results of these computations never feed syntax—is falsified by the results of chapter 4, concerning defective intervention (§5.2). I proceed to review Baker and Vinokurova's (2010) analysis of Sakha, and in particular, the argument from Sakha that case-competition is necessary even in a non-subject language (§5.3.1). I then present a case calculus that is able to replicate the results of Marantz 1991 entirely within syntax, while potentially deriving the *disjunctive case hierarchy* itself (§5.3.2). Finally, I summarize the chapter and situate its results within the broader context of this thesis (§5.4).

5.1. The argument for morphological case and φ-agreement as post-syntactic operations

As noted in §4.3.3, Bobaljik's (2008) argument for the *case-discrimination* property of φ-agreement is actually presented as an argument for φ-agreement being post-syntactic—a part of the morpho-phonological computation, not the syntactic one. I will review the argument here.

Consider first the issue of case-morphology in Icelandic. As shown by Marantz (1991)—building on Zaenen, Maling, and Thráinsson (1985), Sigurðsson (1991), and others—Icelandic exhibits all the properties that in classical Case Theory (Chomsky 1981, Chomsky and Lasnik 1977, among others), were related to the property of *abstract case* (including A-movement, the EPP, etc.); but these properties in Icelandic are entirely dissociable from the morphological case borne by the noun-phrases in question. That is not to say that the two systems are entirely disjoint; for example, subjects of finite clauses in Icelandic will be nominative **unless a different case-marking is licensed by a particular lexical item**. However, these deviations from the canonical pattern are crucial: as these authors show, there is no combinatorial mapping in Icelandic from the *abstract case* that classical Case Theory would assign to a given noun-phrase, to the morphological case actually observed on that noun-phrase (independently of other noun-phrases in the local domain, and/or the identity of the lexical heads in that domain).

As an example of this kind of dissociation, consider a case like (207):

(207) **Fiskinum**₁ er talið [(t₁) hafa verið **hent** t₁]. (Icelandic)
fish.the.DAT is believed have.INF been **discarded**
'The fish is believed to have been discarded.' [*Thráinsson 2007:184*]

It is an idiosyncratic property of the predicate "*henda*" ('throw, discard') in Icelandic that its Patient must bear dative case, hence the term *quirky dative* (or more generally, *quirky case*). Crucially, as shown in (207), when this predicate is passivized, the Patient undergoes the same kind of obligatory A-movement familiar from English; it even continues its A-movement when embedded under a passivized version of the ECM predicate "*taldi*" ('believe'), just as it would in English. Unlike in English, however, this noun-phrase bears no sign of nominative case,

even when it undergoes this A-movement; it is morphologically indistinguishable from other datives (see the references above for details, as well as Thráinsson 2007 for a recent review). It is because of patterns of this sort that we need something other than classical Case Theory to predict the distribution of the different cases in Icelandic.

To achieve this, Marantz (1991) proposes the *disjunctive case hierarchy*:

(208) *DISJUNCTIVE CASE HIERARCHY* (Marantz 1991) *[=(166)]*
    lexical/oblique case → dependent case → unmarked case

Let us briefly review how (208) works. First, all noun-phrases that are selected by lexical items which idiosyncratically specify a particular case-marking for their arguments (prepositions, quirky-case verbs like "*henda*" 'throw, discard' above, etc.) are assigned the specified case-marking.

Next, all those noun-phrases which did not receive case in the previous step are evaluated. For every pair of as-of-yet-caseless noun-phrases within a local domain, one will be assigned *dependent case* (in an ergative language/construction, the higher of the two will get this case-marking, and we can informally call it "ergative"; otherwise, the lower of the two will get this case-marking, and we can informally call it "accusative"):

(209) *CASE-COMPETITION → DEPENDENT CASE* (Marantz 1991)

    a. DP ... DP$^{\text{"ACC"}}$ (nominative-accusative alignment)

    b. $^{\text{"ERG"}}$DP ... DP (ergative-absolutive alignment)

This stage of the algorithm is sometimes referred to as *case-competition*—the idea being that *dependent case* is assigned to a noun-phrase by virtue of a "competing" as-of-yet-caseless noun-phrase; and this term is also used sometimes to refer to the entire *disjunctive case hierarchy* proposal. Note that *case-competition* cannot be a reciprocal relation, since that would falsely predict that *both* of the competing arguments could be assigned dependent case; instead, it must be unidirectional, with the direction parametrized as in (209a–b) (this is what the *ergativity parameter* amounts to, according to Marantz 1991).

In the final step, every noun-phrase that has not been assigned *lexical/oblique* case or *dependent case* in the previous steps will be assigned *unmarked case* (which we can informally call "nominative" or "absolutive"; or in the nominal domain, "genitive"). As noted in §4.3.3, the term *unmarked case* is not to be confused with "default case" or "citation form": in English, for example, fragment answers and other free-standing forms bear accusative(/objective), the *dependent case* ("*Who came to the party? Him/*He.*"). Instead, the term *unmarked case* refers to case-marking whose appearance is neither idiosyncratically conditioned, nor dependent on the appearance of other nominals in the clause. What its name *is* meant to suggest is a cross-linguistic tendency to be phonologically empty, or phonologically lighter than *dependent case* and *lexical/oblique* cases.[1]

---

[1]This is a tendency, not a universal: the Baltic languages, as well as Aymara, are examples of nominative-accusative languages where nominative cannot be construed as morpho-phonologically unmarked or less-marked than other case-markings; similarly, the Northwest Caucasian languages, as well as Nias, are examples

Thus, a quirky-subject verb such as "*líka*" ('like') in (210) will assign *lexical* dative case to its experiencer argument, leaving the other argument to receive unmarked case (see the authors cited above for evidence that (210) is not an inversion structure of some sort; that is, that the dative "*Jóni*" is a bona fide subject):

(210) Henni   líkuðu   hestarnir   (Icelandic)
      her.DAT liked.PL horses.NOM
      'She liked the horses.'   [*Thráinsson 2007:172*]

If the verb is not a quirky-case assigner, however, then neither the subject nor the object will be assigned *lexical/oblique* case, leaving both arguments caseless after the first stage of the algorithm; given that Icelandic is a nominative-accusative language, it is the lower of the two (the object) that will then receive *dependent case*, leaving the higher of the two (the subject) to receive unmarked case:

(211) Hún   las   bókina
      she.NOM read book-the.ACC
      'She read the book.'   [*Thráinsson 2007:171*]

See Zaenen, Maling, and Thráinsson (1985), Yip, Maling, and Jackendoff (1987), Marantz (1991), and McFadden (2004), among others, for related examples and further discussion.

Importantly, as shown by Bobaljik (2008) and detailed in §4.3.3, φ-agreement is sensitive to the morphological case borne by putative agreement targets, not to their conjectured *abstract case*. Thus, in examples like (207) and (210), the dative subjects behave—for the purposes of φ-agreement—like non-subject datives do (namely, they are inaccessible for φ-agreement), not like non-dative subjects do; see chapter 4 for details.

Marantz (1991) argues that the *disjunctive case hierarchy* operates post-syntactically, as part of the morpho-phonological computation. It is an argument from the lack of a certain kind of evidence: the claim is that while morphological case is computed *on the basis of* syntactic structure, it does not *inform* syntax. In other words, Marantz contends that there are no known instances where morphological case, rather than the syntactic structure used to compute it, has proved necessary in order to determine an operation or property that is necessarily syntactic.

Bobaljik points out that if this is correct, it furnishes an order-of-operations argument for φ-agreement being post-syntactic, as well. The argument proceeds as follows: given that it is morphological case (rather than, say, *abstract case*) that φ-agreement is sensitive to, φ-agreement must be computed at a stage in the derivation where morphological case is already available (though see fn. 6, in §4.3.3). Therefore, if morphological case is computed post-syntactically, φ-agreement must be computed post-syntactically, too.

Below, I will argue that this argument is based on a false premise (in particular, the post-syntactic nature of morphological case). Note, however, that if this argument were correct, it would have profound implications for the current thesis: the central argument of this thesis concerns the logic that relates φ-agreement to grammaticality/ungrammaticality, and the inadequacy of certain models (such as Chomsky's 2000, 2001 *uninterpretable features*

---

of ergative-absolutive languages where absolutive cannot be construed as morpho-phonologically unmarked or less-marked than other case-markings (Maria Polinsky, p.c.).

approach) in capturing these empirical patterns. If Bobaljik's extension of Marantz's argument were correct, then the conclusions of chapters 2–4 would be applicable not to the syntactic computation itself, but rather to the morphological component.

It is therefore rather crucial to determine in which module of the grammar φ-agreement occurs, and therefore, to which module these conclusions apply.

5.2. The missing evidence: Non-quirky-subject languages

As noted in §5.1, Marantz's (1991) argument that morphological case is post-syntactic was based on the absence of a certain kind of evidence—namely, grammatical processes that make crucial reference to morphological case (rather than grammatical function or structural prominence), and which inform processes that must be thought of as part of syntax proper.

Recall now the results of chapter 4, concerning how movement to canonical subject position (MtoCSP) operates in quirky-subject and non-quirky-subject languages:

(212) *MOVEMENT TO CANONICAL SUBJECT POSITION (MTOCSP):*
    TWO TYPOLOGICAL VARIATIONS – REVISED VERSION   *[=(194)]*
    a. *IN A QUIRKY-SUBJECT LANGUAGE (E.G. ICELANDIC)*
        MtoCSP$_{\text{QSL}}$: *Move*(DP)

    b. *IN A NON-QUIRKY-SUBJECT LANGUAGE (E.G. ENGLISH, FRENCH)*
        MtoCSP$_{\text{NQSL}}$: *Move*(XP targeted by FIND$_\varphi$)

As shown in §4.4, this way of conceiving of movement to canonical subject position captures the cross-linguistic typology of defective intervention—in particular, it predicts when defective intervention will result in outright ungrammaticality, and when it will simply result in a morphological "default" (e.g. 3rd-person singular agreement morphology).

Now consider (212b), which represents how movement to canonical subject position proceeds in a non-quirky-subject language such as French or English. In (212b), MtoCSP$_{\text{NQSL}}$ is fed by φ-agreement (implemented as FIND$_\varphi$, but this detail is not crucial here). The idea that φ-agreement feeds MtoCSP$_{\text{NQSL}}$ was crucial to derive the following facts: **(i)** movement to canonical subject position—in a non-quirky-subject language—exhibits the same *case-discrimination* property demonstrated with respect to φ-agreement: it can only apply to noun-phrases bearing unmarked case; and more importantly, **(ii)** it is exactly when φ-agreement has been intervened with but MtoCSP$_{\text{NQSL}}$ is nonetheless instantiated that defective intervention yields outright ungrammaticality, rather than some morphological "default" (see §4.4 for details).

At this juncture, it might be instructive to sort out which of these arguments comes from which languages. The arguments for a notion of morphological case that is independent from *abstract case* or *grammatical function* come from quirky-subject languages (namely, Icelandic; see Marantz 1991 and references therein). On the other hand, the arguments presented in chapter 4 in favor of (212b) come from the complementary set of languages (namely, non-quirky-subject languages, such as French or English). There is therefore no single language in our sample so far which provides support for an independent notion of morphological case as well as for a feeding relation between φ-agreement and MtoCSP (though see the discussion of Sakha, below, which may be precisely such a language).
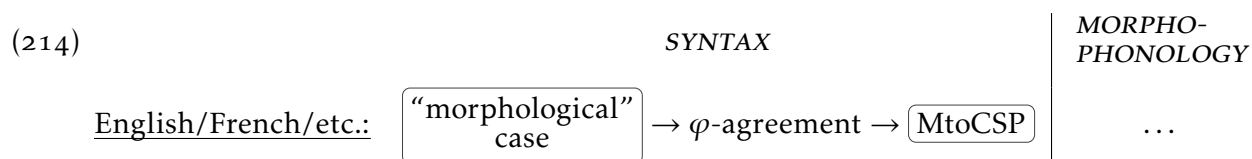
It is therefore logically possible that in non-quirky-subject languages, it is *abstract case* (rather than morphological case) that feeds φ-agreement, and therefore φ-agreement in these languages can be part of syntax proper, and feed MtoCSP (as in (212b)); whereas in quirky-subject languages, φ-agreement relies on morphological case, does not feed MtoCSP (as in (212a)), and is post-syntactic. Notice, however, that such a theory would take φ-agreement in English/French/etc., on the one hand, and φ-agreement in Icelandic, on the other hand, to be not only two different processes—but processes that occur in two different computational modules (syntax proper for φ-agreement in English/French/etc., and morpho-phonology for φ-agreement in Icelandic):

(213)   *SYNTAX*   *MORPHO-*
                                                                                PHONOLOGY

English/French/etc.: $\genfrac{}{}{0pt}{}{abstract}{case} \rightarrow \boxed{\varphi\text{-agreement}}$

Icelandic: $\left(\genfrac{}{}{0pt}{}{abstract}{case}\right)$ $\genfrac{}{}{0pt}{}{morphological}{case} \rightarrow \boxed{\varphi\text{-agreement}}$
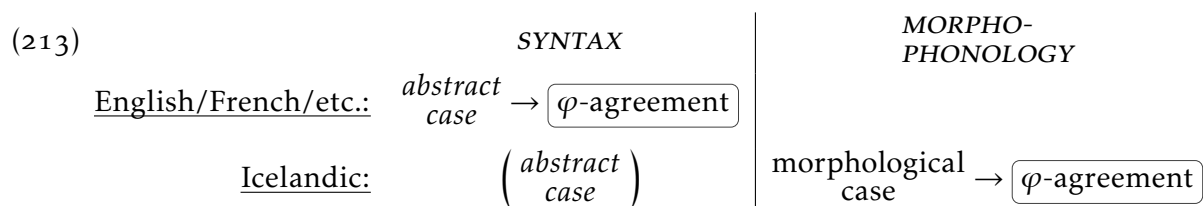
This would mean that the overarching similarities between φ-agreement in English, French, etc., and φ-agreement in Icelandic—that they both involve overt matching in φ-features between a verb or TAM-marker and a verbal argument, that they can both be intervened with by dative nominals (as discussed in detail in chapter 4), etc.—are coincidental. I therefore take such a theory to be a non-starter.

Given Bobaljik's (2008) argument that φ-agreement operates on the basis of morphological case in quirky-subject languages (reviewed in §4.3.3), any theory that takes φ-agreement to be a cross-linguistically uniform phenomenon is thus forced to concede that the notion of case to which it is sensitive is *morphological case*. Following the results of chapter 4, MtoCSP$_{\mathrm{NQSL}}$ is computed on the basis of φ-agreement. By transitivity, then, MtoCSP$_{\mathrm{NQSL}}$ is computed on the basis of morphological case. Crucially, MtoCSP$_{\mathrm{NQSL}}$ is a syntactic process proper: it has both phonological effects (i.e., where the subject is pronounced), and semantic ones (e.g. in terms of binding).

We therefore have an instance of morphological case feeding a process that is properly syntactic—exactly the sort of evidence that Marantz (1991) conjectured not to exist, and whose alleged absence is what motivated the assertion that morphological case is post-syntactic, in the first place:

(214)   *SYNTAX*   *MORPHO-*
                                                                                PHONOLOGY

English/French/etc.: $\boxed{\genfrac{}{}{0pt}{}{\text{``morphological''}}{case}} \rightarrow \varphi\text{-agreement} \rightarrow \boxed{\text{MtoCSP}}$ . . .

This, of course, means that morphological case *cannot* be computed post-syntactically, and that the "morphological" part of this term is therefore a misnomer. In particular, to preserve the success of Marantz 1991 in accounting for the observable case patterns of a language like Icelandic, we must assume that the *disjunctive case hierarchy*, repeated in (215), operates within syntax proper:

(215) *DISJUNCTIVE CASE HIERARCHY* (Marantz 1991)   *[=(208)]*
     lexical/oblique case → dependent case → unmarked case

There is nothing particularly problematic in assuming that the assignment of *lexical/oblique* case occurs within syntax proper, conceived of as a featural relation between the lexical case-assigner and the case-marked nominal. On the other end of the *disjunctive case hierarchy*, *unmarked case* can also be handled easily, as the morphological realization of a noun-phrase that has not been assigned case-related features in the course of the syntactic computation at all (recall that in the system proposed by Marantz 1991, case plays no role in licensing, and therefore nothing goes wrong within syntax with a caseless nominal).

It is *dependent case* that does not have an immediately evident correlate in syntactic theory. The reason is that *case-competition* involves the assignment of case as the result of a local relation between two DPs—whereas case/agreement relations are normally modeled in syntax as relations between a maximal projection and a head, not between two maximal projections.[2]

In this regard, it is interesting to note recent evidence that *case-competition* is a necessary component of case assignment **even in non-quirky-subject languages**; the evidence in question comes from Baker and Vinokurova's (2010) analysis of the Turkic language Sakha, and is reviewed in §5.3.1, below. Recall that MtoCSP in a non-quirky-subject language is *case-discriminating* (in fact, definitionally so). If *case-competition* is part of the case calculus in such a language, it follows that there must be *case-competition* in syntax (given the obviously syntactic nature of MtoCSP).

In the next section, I review Baker and Vinokurova's analysis of the relevant Sakha data, and proceed to outline how *case-competition* can be implemented in syntax proper, subsuming "morphological case" and furnishing a syntax-internal notion of case that is morphology-faithful (i.e., it correctly generates the observed case-markings in a quirky-subject language like Icelandic), and can therefore serve as the input to φ-agreement. Interestingly, this unified syntactic case calculus, I will show, may also be able to derive another component of the system proposed by Marantz (1991)—namely, the *disjunctive case hierarchy* itself.

5.3. Case-competition in syntax

As noted in §5.1, the argument for the computation of "morphological case" being post-syntactic was based on the conjecture that there are no processes in syntax proper that operate on the basis of the output of this computation. In §5.2, I showed that the results of chapter 4 furnish precisely this allegedly missing feeding relation: movement to canonical subject position—an operation that must be part of syntax proper (since it informs components of semantic interpretation, e.g. binding)—is fed by φ-agreement, which in turn is fed by the case computation that gives rise to observable surface case in a language like Icelandic.

This forces us to adopt a model where the computation of so-called "morphological case" takes place within syntax proper—in other words, where the logic of *case-competition* employed by Marantz (1991) operates as part of the syntactic derivation, rather than part of the morpho-phonological one.

---

[2]There are proposals in the literature that come close to implementing *case-competition* in syntax. See, for example, Bittner and Hale 1996.

In §5.3.1, I review Baker and Vinokurova's (2010) analysis, which provides evidence that a *case-competition* logic is necessary even in a non-quirky-subject language like Sakha. In §5.3.2, I discuss the prospects for implementing *case-competition* in syntax, showing that not only is it able to achieve the same results achieved by a post-syntactic computation, but it may actually derive the *disjunctive case hierarchy* (Marantz 1991) itself.

5.3.1. Case assignment in Sakha (Baker and Vinokurova 2010)

Baker and Vinokurova (2010) (henceforth, B&V) present a detailed analysis of case in Sakha, a Turkic language spoken in Northern Siberia. Their argument, in a nutshell, is that the patterns of morphological case found in Sakha require a hybrid system of case-assignment, one that is partly based on *case-competition* (Marantz 1991), and partly based on the assignment of case by functional heads (as in Chomsky 2000, 2001); and that these patterns are not amenable to an analysis using one of these systems alone. Below, I argue that contra B&V's claims, there is actually no need for recourse to assignment of case by functional heads in Sakha, allowing a uniform treatment of case in Sakha using the *disjunctive case hierarchy* alone.

Crucially, however, accusative and dative case in Sakha (even on B&V's original proposal) constitute an instance of *case-competition* in a non-quirky-subject language, lending support to the idea that *case-competition* is part-and-parcel of the calculus of case in general, rather than a property of case realization only in quirky-subject languages like Icelandic, for example.

In §5.3.1.1, I review the argument that accusative (and dative) in Sakha can only be modeled adequately by appealing to a *case-competition* logic (i.e., that accusative and dative are *dependent cases* in Sakha). In §5.3.1.2, I review (and ultimately argue against) the claim that genitive (and nominative) in Sakha can only be modeled adequately in terms of case-assignment by functional heads.

5.3.1.1. Accusative in Sakha

The strongest argument provided by B&V for case-competition in Sakha comes from the behavior of *raising-to-object* constructions, and the distribution of accusative case (the paper contains additional arguments pertaining to accusative case, as well as a parallel set of arguments regarding dative case; I will not review these here).

Raising-to-object has been subject to considerable debate in the linguistic literature, mostly concerning whether or not it is the correct analysis of ECM constructions in a language like English (an analysis that goes back to Postal 1974); in the Turkic languages, however, the existence of raising-to-object is well-established (see George and Kornfilt 1981, Moore 1998, Sener to appear, among others). Its distribution is also much wider than the distribution of ECM in a language like English; for example, it takes place out of embedded finite clauses:

(216) a. min   ehigi(-**ni**) bügün kyaj-yax-xyt   dien erem-mit-im   (Sakha)
        I(NOM) you(-**ACC**) today   win-FUT-2pl.SUBJ that hope-PRT-1sg.SUBJ
        'I hoped that you would win today.'

b. min   [sarsyn   ehigi(*-**ni**) kel-iex-xit   dien] ihit-ti-m
    I(NOM) tomorrow you(*-**ACC**) come-FUT-2pl.SUBJ that   hear-PAST-1sg.SUBJ
    'I heard that tomorrow you will come.'

[B&V:615–616]

As demonstrated in (216a–b), the presence of an overt accusative marker on the subject of a finite embedded clause co-varies with the availability of a parse in which this embedded subject has moved out of its embedded clause; in (216b), where "*ehigi*" ('you') appears to the right of the embedded-clause adverb "*sarsyn*" ('yesterday'), it cannot bear overt accusative marking.[3]

B&V demonstrate that overt accusative marking on a raised embedded subject (as in (216a)) co-varies with the noun-phrase behaving as if it is in the matrix clause for binding purposes, as well. Thus, when it lacks overt accusative marking, a pronominal embedded subject can co-refer with the matrix subject (as in (217a)); but when it carries overt accusative marking, it cannot (as in (217b)).

(217) a. [sarsyn   **min**$_i$ bar-a-byn   dien] ihit-ti-**m**$_i$
        tomorrow **I(NOM)** leave-AOR-1sg.SUBJ that   hear-PAST-**1sg.SUBJ**
        'I heard that I am leaving tomorrow.'

    b. * **miigin**$_i$ sarsyn   bar-a-byn   dien ihit-ti-**m**$_i$
       I.ACC   tomorrow leave-AOR-1sg.SUBJ that hear-PAST-**1sg.SUBJ**

[B&V:616]

This too is consistent with a raising-to-object analysis: a pronominal that has undergone raising-to-object into the matrix clause is expected to trigger a Condition B violation with respect to a co-referential subject.

Finally, B&V demonstrate that this raising-to-object pattern in Sakha cannot be reanalyzed in terms of a *proleptic object* analysis, whereby the accusative-marked nominals in question are actually optional arguments of the matrix predicates "*erem*" ('hope') or "*ihit*" ('hear'). Under a *proleptic object* analysis, an example like (216a) would be better translated as "*I heard of you that you would win today*". B&V argue against such an alternative based on the distribution of "*kim daqany*" ('who PCL'), a *Negative Polarity Item* (*NPI*) in Sakha that can only be licensed in the scope of negation:

(218) * min   [**kim-ŋe   daqany**] [kel-bet   dien] et-ti-m
     I(NOM) **who-DAT PCL**   come-NEG.AOR.3sg.SUBJ that   tell-PAST-1sg.SUBJ
     'I told no one that he should come.'   *[B&V:617]*

Crucially, this same NPI *is* licensed in those constructions that have been analyzed as raising-to-object:

(219) a. min   kim-**i**   daqany [kyaj-ba-ta   dien] eren-e-bin
       I(NOM) who-**ACC** PCL   win-NEG-PAST-3sg.SUBJ that   hope-AOR-1sg.SUBJ
       'I hope that nobody won.'

---

[3]This relies on a fairly standard linking hypothesis, but one that is worth indicating nonetheless, that adverbials like "*sarsyn*" ('yesterday') cannot move out of their clause.

b. min   kim-**i**   daqany [kyaj-bataq-yn   ] ihit-ti-m
   I(NOM) who-**ACC** PCL   win-NEG.PRT-3sg.POSS.ACC   hear-PAST-1sg.SUBJ
   'I heard that nobody won.'

[*B&V:616–617*]

Having established that this is indeed an instance of raising-to-object, B&V proceed to investigate the implications of this construction for the theory of case, in particular as it pertains to accusative in Sakha.

At first glance, it seems that this pattern is compatible with accusative being assigned either by a functional head, or via case-competition. Within a theory of case-assignment by functional heads, let us assume that accusative is assigned by v^0, or some other head in the immediate extended projection of the verb. Given familiar notions of locality, this head would be unable to assign case to a nominal that resides within an embedded CP, proper (note that Sakha, like other Turkic languages, is verb-final; these diagrams are formatted verb-initially to simplify reading hierarchical relations off of the linear schematization):

(220) $v^0 \ldots [_{CP} \ldots DP \ldots]$ (assignment of ACC ruled out by locality)

On the other hand, a DP that has moved out of the embedded clause will conceivably be in a local enough configuration with this functional head to facilitate case-assignment:

(221) $v^0 \ldots DP_1^{ACC} \ldots [_{CP} \ldots t_1 \ldots]$ (assignment of ACC possible)

On a case-competition theory, DPs are assigned *dependent case* (such as accusative) when there is another nominal within the same local domain that has not been assigned lexical/oblique case (Marantz 1991). Thus, the availability of accusative case on the embedded subject will again co-vary with whether or not it has moved into the higher domain:

(222) $DP^{NOM} \ldots [_{CP} \ldots DP \ldots]$ (dependent case ruled out by locality)

(223) $DP^{NOM} \ldots DP_1^{ACC} \ldots [_{CP} \ldots t_1 \ldots]$ (dependent case possible)

However, B&V proceed to present data that is quite problematic for the assignment of accusative by a functional head. First, Sakha allows raised subjects to receive accusative case even in matrix clauses where the relevant functional head (v^0) should not have accusative-assigning capabilities:

(224) a. Keskil Aisen-**y**   kel-bet   dien xomoj-do
      Keskil Aisen-**ACC** come-NAG.AOR.3sg.SUBJ that become-sad-PAST.3sg.SUBJ
      'Keskil became sad that Aisen is not coming.'   [*Vinokurova 2005:366*]

    b. Masha Misha-**ny**   yaldj-ya   dien tönün-ne
      Masha Misha-**ACC** fall.sick-FUT.3sg.SUBJ that return-PAST.3sg.SUBJ
      'Masha returned (for fear) that Misha would fall sick.'   [*B&V:618*]

Crucially, the verbs in (224a–b) are the intransitive members of a transitivity alternation (cf. (225a–b)); and in Sakha, as in other languages, the intransitive member of a transitivity alternation does not allow its sole argument to bear accusative case, as shown in (226a–b):

(225) a. *"xomoj"* ('become sad') — *"xomot"* ('make sad')   [*B&V:617*]

   b. *"tönün"* ('return') — *"tönnör"* ('make return')

(226) a. min   oloppoh-**u** aldjat-ty-m
      I(NOM) chair-**ACC** break-PAST-1sg.SUBJ
      'I broke the chair.'

   b. caakky(*-**ny**) aldjan-na
      cup(*-**ACC**)   break-PAST.3sg.SUBJ
      'The cup broke.'

[*B&V:608*]

If accusative were assigned by a functional projection associated with the verb (such as v^0), then given its unavailability in (226b), we would expect it to be unavailable in (224a–b) as well—contra to fact.

   A related but distinct problem for a theory of accusative case in Sakha as assigned by a functional head in the verbal projection comes from cases like (227), below, where raising-to-object facilitates assignment of accusative case to the raised embedded subject, in a matrix clause that simultaneously contains a distinct accusative-marked argument:

(227) Masha [Misha-**ny**]$_i$ [t$_i$ kel-ie   dien] djie-**ni**   xomuj-da
      Masha Misha-**ACC**   come-fut.3sg.SUBJ that   house-**ACC** tidy-past.3sg.SUBJ
      'Masha tidied up the house (thinking) that Misha would come.'

[*Vinokurova 2005:368*]

Within a functional head theory of accusative case assignment, this requires a one-to-many relation between case-assigner and case-assignees to be possible; but if that were so, we would predict ACC-ACC dyadic predicates to be possible in Sakha, contra to fact (B&V:595–599).

   In contrast, the data in (224a–b) and (227) can be readily handled within a case-competition approach to accusative case. On this approach, accusative case arises when a noun-phrase is in a local enough configuration with another noun-phrase that is not marked with lexical/oblique case (Marantz 1991; see §5.1 for a review), and does not depend on the thematic or argument-structural properties of the predicates that take these noun-phrases as arguments.

   Thus, raising-to-object into a matrix clause anchored by an unaccusative verb does not preclude the raised embedded subject from receiving accusative case under case-competition:

(228) DP$^{\text{NOM}}$ … v/V$_{\text{trans/intrans/…}}$ … DP$_1^{\text{ACC}}$ … [$_{\text{CP}}$ … t$_1$ …]   (dependent case possible)

Similarly, nothing precludes two noun-phrases from qualifying for accusative case based on case-competition with the same noun-phrase; or alternatively, one of them depending on the matrix subject for its accusative case, and the other depending on the first accusative noun-phrase:

(229) a. DP^{NOM} ... DP^{ACC} ... DP_1^{ACC} ... $[_{CP}$ ... t_1 ... $]$

    b. DP^{NOM} ... DP^{ACC} ... DP_1^{ACC} ... $[_{CP}$ ... t_1 ... $]$

The latter configuration, in fact, is precisely the case-competition analysis given by Marantz (1991) for ECM configurations such as (230):

(230) He^{NOM} expects $them^{ACC}$ to invite her^{ACC}.

Importantly, just as in the case-competition account of (230), this does not predict that ACC-ACC dyadic predicates should exist, since *case-competition* cannot be a reciprocal relation (see the discussion in §5.1).

    We have thus seen an argument by B&V in favor of a case-competition approach to the assignment of accusative case in Sakha, and against the assignment of accusative by a functional head in the verbal projection (as noted earlier, B&V provide additional arguments to this effect with regard to both accusative and dative case in Sakha, which I do not review here). I now turn, in §5.3.1.2, to B&V's argument that genitive case in Sakha (as well as nominative) is best handled in terms of case-assignment by a functional head.

5.3.1.2. Genitive in Sakha

In this sub-section, I review B&V's argument that the behavior and distribution of genitive case in Sakha—in contrast to accusative (§5.3.1.1), for example—favors an account where genitive is assigned by a functional head (as with accusative and dative, B&V provide a parallel set of arguments for nominative and genitive; I concentrate here on the arguments pertaining to genitive case, since unlike nominative, genitive case in Sakha is at least sometimes overtly detectable; see fn. 4, below).

    Sakha allows participial relative clauses, as shown in (231a–b) (see also Kornfilt 2005, 2008):

(231) a. [cej ih-er   ] caakky
        tea drink-AOR   cup
       'a cup that one drinks tea from'

    b. [aaq-ar   ] kinige
       read-AOR   book
      'a book for reading'

[B&V:631]

Overt subjects can be realized in these participial clauses only under very specific conditions. One option is a bare, indefinite nominal, string-adjacent to a participial verb that is unaccusative:

(232) a. **sibekki** tyll-ar   kem
           flower bloom-AOR time
           'a time when flowers bloom'

       b. **oton** buh-ar   sir
           berry ripen-AOR place
           'a place where berries ripen'

(233) * **Masha** cej ih-er   caakky
           Masha tea drink-AOR cup
           'a cup that Masha drinks tea from'

<div align="right">[B&V:631]</div>

B&V analyze cases like (232a–b), as well as (231a) above, as instances of (pseudo-)incorporation of the Patient into the unaccusative verb. Examples that do not obey these conditions, such as (233), are ruled out on their account by a generalized *Case Filter*. This is a requirement that all full noun-phrases receive case, resembling the Case Filter of Chomsky and Lasnik (1977)—except that this requirement can be satisfied, on B&V's account, not only through case assignment by a functional head (as in Chomsky 2000, 2001), but also through case-competition (as in §5.3.1.1).

Importantly, examples of participial relatives involving a non-incorporable subject (along the lines of (233), above) can be repaired if the head noun shows possessive agreement with the embedded subject:

(234) [[**Masha aqa-ty**]-**n**   ] atyylas-pyt at-*(**a**)
           Masha father-3sg.POSS-GEN buy-PRT   horse-**3sg.POSS**
       'the horse that Masha's father bought'   [B&V:626]

As (234) demonstrates, this also results in genitive case-marking on the embedded subject.[4]

B&V take this possessive agreement on the head noun to be the overt manifestation of a D^0 head, which assigns genitive case to the embedded subject, thus averting a violation of the generalized Case Filter. Crucially, on their proposal, the reason such possessive agreement only shows up in examples like (234) is that the presence of this D^0 is only required—in these participial relatives—in the presence of an embedded subject that is not incorporable, and therefore requires case-licensing.

They argue that nominative case is assigned in a similar fashion, except that the functional head implicated in the assignment of nominative case is T^0, rather than D^0.

I would like to suggest an alternative to this analysis of genitive (and nominative) in Sakha, which does not require recourse to case-assignment by functional heads. Note that there is no morpheme in (234) that one could identify as the exponence of D^0, independently of possessive agreement. This is not evidence, of course, that there is no D^0 there; in fact, I suggest the exact opposite: that a D^0 head—or more precisely, a possessive φ-probe, whether or not is it situated on D^0 proper—is present in all of these participial relatives.

---

[4]This genitive noun-phrase must itself be possessed to demonstrate its genitive case overtly, because Sakha has lost its overt genitive marking in all other contexts (i.e., only possessed genitives show overt genitive marking; see Baker and Vinokurova 2010:598).

When there is no noun-phrase inside the participial relative, as in (231b)—or when the nominal in the participial relative has been incorporated into the verb (and therefore does not behave as a phrasal category), as in (231a, 232a–b)—this φ-probe will fail to find an appropriate agreement target.[5] As argued in detail in chapter 3, this failure to agree will not result in ill-formedness; it will simply result in the lack of valuation on the φ-probe.

One difference between this pattern and the patterns explored in chapters 2–4 is that here, a φ-probe that has successfully agreed with a 3rd-person singular target receives exponence that does not show up in cases where valuation has failed. Following §4.4, there are at least two ways this could come about. First, consider once more the φ-feature geometry presented in §2.2.2, following Harley and Ritter (2002), McGinnis (2005), and Béjar and Rezac (2009)—and repeated here:

(235) *A SIMPLIFIED φ-FEATURE GEOMETRY*   *[=(37)]*

$$
\begin{array}{ccc}
 & [\varphi] & \\
 \diagup & & \diagdown \\
[\text{PERSON}] & & [\text{NUMBER}] \\
| & & | \\
[\text{participant}] & & [\text{plural}] \\
| & & \\
[\text{author}] & &
\end{array}
$$
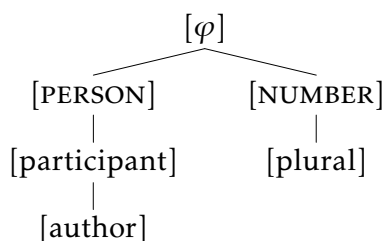
Recall that within a feature-geometrical approach to φ-agreement, valuation consists of copying the φ-geometric specification borne by the target noun-phrase onto the probe (see §2.2.2). Recall also that 3rd-person noun-phrases are not empty φ-geometries; they merely lack the [participant], [author], and [plural] nodes. Thus, if the '3sg.POSS' suffix in Sakha is actually the overt spellout of $[\varphi]$—in particular, the allomorph of valued $[\varphi]$ on a possessive φ-probe that lacks [participant], [author], and [plural]—we would predict that it would be present upon successful agreement with a 3rd-person singular noun-phrase, but absent when agreement has failed.

In §4.4, however, I suggested that there may a cross-linguistic tendency (if not a universal) for the "meta-nodes" $[\varphi]$, [PERSON], and [NUMBER] to receive no exponence of their own—based on the results of Preminger 2009, repeated here:

(236) <u>*DIAGNOSTIC FOR "PURE" AGREEMENT VS. CLITIC-DOUBLING*</u>   (Preminger 2009)

Given a scenario where the relation $\mathcal{R}$ between an agreement-morpheme $\mathcal{M}$ and the corresponding full noun-phrase $\mathcal{F}$ is broken—but the result is still a grammatical utterance:

a. $\mathcal{M}$ shows up expressing "default" φ-features $\Longrightarrow \mathcal{R}$ is *"pure" agreement*

b. $\mathcal{M}$ disappears entirely $\Longrightarrow \mathcal{R}$ is *clitic-doubling*

---

[5]If the possessive φ-probe is located higher than the head noun, e.g. on D^0, then there must be something that prevents the head noun itself from qualifying as a possible target for possessive agreement; but a provision of this sort is necessary in any analysis of possessive agreement. A likely solution, that may also subsume the phrasal/non-phrasal distinction invoked with regard to incorporated nominals in (231a, 232a–b), is to assume that only the maximal extended projection of a nominal counts as a possible agreement target. If so, then the possessive φ-probe, located within the extended projection of the head noun, will be unable to target its own maximal extended projection for agreement.

If (236) holds in Sakha, as well, then we might conclude that what we have been calling "possessive agreement" in Sakha is actually clitic-doubling, triggered when a genitive noun-phrase is probed by the possessive φ-probe. If so, it would be akin to 1st/2nd-person "absolutive agreement" in Kichean, which was argued—in chapter 2—to be an instance of clitic-doubling, triggered when the absolutive noun-phrase is probed by the clausal [participant]-probe—a proposal that itself followed Béjar and Rezac's (2003) analysis of "indirect object agreement" in PCC contexts as clitic-doubling triggered when the indirect object is probed by the person-probe (see §2.4).

This would constitute an instance of obligatory (and semantically indiscriminate) clitic-doubling—just as in these other empirical domains (Kichean 1st/2nd-person "absolutive agreement", and "indirect object agreement" in PCC contexts), as well as in Basque (Arregi and Nevins 2008, in prep., Preminger 2009).

This view, of "possessive agreement" as clitic-doubling triggered by the possessive φ-probe, still preserves the logic of successful and failed agreement, stated above: when there is no unincorporated noun-phrase inside the participial relative, the possessive φ-probe will fail to locate an agreement target, naturally ruling out clitic-doubling, but with no ill-formedness arising (again, following the results of chapter 3). When a noun-phrase is present in the participial relative, it will be probed by the possessive φ-probe, and clitic-doubling will be triggered.

On either of these views, overt agreement must be present when the participial relative contains a full, unincorporated nominal (as in (234), above) not because of a *Case Filter*, but rather for the same reason any other instance of φ-agreement is obligatory: because there is simply no derivation in which the larger noun-phrase (consisting of the head noun and the participial relative) lacks a possessive φ-probe, and thus no derivation where the agreement operation, FIND$_\varphi(f)$, is not invoked; and in derivations where there is an accessible agreement target, this agreement operation will invariably find that target (see, in particular, the discussion of "gratuitous non-agreement" in §3.4).

This sheds an interesting light on a question raised in §3.4—namely, why it is that authors such as Chomsky (1995b, 2000, 2001) thought that φ-agreement had anything to do with the licensing of noun-phrases, in the first place. Looking at cases like (231–234), it is indeed the case that the presence of overt φ-agreement co-varies with the presence of an overt noun-phrase; but on the current proposal, φ-agreement does not *license* the presence of a noun-phrase; it is the presence of a noun-phrase that provides φ-agreement with a viable target (in a sense, we could actually say that "noun-phrases *license* φ-agreement", a view suggested already by Bittner and Hale 1996:3).

Genitive case, on this account—just like nominative, in the verbal domain—is simply the *unmarked case*, assigned to DPs within the nominal that are not otherwise case-marked by a *case-competitor* or a lexical/oblique case assigner (see §5.1, as well as §5.3.2, below), and its assignment is not directly triggered by any functional head.

This represents a departure from the analysis put forth by B&V, who take these data to show that nominative and genitive are assigned in Sakha *by means of φ-agreement* by T^0 and D^0, respectively, following Chomsky 2000, 2001. As already noted in chapter 4, this alternative— where case arises as the result of φ-agreement—is empirically untenable once we broaden the

empirical domain under consideration to include quirky-subject languages, such an Icelandic (as already observed by Zaenen, Maling, and Thráinsson 1985, among others), since these show that nominative case can arise on noun-phrases that φ-agreement has failed to reach.

Furthermore, since the idea that φ-agreement is *case-discriminating* (§4.3.3, §4.4) is predicated on case being computed independently of φ-agreement, the Chomskyan approach is also incompatible with *case-discrimination* and the results that it provides—namely, the account presented in §4.4, which predicts when defective intervention does and does not give rise to outright ungrammaticality, as well as Bobaljik's (2008) account for the absence of languages with an ergative-absolutive agreement alignment but a nominative-accusative case alignment.

Let us therefore examine the evidence put forth by B&V in favor of the Chomskyan implementation proper, where case-assignment arises as a result of φ-agreement. The evidence centers around the unavailability of "double agreement" in several constructions in Sakha where one might otherwise expect it to be possible. Consider one such construction, involving a participial verb selected by an auxiliary that is itself a participle:

(237)   **en**   süüj-büt e-bik-**kin**
        you win-PRT AUX-PRT-**2sg.SUBJ**
        'The result is that you won.'

(238)   **en**   süüj-büt-**kün**   e-bik
        you win-PRT-**2sg.SUBJ** AUX-PRT
        'The result is that you won.'

                                                                                    [*B&V:637*]

As (237–238) show, it is possible for either the participial lexical verb or the participial auxiliary to exhibit overt φ-agreement with the subject. As one might expect, a version of (237–238) where neither participle exhibits φ-agreement is impossible:

(239) * **en**   süüj-büt e-bik
         you win-PTPL AUX-PTPL

                                                                                    [*B&V:637*]

Interestingly, having agreement on both participles is also ruled out:

(240) * **en**   süüj-büt-**kün**   e-bik-**kin**
         you win-PTPL-**2sgS** AUX-PTPL-**2sgS**

                                                                                    [*B&V:637*]

B&V take the ill-formedness of (240) to follow from Chomsky's (2000, 2001) *Activity Condition*—the inability of noun-phrases which have already entered into successful agreement relations, and thus have been assigned case, to enter into further agreement relations (see also §4.3.1); though they acknowledge that the *Activity Condition* cannot be maintained as a cross-linguistic universal (B&V:636, fn. 32)—a fact also shown in §4.3.1, on the basis of data from Tsez (Polinsky and Potsdam 2001).

Notice, however, that on B&V's account, the ungrammaticality of (239) and the ungrammaticality of (240) receive different explanations: agreement on neither participle, as

in (239), is ruled out by the generalized Case Filter, while agreement on both participles, as in (240), is ruled out by the Activity Condition—which itself must be parameterized, a property of some languages but not others.

It seems to me that this is an unnecessarily complicated way of capturing a rather simple pattern: **in a structure like (237–240), agreement must happen exactly once**. This behavior is equally amenable to account that is based on the following premises:

(241) a. exactly one φ-probe is merged in this structure

b. if there is an accessible nominal goal, this φ-probe must agree with it

c. the overt spellout of this φ-probe can end up on either of the participles

Crucially, these premises are for the most part motivated independently of this empirical pattern, or of Sakha in general. The premise in (241a) is hardly a stipulation, any more than the fact that finite clauses in English contain exactly one $Infl^0$ is a stipulation; the premise in (241b) was discussed in detail, and independently motivated, in chapters 3–4 (and also earlier in this sub-section; see also the discussion of "gratuitous non-agreement" in §3.4); finally, the premise in (241c) can follow from one of several fairly benign syntactic assumptions. For example, the base-generated order of heads could be subject to variation, as in (242a–b); or alternatively, the two possible spellouts could arise via head-movement of the φ-probe, as in (243a–b):

(242) a. $[\ PrtAux^0\ [\ Infl^0\ [\ PrtV^0 \ldots]]]\quad\Rightarrow\quad PrtAux^0\ [\varphi\text{-agr.}]\text{-}PrtV^0 \ldots$
b. $[\ Infl^0\ [\ PrtAux^0\ [\ PrtV^0 \ldots]]]\quad\Rightarrow\quad [\varphi\text{-agr.}]\text{-}PrtAux^0\ PrtV^0 \ldots$

(243) a. $[\ PrtAux^0\ [\ Infl^0\ [\ PrtV^0 \ldots]]]\quad\Rightarrow\quad PrtAux^0\ [\varphi\text{-agr.}]\text{-}PrtV^0 \ldots$
b. $[\ Infl^0\text{-}PrtAux^0\ [\ t_{Infl^0}\ [\ PrtV^0 \ldots]]]\quad\Rightarrow\quad [\varphi\text{-agr.}]\text{-}PrtAux^0\ PrtV^0 \ldots$

Admittedly, both (242) and (243) would be stipulative, to some degree; but this is the only stipulation required here that is not independently motivated—and what it facilitates is: **(i)** a unified account of (239) (the ungrammaticality of non-agreement) and (240) (the ungrammaticality of "double agreement"); **(ii)** no need for recourse to a parameterized Activity Condition; **(iii)** it lets us jettison the Chomskyan implementation of case arising via φ-agreement.

Most important among these is (iii), because it allows us to maintain an account of case and φ-agreement that generalizes to quirky-subject languages (Marantz 1991, Zaenen, Maling, and Thráinsson 1985, and others), and it preserves the results of the *case-discrimination* proposal in chapter 4 (the account given in §4.4 for when defective intervention will and will not give rise to ungrammaticality, as well as Bobaljik's 2008 account for the absence of languages with an ergative-absolutive agreement alignment but a nominative-accusative case alignment).

We have therefore seen that contra B&V's claims, the behavior of genitive (and nominative) case and possessor (and finite) agreement in Sakha does *not* favor an account in terms of case-assignment by functional heads (along the lines of Chomsky 2000, 2001); the distribution of genitive (and nominative) case in Sakha can just as easily be modeled in terms of the *disjunctive case hierarchy* (Marantz 1991)—with genitive as the *unmarked case* in the nominal domain—

coupled with assumptions regarding φ-agreement that have been independently motivated in chapters 3–4.

5.3.1.3. Sakha: A summary

In §5.3.1.1–§5.3.1.2, we have reviewed B&V's arguments that the patterns of case-assignment in Sakha require a "hybrid" theory of case-assignment, consisting of *case-competition* alongside assignment of case by functional heads, concluding that the latter part of their argument is under-determined by the data (particularly in light of the results of chapters 3–4). Instead, it appears that the patterns of case-assignment in Sakha are amenable to an account using only the *disjunctive case hierarchy* of Marantz 1991.

Crucially, however, the fact that Sakha shows robust evidence for case-competition is significant: it furnishes an instance where case-competition is required in a non-quirky-subject language. Given the results of chapter 4 and the discussion in §5.2, movement to subject position in a non-quirky-subject language is fed by φ-agreement, which is in turn fed by the calculus of case. Since movement to subject position is a syntactic operation par excellence, these results mean we are in need of a syntactic case calculus that is compatible with case-competition—which is the topic of the next sub-section.

5.3.2. A syntactic case calculus[6]

In §5.2, as well as §5.3.1, the need was demonstrated for a case calculus that operates within syntax proper, yet replicates the effects of *case-competition* (Marantz 1991). In this sub-section, I present one such implementation of a syntactic case calculus—one that it may in fact derive the *disjunctive case hierarchy* itself.[7]

The central idea is that the *disjunctive case hierarchy* is an artifact of the way arguments are introduced into the structure. Consider first *lexical/oblique* case; this is case that is assigned to a noun-phrase by virtue of the idiosyncratic properties of the particular lexical item that selects that noun-phrase as an argument (see §5.1). Given that lexical selection is restricted to sisterhood, this means that *lexical/oblique* case is case that is assigned to a noun-phrase upon first merge, immediately when it is introduced into the derivation:

(244) *LEXICAL/OBLIQUE CASE: ASSIGNMENT OF CASE UPON FIRST MERGE*
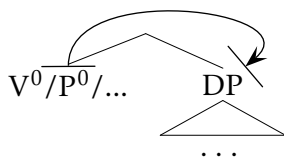
Since the case calculus under discussion here is one that operates within syntax proper, I will assume that the relation schematized in (244) is a featural one: the DP is merged into the

---

[6]The theory presented in this sub-section was developed, in large part, during a series of lectures in Leiden on March 29–31, 2011; my deepest thanks go to the audiences there, and especially to Roberta D'Alessandro for giving me the opportunity to conduct these lectures in the first place.

[7]The proposal made here is similar, in certain respects, to Bittner and Hale's (1996) proposal; however, as will be shown below, the implementation of *case-competition* differs in ways that are crucial to correctly deriving the behavior of *dependent case* in Sakha.

structure with unvalued case features. Crucially, these unvalued case features—just like their φ-feature counterparts—are not <u>derivational time-bombs</u> (§1.2.2; and see chapter 3, for the argument regarding φ-features in particular); nothing goes wrong if they are never valued. They can, however, be valued in a structural configuration like (244).

The precise value transmitted to the case features on the noun-phrase in (244) will depend on the lexical properties of the selecting head—namely, the case values that it carries, and can therefore transmit—which is the desired result, as far as *lexical/oblique* case is concerned. It allows, for example, different verbs (or different prepositions) to idiosyncratically assign different case-values to the noun-phrases they select.

This also allows for instances of V^0 to exist that do not bear case-values at all—in which case no valuation of the case features on the noun-phrase will take place upon first merger— which as will be shown below, is again the desired result, in instances where the noun-phrase in question receives not *lexical/oblique* case, but rather some other kind of case-marking, namely *dependent case* or *unmarked case*.

Importantly, valuation by the selecting head—given a bottom-up approach to structure-building—will be the first opportunity for the case features on a noun-phrase to be valued.[8] We therefore have an explanation for why *lexical/oblique* case is the first step in the *disjunctive case hierarchy* algorithm (on its current syntactic implementation).

If the case features on a noun-phrase have not been valued in a *lexical/oblique* configuration, as described above, it will have an opportunity to value them through other means, which is where *case-competition* comes into play. The results of §5.2 and §5.3.1 demonstrate that case-competition is a necessary component of syntax (in §5.2, this was shown to follow from typological considerations: the same φ-agreement operation that is fed by case-competition in a language like Icelandic must feed movement to subject position, a syntactic phenomenon proper, in non-quirky-subject languages; and in §5.3.1, it was shown that Sakha provides evidence for case competition from a non-quirky-subject language directly).

The way I will implement case-competition in syntax is as follows: assume that case features are DP-level features (i.e., that they are visible at the level of the maximal extended projection of the nominal);[9] suppose, then, that valuation of the case features on a single DP can take place when two DPs with unvalued case features stand in a c-command relation that does not cross relevant locality boundaries (e.g. the boundaries of a finite clause). On this view, dependent case is a essentially a case-feature value indicating *"I have (been) c-commanded (by) another DP with unvalued case features"* (where the directionality is parameterized, as discussed in §5.1).

---

[8]I phrase these observations here in a particularly derivationalist manner, to highlight the parallelism that is achieved between the current proposal and the *disjunctive case hierarchy* of Marantz 1991, itself a sequential algorithm. However, it seems to me that these derivational conditions have representationalist analogues, if we demand that case-valuation relations be as local as possible. The reader should therefore not interpret the expository use of derivationalist terminology in this particular sub-section as an argument for, or even a commitment to, a derivational rather than a representational generative engine.

[9]It is well-established that case is a feature of nominals at the phrasal level, even if it is morphologically instantiated on smaller pieces of the noun-phrase (e.g. on the determiner alone, as is the case in Basque, for example). I leave aside the question of whether this means that case features are phrasal features *sui generis*, or whether this is an instance of a more general syntactic principle that renders the maximal projection of a head featurally identical to the head itself (see, for example, Chomsky 1995a).

This is admittedly a stipulative addition to the logic of syntactic valuation, and one that seems to be restricted to the domain of case, to boot. I have no soothing words to offer, in this respect, except to say that the conclusion that *case-competition* must exist in syntax seems to be forced by the empirical state of affairs I have surveyed in this thesis, and I see no simpler way—at the present time—of implementing it than the one outlined here. Specifically, the fact that case-competition is a relation between two DPs directly, rather than one that is mediated through a functional head (as in Bittner and Hale 1996, for example), is supported by the Sakha data discussed in §5.3.1, involving dependent case being assigned in a clause with passive/unaccusative functional infrastructure.

There is one interesting benefit, however, to viewing case-competition in this manner: given that selection is restricted to sisterhood, and that *lexical/oblique* case is restricted to selectional relations (as discussed above), it *follows* that case-competition will only be possible between two noun-phrases if those noun-phrases have failed to receive *lexical/oblique* case. The reason is that the structure consisting of a noun-phrase and its potential *lexical/oblique* case-assigner will be present *prior* to the larger structure, where both noun-phrases are present and have a chance to enter into the aforementioned c-command relation:

(245) a. *LEXICAL SELECTION (SISTERHOOD):*   b. *LARGER STRUCTURE:*
         POTENTIAL FOR LEXICAL/OBLIQUE CASE   *POTENTIAL FOR DEPENDENT CASE*
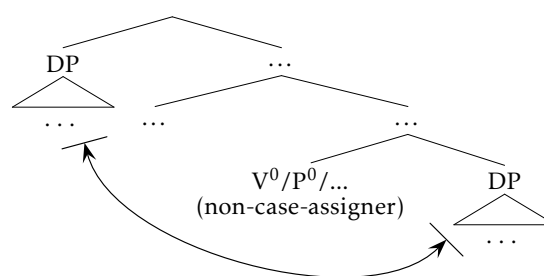
In other words, this approach derives the fact that *lexical/oblique* case takes precedence over *dependent case*—as it does in the Marantz 1991 proposal—by virtue of independently motivated principles of syntactic structure-building (in particular, that lexical selection occurs under sisterhood, the first structural relation that a noun-phrase has a chance to enter into).

One final note regarding *dependent case* concerns the intrinsically asymmetric nature of case-competition. As noted in §5.1, the case-competition relation (whether it is implemented in syntax or not) cannot be reciprocal, since that would falsely predict that *both* competing noun-phrases could be assigned dependent case, contra to fact (it is not, however, necessarily one-to-one, meaning that two different noun-phrases may be able to receive dependent case through competition with the same third noun-phrase; see the discussion of (229–230), in §5.3.1.1). Interestingly, there are a variety of proposals in the literature that discuss a condition prohibiting two DPs that stand in too close a structural relation, roughly speaking, from staying in that relation (Alexiadou and Anagnostopoulou 2001, Moro 2000, Richards 2006, 2010). The kind of close structural relation that these proposals address is illustrated in (246), where two DPs are specifier and complement of the same immediately-containing XP:

(246) *TWO DPs IN (TOO) CLOSE QUARTERS*

```
        XP
       /  \
    DP₁    X'
          /  \
        X⁰    DP₂
```
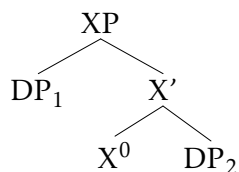
Strictly speaking, given the earlier discussion, there would be no obstacle to DP_1 and DP_2 in (246) entering into a case-competition relation, since DP_1 does asymmetrically c-command DP_2 here. However, imagine that the structural condition on case-competition were not asymmetric c-command per se (as suggested above), but rather something closer to asymmetric m-command (which recalls the more refined structural condition on intervention, discussed in chapter 4; see (177), in §4.3.3). If so, the reason that a base-generated structure like (246) would have to be disrupted (as per the proposals cited above) might be in order to establish a case-competition relation between the two DPs—which would require a more pronounced structural asymmetry, as in (247):[10]

(247) *A SUFFICIENTLY-ASYMMETRIC CONFIGURATION FOR CASE-COMPETITION*

```
          YP
         /  \
      DP₁    …
            /  \
          …     XP
               /  \
            t_DP₁   X'
                   /  \
                 X⁰    DP₂
```
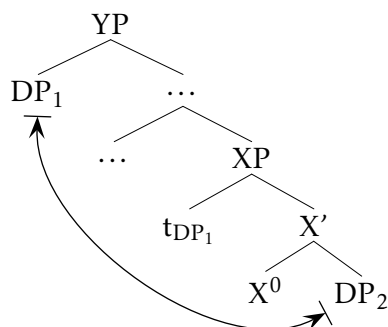
Since these effects (whereby structures like (246) are ruled out in favor of (247), for example) are not the topic of the current proposal, I will not speculate on them further here.

Returning to the syntactic calculus of case: since the unvalued case features on a noun-phrase are not <u>derivational time-bombs</u>, nothing will go wrong if they are not valued at all in the course of the derivation (much like unvalued φ-features; see chapter 3). This, I argue, is what *unmarked case* is: it is the morphological form given to a noun-phrase with no valued case features (similarly to how "3rd-person singular agreement" is really the morphological form given to a φ-probe that lacks [participant] and [plural] features; see §2.2.2).

---

[10]One potential challenge to viewing case-competition as the source for the prohibition observed by Moro (2000), Alexiadou and Anagnostopoulou (2001), and Richards (2006, 2010), is the existence of superficially similar effects in derived positions:

(i) a. * I know everyone insulted someone, but I don't know [_DP_ who] [_DP_ whom].
     b.   I know everyone danced with someone, but I don't know [_DP_ who] [_PP_ with whom].

[*Richards 2010:3*]

Insofar as a constrast like (i) is an instance of the same phenomenon—and Richards (2010:49–50) provides some typological support for the view that it is—then deriving it from case-competition will be considerably more difficult, since the two DPs in question will presumably have had ample chance to establish an adequately asymmetric relation before moving to their ultimate clause-peripheral position.

It therefore follows that this morphological form will only be available to a noun-phrase that has failed to value its case features in one of the two ways described above (which we can descriptively continue to call *lexical/oblique* case and *dependent case*).

In summary, by adopting the particular stipulation made above regarding *case-competition* (namely, that when two DPs with unvalued case features enter into a c-command relation, the case features of one of them are valued), we have effectively derived the *disjunctive case hierarchy*, repeated here:

(248) *DISJUNCTIVE CASE HIERARCHY* (Marantz 1991)   *[=(208)]*
       lexical/oblique case → dependent case → unmarked case

The assignment of *lexical/oblique* case takes precedence because selection (i.e., sisterhood) is the first structural relation that a noun-phrase enters into. Conversely, *unmarked case* is the last possibility because it is simply the morphological expression of the absence of valued case features, and will therefore only arise if the other case-assignment strategies have not come to fruition (i.e., in the absence of a lexically-specified case assigner, and of a case-competitor). As with φ-features (chapter 3), this failure does not lead to ill-formedness, but rather results in a characteristic morphological realization (which we are in the habit of descriptively labeling *nominative* or *absolute*; or in the nominal domain, *genitive*).

5.4. Summary and review

In this chapter, we have seen an argument that φ-agreement as well as what we have come to call "morphological case" must be part of the syntactic computation, rather than the post-syntactic, morpho-phonological one.

The argument was based on typological considerations (§5.2)—namely, the fact that φ-agreement feeds movement to subject position in some languages (§4.4), and is fed by "morphological case" in others (Bobaljik 2008; §4.3.3)—and strengthened by the need for a *case-competition* logic even in a non-quirky-subject language like Sakha (Baker and Vinokurova 2010; §5.3.1). Consequently, there is a need for a system that can replicate the effects of the *disjunctive case hierarchy* (Marantz 1991), including *case-competition*, within syntax proper.

A proposal of this sort was advanced in §5.3.2, where I showed how the *disjunctive case hierarchy* itself might derive from the way arguments are introduced in syntax, coupled with the idea that *unmarked case* is essentially the morphological realization of a noun-phrase that has gone through the derivation without valuing its case features.

Given this syntactically-computed notion of case, φ-agreement can then operate on the basis of case—as argued by Bobaljik (2008), and reviewed in §4.3.3—while still feeding movement to subject position, as argued in §4.4.

In more concrete terms, this means that the φ-agreement operation FIND$_\varphi(f)$ (repeated in (249), below) can make reference to *case-discrimination*—which as Bobaljik shows, relies crucially on a notion of case that is based on *case-competition* (as in the revised Moravcsik Hierarchy, repeated in (250), below)—while still serving as the input to MtoCSP$_{\text{NQSL}}$ (movement to canonical subject position, in a non-quirky subject language, repeated in (251)):

(249) FIND$_\varphi$(f): given an unvalued feature f on a head H^0, find an XP bearing a valued
instance of f. If such an XP is found, check whether its case is allowed by
case-discrimination — *[=(185)]*

    yes → assign the found value to H^0

    no → ABORT.

(250) *THE MORAVCSIK HIERARCHY, SECOND (AND FINAL) REVISION* (Bobaljik 2008)
unmarked case ≫ dependent case ≫ lexical/oblique case *[=(167)]*

(251) *MOVEMENT TO CANONICAL SUBJECT POSITION (MtoCSP):*
TWO TYPOLOGICAL VARIATIONS – REVISED VERSION *[=(194)]*

    a. *IN A QUIRKY-SUBJECT LANGUAGE (E.G. ICELANDIC)*
MtoCSP$_{QSL}$: *Move*(DP)

    b. *IN A NON-QUIRKY-SUBJECT LANGUAGE (E.G. ENGLISH, FRENCH)*
MtoCSP$_{NQSL}$: *Move*(XP targeted by FIND$_\varphi$)

Importantly, this reaffirms that we can indeed take the conclusions of chapters 2–4 to be about syntax itself, not about the post-syntactic morpho-phonological computation—which is crucial, if these results are to tell us something about the adequacy or inadequacy of models such as Chomsky's (2000, 2001) *uninterpretable features* framework.

The results of this chapter, taken together with those of chapters 3–4, thus indeed show that φ-agreement is a syntactic phenomenon proper, whose obligatoriness can only be successfully modeled in terms of obligatory operations, crucially not in terms of violable constraints (§4.5) or derivational time-bombs (§3.1–§3.2, §3.3).

Chapter 6

Another case-study in failed agreement: Basque unergatives

In this chapter, I review another case-study on failed agreement in grammatical utterances, involving unergative verbs in Basque.[1]

I argue for an analysis of simplex (non-periphrastic) unergative verbs in Basque as true intransitives—one-place predicates that select a single, ergative-marked argument—contra the traditional analysis, that takes them to involve an implicit object, in addition to the ergative subject. The idea is that because simplex unergatives lack an object entirely, the φ-probe(s) responsible for absolutive φ-agreement will search for, and fail to find, an agreement target; and that just like the cases of failed agreement discussed in chapters 3–4, this will result not in ill-formedness, but rather in the typical spellout of probes that have failed to find [plural] and [participant]/[author] features—in other words, what is usually referred to as "3rd-person singular" agreement morphology.

Crucially, this analysis of simplex unergatives will be shown to achieve better empirical coverage than the traditional analysis does, in providing a uniform analysis for three types of unergative constructions in Basque: simplex unergatives, periphrastic unergatives (involving a light-verb), and the less often discussed iterative/repetitive unergative construction. This last construction, it will be shown, cannot be handled by the traditional account of Basque unergative morphosyntax, but is derived naturally on the failed agreement account.

Thus, the analysis of agreement in Basque unergatives will provide independent support for the conclusions reached in earlier chapters—namely, that there are instances of failed agreement in grammatical utterances (despite the fact that φ-agreement in Basque, as in other languages, is decidedly obligatory under normal circumstances); and that these instances result only in the lack of valuation on the relevant φ-probes, not in any kind of ill-formedness.

---

[1]The arguments and data in this section, unless otherwise attributed, are taken from a pair of papers published as Preminger 2009, to appear.

6.1. The case for the *implicit object conjecture*

There are two constructions in Basque that are commonly regarded as "unergative"; these are demonstrated in (252a) and in (252b):

(252) THE "UNERGATIVE ALTERNATION" IN BASQUE

    a. LIGHT-VERB CONSTRUCTION
       Jon-ek   dantza egin d-Ø-u-Ø.
       Jon-ERG dance do   3.ABS-sg.ABS-$\sqrt{}$-3sg.ERG
       'Jon danced.'

    b. SIMPLEX UNERGATIVE
       Jon-ek   dantzatu d-Ø-u-Ø.
       Jon-ERG dance-PRT 3.ABS-sg.ABS-$\sqrt{}$-3sg.ERG
       'Jon danced.'

The light-verb construction (in (252a)) is really not *unergative* in any meaningful sense. The main verb, syntactically speaking, is the light-verb *"egin"* ('do'), and this verb quite plainly takes a direct object in *"dantza"* ('dance'). One should not be confused by the fact that the element semantically responsible for the open-class predicational meaning is *"dantza"* ('dance'), into thinking that there is anything unergative about this construction (such a claim would be akin to saying that there is no direct object in *"John broke the ice"*, just because there is no semantic Patient there).[2]

The same is not true for the construction in (252b), at least not trivially; here, the main verb is *"dantzatu"* ('dance')—and it appears that this verb selects an ergative argument (*"Jon"*), but no absolutive one. I will refer to unergative constructions of the kind in (252b) as *simplex unergatives*.

Many authors have attempted to draw parallels between the light-verb construction and the simplex unergative construction—arguing either that one derives from the other, or at least that the light-verb construction reveals something about the underlying nature of simplex unergatives—concluding that there is an *implicit object* of one sort or another in (252b), as well (see Bobaljik 1993, Hale and Keyser 1993, Laka 1993b, Levin 1983, Ortiz de Urbina 1989, Uribe-Etxebarria 1989, among others).

One source of evidence put forth in support of the implicit object approach to simplex unergatives is the existence of alternations such as (252a–b), in the first place. However, while pairs like (252a–b) certainly exist, there are several nominals that can appear in the light-verb construction, for which there is no corresponding simplex unergative; and there may also be examples of simplex unergatives that lack corresponding nominals in the language (see Preminger to appear).

Another source of evidence concerns the form of the auxiliary verbs in (252a–b). First, both the light-verb construction and the simplex unergative construction take the so-called "transitive" auxiliary, constructed from *"*edun(/ukan)"* ('have'), rather than *"izan"* ('be').

---

[2]Dissociations of this sort—between the element that contributes the open-class, lexical meaning of event predication (i.e., *"dancing"*, *"jumping"*, etc.), and the element that functions as the "main verb" syntactically—are not uncommon (see for example Coon 2010a,b).

There is a rich tradition, in the linguistic study of Indo-European languages in particular, of relating auxiliary selection—namely, the choice between *have*-type and *be*-type auxiliaries—with transitivity in general, and with the presence of an underlying object in particular (see, for example, Burzio 1986 and related work). If the same principles extended to Basque, it would be reasonable to take the facts regarding auxiliary selection as an indicator for the transitivity of the verb, and thus for the presence of an (implicit) object.

In Basque, however, transitivity turns out to be an inadequate predictor of auxiliary selection, in the first place. In particular, it has been argued that a better predictor of which auxiliary root is chosen—"*edun(/ukan)*" ('have') or "*izan*" ('be')—is the presence of an ergative agreement target (Laka 1996), or simply the presence of ergative agreement morphology elsewhere in the morpho-phonological domain of the auxiliary (Arregi 2004).

As an example of where these explanations make diverging predictions, consider *allocutive agreement* (Eguren 1995, Oyharçabal 1993). In allocutive agreement contexts, the auxiliary exhibits agreement morphology co-indexing the addressee of the speech act. This "additional" agreement morphology can appear in the ergative agreement slot or the dative agreement slot, depending on which slots are not already occupied by agreement with the nominal arguments of the verb. Consequently, one can find instances of ergative agreement morphology appearing with verbs that are unambiguously intransitive:

(253) Jon-Ø   eror-i   d-Ø-u-**k**.
      Jon(ABS) fall-PRFV 3.ABS-sg.ABS-$\sqrt{}$-**2sg.ERG**
      'Jon has fallen. *(2sg allocution)*'   [*Arregi 2004*]

Crucially, the auxiliary in examples like (253) must be built with the "*edun(/ukan)*" ('have') root, rather than the "*izan*" ('be') root, if the example is to contain allocutive agreement morphology in the ergative agreement slot.[3]

Thus, the presence of an ergative agreement target (or simply, ergative agreement morphology) is a better predictor of which auxiliary root is chosen than the transitivity of the verb. As a result, the choice of "*edun(/ukan)*" ('have') in both light-verb unergatives and the simplex unergative construction is merely an indication that there is an ergative agreement target (and/or ergative agreement morphology) in these examples—but this much, of course, is uncontroversial: the fact that these examples contain an ergative subject (and ergative agreement with that subject) is what has led to the classification of these predicates as *unergative* in the first place. It therefore does not bear directly on the presence or absence of an implicit object, which is focus of this chapter.

I abstract away, for the purposes of the current discussion, from the question of how ergative agreement morphology arises on the Basque auxiliary (see Arregi and Nevins 2008, in prep., as well as Preminger 2009, for arguments that ergative and dative agreement morphology on the Basque auxiliary arises through clitic-doubling of the relevant arguments).

Another property related to the form of the auxiliary that has been taken as evidence that simplex unergatives involve an implicit object concerns the presence of absolutive agreement morphology—recall (252b), repeated here:

---

[3]Similar arguments can be made on the basis of *absolutive displacement*; see Arregi 2004.

(252) b. SIMPLEX UNERGATIVE
    Jon-ek   dantzatu d-Ø-u-Ø.
    Jon-ERG dance-PRT 3.ABS-sg.ABS-$\sqrt{}$-3sg.ERG
    'Jon danced.'

The "*d-*" ('3.ABS-') morpheme found in the auxiliary, in simplex unergatives like (252b), has sometimes been taken to indicate successful agreement with the hypothesized implicit object.[4]

As discussed in chapter 4, however, the agreement morphology identified as "3rd-person singular" in a given language might simply be the exponence assigned to a probe that lacks [plural] and [participant] features. Therefore, it is at least possible that the spellout of φ-probes that have failed to find any target whatsoever would be identical to φ-probes that have entered into a successful agreement relation with a noun-phrase that happens to be 3rd-person and singular.

Thus, the presence of this agreement morphology is compatible with an analysis of (252b) in terms of successful agreement with a 3rd-person (and singular) implicit object, but also with the absence of an absolutive agreement target altogether.

Finally, there is some case-theoretic motivation for pursuing the implicit object analysis: on the surface, simplex unergatives like (252b) appear to violate the generalization that ergative is only assigned in the presence of another non-oblique noun-phrase (or in the parlance of *case-competition*, as discussed in §5, that ergative in Basque is a *dependent case*).

Regardless of the analysis of simplex unergatives, however, there is evidence that a verb in Basque can have an ergative argument without an absolutive co-argument, from examples like the following:

(254)   [[**Harri**   **horiek**]$_{DP_T}$ altxa-tze-n   ] probatu   [d-**Ø/it**-u-(z)te]$_{aux}$
           stone(s) those$_{pl}$(ABS) lift-NMZ-LOC   attempted   3.ABS-**sg/pl.ABS**-$\sqrt{}$-3pl.ERG
        'They have attempted to lift those stones.'
        (subject is *pro* <3pl.ERG>)   [*Etxepare 2006*]

If projecting an ergative subject were contingent on the presence of a direct object, overt or implicit—then the only way the subject of (254) could be ergative is through the presence of an implicit direct object of the matrix verb "*probatu*" ('attempt').

Importantly, absolutive φ-agreement in Basque is not *omnivorous*; there are no instances where an accessible agreement target is skipped in Basque in favor of another, structurally lower agreement target (contra Kichean, as discussed in chapter 2). Since the absolutive noun-phrase in the embedded clause is unambiguously farther away from the φ-probe(s) than an implicit direct object in the matrix clause would be, the φ-probe(s) would have to target this implicit matrix object—falsely predicting that agreement with the embedded absolutive argument would be impossible (which is exactly what happens when there is a true absolutive noun-phrase in the matrix clause; compare (256), below). Even when agreement with the

---

[4]Arregi and Nevins (2008, in prep.) analyze the same prefixal "*d-*" as the result of morpho-phonological epenthesis, satisfying a requirement that the exponence of tense (i.e., the auxiliary root) never be word-initial in Basque. If one adopts this view, then an example like (252b) actually lacks any true absolutive agreement morphology, removing this as a source of evidence for the implicit object conjecture, in the first place.

embedded absolutive argument obtains, however, the matrix subject in (254) is ergative (see Etxepare 2006, Preminger 2009 for further discussion of this and related constructions).

It is worth noting that the *case-competition* proposal (Marantz 1991; chapter 5) does not take co-argumenthood to be the relevant locality condition on *dependent case*; recall (255), repeated from §5.3.1:

(255) He^NOM expects them^ACC to invite her^ACC. *[=(230)]*

It is therefore conceivable that as in (255), the absolutive noun-phrase in the embedded non-finite clause in (254) constitutes a *case-competitor* for the matrix ergative argument.

This approach, however, predicts that the presence of an absolutive argument in an embedded non-finite clause like the one in (254) will be sufficient to trigger ergative case on the matrix subject—an expectation that is not borne out:[5]

(256) [**Liburu-a** irakur-tze-n] saiatu [**dira**]$_{aux}$
    book-ART$_{sg}$(ABS) read-NMZ-LOC try **3pl.ABS.**$\sqrt{}$
    'They have tried to read the book.'
    (subject is *pro* <3pl.ERG>)   *[Etxepare 2006]*

As we can discern from the morphology of the matrix auxiliary, the matrix subject in (256) is *absolutive*, rather than *ergative* (cf. the auxiliary in (254)).

Taken together, then, (254) and (256) demonstrate that *case-competition* cannot be the (only) mechanism responsible for the assignment of ergative case in Basque (this does not falsify the *case-competition* approach in general, of course; it simply means that ergative case in Basque cannot be analyzed as *dependent case*; see Preminger to appear for an alternative analysis of ergative case in Basque). Similar considerations apply to the *Obligatory Case Parameter* approach of Bobaljik (1993) and Laka (1993b) (roughly, the idea that in ergative languages, ergative case arises as the result of the prior discharging of absolutive case).

These data do not pertain directly to failed agreement, of course; both in (254) and in (256), the φ-probes have established a successful agreement relation with an absolutive agreement target (the embedded absolutive argument in (254), and the matrix subject in (256)). They do, however, constitute an existence proof for ergative arguments in Basque in the absence of a viable case-competitor. This, in turn, means that independently of simplex unergatives, a *dependent case* analysis of ergative in Basque cannot be maintained, consequently removing the case-theoretic motivations for the implicit object conjecture.

We have therefore seen that there is no conclusive evidence in favor of the implicit object analysis of simplex unergatives in Basque.

---

[5]It is not inconceivable that (256) contains some phonologically-null structure that is absent in (254), and that this additional structure renders the embedded clause in (256) a separate case-competition domain from the matrix clause, contra the state of affairs in (254). However, the overt morphosyntax in both examples is identical; thus, the burden of proof rests on whoever would argue for a phonologically undetectable structural difference of this sort between (254) and (256).

I thank Marcel Den Dikken for helpful discussion of this point.

6.2. Simplex unergatives as true intransitives

In chapters 2–3, I discussed instances of failed agreement that result from the outright absence of an appropriate agreement target in the domain of the φ-probe. The relevant data involved the Kichean Agent-Focus construction, and so-called "omnivorous" person and number probes (analyzed formally as φ-probes <u>relativized</u> to [participant] and [plural], respectively). Thus, in examples like (257–258) and (259–260), below, the relevant φ-probes successfully skip 3rd-person and/or singular targets in search for an appropriate target with which to agree:[6]

(257) a. ja   rat   x-**at/*Ø**-axa-n   ri achin   (Kaqchikel)
            FOC you(sg.) PRFV-**2sg/*3sg.ABS**-hear-AF the man
            'It was you(sg.) that heard the man.' *[=(21)]*

       b. ja   ri achin x-**at/*Ø**-axa-n   rat
            FOC the man   PRFV-**2sg/*3sg.ABS**-hear-AF you(sg.)
            'It was the man that heard you(sg.).' *[=(22)]*

(258) a. ja   yïn x-**in/*Ø**-axa-n   ri achin
            FOC me PRFV-**1sg/*3sg.ABS**-hear-AF the man
            'It was me that heard the man.' *[=(23)]*

       b. ja   ri achin x-**in/*Ø**-axa-n   yïn
            FOC the man   PRFV-**1sg/*3sg.ABS**-hear-AF me
            'It was the man that heard me.' *[=(24)]*

(259) Ja   rje'   x-**e/*Ø**-tz'et-ö   rja'
       FOC them PRFV-**3pl/*3sg.ABS**-see-AF him
       'It was them who saw him.' *[=(58)]*

(260) Ja   rja'   x-**e/*Ø**-tz'et-ö   rje'
       FOC him PRFV-**3pl/*3sg.ABS**-see-AF them
       'It was him who saw them.' *[=(59)]*

However, in examples like (261–262), where there are no appropriate agreement targets to be found, no ungrammaticality arises (see chapter 3 for a detailed analysis):

(261) ja   ri tz'i' x-**Ø**-etzela-n   ri sian
       FOC the dog PRFV-**3sg.ABS**-hate-AF the cat
       'It was the dog that hated the cat.' *[=(19)]*

(262) ja   ri xoq   x-**Ø**-tz'et-ö   ri achin
       FOC the woman PRFV-**3sg.ABS**-see-AF the man
       'It was the woman who saw the man.' *[=(20)]*

  I will argue that simplex (non-periphrastic) unergatives in Basque furnish the same type of scenario, where agreement fails due to the complete absence of an appropriate agreement target.

---

[6]As detailed in chapter 2, overt φ-agreement with 1st/2nd-person absolutive arguments in Kichean is not the overt exponence of the person probe, but actually the result of obligatory clitic-doubling of the probed argument. However, as explained in §3.1, this does not change the logic of the claims regarding (261–262), below.

Given the absence of conclusive evidence in favor of the implicit object analysis of simplex unergatives (§6.1), let us consider an analysis of simplex unergatives as true intransitives—one-place predicates which select a single, ergative marked argument (recall that an analysis of ergative case in Basque as depending on the presence of another noun-phrase, or on the prior discharging of absolutive case, was shown to be problematic independently of simplex unergatives).

On this analysis, probing for an absolutive agreement target in simplex unergatives will fail to locate a suitable agreement target, just like in the derivation of Kichean Agent-Focus clauses that lack 1st/2nd-person or plural arguments (§3.1–§3.2); and as in Kichean, this failure will not give rise to ungrammaticality, but rather to a mere lack of valuation on the φ-probes. On the assumption that the absolutive agreement morphology identified as "3rd-person singular" in Basque is simply the spellout of φ-probes that have failed to find a [plural]-bearing or [participant]-bearing absolutive agreement target, this is also the agreement morphology expected to arise in this case.

As discussed in §6.1 (and following Laka 1996 and Arregi 2004), the best predictor of auxiliary selection (*have*/*be*) in Basque is the presence of ergative morphosyntax—whether it is the presence of an ergative-marked argument, or simply the presence of ergative agreement morphology on the auxiliary. Since these predicates select an ergative argument (and exhibit ergative agreement), they are expected to select the so-called "transitive" auxiliary, based on "*edun(/ukan)*" ('have'), rather than "*izan*" ('be').

As noted earlier, these are precisely the properties that one finds with simplex unergatives in Basque:

(263) *SIMPLEX UNERGATIVE*
    Jon-ek   dantzatu   d-Ø-u-Ø.
    Jon-ERG dance-PRT 3.ABS-sg.ABS-$\sqrt{}$-3sg.ERG
    'Jon danced.' *[=(252b)]*

Crucially, this analysis generalizes to a construction that cannot be as easily handled by the traditional analysis of Basque unergatives. It is the case that many of the predicates that can appear in the light-verb construction are also able to appear in a variation of this construction, in which the complement of the light-verb is locative/adverbial, rather than nominal. This variant results in an iterative reading:

(264) a. Dantza(-n) egin d-Ø-u-te.
       dance-LOC do   3.ABS-sg.ABS-$\sqrt{}$-3pl.ERG
       'They danced (repeatedly).'

    b. Laster(ka) egin d-Ø-u-te.   d. Oihu(-ka)   egin d-Ø-u-te.
       run-ADV   do   AUX   scream-ADV do   AUX
       'They ran (repeatedly).'   'They screamed/yelled (repeatedly).'

    c. Borroka(-n) egin d-Ø-u-te.   e. Errieta(n)   egin d-Ø-u-te.
       fight-LOC   do   AUX   dispute-LOC do   AUX
       'They fought (repeatedly).'   'They disputed (repeatedly).'

                                            [Etxepare 2003]

What is important to note, for the current purposes, is that the form of the auxiliary remains the same regardless of whether the complement of the light-verb is nominal or adpositional: it remains an "**edun(/ukan)*" ('have') auxiliary, and continues to exhibit *3rd-person singular* absolutive agreement morphology.

Crucially, adpositional phrases, as well as the immediate complements of adpositions, are not viable agreement targets in Basque; consider the *adpositional construction* (as discussed in Preminger 2009, following Etxepare 2006), where a nominalized embedded clause is selected by the adposition "*-n*":

(265)   [[**Harri   horiek**]$_{DP_T}$ altxa-tze-n   ] probatu   [d-**it**-u-zte]$_{aux}$
          stone(s) those$_{pl}$(ABS) lift-NMZ-LOC   attempted   3.ABS-**pl.ABS**-√-3pl.ERG
          'They have attempted to lift those stones.' *[=(254)]*
          (subject is *pro* <3pl.ERG>)

Examples like (265) show that the PP headed by "*-n*" is transparent for φ-agreement purposes. This means that neither the PP in its entirety, nor the nominal that is the immediate complement of "*-n*" (in this case, "*altxa-tze*" 'lift-NMZ'), are viable targets for φ-agreement. Both the PP itself and the immediate nominal complement of "*-n*" are unambiguously closer to the φ-probe in (265) than the embedded absolutive argument ("*harri horiek*" 'stone(s) those$_{pl}$(ABS)') is; therefore, if either were a viable agreement target, we would falsely rule out φ-agreement with the embedded absolutive argument (by minimality/*Closest*).[7]

Thus, returning to the iterative/repetitive construction (in (264a–e)), one is forced to admit that absolutive agreement morphology in this construction—as well as the choice of the "**edun(/ukan)*" 'have' form of the auxiliary, for that matter—arises in some way other than agreement with the open-class stem (e.g. "*dantza*" 'dance' in (264a)). That is because the open-class stem in the iterative/repetitive construction is enclosed within an adpositional phrase—and as argued here, neither the entire PP nor the immediate complement of the adposition constitute viable targets for φ-agreement.[8]

Note that while data like (265) are—as stated earlier—restricted to "substandard" varieties of Basque, the behavior of the iterative/repetitive construction in those varieties is no different than in standard Basque; thus, data like (264a–e) are attested within the very same varieties of Basque that provide evidence against the PP or the immediate adpositional complement being targeted for φ-agreement.

---

[7]A plausible explanation for why the immediate nominal complement cannot be targeted is that "*-n*" selects a category smaller than a full DP; I will not speculate on this further here.

[8]David Pesetsky (p.c.) suggests an alternative to this line of reasoning, positing that the iterative/repetitive construction involves a true nominal complement to the light-verb "*egin*" ('do'), in the form of a phonologically null noun whose meaning is 'repetition'—which in turn, takes the adpositional phrase headed by "*-n*" as its argument. If we adopt this approach, the iterative/repetitive construction could be viewed as properly transitive (since this null nominal would serve as a non-oblique direct object), meaning it would no longer require an analysis in terms of failed agreement per se.

It is indeed the case that most instances of failed agreement can receive an alternative analysis in terms of a phonologically-undetectable-but-present agreement target (see also Preminger 2010a)—though this is crucially not true of failed agreement in the Kichean Agent-Focus construction (see the discussion in §3.1–§3.2). Note that even on this alternative account, the source of absolutive agreement morphology in the iterative/repetitive construction is not the open-class predicate (e.g. "*dantza*" 'dance' in (264a)), which is taken by the implicit object approach to be the source of absolutive agreement morphology in the simplex unergative construction.

In contrast, the failed agreement approach offers a uniform account of all three types of unergative constructions surveyed here:

(266) THE **EXTENDED** *"UNERGATIVE ALTERNATION" IN BASQUE*

    a. *LIGHT-VERB CONSTRUCTION*
       Jon-ek   dantza egin d-Ø-u-Ø.
       Jon-ERG dance do   3.ABS-sg.ABS-√-3sg.ERG
       'Jon danced.' *[=(252a)]*

    b. *SIMPLEX UNERGATIVE*
       Jon-ek   dantzatu d-Ø-u-Ø.
       Jon-ERG dance-PRT 3.ABS-sg.ABS-√-3sg.ERG
       'Jon danced.' *[=(252b)]*

    c. *ITERATIVE/REPETITIVE CONSTRUCTION*
       Dantza-n   egin d-Ø-u-te.
       dance-LOC do   3.ABS-sg.ABS-√-3pl.ERG
       'They danced repeatedly.' *[=(264a)]*

All three cases, on this approach, involve φ-probes that have failed to locate an absolutive noun-phrase bearing [participant]/[author] and [plural] features. Note that the complement of the light-verb in periphrastic unergatives, as in (266a), is uniformly singular (and of course, 3rd-person); thus, while an agreement relation between the φ-probe(s) and the nominal complement has plausibly been established in this case, no valuation involving [participant]/[author] or [plural] can occur.

As in the cases discussed in chapters 3–4, failure to locate a viable agreement target results not in any kind of ill-formedness, but simply in the typical form given by the language to φ-probes that have not been valued for [participant]/[author] or [plural].

Of course, φ-agreement in Basque is not generally *optional*; thus, a mechanism is required that enforces the obligatory nature of φ-agreement while not predicting ungrammaticality if a φ-probe has failed to find an appropriate agreement target in a particular utterance. The obligatory operations approach proposed in chapters 3–4—based on the operation FIND$_\varphi(f)$, repeated in (267)—provides such an account:

(267) FIND$_\varphi(f)$: given an unvalued feature f on a head H^0, find an XP bearing a valued
             instance of f. If such an XP is found, check whether its case is allowed by
             case-discrimination —   *[=(185)]*

             yes → assign the found value to H^0

             no → ABORT.

If the *case-discrimination* parameter in Basque is set so that φ-probes can target absolutive noun-phrases only (i.e., only *unmarked* noun-phrases), the same account also derives the effects of defective intervention by datives that have not been clitic-doubled, as discussed in Preminger 2009 (note that I follow Arregi and Nevins 2008, in prep., as well as Preminger 2009, in taking the ergative and dative agreement morphology on the Basque auxiliary to be the result of clitic-doubling of the relevant arguments, rather than "pure" φ-agreement).

It would still be technically possible to assume that a simplex unergative like (266b), above, involves a phonologically null implicit object—and that like in (266a), this object is 3rd-person and singular, resulting in the lack of [participant]/[author] and [plural] values on the φ-probes; but crucially, given the evidence surveyed here, such an assumption would be entirely unmotivated, producing no added empirical coverage whatsoever.

The historical development of the analyses of Basque unergatives therefore follows a curious arc: the implicit object analysis was put forth, under the assumption that any absolutive agreement morphology indicates successful agreement with an absolutive target, to facilitate a uniform treatment of cases like (266a) and (266b). However, given that a parallel analysis of (266c) is not available, and given the possibility of tolerated failed agreement in language, it is the exact opposite analysis of simplex unergatives (namely, that they lack an absolutive argument entirely) that facilitates a uniform treatment of all three constructions.

6.3. Summary

We have seen, in this chapter, an analysis of Basque unergatives that crucially involved failed agreement in grammatical utterances. In particular, an approach based on failed agreement was shown to provide a unified account not only of the light-verb "unergative" construction and of simplex unergatives—but also of the iterative/repetitive construction (where the open-class nominal is overtly present, but introduced as the complement of an adposition, and thus inaccessible for φ-agreement), which cannot be handled by the traditional analysis of Basque unergatives.

Basque therefore provides independent support for the existence of failed agreement in grammatical utterances—resulting merely in a lack of valuation of the relevant features on the φ-probes, rather than in ungrammaticality—thus lending support to the conclusions of chapters 3–4.

Chapter 7

Conclusions, Extensions, and Outlook

7.1. The thesis, reviewed

In the previous chapters, I have presented arguments that the obligatoriness of φ-agreement is best handled in terms of an *operation*—one whose invocation is obligatory, but whose successful culmination is not enforced by the grammar.

The argument was primarily based upon the behavior of φ-agreement in the Agent-Focus construction in the Kichean branch of the Mayan language family (as detailed in chapter 3, building on the results of chapter 2).

This was then extended (in chapter 4) to show that *defective intervention* (the disruption of φ-agreement by dative nominals) is itself an instance of failed agreement—in this case, triggered by the *case-discrimination* property of φ-agreement observed and formalized by Bobaljik (2008). This approach to *defective intervention* was shown to handle a part of the empirical picture that competing accounts were ill-suited to handle—namely, under which circumstances defective intervention causes outright ungrammaticality, and under which circumstances it merely results in the appearance of "default" agreement morphology (§4.3.3).

This cross-linguistic typology of defective intervention, juxtaposed with the typology of quirky-subject/non-quirky-subject languages, provided an argument for movement to canonical subject position—in a non-quirky-subject language—depending on φ-agreement to identify the noun-phrase that will be moved (§4.4).

Given the fundamentally syntactic nature of movement to subject position, its dependence on φ-agreement constitutes an argument that φ-agreement must be thought of as a syntactic operation proper, contra Bobaljik's 2008 claim in the very same paper (an argument explored in detail in chapter 5).

Coupled with *case-discrimination* being sensitive to the morphologically-observable case borne by a noun-phrase (rather than its *abstract case* or grammatical function, as Icelandic crucially demonstrates), this furnished an argument that so-called "morphological case" (Marantz 1991)—including the logic of *case-competition* (which is necessary to predict the distribution of *dependent case*), as well as the *disjunctive case hierarchy*—must be computed within syntax (contra Marantz's 1991 own assertion). Additional support for this conclusion was provided from Baker and Vinokurova's (2010) analysis of Sakha (Turkic), which illustrates that *case-competition* is a necessary part of the calculus of case even in a non-quirky-subject language (though contra Baker and Vinokurova's claim, Sakha was shown to provide no

particular evidence in favor of the assignment of case by functional heads, as in Chomsky 2000, 2001; §5.3.1).

A syntactic reimplementation of the calculus that leads to morphologically-observable case was then proposed (§5.3.2). This system was shown to generate equivalent results to the one proposed by Marantz 1991, with the added benefit of potentially deriving the *disjunctive case hierarchy* itself from properties of how arguments are introduced into syntactic structure— along with the idea that syntactic case features, like their φ-feature counterparts, do not necessarily need to be valued for a derivation to be well-formed. On this view, "unmarked case" (such as nominative or absolutive in the clausal domain, or genitive in the nominal domain) is simply the morphological expression of case features that have not been valued in the course of the derivation—much like "3rd-person singular" agreement morphology was shown in earlier chapters to simply be the morphological expression of φ-features that had not been valued in the course of the derivation.

Finally, it was shown that the behavior of agreement in Basque provides independent support for the central premise of this <u>obligatory operations</u> approach to φ-agreement— namely, that there are instances where agreement has demonstrably failed in an utterance that is nonetheless grammatical (chapter 6). In this case, it was demonstrated that only an account that takes Basque unergatives to involve failed agreement per se can successfully account for all three types of unergative constructions in Basque: the light-verb construction, simplex (non-periphrastic) unergatives, and unergatives in the iterative/repetitive construction (where the open-class predicate is introduced by an adposition).

The picture that emerges is therefore the following: case-marking (the property we had previously referred to as "morphological case") is computed within syntax, according to the mechanism outlined in §5.3, giving rise to results that are descriptively identical to the *disjunctive case hierarchy* of Marantz 1991. These case-markings can then form the input to *case-discrimination*, which causes φ-agreement (when it happens upon a nominal with the wrong case-marking) to fail.

Another way in which φ-agreement can fail is if a target with the necessary featural content is simply absent from the derivation entirely—as was the case with Kichean Agent-Focus clauses that lack a 1st/2nd-person argument, or Basque unergatives (which lack an absolutive agreement target altogether). This failure of φ-agreement, unto itself, results only in the lack of valuation on the φ-probe; crucially, a φ-probe that has not been valued is not ill-formed or directly problematic to the syntactic computation.

The only way failed φ-agreement can give rise to actual ill-formedness is if an operation that depends on successful φ-agreement is subsequently instantiated. The case in point involves sentences in non-quirky-subject languages where the only possible parse is one in which movement to canonical subject position has taken place—but where φ-agreement has been intervened with—as was shown to be the case in instances of defective intervention coupled with subject raising (e.g. in French), which do lead to ungrammaticality.

The essential components of the account are repeated below:

(268) *A SIMPLIFIED φ-FEATURE GEOMETRY* *[=(37)]*

$$[\varphi]$$

```
            [φ]
          /     \
   [PERSON]      [NUMBER]
      |             |
 [participant]   [plural]
      |
  [author]
```
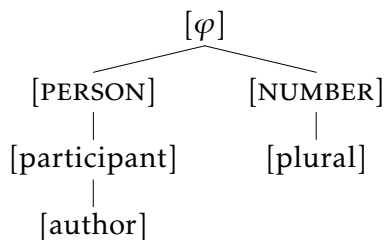
[following Harley and Ritter 2002, McGinnis 2005, and Béjar and Rezac 2009]

(269) FIND$_\varphi$(f): given an unvalued feature f on a head H^0, find an XP bearing a valued
instance of f. If such an XP is found, check whether its case is allowed by
case-discrimination — *[=(185)]*

    yes → assign the found value to H^0

    no → ABORT.

(270) *THE MORAVCSIK HIERARCHY, SECOND (AND FINAL) REVISION* (Bobaljik 2008)
unmarked case ≫ dependent case ≫ lexical/oblique case *[=(167)]*

(271) *MOVEMENT TO CANONICAL SUBJECT POSITION (MtoCSP):*
TWO TYPOLOGICAL VARIATIONS – REVISED VERSION *[=(194)]*
    a. *IN A QUIRKY-SUBJECT LANGUAGE (E.G. ICELANDIC)*
    MtoCSP$_{QSL}$: *Move*(DP)

    b. *IN A NON-QUIRKY-SUBJECT LANGUAGE (E.G. ENGLISH, FRENCH)*
    MtoCSP$_{NQSL}$: *Move*(XP targeted by FIND$_\varphi$)

7.2. Extensions: The logic of φ-agreement as an exemplar of syntactic computation

The results of the previous chapters, as surveyed in §7.1, show us that the logic of φ-agreement is the logic of <u>obligatory operations</u>: the invocation of the φ-agreement operation (FIND$_\varphi$(f), in the current implementation) must be enforced by the grammar in a way that cannot be reduced to the representations it operates upon, or those which it leaves behind (as detailed in chapter 3, in particular).

There is an inherent tension between these results, and what many contemporary approaches to syntax take the logic of syntactic computation to be. For concreteness, I will concentrate here on approaches that fall within purview of the *Minimalist Program* (henceforth, *MP*; Chomsky 1995b, et seq.), though I believe the same tension exists with respect to other approaches as well (including unification-based approaches, such as HPSG and LFG).

In most *MP*-based accounts, syntactic computation is driven by the features borne by lexical items, and the operations (*Agree*, *Move*) are neither "obligatory" nor "optional" in any meaningful sense—they are simply deployed by the system in order to ultimately reach a well-formed end-of-the-derivation structure (see §3.A, for a historical review of the shifting of explanatory burden in syntax away from operations and onto representations; and see §1.2.2 for a concrete treatment of φ-agreement in these terms). A given operation in a given

derivation may be "obligatory"—but this obligatoriness is only derivative, a side-effect of the nature of the features that it operates upon.

At first glance, then, it may seem that this thesis has the unfortunate consequence of making φ-agreement out to be a complete outlier in the landscape of syntactic phenomena.

One possible move that could be taken to address this tension would be to argue that φ-agreement is an outlier in the landscape of syntax because it does not belong in that landscape—in other words, that it is part of a different computational module. The approach taken by Bobaljik (2008) in arguing that φ-agreement is a post-syntactic phenomenon is an example of such a move (though these were not Bobaljik's motivations for that proposal; see §5.1 for a review). However, the results of chapter 5 show that such a move is not available: φ-agreement operates on the basis of case, and informs movement to subject position. Thus, relegating φ-agreement into a different computational module is impossible.

Instead, in this section, I will show that the logic of φ-agreement (as argued for in this thesis) is not an outlier at all: once we know what we are looking for, syntactic phenomena that exhibit the same *operations*-like logic are actually quite common. This will be demonstrated based on the behavior of: *Object Shift* (§7.2.1); the *Definiteness Effect* (§7.2.2); and finally, long-distance *wh*-movement (§7.2.3).

7.2.1. *Object Shift*

This sub-section deals with the phenomenon of *Object Shift*. The literature on Object Shift is vast (see Collins and Thráinsson 1996, Diesing 1996, 1997, Diesing and Jelinek 1993, Fox and Pesetsky 2005, Holmberg 1986, 1999, Rackowski 2002, Richards 2004, Sells 1998, Svenonius 2001, among many others), and one sub-section in a thesis devoted to a different topic cannot do it justice. Instead, in the context of this sub-section, I will treat Object Shift largely as a given, focusing instead on the logic that relates its application or inapplication to other properties of the utterance—namely, *specificity*, and grammaticality/ungrammaticality.

There is a well-established correlation between whether a noun-phrase has undergone Object Shift (in languages where it is possible) and whether it is interpreted as *specific* (Diesing 1996, 1997, Diesing and Jelinek 1993):

(272) a. Ég las$_1$ [þrjár bækur]$_2$ aldrei [$_{VP}$ t$_1$ t$_2$]   (Icelandic)
         I   read(PAST) three books   never
         'There are three books that I never read.'
         (✔ *specific reading of 'three books'* / ✗ *non-specific reading of 'three books'*)

     b. Ég las$_1$ aldrei [$_{VP}$ t$_1$ þrjár bækur]
         I   read(PAST) never   three books
         'I never read three books.'
         (✔ *non-specific reading of 'three books'* / ? *specific reading of 'three books'*)

[*Thráinsson 2007:76*]

However, as Diesing (1997) and Vikner (1997) observe, this correlation is not perfect; in particular, it breaks down **when Object Shift is syntactically impossible**.

In Icelandic, for example, Object Shift depends on verb-movement—an effect known as *Holmberg's Generalization* (Holmberg 1986, and much subsequent work). Regardless of what

the correct explanation of Holmberg's Generalization is (see the works cited above, and references therein), what is clear is that an immobile verb "traps" the object within the VP. Crucially, a specific interpretation is then freely available for a "trapped" object of this sort, in apparent violation of the aforementioned correlation of Object Shift with specificity:

(273) *VERB-MOVEMENT → SPECIFICITY CO-VARIES WITH OBJECT SHIFT*

    a. þau sýna$_1$ [viðtöl   við Blair]$_2$ alltaf   [$_{VP}$ t$_1$ t$_2$] klukkan ellefu.
       they show interviews with Blair always   clock   eleven
       ~ 'Whenever there are interviews with Blair, they are always shown at 11 o'clock.'

                                                              (***generic* reading**)

    b. þau sýna$_1$ alltaf [$_{VP}$ t$_1$ [viðtöl   við Blair]] klukkan ellefu.
       they show always   interviews with Blair   clock   eleven
       ~ 'It is always the case that they show interviews with Blair at 11 o'clock.'

                                                             (***existential* reading**)

(274) *IMMOBILE VERB → SPECIFICITY-IN-SITU POSSIBLE FOR "TRAPPED" OBJECT*

    a. * þau hafa [viðtöl   við Blair]$_2$ alltaf [$_{VP}$ sýnt   t$_2$] klukkan ellefu.
       they have interviews with Blair always   shown   clock   eleven

    b. þau hafa alltaf [$_{VP}$ sýnt [viðtöl   við Blair]] klukkan ellefu.
       they have always   shown interviews with Blair   clock   eleven
       'They have always shown interviews with Blair at 11 o'clock.'   (***ambiguous***)

                          [*Thráinsson 2007:78; examples modeled after Vikner 1997*]

In (274), the lexical verb is not the highest verbal element in its clause—due to the presence of an auxiliary verb—ruling out verb-movement. Crucially, a specific reading of the object in (274b) is freely available (cf. (273b), as well as (272b), above).

Tagalog exhibits very similar behavior, modulo the particular structural conditions on Object Shift—as shown by Rackowski (2002). Since word order is rather free in Tagalog (which Rackowski explains in terms of Richards' 1993 A-bar scrambling analysis), word order is not a reliable indicator of whether Object Shift has or has not occurred. On the other hand, Rackowski shows, Object Shift in Tagalog determines which argument will be agreed with by the verb (cf. the discussion of "positional" accounts of omnivorous agreement, in §2.2.3.3).

In an example like (275), on Rackowski's account, the object remains within VP, does not control agreement on the verb, and crucially, receives a non-specific interpretation; in an example like (276), the object has shifted out of the VP—and as a result, it controls agreement on the verb, and receives a *specific* interpretation:

(275) **M**-aglu-luto   ang lalaki ng   adobo.   (Tagalog)
     NOM-ASP-cook ANG man   CASE adobo
     'The man will cook adobo.'   (***non-specific reading of 'adobo'***)

(276) Lu-lutu-**in**   ng   lalaki ang adobo.
     ASP-cook-**ACC** CASE man   ANG adobo
     'The man will cook the adobo.'   (***specific reading of 'adobo'***)

[*Rackowski and Richards 2005:569–570*]

The structural conditions on Object Shift in Tagalog are quite simple: in order to undergo Object Shift, the noun-phrase in question must be the structurally highest argument within the VP. This much, in fact, is also true of Icelandic:

(277) a. ?* Ég lánat$_1$ bækurnar$_2$ ekki [$_{VP}$ t$_1$ Maríu   t$_2$].
        I   lend   books.ACC not   Maria.DAT

    b.   Ég lána$_1$ Maríu$_2$ ekki [$_{VP}$ t$_1$ t$_2$ bækurnar].
        I   lend Maria.DAT not   books.ACC
        'I do not lend the books to Maria.'

[*Collins and Thráinsson 1996*]

Returning to Tagalog, if we use a non-prepositional benefactive—which as Rackowski argues, forces a high-applicative structure (Pylkkänen 2002)—then only the benefactive argument can undergo Object Shift:

(278) a. * Ni-luto-**Ø**   ni   Romeo ng   babae ang adobo.
        ASP-cook-**ACC** CASE Romeo CASE woman ANG adobo

    b.   **I**-p.in.agluto ni   Romeo ng   adobo ang babae.
        OBL-ASP.cook CASE romeo CASE adobo ANG woman
        'Romeo cooked (the) adobo for the woman.'
                    (***specific reading of 'woman', specific/non-specific reading of 'adobo'***)

[*Rackowski and Richards 2005:571–572*]

As expected, this forces a *specific* reading of "*babae*" ('woman'); but what is of interest here is the fate of "*adobo*": it can now receive either a *specific* or a *non-specific* reading. This contrasts with the fate of the same Patient argument, of the same verb stem ("*luto*" 'cook'), in (275): there, this Patient argument did not undergo Object Shift either, but crucially **could have** (as demonstrated by (276)); and there, it could only receive a *non-specific* reading.

As noted above, the conditions under which Object Shift is possible or impossible are subject to cross-linguistic variation. In Tagalog, Object Shift is possible when a noun-phrase is the highest argument in the VP; in Icelandic, this condition is still operative, but there is the added condition of verb-movement (Holmberg's Generalization). However, if we abstract away from the language-particular conditions on Object Shift, the following consistent pattern emerges (as already highlighted by Vikner 1997):

(279)

	Object Shift possible	Object Shift impossible
non-shifted noun-phrase	*non-specific*	*ambiguous (specific/non-specific)*
shifted noun-phrase	*specific*	N/A

Crucially, this pattern lends itself remarkably well to an <u>obligatory operations</u> model. The idea is that Object Shift, like φ-agreement—or more accurately, FIND$_\varphi(f)$—is an *operation*, that can culminate successfully or unsuccessfully, depending on relevant structural conditions.

On this view, invoking Object Shift when it is impossible—for example, on a noun-phrase that is not the highest argument in VP, or in Icelandic, when the lexical verb has not moved— will result in the failure of the Object Shift operation; but just as with FIND$_\varphi(f)$, the only result of this failure will be the absence of the effects that the successful culmination of the operation would bring about (in the case of φ-agreement, the effect in question is feature valuation; in the case of Object Shift, the effect is the argument vacating the VP).

Suppose that *specificity* of a given noun-phrase obligatorily triggers the application of the Object Shift operation on that noun-phrase:

(280) *AN <u>OBLIGATORY OPERATIONS</u> MODEL OF OBJECT SHIFT*

$x[+specific] \rightarrow Shift(x)$

where *Shift* is the operation that causes a noun-phrase to vacate the VP, subject to the structural conditions on "Object Shift" in the language in question

Thus, *Shift(x)* will be invoked for every [*+specific*] noun-phrase in the derivation. Take, for example, the sub-case of the Tagalog (278b), above, where all arguments are specific ('Romeo cooked the adobo for the woman'): given (280), *Shift(x)* will be invoked on the Patient ('the adobo') and on the benefactive applicative argument ('the woman') (as well as potentially on the subject, 'Romeo', though the application of *Shift(x)* on the subject will be vacuous, as it is already outside of the VP). Given the structural conditions on Object Shift in Tagalog, *Shift(x)* will only successfully apply to the benefactive, since the Patient is not the highest argument within the VP; this means that the benefactive will be the one to vacate the VP, even though both internal arguments will have a *specific* reading.

To summarize, the result is exactly as shown in (279): in configurations where Object Shift is possible, its application will co-vary with *specificity*; in configurations where it is impossible, *specificity* seems to come "for free"—it is possible in the absence of (successful) Object Shift.

This mirrors precisely what we have seen regarding φ-agreement, in earlier chapters: in configurations where φ-agreement is possible, its application co-varies with grammaticality; but precisely in those configurations where φ-agreement is impossible (for example, due to the outright absence of an appropriate target in the derivation, or due to defective intervention), grammaticality is possible *without* φ-agreement.

This is not meant to suggest that an <u>obligatory operations</u> approach of the sort discussed here is the only possible account of the pattern in (279); Diesing (1997) and Vikner (1997) offer different accounts, based on covert movement and violable constraints, respectively.

The point of the current discussion, as outlined in the beginning of the section, is merely to show that the logic of obligatory operations exhibited by φ-agreement is far from a solitary case in the landscape of syntactic phenomena, and thus there is no argument to be had from "exceptionality" against the results of earlier chapters.

7.2.2. The *Definiteness Effect*

The *Definiteness Effect* (Milsark 1974, and much subsequent work) furnishes a very similar case to that of Object Shift (§7.2.1), in support of the existence of other syntactic phenomena that are amenable to an obligatory operations logic.

Broadly speaking, the *Definiteness Effect* is a prohibition against "strong" determiners (such as "*the*") heading noun-phrases that fail to move to subject position:[1]

(281) a. The boy/a boy seems to be playing in the garden.

   b. There seems to be a boy/*the boy playing in the garden.

However, this restriction is crucially lifted when it comes to noun-phrases that **cannot** move to subject position. For example, a dative experiencer can be freely added to (281), even if it is definite:

(282) a. The boy/a boy seems **to the girls** to be playing in the garden.

   b. There seems **to the girls** to be a boy/*the boy playing in the garden.

One could imagine that the relevant factor in the suspension of the Definiteness Effect for "*the girls*" in (282a–b) is its thematic role, its obliqueness, or some other property—rather than its inability to move to subject position, necessarily. However, quirky-subject languages demonstrate quite vividly that what is at stake is indeed the ability to move to subject position. In the Icelandic counterpart of (282), it is the dative experiencer—not the nominative subject of the embedded predicate—to which the Definiteness Effect applies (Sigurðsson 1989):

(283) a. * það   virtist   [dómurunum]_{DAT} [kona/konan]   hafa   skrifað
            EXPL seemed   **judges.the.DAT**   **woman.NOM/woman.the.NOM** have.INF written
            bókina.
            book.the.ACC
            'It seemed to the judges that a/the woman had written the book.'

   b. ? það   virtist   [bara tveim af dómurunum]_{DAT} [kona/konan]
            EXPL seemed   **just two   of judges.the.DAT**   **woman.NOM/woman.the.NOM**
            hafa   skrifað bókina.
            have.INF written book.the.ACC
            'It seemed to only two of the judges that a/the woman had written the book.'

            [*Halldór Ármann Sigurðsson, p.c.*]

Crucially, in Icelandic dative experiencer constructions like (283), it is the dative argument—rather than the nominative subject of the embedded non-finite clause—that moves to subject

---

[1]Note that the empirical patterns surveyed in this sub-section—and in fact, in all of §7.2—are highly reminiscent of Bobaljik and Wurmbrand's (to appear) "3/4 signature" effects. A detailed comparison of the two empirical domains would take us too far afield, in the current context, and is therefore left for another day.

position of the matrix clause in the absence of an expletive (note that despite their English translations, the embedded clauses in (283–284) are indeed non-finite):

(284) **[Dómurunum]**$_{\text{DAT}}$ virtist   **t$_1$** [kona/konan]   hafa   skrifað
      judges.the.DAT   seemed   woman.NOM/woman.the.NOM have.INF written
      bókina.
      book.the.ACC
      'It seemed to the judges that a/the woman had written the book.'

Just as with nominatives moving into subject position in English, movement of this dative into subject position in (284) alleviates the Definiteness Effect (cf. (283a)).

In contrast, when the closest DP to the matrix subject position is indeed nominative (unlike in (283–284)), Icelandic reverts to the English behavior—i.e., the Definiteness Effect applies to the nominative argument—confirming that the ability to move to subject position is indeed the crucial factor:[2]

(285) a.   **Konan**   hefur skrifað bókina.
           woman.the.NOM has   written book.the.acc
           'The woman has written the book.'

      b. * það   hefur **konan**   skrifað bókina.
           EXPL has   **woman.the.NOM** written book.the.ACC

(286) a. ?? **Kona**   hefur skrifað bókina.
           woman.NOM has   written book.the.ACC
           'A woman has written the book.'

      b. ? það   hefur **kona**   skrifað bókina.
           EXPL has   **woman.NOM** written book.the.ACC
           'A woman has written the book.'

[*adapted from Hrafnbjargarson 2004:155*]

We thus have a very similar state of affairs to the one involving Object Shift (§7.2.1):

(287)   (cf. (279))

	MtoCSP possible	MtoCSP impossible
non-subject noun-phrase	*indefinite only*	*both possible (definite/indefinite)*
subject noun-phrase	*definite* (but see below)	N/A

(*MtoCSP = movement to canonical subject position*)

As with Object Shift, the conditions on MtoCSP (movement to canonical subject position) are subject to cross-linguistic variation—an issue discussed extensively, for MtoCSP, in chapter 4. Crucially, however, once we abstract away from the language-specific conditions on MtoCSP, a familiar picture emerges: with noun-phrases for which MtoCSP is possible (the closest noun-

---

[2]Note also that (285–286) are run-of-the-mill transitives—highlighting that the Definiteness Effect is not necessarily restricted, cross-linguistically, to what are traditionally thought of as *existential constructions*.

phrase to subject position in Icelandic, or the nominative noun-phrase in English), definiteness forces MtoCSP; but when MtoCSP is impossible, definiteness appears to come "for free", available to a noun-phrase in-situ.

We can therefore capture this behavior in terms of an <u>obligatory operation</u>, along the same lines proposed for Object Shift in §7.2.1. Suppose that MtoCSP is itself an *operation*, much like φ-agreement/FIND$_φ$; and that the conditions formulated in chapter 4 (and repeated in (288), below) for quirky-subject languages (QSL) and non-quirky-subject languages (NQSL), respectively, represent the structural conditions on its successful culmination:

(288) *MOVEMENT TO CANONICAL SUBJECT POSITION (MTOCSP):*
       TWO TYPOLOGICAL VARIATIONS – REVISED VERSION   *[=(194)]*
   a. *IN A QUIRKY-SUBJECT LANGUAGE (E.G. ICELANDIC)*
       MtoCSP$_{QSL}$: *Move*(DP)

   b. *IN A NON-QUIRKY-SUBJECT LANGUAGE (E.G. ENGLISH, FRENCH)*
       MtoCSP$_{NQSL}$: *Move*(XP targeted by FIND$_φ$)

In other words, the structural conditions on the application of MtoCSP in a quirky-subject language (like Icelandic) are that its target must be the closest DP to the landing site; and in a non-quirky-subject language (like English or French), the conditions are that its target must be the noun-phrase targeted by φ-agreement/FIND$_φ$.

Suppose, then, that the definiteness of a noun-phrase invariably triggers the application of MtoCSP on that noun-phrase—as in (289), below—and that the insertion of an expletive to occupy an otherwise empty canonical subject position occurs in the morpho-phonological component, to satisfy what is essentially a morpho-phonological requirement (see Bobaljik 2002, Landau 2007, and references therein).

(289) *AN <u>OBLIGATORY OPERATIONS</u> MODEL OF THE DEFINITENESS EFFECT – FIRST VERSION*
       $x[+definite] \rightarrow MtoCSP(x)$
       where MtoCSP will fail if the relevant condition in (288a–b) is not met

Thus, in a structure like (290) below, MtoCSP will be invoked for **both** the dative experiencer and the embedded nominative, since both are definite:

(290) a. * There seems to the girls to be the boy playing in the garden.
       b.   The boy$_1$ seems to the girls to be t$_1$ playing in the garden.

MtoCSP will succeed when applied to the embedded nominative in (290), since this nominative has been successfully targeted by φ-agreement/FIND$_φ$—in compliance with the structural conditions on MtoCSP in English, as given in (288b) (see also the discussion at the end of §4.4, regarding the somewhat exceptional properties of agreement in English dative experiencer constructions). If the invocation of MtoCSP on the [+definite] nominative is obligatory, and its structural conditions are met, there will simply be no derivation that leads to (290a) (and to the insertion of an expletive).

Crucially, MtoCSP will fail when applied to the dative experiencer, since that argument is not targeted by φ-agreement/FIND$_φ$, in violation of (288b); given the logic of the <u>obligatory operations</u> model, this failure will not result in ill-formedness, but simply in the absence of the

effects that successful culmination of the operation would have brought about—in this case, movement of the dative experiencer to subject position.

It is important to note that this does not conflict with the proposal in chapter 4—where it was argued that MtoCSP can give rise to outright ungrammaticality, when it has applied to a noun-phrase that has not been targeted by φ-agreement/FIND$_\varphi$ (in a non-quirky-subject language). The crucial distinction is that there, we were looking at strings whose only parse was one where *MtoCSP had applied successfully*, even though the structural conditions on the application of MtoCSP had not been met:

(291) ?* Jean$_1$ semble [à   Marie]$_{\text{DAT}}$ [t$_1$ avoir   du talent].
      Jean   seems   to Marie   have.INF of talent
      'Jean seems to Marie to have talent.' *[=(173)]*   [*McGinnis 1998:90*]

In (291), the subject is to the left of the finite verb; the only parse is therefore one where MtoCSP has successfully applied to "*Jean*". However, as discussed in chapter 4, minimality/*Closest* prevents φ-agreement/FIND$_\varphi$ from targeting this subject. In fact, the ungrammaticality of (291) does have a counterpart in the empirical domain under discussion here: it is the ungrammaticality of (292), where we have a string whose only parse is one where MtoCSP has *successfully* applied to the dative experiencer of English "*seem*" (cf. (290a–b)).

(292) * **To the girls$_1$** seems **t$_1$** a boy to be playing in the garden.

In both (291) and (292), the string forces a parse where MtoCSP has applied to a noun-phrase that its structural conditions prevent it from applying to—in both cases, due to the fact that φ-agreement has not successfully targeted the noun-phrase in question. Thus, there is no derivation that leads to these strings—and they are therefore ruled out just like violations of minimality/*Closest*, or cases of "gratuitous non-agreement" (see the discussion in §3.4).

To summarize, a sentence that violates the Definiteness Effect—like (290a), above—is ruled out as follows: the embedded nominative is [+definite], therefore MtoCSP will be obligatorily invoked; the structural conditions for MtoCSP are met, and it will therefore succeed, moving the nominative to the matrix subject position and bleeding morpho-phonological insertion of the expletive. In other words, (290a) is ruled out because there is again no derivation that leads to that string.

Crucially, nothing that has been said so far—including the idea that MtoCSP is obligatorily triggered for any [+definite] noun-phrase in the derivation—rules out that MtoCSP could be triggered in other ways, as well. This seems to be a genuine point of variation between English and Icelandic: in English, MtoCSP is also triggered for any *External Argument*, regardless of its definiteness; in Icelandic, it is not. This is the equivalent, in the current system, of the typological observation that Icelandic has a *Transitive Expletive Construction* (as in (286b), above, for example), but English does not—a point of cross-linguistic variation that needs to be captured one way or another. In the current system, it can be captured as follows:

(293) *AN <u>OBLIGATORY OPERATIONS</u> MODEL OF THE DEFINITENESS EFFECT – SECOND (AND FINAL) VERSION*

    a. $x[+definite] \rightarrow MtoCSP(x)$ (universal)

    b. $x[\text{Ext. Arg.}] \rightarrow MtoCSP(x)$ (parametrized; active in English, but not in Icelandic)

This derives the contrast between the Icelandic (286a–b)—repeated below—and their English counterparts, given in (294a–b):

(286) a. ?? **Kona**   hefur skrifað bókina.
            woman.NOM has   written book.the.ACC
            'A woman has written the book.'

     b. [?] það   hefur **kona**   skrifað bókina.
            EXPL has   **woman.NOM** written book.the.ACC
            'A woman has written the book.'

                                           [adapted from Hrafnbjargarson 2004:155]

(294) a.   **A woman** has written the book.

     b. * There has **a woman** written the book.

Note too that on the current approach, MtoCSP is also triggered for "*bókina*" ('book.the.ACC') in (286) and "*the book*" in (294)—failing in both cases, because the noun-phrases in question do not meet the structural conditions for the application of MtoCSP in either language (it is neither the closest noun-phrase to canonical subject position, as required in Icelandic, nor the noun-phrase targeted by φ-agreement/FIND$_\varphi$, as required in English). As before, this failure results merely in the lack of movement of "*bókina*"/"*the book*" to subject position—rather than in ill-formedness.

    Finally, if we allow the MtoCSP operation in English to optionally apply to *any* argument (regardless of its definiteness)—or perhaps, to be triggered by particular discourse properties of any given argument—we derive the behavior of derived subjects with respect to definiteness:

(295) a.   **A man** has arrived.

     b.   There has arrived **a man**.

(296) a.   **The man** has arrived.

     b. * There has arrived **the man**.

In (296), the [+definite] noun-phrase "*the man*" triggers obligatory application of MtoCSP, rendering the variant in (296b) ungrammatical (where "*the man*" has not moved, and an expletive has been inserted in canonical subject position). In (295), on the other hand, there is no [+definite] noun-phrase—nor is "*a man*" an External Argument—meaning MtoCSP can apply *optionally*, yielding the observed pattern.

    Recall also that allowing MtoCSP to apply freely to noun-phrases that are unable to move to subject position (e.g. direct objects of transitives, etc.) is harmless in such a system, since the failure of MtoCSP in such cases will have no adverse effects on the derivation (as with "*bókina*"/"*the book*", in (286, 294) above).

As in the discussion of Object Shift in §7.2.1, the point here is not that there are no other conceivable accounts of these Definiteness Effect facts. Rather, the point is that the behavior of the Definiteness Effect is, at the very least, entirely compatible with an <u>obligatory operations</u> logic (where operations are obligatorily triggered that may or may not culminate successfully, and whose failure does not result in ungrammaticality).

In particular, the fact that the Definiteness Effect is active precisely when movement to subject position is possible, and suspended elsewhere, can be accounted for straightforwardly if movement to subject position is the consequence, not the cause, of the Definiteness Effect—and movement to subject position is attempted *wherever* definiteness arises, succeeding only where structural conditions permit.

We therefore have another illustration that φ-agreement is not unique in the landscape of syntactic phenomena in the <u>obligatory operations</u> logic that it exhibits.

7.2.3. Long-distance *wh*-movement

In §3.3, I discussed the conventional *MP* treatment of long-distance *wh*-movement, as in the accounts of Chomsky (2000, 2001) and McCloskey (2002). The relevant question is how movement of a *wh*-phrase that completely exits a clause, such as the movement of "*what*" in an example like (297), is driven:

(297) What did Mary say [t$_{what}$ [$_{C^0}$ that]$_{<+wh>}$ John wanted t$_{what}$]?

I will assume here that the *wh*-phrase has an intermediate landing site at the periphery of the embedded clause, as schematized in (297) (see McCloskey 2002 for a review of the relevant evidence). Let us focus on that particular step of *wh*-movement, which lands at the periphery of the embedded clause. This step of *wh*-movement cannot be the result of the matrix C^0 being interrogative. First, it is not the matrix landing site that we are concerned with, here; presumably, movement as a response to features of the matrix C^0 would land in the periphery of the matrix clause. Second, assuming syntactic structure is built incrementally from the bottom up—and given some form or other of cyclicity—movement of "*what*" to the embedded clausal periphery cannot occur after further structure has been built; therefore, by the time the interrogative matrix C^0 is merged, it is too late for movement to the periphery of the embedded clause to take place.

Thus, if we maintain that *wh*-movement is feature-driven, then the embedded declarative C^0 in an example like (297) must carry a feature—call it *<wh>*—that attracts the *wh*-phrase to the periphery of its own clause.

There is a problem, however, with this logic—a problem whose general form should by now be familiar: *wh*-movement is obligatory when possible, but when it is impossible, its absence is tolerated. What looks like the very same declarative C^0 has clearly failed to attract a *wh*-phrase (because there is no *wh*-phrase to attract) in an example like (298), yet the result is well-formed:

(298) Mary said [[$_{C^0}$ that] John wanted an armadillo].

Chomsky and McCloskey hold constant that features that drive movement are *uninterpretable* (in the terms of the this thesis, that they are <u>derivational time-bombs</u>). This forces them to

assume that the embedded declarative C^0 in an example like (297) is not the same lexical item as the one in an example like (298): the former comes with the aforementioned *<wh>* feature, while the latter does not.

McCloskey (2002) takes the behavior of the Irish declarative complementizer system as support for the existence of these two, featurally-distinct variants of declarative C^0 (as is well-known, the Irish declarative complementizer takes a different form depending on whether or not *wh*-movement has crossed it; see Adger and Ramchand 2001, Duffield 1995, Harlow 1981, McCloskey 1976, 1979, 1990, 2001, Noonan 1997, Sells 1984, among others). It seems to me, however, that these facts about Irish do not actually bear directly on the question of whether there are one or two kinds of declarative C^0, in terms of featural content. Suppose for a moment that there was independent reason to assume that there is exactly one kind of declarative C^0 in Irish, feature-wise; the different forms that the declarative complementizer takes could just as well be the result of context-sensitive spellout of C^0. In particular, the "*aL*" form would be the spellout of a C^0 whose specifier is filled (by movement), and the "*go*" form would be the spellout of a C^0 whose specifier is empty.[3] If context-sensitive spellout of terminals is an independently necessary component of the syntax/morphology interface—and it seems to be (Halle and Marantz 1993, among others)—then there is nothing about the morphology of Irish complementizers that necessarily favors an account involving two featurally-distinct lexical entries for declarative C^0.

A treatment of Irish declarative complementizers as a featurally homogeneous class, of course, resurrects the problem caused by the obligatoriness of *wh*-movement in an example like (297), given the absence of such movement in an example like (298); below, I sketch an account of this effect within an <u>obligatory operations</u> model. The point here is merely that the morphology of Irish complementizers does not, in fact, constitute an argument in favor of one of these approaches over the other.

More important for the current purposes, however, is the observation that the issue raised by cases like (297–298) is actually not restricted to declaratives, in the first place. In languages where *wh*-movement out of interrogatives is possible (i.e., languages that tolerate violations of the *wh-Island Condition*, such as Italian, Hebrew, and under certain circumstances, English; see Rizzi 1982, Reinhart 1981, Pesetsky 1982), the same issue arises with respect to *wh*-movement out of an interrogative clause:

(299) ma$_2$ Dina šaxex-a   [t$_2$ le-mi$_1$ Dan natan t$_1$ t$_2$]?   (Hebrew)
     what Dina forgot-3sg.F   DAT-who Dan gave
     'What did Dina forget to whom Dan gave?'   [*Preminger 2010b:201*]
     (≡'What is the thing$_i$ such that Dina forgot who Dan gave that thing$_i$ to?')

(300) Dina šaxex-a   [le-mi$_1$ Dan natan t$_1$ et   ha-matana].
     Dina forgot-3sg.F   DAT-who Dan gave   ACC the-gift
     'Dina forgot to whom Dan gave the gift.'

---

[3] The caveat that "*aL*" is only inserted when the periphery is filled *by movement* is necessary to distinguish it from the "*aN*" form, associated with peripheries hosting base-generated operators (McCloskey 2002). One can avoid making direct reference to movement vs. base-generation in the morphological component by assuming that the context relevant to "*aL*" is merely a non-empty periphery (without direct reference to movement or lack thereof), but that "*aN*" is a more specific form whose insertion is triggered by specific types of operators, and that "*aL*" is simply the *elsewhere* form.

In both (299) and (300), the embedded clause is *interrogative*; but as in the English examples involving an embedded declarative, we have obligatory (secondary) *wh*-movement in (299), juxtaposed with the tolerated absence of (secondary) *wh*-movement in (300).

The feature-driven account of long-distance *wh*-movement would thus have to posit that there are two featurally-distinct variants of the interrogative complementizer, as well as the declarative one (at least for languages of this sort).

The obligatory operations logic offers a rather appealing alternative to this feature-based account: suppose that just like a φ-probe triggers obligatory invocation of $\text{FIND}_\varphi(f)$ when it is merged, a complementizer—be it declarative or interrogative—triggers obligatory invocation of an operation that displaces a *wh*-phrase to the clausal periphery:[4]

(301) *AN OBLIGATORY OPERATIONS APPROACH TO* WH-*MOVEMENT*

   $C^0 \rightarrow Displace(wh)$

It is not clear that the landing site even needs to be specified in (301), since cyclicity considerations will mandate that (301) be invoked upon the merger of C^0 (and no later), and the same considerations will mandate that the landing site will be the root of the structure (i.e., the CP level). Similarly, minimality/*Closest* need not be specified, either (see the discussion of minimality/*Closest* with respect to MtoCSP, in §4.4).

Crucially, given the obligatory operations logic, invoking *Displace(wh)* on a structure where there is no available *wh*-phrase is akin to invoking $\text{FIND}_\varphi(f)$ on a structure that lacks f-bearing noun-phrases (as is the case, for example, in Kichean clauses that lack 1st/2nd-person or plural arguments, as shown in chapter 3; or in Basque unergatives, which as detailed in chapter 6, lack an absolutive agreement target); the operation will simply fail. As with $\text{FIND}_\varphi(f)$, this failure will result not in any kind of ill-formedness, but merely in the absence of the effects that the successful culmination of the operation would have brought about—in this case, the displacement of a *wh*-phrase.

Thus, in both (297) and (298) (repeated below), merging the embedded C^0 will result in the invocation of *Displace(wh)*:

(297) What did Mary say [t$_{\text{what}}$ [$_{C^0}$ that]$_{<+wh>}$ John wanted t$_{\text{what}}$]?

(298) Mary said [[$_{C^0}$ that] John wanted an armadillo].

While the operation *Displace(wh)* will succeed in (297), it will fail in (298), due to the absence of an appropriate target. Both derivations will proceed unhindered, however; and in both cases, when the matrix C^0 is merged, *Displace(wh)* will again be invoked. As before, the operation will find a suitable target in (297) (where "*what*" is now at the edge of the embedded clause), and displace it to the periphery of the matrix clause; but it will find no such target in (298), again merely resulting in the absence of *wh*-displacement in that case.

I assume here that in *pair-list/tuple-list* questions (e.g. "*Who did you think ate what?*"), all *wh*-phrases undergo (at least covert) movement into the matrix clause (see in particular Nissenbaum 2000, for evidence supporting such an analysis); and that in English, it is the case

---

[4]I avoid using a term like "Move(*wh*)", here, to prevent confusion with the *Government and Binding* (Chomsky 1981) notion with the same name—which is crucially different, in that its application was assumed to be "free", rather than obligatory and triggered by specific lexical items.

that the morpho-phonological component chooses to pronounce the highest/leftmost of these *wh*-chains at the head of the chain, and all other *wh*-chains at the foot of the chain (but not in Bulgarian, for example; see Richards 2001, Rudin 1988).

If any C^0—be it declarative or interrogative—triggers the application of *Displace(wh)*, then we must ask why the matrix C^0 in an example like (302), below, fails to displace the *wh*-phrase at the periphery of the embedded interrogative:

(302) John investigated [who C^0 the money was sent to t_{who}].

Note, however, that <u>any</u> theory of *wh*-movement needs to say something about why *wh*-phrases that are interpreted in the scope of an interrogative are unable to move further. This is equally necessary in the feature-driven approach to *wh*-movement: suppose that the *<wh>*-equipped version of declarative C^0 is chosen to head the matrix clause in (302) (or if root declaratives lack a CP layer, an essentially parallel example can be constructed by using (302) as the complement to a declarative-embedding verb); without further stipulation, this declarative C^0 should be able to attract "*who*" out of the embedded interrogative.

The same issue is raised by the Hebrew example given in (299), and repeated here:

(299) ma$_2$ Dina šaxex-a   [t$_2$ le-mi$_1$ Dan natan t$_1$ t$_2$]?   (Hebrew)
        what Dina forgot-3sg.F   DAT-who Dan gave
        'What did Dina forget to whom Dan gave?'   [*Preminger 2010b:201*]
        ($\equiv$'What is the thing$_i$ such that Dina forgot who Dan gave that thing$_i$ to?')

In Preminger 2010b, I argued that a *wh*-phrase like "*le-mi*" ('DAT-who') in (299) is not located in [Spec,CP] of the embedded interrogative, but rather in a lower position in the left periphery; there must then be something that prevents the embedded C^0 in (299) from targeting this very *wh*-phrase for further movement, instead of the lower *wh*-phrase "*ma*" ('what').

Examples like (299) demonstrate that *wh*-movement is in principle capable of escaping an interrogative clause, but that it still cannot do so when the *wh*-phrase in question is interpreted within the scope of the embedded interrogative.[5]

Perhaps the logic of *activity* and *inactivation* (which was shown in §4.3.1 to be problematic when it comes to φ-agreement) can be successfully applied to this domain; alternatively, one could pursue a more structurally-based approach—where the scope positions of *wh*-phrases are by their very nature terminal positions, inaccessible for further movement (as in Rizzi and Shlonsky's 2007 *Criterial Freezing* proposal, for example; see also Den Dikken 2009).

Since this issue arises in both an <u>obligatory operations</u> approach to *wh*-movement and in a feature-driven one—and thus, does not favor one approach over the other—I will not speculate on it further here.

Crucially, given that a *wh*-phrase interpreted in the scope of an embedded interrogative is unable to undergo further movement, *Displace(wh)*—invoked when the matrix C^0 is merged, in an example like (302)—will simply fail to find a movable *wh*-phrase. This is comparable to (298), above, where *Displace(wh)* is invoked in the absence of any *wh*-phrases whatsoever (and to the cases cited earlier, where FIND$_\varphi(f)$ is invoked on a structure lacking any f-bearing targets).

---

[5]Thanks to Bronwyn Bjorkman for helpful commentary on this issue.

Let us now turn to the ungrammaticality of a case like (303):

(303) * [$_{\text{interrogative}}$ Mary said [[$_{C^0}$ that]$_{<\varnothing>}$ John wanted what]]

Under the feature-driven approach, locality considerations prevent the matrix C^0 in (303) from displacing a *wh*-phrase in the embedded clause that has not been previously moved to the edge of that clause. This causes a "crash": the matrix periphery hosts a <wh>-feature which constitutes a <u>derivational time-bomb</u> (e.g. because it is *uninterpretable*); the failure to locate an accessible *wh*-phrase means that this <u>derivational time-bomb</u> cannot be tended to, resulting in ungrammaticality.

Under the <u>obligatory operations</u> approach, *Displace(wh)* is obligatorily invoked upon the merger of C^0 in the embedded clause.[6] Thus, an example like (303) is ruled out because there is no derivation that leads to that structure—akin to how violations of minimality/*Closest* are ruled out, as well as cases of "gratuitous non-agreement" (see §3.4 for discussion).

Thus, under the <u>obligatory operations</u> approach, there do not have to be two variants of the declarative complementizer, and two variants of the interrogative complementizer (moreover, while there might still be different complementizers for declarative and interrogative clauses, even these need not differ from one another in their featural content, at least as far as attracting *wh*-phrases is concerned).

This highlights a particular way in which the two approaches differ. On the feature-driven approach, long-distance *wh*-movement involves a choice of complementizer (namely, between <*wh*>-bearing C^0 and "plain" C^0); and the correctness of a given choice cannot be evaluated until the matrix periphery is reached (since that, on the feature-driven account, is where the ill-formedness of a case like (303) arises).

The feature-driven approach therefore requires computational lookahead—or equivalently, overgeneration-followed-by-filtration, as implicated by Chomsky's (1995b) assertion that only derivations that are ultimately convergent are considered by the computational system. As discussed by Frampton and Gutmann (2002), this drives an unnecessary wedge between theories of competence and performance, since choosing the correct kind of C^0 for a given derivation requires knowledge of which one will ultimately lead to a "crash", and which will not. Indeed, this very issue has given rise to various attempts to refine the feature-based approach so that a decision regarding the fate of a derivation like (303) can already be made during the derivation of the embedded clause itself (see, for example, Bošković 2007, Heck and Müller 2000).

On the <u>obligatory operations</u> account, no such refinements are necessary: this approach is intrinsically *crash-proof*, since obligatorily-invoked operations constitute a "recipe" for how the derivation is to proceed—and crucially, when these operations fail, no ungrammaticality (or "crash") arises.

At the risk of seeming like a broken record, I will point out again that the point of this discussion is not necessarily to provide a decisive argument in favor of an <u>obligatory operations</u> approach to *wh*-movement, but rather, to demonstrate that one is eminently possible. In

---

[6]As in many other accounts, I assume here that *echo-questions* (e.g. "*You ate **what**?!*") involve a distinct kind of *wh*-element (as suggested by the unique stress/intonation contour on these particular *wh*-elements), and that these "echo *wh*-elements" do not constitute viable targets for *Displace(wh)*.

particular, *wh*-movement exhibits the familiar *operations*-like footprint (it is obligatory when possible, but when impossible, its absence is tolerated), which makes it very well suited for such an account.

We therefore have yet another example of a phenomenon other than φ-agreement that adheres to the same obligatory operations logic.

7.3. Outlook: What is left for *uninterpretable features*?

In §7.2.1–§7.2.3 I surveyed three empirical domains—*Object Shift*, the *Definiteness Effect*, and long-distance *wh*-movement—that proved to be quite amenable to an account along the lines of the obligatory operations account of φ-agreement, argued for in previous chapters. This survey was undertaken primarily to demonstrate that the results of previous chapters do not, in fact, cast φ-agreement as a unique phenomenon in the landscape of syntax, whose logic resembles no other syntactic phenomena.

These observations might, however, lead one to wonder about the prospects for a uniform theory of syntactic obligatoriness. As demonstrated extensively in chapters 2–3, as well as in chapter 6, the obligatoriness of φ-agreement cannot be handled in terms of derivational time-bombs or *uninterpretable features*; and as demonstrated in chapters 4–5, φ-agreement is indeed part of syntax proper. Therefore, any syntactic approach that employs a device like *uninterpretable features* **somewhere** in the theory cannot hope to attain uniformity in the enforcement of obligatoriness in syntax.

We have seen, in §7.2.3, that another exemplar case of using *uninterpretable features* to enforce obligatoriness—namely, in *wh*-movement—is actually not a particularly good fit, either (at least, no better than its alternatives). We might therefore consider the converse possibility—that building on the results of §7.2.1–§7.2.3, a theory of syntax where obligatoriness is uniformly a matter of obligatory operations would be possible.

Surveying the totality of syntactic theory to evaluate the prospects of replacing any such use of *uninterpretable features* or other derivational time-bombs is a task whose enormity is far beyond what I could hope to achieve within the confines of this thesis. Instead, I will merely offer some speculation on a couple of cases that strike me as potentially the most recalcitrant to a treatment of the sort put forth here (both of which are, not coincidentally, among the *filters* of Chomsky and Lasnik's 1977 *Filters and Control*).

One such case, already touched upon briefly in §7.2.2, is the (narrowly defined) EPP—that is, the requirement that clauses (perhaps any clauses, or perhaps only finite ones) in a language like English must have a subject. If expletives are base-generated in subject position, then the EPP is a requirement that can be satisfied in at least two relatively disparate ways, making it particularly well suited for a representational filter along the lines of derivational time-bombs or *uninterpretable features*, and less amenable to an obligatory operations treatment.

On this front, it seems that there are two possible courses to pursue. First, there are numerous proposals in the literature that take expletives not to be inserted in their surface position, but rather to originate within, or alongside, their associates (Hartmann 2005, Hazout 2004, Hoekstra and Mulder 1990, Kayne 2006, Moro 1991, 1997, 2007, Williams 1994, among others). Insofar as such an analysis of expletives can be maintained, then all satisfaction of

the EPP is ultimately an instance of MtoCSP, and the variation in which element undergoes this operation is a matter of the structural conditions on MtoCSP and their interaction with different structural configurations, as already discussed in detail in chapter 4.

A second approach one could take is the one mentioned in §7.2.2, that the EPP is essentially a morpho-phonological requirement (Bobaljik 2002, Landau 2007, among others), and that following Bobaljik (2002), expletives are inserted as a last-resort by the morpho-phonological component to satisfy this requirement in syntactically subject-less clauses.

This last possibility is particularly intriguing in light of the following dynamic: in chapter 5, I discussed—and ultimately, argued against—the possibility of relegating φ-agreement to a non-syntactic component of the grammar. The appeal of such a move would have been, among other things, to maintain the uniformity of syntactic computation—the implication being that syntax followed the logic of derivational time-bombs, and therefore phenomena that did not adhere to that logic belonged elsewhere in the grammar. We saw in chapter 5, however, that such a move was not possible, and that φ-agreement is part of syntax proper. Thus, its incompatibility with a derivational time-bombs logic led to the current reexamination of the nature of syntactic computation. It is therefore interesting that the EPP, potentially a bastion of actual ungrammaticality-inducing filtration, might actually belong outside of syntax.

The other case I will discuss here is the *licensing* of noun-phrases. If nominals require licensing beyond their thematic roles (i.e., licensing that cannot be reduced to an interpretive requirement, as in the *abstract case* proposal of Chomsky and Lasnik 1977), then such licensing also seems to resist a reimplementation in terms of obligatory operations. Indeed, in Chomsky 1995b, this licensing is implemented in terms of a bona fide derivational time-bomb—an *uninterpretable* case-feature on the nominal.

However, it is not at all clear what the fate of nominal licensing is in contemporary syntactic theory. Recent advances in the understanding of Control (e.g. Bobaljik and Landau 2009, Landau 2006) have led to a decoupling of the distribution of null subjects of control infinitives from the theory of case, a conclusion already motivated to some extent by the observations of Marantz (1991) regarding the lack of correlation between licensing and morphologically-observable case-markings in a quirky-subject language. This, in turn, removes a very significant portion of the argument (from Chomsky and Lasnik 1977) that there is such a thing as nominal licensing at play in the grammar, in the first place.[7]

A different kind of licensing, one which featured extensively in the account of the Kichean Agent-Focus construction in chapters 2–3, is the *Person Licensing Condition* (*PLC*), proposed by Béjar and Rezac (2003), and repeated here:

(304) *PERSON LICENSING CONDITION (PLC)*   *[=(44)]*
     Interpretable 1st/2nd-person features must be licensed by entering into an *Agree*
     relation with an appropriate functional category.   [*Béjar and Rezac 2003*]

---

[7]One might wonder regarding another empirical domain where nominal licensing appears to be relevant— the complementation possibilities of adjectives. It seems plausible to me, however, that statements such as "adjectives do not take nominal complements" can be reinterpreted as "adjectives do not take complements with unmarked case" (taking English "*of*", for example, to be an oblique case marker), in which case the complementation of adjectives is a case-theoretic issue, not one of nominal licensing.

The PLC seems to constitute a bona fide filter on admissible and inadmissible configurations involving 1st/2nd-person arguments. It would therefore appear that enforcing the PLC in syntax requires 1st/2nd-person arguments to bear the equivalent of <u>derivational time-bombs</u>. Having established that the obligatoriness of φ-agreement *cannot* be enforced in terms of <u>derivational time-bombs</u> (chapters 2–3), this might seem to all but eliminate the possibility of a uniform treatment of obligatoriness in syntax (recall that an account for the obligatoriness of φ-agreement that is based exclusively on <u>derivational time-bombs</u> borne by the noun-phrases themselves was shown to be untenable, as well; see §3.3).

Given that φ-agreement cannot be relegated to a component of the grammar other than syntax (chapter 5), it seems that the most promising avenue to pursue here would be to explore the possibility of relegating the PLC to a different component of the grammar. It does not seem out of the question that the distribution of indexical expressions such as 1st/2nd-person pronouns is ultimately regulated by the interpretive component. The central challenge posed by such an approach is how the interpretive component would be able to discern whether a given 1st/2nd-person argument has or has not entered into a φ-agreement relation in the course of the syntactic computation (given the necessarily syntactic nature of φ-agreement).

Insofar as this challenge can be met, then, a uniform treatment of obligatoriness in syntax (one that does not make use of <u>derivational time-bombs</u>, at all) might be within sight.

References

Abels, Klaus. 2003. *Successive Cyclicity, Anti-locality, and Adposition Stranding*. Doctoral dissertation, Storrs, CT: University of Connecticut.

Adger, David and Daniel Harbour. 2007. Syntax and Syncretisms of the Person Case Constraint. *Syntax*, 10:2–37.

Adger, David and Gillian Ramchand. 2001. Phases and interpretability. In *Proceedings of the 20th West Coast Conference on Formal Linguistics (WCCFL 20)*, eds. Karine Megerdoomian and Leora Anne Bar-El, Somerville, MA: Cascadilla Press, 101–114.

Aissen, Judith. 1987. *Tzotzil clause structure*. Dordrecht: Reidel.

Aissen, Judith. 1992. Topic and focus in Mayan. *Language*, 68:43–80.

Aissen, Judith. to appear. On the syntax of Agent Focus in K'ichee'. In *Proceedings of Formal Approaches to Mayan Linguistics (FAMLi)*, eds. Kirill Shklovsky, Pedro Mateo Pedro, and Jessica Coon, Cambridge, MA: MIT Working Papers in Linguistics.

Albizu, Pablo. 1997. Generalized Person-Case Constraint: A case for a syntax-driven inflectional morphology. In *Theoretical issues on the morphology-syntax interface*, eds. Miryam Uribe-Etxebarria and Amaya Mendikoetxea, vol. XL, *ASJU*, 1–33. Donostia: Gipuzkoako Foru Aldundia/EHU.

Aldridge, Edith. 2004. *Ergativity and word order in Austronesian languages*. Doctoral dissertation, Ithaca, NY: Cornell University.

Alexiadou, Artemis and Elena Anagnostopoulou. 1997. Towards a Uniform Account of Scrambling and Clitic-Doubling. In *German: Syntactic Problems—Problematic Syntax*, eds. Werner Abraham and Elly van Gelderen, 142–161. Tübingen: Max Niemeyer Verlag.

Alexiadou, Artemis and Elena Anagnostopoulou. 2001. The Subject-in-Situ Generalization and the role of Case in driving computations. *Linguistic Inquiry*, 32:193–231.

Anagnostopoulou, Elena. 1994. *Clitic Dependencies in Modern Greek*. Doctoral dissertation, University of Salzburg.

Anagnostopoulou, Elena. 2003. *The syntax of ditransitives: Evidence from clitics*. Berlin: Mouton de Gruyter.

Anagnostopoulou, Elena. 2005. Strong and Weak Person Restrictions: A feature checking analysis. In *Clitic and Affix Combinations: Theoretical Perspectives*, eds. Lorie Heggie and Francisco Ordonez, vol. 74, *Linguistics Today*, 199–235. Amsterdam: John Benjamins.

Anagnostopoulou, Elena. 2006. Clitic Doubling. In *The Blackwell Companion to Syntax*, eds. Martin Everaert and Henk van Riemsdijk, vol. 1, 519–581. Oxford: Blackwell Publishers.

Anderson, Stephen R. 1977. On mechanisms by which languages become ergative. In *Mechanisms of syntactic change*, ed. Charles N. Li, 317–364. Austin, TX: University of Texas Press.

Anderson, Stephen R. 1992. *A-Morphous Morphology*. Cambridge: Cambridge University Press.

Andrews, Avery. 1976. The VP complement analysis in Modern Icelandic. In *Proceedings of the 6th conference of the North East Linguistic Society (NELS 6)*, 1–21.

Arregi, Karlos. 2004. *The* have/be *Alternation in Basque*. Ms., University of Illinois at Urbana-Champaign.

Arregi, Karlos and Andrew Ira Nevins. 2008. Agreement and Clitic Restrictions in Basque. In *Agreement Restrictions*, eds. D'Alessandro Roberta, Susann Fischer, and Gunnar Hrafn Hrafnbjargarson, 49–86. New York, NY: Mouton de Gruyter.

Arregi, Karlos and Andrew Ira Nevins. in prep.. *Morphotactics*. Springer.

Baker, Mark C. 1988. *Incorporation: A Theory of Grammatical Function Changing*. Chicago, IL: University of Chicago Press.

Baker, Mark C. and Nadya Vinokurova. 2010. Two Modalities of Case Assignment: Case in Sakha. *Natural Language and Linguistic Theory*, 28:593–642.

Baltin, Mark. 1978. PP as a Bounding Node. In *Proceedings of the 8th conference of the North East Linguistic Society (NELS 8)*, ed. Mark Stein, Amherst, MA: GLSA, 33–40.

Bayer, Josef, Markus Bader, and Michael Meng. 2001. Morphological underspecification meets oblique case: syntactic and processing effects in German. *Lingua*, 111:465–514, ISSN: 0024-3841.

Béjar, Susana. 2003. *Phi-Syntax: A theory of agreement*. Doctoral dissertation, University of Toronto.

Béjar, Susana and Milan Rezac. 2003. Person Licensing and the Derivation of PCC Effects. In *Romance Linguistics: Theory and Acquisition*, eds. Ana Teresa Perez-Leroux and Yves Roberge, 49–62. Amsterdam: John Benjamins.

Béjar, Susana and Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry*, 40:35–73.

Belletti, Adriana. 2004. Aspects of the Low IP Area. In *The Structure of IP and CP*, vol. 2, *The Cartography of Syntactic Structures*, 52–75. New York, NY: Oxford University Press.

Bickel, Balthasar and Yogendra P. Yādava. 2000. A fresh look at grammatical relations in Indo-Aryan. *Lingua*, 110:343–373.

Bittner, Maria and Kenneth Hale. 1996. The Structural Determination of Case and Agreement. *Linguistic Inquiry*, 27:1–68.

Bobaljik, Jonathan David. 1993. On Ergativity and Ergative Unergatives. In *Papers on Case and Agreement II*, ed. Colin Phillips, vol. 19, *MIT Working Papers in Linguistics*, 45–88. Cambridge, MA: MITWPL.

Bobaljik, Jonathan David. 1995. *Morphosyntax: The Syntax of Verbal Inflection*. Doctoral dissertation, Cambridge, MA: MIT.

Bobaljik, Jonathan David. 2002. A-chains at the PF interface: Copies and 'covert' movement. *Natural Language and Linguistic Theory*, 20:197–267.

Bobaljik, Jonathan David. 2008. Where's Phi? Agreement as a Post-Syntactic Operation. In *Phi Theory: Phi-features across interfaces and modules*, eds. Daniel Harbour, David Adger, and Susana Béjar, 295–328. Oxford: Oxford University Press.

Bobaljik, Jonathan David and Idan Landau. 2009. Icelandic Control Is Not A-Movement: The Case from Case. *Linguistic Inquiry*, 40:113–132.

Bobaljik, Jonathan David and Susi Wurmbrand. 2005. The Domain of Agreement. *Natural Language and Linguistic Theory*, 23:809–865.

Bobaljik, Jonathan David and Susi Wurmbrand. to appear. Word order and scope: Transparent interfaces and the 3/4-Signature. *Linguistic Inquiry*.

Boeckx, Cedric. 2000. Quirky Agreement. *Studia Linguistica*, 54:354–380.

Bonet, Eulalia. 1991. *Morphology after Syntax: Pronominal Clitics in Romance*. Doctoral dissertation, Cambridge, MA: MIT.

Bonet, Eulalia. 1994. The Person-Case Constraint: A Morphological Approach. In *The Morphology-Syntax Connection*, eds. Heidi Harley and Colin Phillips, vol. 22, *MIT Working Papers in Linguistics*, 33–52. Cambridge, MA: MITWPL.

Bošković, Željko. 2002. A-Movement and the EPP. *Syntax*, 5:167–218.

Bošković, Željko. 2007. On the locality and motivation of Move and Agree: An even more minimal theory. *Linguistic Inquiry*, 38:589–644.

Bricker, Victoria R. 1977. *Pronominal inflection in the Mayan languages*. Occasional Paper 1, New Orleans, LA: Middle American Research Institute, Tulane University.

Burzio, Luigi. 1986. *Italian syntax: A Government-Binding approach*. Dordrecht: Reidel.

Cable, Seth. 2007. *The Grammar of Q: Q-Particles and the Nature of* wh-*Fronting*. Doctoral dissertation, Cambridge, MA: MIT.

Cable, Seth. 2010. Against the Existence of Pied-Piping: Evidence from Tlingit. *Linguistic Inquiry*, 41:563–594.

Campbell, Lyle. 2000. Valency-changing derivations in K'iche'. In *Changing Valency: Case Studies in Transitivity*, eds. R. M. W. Dixon and Alexandra Y. Aikhenvald, 236–381. Cambridge University Press.

Campbell, Lyle and Terrence Kaufman. 1985. Mayan linguistics: Where are we now?, *Annual Review of Anthropology*, 14:187–198.

Carstens, Vicki. 2000. Concord in minimalist theory. *Linguistic Inquiry*, 31:319–355.

Chomsky, Noam. 1957. *Syntactic Structures*. The Hague: Mouton.

Chomsky, Noam. 1973. Conditions on Transformations. In *A Festschrift for Morris Halle*, eds. Stephen Anderson and Paul Kiparsky, 232–286. New York, NY: Academic Press.

Chomsky, Noam. 1977. On wh-movement. In *Formal Syntax*, eds. Peter W. Culicover, Thomas Wasow, and Adrian Akmajian, 71–132. New York, NY: Academic Press.

Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, Noam. 1986. *Knowledge of language*. New York, NY: Praeger Publishers.

Chomsky, Noam. 1995a. Bare Phrase Structure. In *Government and Binding theory and the Minimalist Program*, ed. Gert Webelhuth, 383–439. Oxford: Blackwell Publishers.

Chomsky, Noam. 1995b. *The Minimalist Program*. Cambridge, MA: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, eds. Roger Martin, David Michaels, and Juan Uriagereka, 89–155. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.

Chomsky, Noam. 2008. On phases. In *Foundational Issues in Linguistic Theory*, eds. Robert Freidin, Carlos Otero, and Maria-Luisa Zubizaretta, 133–166. Cambridge, MA: MIT Press.

Chomsky, Noam and Howard Lasnik. 1977. Filters and control. *Linguistic Inquiry*, 8:425–504.

Chung, Sandra. 1978. *Case marking and grammatical relations in Polynesian*. Austin, TX: University of Texas Press.

Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Crosslinguistic Perspective*. New York, NY: Oxford University Press.

Clark, Ross. 1976. *Aspects of Proto-Polynesian Syntax*. Auckland: Linguistics Society of New Zealand.

Collins, Chris. 1997. *Local economy*. Cambridge, MA: MIT Press.

Collins, Chris. 2005. A Smuggling Approach to Raising in English. *Linguistic Inquiry*, 36:289–298.

Collins, Chris and Höskuldur Thráinsson. 1996. VP-internal structure and Object Shift in Icelandic. *Linguistic Inquiry*, 27:391–444.

Comrie, Bernard. 1978. Ergativity. In *Syntactic Typology: Studies in the Phenomenology of Language*, 329–394. Austin, TX: University of Texas Press.

Coon, Jessica. 2010a. *Complementation in Chol (Mayan): A Theory of Split Ergativity*. Doctoral dissertation, Cambridge, MA: MIT.

Coon, Jessica. 2010b. Rethinking split ergativity in Chol. *International Journal of American Linguistics*, 76:207–253.

Coon, Jessica, Pedro Mateo Pedro, and Omer Preminger. in prep.. *The Role of Case in A-Bar Extraction Asymmetries: Evidence from Mayan*. Ms., Cambridge, MA: Harvard & MIT.

Coon, Jessica and Omer Preminger. to appear. Transitivity in Chol: A New Argument for the Little-*v* Hypothesis. In *Proceedings of the 41st conference of the North East Linguistic Society (NELS 41)*, Amherst, MA: GLSA.

Cowper, Elisabeth. 1987. Pied Piping, Feature Percolation and the Structure of the Noun-Phrase. *Canadian Journal of Linguistics*, 32:321–338.

Craig, Colette. 1979. The antipassive and Jacaltec. In *Papers in Mayan Linguistics*, ed. Laura Martin, 139–165. Columbia, MO: Lucas Bros. Publishers.

Davies, William D. and Luis Enrique Sam-Colop. 1990. K'iche' and the Structure of Antipassive. *Language*, 66:522–549.

Dayley, Jon P. 1978. Voice in Tzutujil. *Journal of Mayan Linguistics*, 1:20–52.

Dayley, Jon P. 1985. *Tz'utujil grammar*. University of California Press.

Den Dikken, Marcel. 1995. Binding, expletives, and levels. *Linguistic Inquiry*, 26:347–354.

Den Dikken, Marcel. 2009. *On the nature and distribution of successive cyclicity*. Ms., New York, NY: CUNY.

Diesing, Molly. 1992. *Indefinites*. Cambridge, MA: MIT Press.

Diesing, Molly. 1996. Semantic Variables and Object Shift. In *Studies in Comparative Germanic Syntax*, eds. Höskuldur Thráinsson, Samuel David Epstein, and Steve Peter, vol. 2, 66–84. Dordrecht: Kluwer Academic Publishers.

Diesing, Molly. 1997. Yiddish VP Order and Typology of Object Movement in Germanic. *Natural Language and Linguistic Theory*, 15:369–427.

Diesing, Molly and Eloise Jelinek. 1993. The Syntax and Semantics of Object Shift. *Working Papers in Scandinavian Syntax*, 51:1–54.

Dixon, R. M. W. 1979. Ergativity. *Language*, 55:59–138.

Dixon, R. M. W. 1994. *Ergativity*. Cambridge: Cambridge University Press.

Dryer, Matthew S. 1986. Primary objects, secondary objects, and antidative. *Language*, 62:808–845.

Duffield, Nigel. 1995. *Particles and projections in Irish syntax*. Dordrecht: Kluwer Academic Publishers.

Eguren, Luis. 1995. *Syntax and morphology in Basque verbal inflection*. Paper presented at the XXI Incontro di Grammatica Generativa, Istituto S. Raffaele, Milan.

Etxepare, Ricardo. 2003. Valency and Argument Structure in the Basque Verb. In *A Grammar of Basque*, eds. Jose Ignacio Hualde and Jon Ortiz de Urbina, 363–426. Berlin: Mouton de Gruyter.

Etxepare, Ricardo. 2006. Number Long Distance Agreement in (Substandard) Basque. In *Studies in Basque and Historical Linguistics in Memory of Robert L. Trask*, eds. Joseba A. Lakarra and Jose Ignacio Hualde, vol. XL, *Supplements of the Anuario del Seminario de Filologia Vasca "Julio de Urquijo"* 1–2, 303–350.

Ferreira, Marcelo. 2000. *Hyperraising and null subjects in Brazilian Portuguese*. Ms., Campinas: Universidade Estadual de Campinas.

Fox, Danny and David Pesetsky. 2005. Cyclic linearization of syntactic structure. *Theoretical Linguistics*, 31:1–45.

Frampton, John. 1991. Relativized minimality: A review. *The Linguistic Review*, 8:1–46.

Frampton, John and Sam Gutmann. 2002. Crash-proof syntax. In *Derivation and explanation in the Minimalist Program*, eds. Samuel David Epstein and T. Daniel Seely, 90–105. Oxford: Blackwell Publishers.

Gazdar, Gerald et al. 1985. *Generalized Phrase Structure Grammar*. Cambridge, MA: Harvard University Press.

George, Leland and Jaklin Kornfilt. 1981. Finiteness and boundedness in Turkish. In *Binding and Filtering*, ed. Frank Heny, 105–129. Cambridge, MA: MIT Press.

Grimshaw, Jane. 2000. Lexical Specification and Insertion. In *Locality and Extended Projections*, eds. Peter Coopmans, Martin Everaert, and Jane Grimshaw, 115–134. Amsterdam: John Benjamins.

Haegeman, Liliane and Terje Lohndal. 2010. Negative Concord and (Multiple) Agree: A Case Study of West Flemish. *Linguistic Inquiry*, 41:181–211.

Haider, Hubert and Inger Rosengren. 2003. Scrambling: Nontriggered chain formation in OV languages. *Journal of Comparative Germanic Linguistics*, 15:203–267.

Hale, Kenneth and Samuel Jay Keyser. 1993. On argument structure and the lexical expression of syntactic relations. In *The View from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, eds. Kenneth Hale and Samuel Jay Keyser, 53–109. Cambridge, MA: MIT Press.

Halle, Morris. 1997. Distributed Morphology: Impoverishment and fission. In *Papers at the interface*, eds. Benjamin Bruening, Yoonjung Kang, and Martha McGinnis, vol. 30, *MIT Working Papers in Linguistics*, 425–449. Cambridge, MA: MITWPL.

Halle, Morris and Alec Marantz. 1993. Distributed Morphology and the Pieces of Inflection. In *The View from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, eds. Kenneth Hale and Samuel Jay Keyser, 111–176. Cambridge, MA: MIT Press.

Harley, Heidi. 1995. Abstracting away from abstract case. In *Proceedings of the 25th conference of the North East Linguistic Society (NELS 25)*, ed. Jill Beckman, Amherst, MA: GLSA, 207–221.

Harley, Heidi. 2009. The morphology of nominalizations and the syntax of vP. In *Quantification*, *Definiteness*, *and Nominalization*, eds. Anastasia Giannakidou and Monika Rathert, vol. 24, *Oxford Studies in Theoretical Linguistics*, 321–343. Oxford: Oxford University Press, URL: <http://ling.auf.net/lingBuzz/000434>.

Harley, Heidi and Rolf Noyer. 1999. State-of-the-article: Distributed morphology. *Glot International*, 4:3–9.

Harley, Heidi and Elizabeth Ritter. 2002. Person and Number in Pronouns: A Feature-Geometric Analysis. *Language*, 78:482–526.

Harlow, Stephen. 1981. Government and relativization in Celtic. In *Binding and Filtering*, ed. Franck Heny, 213–254. Cambridge, MA: MIT Press.

Hartman, Jeremy. 2011. *Parallel Movement and (non-)Intervention by Experiencers*. Ms., Cambridge, MA: MIT.

Hartman, Jeremy. to appear. Intervention in *Tough*-Constructions. In *Proceedings of the 39th conference of the North East Linguistic Society (NELS 39)*, eds. Suzi Lima, Kevin Mullin, and Brian Smith, Amherst, MA: GLSA.

Hartmann, Jutta M. 2005. wh-Movement and the Small Clause Analyses of the English *there*-Construction. In *Proceedings of the 1st Syntax AiO Meeting (SAM 1)*, vol. 2.3, *Leiden Working Papers in Linguistics*, Leiden: University of Leiden, 93–106.

Hazout, Ilan. 2004. The Syntax of Existential Constructions. *Linguistic Inquiry*, 35:393–430.

Heck, Fabian. 2004. *A Theory of Pied-Piping*. Doctoral dissertation, Tübingen: Universität Tübingen.

Heck, Fabian and Gereon Müller. 2000. Successive cyclicity, long-distance superiority, and local optimization. In *Proceedings of 19th West Coast Conference on Formal Linguistics (WCCFL 19)*, eds. Roger Billerey and Brook Danielle Lillehaugen, Somerville, MA: Cascadilla Press, 218–231.

Henderson, Robert. to appear. Morphological Alternations at the Intonational Phrase Edge: The Case of K'ichee'. *Natural Language and Linguistic Theory*.

Hiraiwa, Ken. 2001. Multiple agree and the defective intervention constraint in Japanese. In *The Proceedings of the MIT-Harvard joint conference (HUMIT 2000)*, ed. Ora Matushansky, vol. 40, *MIT Working Papers in Linguistics*, Cambridge, MA: MIT Press, 67–80.

Hiraiwa, Ken. 2004. *Dimensions of symmetry in syntax: Agreement and clausal architecture*. Doctoral dissertation, Cambridge, MA: MIT.

Hoekstra, Teun and Rene Mulder. 1990. Unergatives as Copular Verbs: Locational and Existential Predication. *The Linguistic Review*, 7:1–79.

Holmberg, Anders. 1986. *Word Order and Syntactic Features*. Doctoral dissertation, Stockholm: University of Stockholm.

Holmberg, Anders. 1999. Remarks on Holmberg's Generalization. *Studia Linguistica*, 53:1–39.

Holmberg, Anders and þorbjörg Hróarsdóttir. 2003. Agreement and Movement in Icelandic Raising Constructions. *Lingua*, 113:997–1019.

Hrafnbjargarson, Gunnar Hrafn. 2004. *Oblique Subjects and Stylistic Fronting in the History of Scandinavian and English: The Role of IP-Spec*. Doctoral dissertation, University of Aarhus.

Jaeggli, Osvaldo. 1982. *Topics in Romance Syntax*. Dordrecht: Foris.

Johns, Alana. 1992. Deriving ergativity. *Linguistic Inquiry*, 23:57–87.

Jónsson, Jóhannes Gísli. 1996. *Clausal Architecture and Case in Icelandic*. Doctoral dissertation, Amherst, MA: University of Massachusetts.

Kaufman, Terrence. 1977. *Some Structural Characteristics of the Mayan Languages with Special Reference to Quiche*. Handout, reprinted in Spanish as Kaufman (1990).

Kaufman, Terrence. 1990. Algunos rasgos estructurales de los idiomas Mayances con referencia especial al K'iche'. In *Lecturas Sobre La Lingüistica Maya*, eds. Nora England and Stephen R. Elliot, 59–114. La Antigua: CIRMA.

Kayne, Richard S. 1983. Connectedness. *Linguistic Inquiry*, 14:223–249.

Kayne, Richard S. 2006. *Notes on Full Interpretation*. Paper presented at *InterPhases*, Nicosia.

Kornfilt, Jaklin. 2005. Agreement and its placement in Turkic nonsubject relative clauses. In *Oxford Handbook of Comparative Syntax*, eds. Guglielmo Cinque and Richard S. Kayne, 513–541. New York, NY: Oxford University Press.

Kornfilt, Jaklin. 2008. Subject case and *Agr* in two types of Turkic RCs. In *Proceedings of the 4th Workshop on Altaic Formal Linguistics (WAFL 4)*, eds. Cedric Boeckx and Süleyman Ulutaş, vol. 56, Cambridge, MA: MITWPL.

Kramer, Ruth. 2011. *Clitic Doubling or Object Agreement: An Amharic Investigation*. Talk presented at Harvard Linguistics Colloquium. URL: <http://www9.georgetown.edu/faculty/rtk8/Research.html>.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase Structure and the Lexicon*, eds. Johan Rooryck and Laurie Zaring, 109–137. Dordrecht: Kluwer Academic Publishers.

Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry*, 40:187–237.

Laka, Itziar. 1993a. The structure of inflection: A case study in X^0 syntax. In *Generative Studies in Basque Linguistics*, eds. Jose Ignacio Hualde and Jon Ortiz de Urbina, 21–70. Amsterdam: John Benjamins.

Laka, Itziar. 1993b. Unergatives that assign ergative, unaccusatives that assign accusative. In *Papers on Case and Agreement I*, eds. Jonathan David Bobaljik and Colin Phillips, vol. 18, *MIT Working Papers in Linguistics*, 149–172. Cambridge, MA: MITWPL.

Laka, Itziar. 1996. *A Brief Grammar of Euskara, the Basque Language (ISBN: 84-8373-850-3)*. Ms., Vitoria-Gasteiz: Euskal Herriko Unibertsitatea (University of the Basque Country). URL: <http://www.ei.ehu.es/p289-content/eu/contenidos/informacion/grammar_euskara/en_doc/index.html>.

Landau, Idan. 2006. Severing the distribution of PRO from case. *Syntax*, 9:

Landau, Idan. 2007. EPP Extensions. *Linguistic Inquiry*, 38:485–483.

Lasnik, Howard and Mamoru Saito. 1991. On the subject of infinitives. In *Proceedings of the Annual Meeting of the Chicago Linguistic Society (CLS)*, eds. Lise M. Dobrin, Lynn Nichols, and Rosa M. Rodriguez, vol. 27, 1: The General Session, Chicago, IL: University of Chicago Press, 324–343.

Legate, Julie Anne. 2002. *Warlpiri: Theoretical Implications*. Doctoral dissertation, Cambridge, MA: MIT.

Legate, Julie Anne. 2008. Morphological and Abstract Case. *Linguistic Inquiry*, 39:55–101.

Levin, Beth. 1983. *On the nature of Ergativity*. Doctoral dissertation, Cambridge, MA: MIT.

López, Luis. 2007. *Locality and the architecture of syntactic dependencies*. New York, NY: Palgrave Macmillian.

Mallen, Enrique. 1997. A minimalist approach to concord in noun phrases. *Theoretical linguistics*, 23:49–78.

Marantz, Alec. 1991. Case and Licensing. In *Proceedings of the 8th Eastern States Conference on Linguistics (ESCOL 8)*, eds. German Westphal, Benjamin Ao, and Hee-Rahk Chae, Reprinted as Marantz (2000), Ithaca, NY: CLC Publications, 234–253.

Marantz, Alec. 1993. Implications of Asymmetries in Double Object Constructions. In *Theoretical Aspects of Bantu Grammar*, ed. Sam A. Mchombo, 113–150. Stanford, CA: CSLI Publications.

Marantz, Alec. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. In *Proceedings of the 21st Penn Linguistics Colloquium (PLC 21)*, eds. Alexis Dimitriadis et al., vol. 4.2, *University of Pennsylvania Working Papers in Linguistics*, Philadelphia, PA: Penn Linguistics Club, 201–225.

Marantz, Alec. 2000. Case and Licensing. In *Arguments and Case: Explaining Burzio's Generalization*, ed. Eric Reuland, 11–30. Amsterdam: John Benjamins.

McCarthy, John and Alan Prince. 1995. Faithfulness and Reduplicative Identity. In *Papers in Optimality Theory*, eds. Jill Beckman, Suzanne Urbanczyk, and Laura Walsh Dickey, vol. 18, *University of Massachusetts Occasional Papers in Linguistics*, 249–384. Amherst, MA: University of Massachusetts, URL: <http://roa.rutgers.edu/view.php3?roa=60>.

McCloskey, James. 1976. Conditions on transformations in Modern Irish. In *Proceedings of the 7th conference of the North East Linguistic Society (NELS 7)*, eds. Judy Kegl, David Nash, and Annie Zaenen, MIT, 49–64.

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

McCloskey, James. 1990. Resumptive pronouns, A'-binding and levels of representation in Irish. In *Syntax of the Modern Celtic Languages*, ed. Randall Hendrick, 199–248. New York, NY and San Diego, CA: Academic Press.

McCloskey, James. 2001. The Morphosyntax of wh-Extraction in Irish. *Journal of Linguistics*, 37:67–100.

McCloskey, James. 2002. Resumption, successive cyclicity, and the locality of operations. In *Derivation and explanation in the Minimalist Program*, eds. Samuel David Epstein and T. Daniel Seely, 184–226. Oxford: Blackwell Publishers.

McFadden, Thomas. 2004. *The position of morphological case in the derivation: A study on the syntax-morphology interface*. Doctoral dissertation, Philadelphia, PA: University of Pennsylvania.

McGinnis, Martha. 1998. *Locality in A-Movement*. Doctoral dissertation, Cambridge, MA: MIT.

McGinnis, Martha. 2005. On markedness asymmetries in person and number. *Language*, 81:699–718.

Merchant, Jason. 2006. Polyvalent case, geometric hierarchies, and split ergativity. In *Proceedings of the 42nd annual meeting of the Chicago Linguistics Society*, eds. Jackie Bunting et al., Chicago, IL: Chicago Linguistics Society.

Milsark, Gary. 1974. *Existential Sentences in English*. Doctoral dissertation, Cambridge, MA: MIT.

Mondloch, James L. 1978. Disambiguating Subjects and Objects in Quiche. *Journal of Mayan Linguistics*, 1:3–19.

Mondloch, James L. 1981. *Voice in Quiche-Maya*. Doctoral dissertation, Albany, NY: SUNY.

Moore, John. 1998. Turkish copy-raising and A-chain locality. *Natural Language and Linguistic Theory*, 16:149–189.

Moravcsik, Edith A. 1974. Object-Verb Agreement. In *Working Papers on Language Universals*, vol. 15, 25–140.

Moravcsik, Edith A. 1978. Agreement. In *Universals of Human Language IV: Syntax*, ed. Joseph H. Greenberg, 331–374. Stanford, CA: Stanford University Press.

Moro, Andrea. 1991. The Raising of Predicates: Copula, Expletives and Existence. In *More Papers on wh-Movement*, eds. Lisa L.S. Cheng and Hamida Demirdash, vol. 15, *MIT Working Papers in Linguistics*, 119–181. Cambridge, MA: MITWPL.

Moro, Andrea. 1997. *The raising of predicates: Predicative noun phrases and the theory of clause structure*. x, 318. Cambridge: Cambridge University Press.

Moro, Andrea. 2000. *Dynamic Antisymmetry: Movement as a Symmetry-breaking Phenomenon*. Cambridge, MA: MIT Press.

Moro, Andrea. 2007. *Some notes on unstable structures*. Ms., Cambridge, MA, Milan: Harvard University, and Universita Vita-Salute San Raffaele. URL: <http://ling.auf.net/lingBuzz/000454>.

Neeleman, Ad and Hans van de Koot. 2008. Dutch scrambling and the nature of discourse templates. *Journal of Comparative Germanic Linguistics*, 11:137–189.

Nevins, Andrew Ira. 2004. Derivations without the Activiy Condition. In *Perspetives on phases*, eds. Martha McGinnis and Norvin Richards, vol. 49, *MIT Working Papers in Linguistics*, 287–310. Cambridge, MA: MITWPL.

Nevins, Andrew Ira. 2007. The representation of third person and its consequences for Person-Case effects. *Natural Language and Linguistic Theory*, 25:273–313.

Nevins, Andrew Ira. 2010. *Multiple Agree with Clitics: Person Complementarity vs. Omnivorous Number*. Ms., London: UCL. URL: <http://ling.auf.net/lingBuzz/001090>.

Nissenbaum, Jon. 2000. *Investigations of covert phrase movement*. Doctoral dissertation, Cambridge, MA: MIT.

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

Norman, William M. and Lyle Campbell. 1978. Towards a Proto-Mayan syntax: A comparative perspective on grammar. In *Papers in Mayan Linguistics*, ed. Nora C. England, vol. 6, *University of Missouri Miscellaneous Publications in Anthropology*, 136–156. Columbia, MO: University of Missouri.

Norris, Mark. 2011. *Agreement in the nominal domain: A view from Icelandic*. Ms., Santa Cruz, CA: UC Santa Cruz.

Norris, Mark. to appear. Towards an analysis of concord (in Icelandic). In *Proceedings of the 29th West Coast Conference on Formal Linguistics (WCCFL 29)*, Somerville, MA: Cascadilla Press.

Noyer, Rolf. 1997. *Features, Positions, and Affixes in Autonomous Morphological Structure*. New York, NY. Garland Publishing.

Ortiz de Urbina, Jon. 1989. *Parameters in the Grammar of Basque*. Dordrecht: Foris.

Oyharçabal, Bernard. 1993. Verb agreement with non-arguments: On allocutive agreement. In *Generative Studies in Basque Linguistics*, eds. Jose Ignacio Hualde and Jon Ortiz de Urbina, 89–114. Amsterdam: John Benjamins.

Patel, Pritty. 2008. *Case and Agreement: syntactic or semantic? Evidence from Kutchi Gujarati*. Handout, Cambridge, MA: MIT.

Perlmutter, David M. 1971. *Deep and Surface Structure Constraints in Syntax*. New York, NY: Holt, Rinehart and Winston.

Pesetsky, David. 1982. *Paths and categories*. Doctoral dissertation, Cambridge, MA: MIT.

Poletto, Cecilia. 2000. *The Higher Functional Field*. Oxford: Oxford University Press.

Polinsky, Maria. 2003. Non-canonical agreement is canonical. *Transactions of the Philological Society*, 101:279–312.

Polinsky, Maria. 2011. *Ergativity is different*. Talk presented at UC Berkeley, Berkeley, CA.

Polinsky, Maria and Eric Potsdam. 2001. Long-distance agreement and topic in Tsez. *Natural Language and Linguistic Theory*, 19:583–646.

Postal, Paul M. 1974. *On Raising*. Cambridge, MA: MIT Press.

Preminger, Omer. 2009. Breaking Agreements: Distinguishing Agreement and Clitic-Doubling by Their Failures. *Linguistic Inquiry*, 40:619–666.

Preminger, Omer. 2010a. Failure to Agree is Not a Failure: φ-Agreement with Post-Verbal Subjects in Hebrew. In *Linguistic Variation Yearbook*, eds. Jeroen van Craenenbroeck and Johan Rooryck, vol. 9, 241–278. Amsterdam: John Benjamins.

Preminger, Omer. 2010b. Nested Interrogatives and the locus of *wh*. In *The Complementizer Phase: Subjects and Operators*, ed. E. Phoevos Panagiotidis, 200–235. Oxford: Oxford University Press.

Preminger, Omer. to appear. The absence of an implicit object in unergatives: New and old evidence from Basque. *Lingua*.

Prince, Alan and Paul Smolensky. 1993. *Optimality Theory: Constraint interaction in generative grammar*. Technical Report CU-CS-696-93, and TR-2, Boulder, CO, and New Brunswick, NJ: Department of Cognitive Science, University of Colorado at Boulder, and Rutgers Center for Cognitive Science, Rutgers University.

Pye, Clifton. 1989. The Focus Antipassive in K'iche' Mayan. In *Studies in Native American Languages V*, eds. Jong-Seok Ok and Mubeccel Taneri, vol. 14, *Kansas Working Papers in Linguistics* 2, 88–98. University of Kansas.

Pylkkänen, Liina. 2002. *Introducing Arguments*. Doctoral dissertation, Cambridge, MA: MIT.

Rackowski, Andrea. 2002. *The Structure of Tagalog: Specificity, Voice, and the Distribution of Arguments*. Doctoral dissertation, Cambridge, MA: MIT.

Rackowski, Andrea and Norvin Richards. 2005. Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry*, 36:565–599.

Reinhart, Tanya. 1981. A second COMP position. In *Theory of Markedness in Generative Grammar*, eds. Adriana Belletti, Luciana Brandi, and Luigi Rizzi, 517–557. Pisa: Scuola Normale Superiore di Pisa.

Reuland, Eric. 2011. *Anaphora and Language Design*. Cambridge, MA: MIT Press.

Rezac, Milan. 2003. The fine structure of Cyclic Agree. *Syntax*, 6:156–182.

Rezac, Milan. 2004. *Elements of Cyclic Syntax: Agree and Merge*. Doctoral dissertation, University of Toronto. URL: <http://ling.auf.net/lingBuzz/000050>.

Rezac, Milan. 2006. *Agreement Displacement in Basque: Derivational principles and lexical parameters*. Ms., Vitoria-Gasteiz: Euskal Herriko Unibertsitatea (University of the Basque Country). URL: <http://members.multimania.co.uk/loargann/>.

Rezac, Milan. 2008a. Phi-Agree and Theta-Related Case. In *Phi Theory: Phi-features across interfaces and modules*, eds. Daniel Harbour, David Adger, and Susana Béjar, 83–129. Oxford: Oxford University Press.

Rezac, Milan. 2008b. The syntax of eccentric agreement: The Person Case Constraint and Absolutive Displacement in Basque. *Natural Language and Linguistic Theory*, 26:61–106.

Rezac, Milan. 2010. Phi-Agree Versus Phi-Feature Movement: Evidence from Floating Quantifiers. *Linguistic Inquiry*, 41:496–508.

Richards, Marc. 2004. *Object shift and scrambling in North and West Germanic: A case study in symmetrical syntax*. Doctoral dissertation, Cambridge: University of Cambridge.

Richards, Norvin. 1993. *Tagalog and the typology of scrambling*. Honors thesis, Cornell University, Ithaca, NY.

Richards, Norvin. 2001. *Movement in Language: Interactions and Architecture*. Oxford: Oxford University Press.

Richards, Norvin. 2005. *Person-Case Effects in Tagalog and the Nature of Long-Distance Extraction*. Ms., Cambridge, MA: MIT.

Richards, Norvin. 2006. *A distinctness condition on linearization*. Ms., Cambridge, MA: MIT.

Richards, Norvin. 2010. *Uttering trees*. Cambridge, MA: MIT Press.

Ritter, Elizabeth. 1991. Two functional categories in noun phrases: Evidence from Modern Hebrew. In *Perspectives on Phrase Structure: Heads and Licensing*, ed. Susan D. Rothstein, 37–62. San Diego, CA: Academic Press.

Ritter, Elizabeth. 1992. Cross-linguistic evidence for number phrase. *Canadian Journal of Linguistics*, 37:197–218.

Rizzi, Luigi. 1982. Violations of the wh-Island constraint and the Subjacency Condition. In *Issues in Italian Syntax*, 49–76. Dordrecht: Foris.

Rizzi, Luigi. 1986. On Chain Formation. In *The Syntax of Pronominal Clitics*, ed. Hagit Borer, 65–95. New York, NY: Academic Press.

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

Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In *Elements of Grammar*, ed. Liliane Haegeman, 281–337. Dordrecht: Kluwer Academic Publishers.

Rizzi, Luigi and Ur Shlonsky. 2007. Strategies for Subject Extraction. In *Interfaces + Recursion = Language? Chomsky's Minimalism and the View from Syntax and Semantics*, eds. Uli Sauerland and Hans-Martin Gartner, 115–160. Berlin: Mouton de Gruyter.

Rodrigues, Cilene. 2004. *Impoverished morphology and A-movement out of Case domains*. Doctoral dissertation, College Park, MD: University of Maryland.

Rooryck, Johan and Guido Vanden Wyngaerd. in press. *Dissolving Binding Theory*. Oxford: Oxford University Press.

Rudin, Catherine. 1988. On multiple questions and multiple wh-fronting. *Natural Language and Linguistic Theory*, 6:445–501.

Sam-Colop, Luis Enrique. 1988. *Antipassive and 2-3 retreat in K'iche'*. M.A. thesis, Iowa City, IA: University of Iowa.

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

Sells, Peter. 1998. Scandinavian clause structure and Object Shift. In *Proceedings of the 3rd International Lexical Functional Grammar conference (LFG '98)*, eds. Miriam Butt and

Tracy Holloway King, Stanford, CA: CSLI, URL: <http://cslipublications.stanford.edu/LFG/3/lfg98.html>.

Sener, Serkan. to appear. Non-canonical case marking is canonical: accusative subjects in Turkish. *NLLT*.

Shlonsky, Ur. 1989. *The Hierarchical Representation of Subject-Verb Agreement*. Ms., Haifa: University of Haifa.

Sigurðsson, Halldór Ármann. 1989. *Verbal syntax and Case in Icelandic in a Comparative GB approach*. Doctoral dissertation, Lund: University of Lund.

Sigurðsson, Halldór Ármann. 1991. Icelandic Case-marked PRO and the licensing of lexical arguments. *Natural Language and Linguistic Theory*, 9:327–363.

Sigurðsson, Halldór Ármann. 1993. Agreement as head visible feature government. *Studia Linguistica*, 47:32–56.

Sigurðsson, Halldór Ármann. 1996. Icelandic Finite Verb Agreement. In, vol. 57, *Working Papers in Scandinavian Syntax*, 1–46.

Sigurðsson, Halldór Ármann and Anders Holmberg. 2008. Icelandic dative intervention: *Person* and *Number* are separate probes. In *Agreement Restrictions*, eds. Roberta D'Alessandro, Susann Fischer, and Gunnar Hrafn Hrafnbjargarson, 251–280. Berlin: Mouton de Gruyter.

Smith-Stark, Thom. 1978. The Mayan antipassive: Some facts and fictions. In *Papers in Mayan Linguistics*, ed. Nora C. England, vol. 6, *University of Missouri Miscellaneous Publications in Anthropology*, 169–187. Columbia, MO: University of Missouri.

Sportiche, Dominique. 1992. *Clitic constructions*. Ms., Los Angeles, CA: University of California at Los Angeles.

Sportiche, Dominique. 1996. Clitic constructions. In *Phrase Structure and the Lexicon*, eds. Johan Rooryck and Laurie Zaring, 213–287. Dordrecht: Kluwer Academic Publishers.

Sportiche, Dominique. 1998. *Partitions and Atoms of Clause Structure: Subjects, agreement, Case and clitics*. London: Routledge.

Starke, Michal. 2009. Nanosyntax: A short primer to a new approach to language. *Nordlyd*, 36:1–6.

Stiebels, Barbara. 2006. Agent Focus in Mayan Languages. *Natural Language and Linguistic Theory*, 24:501–570.

Suñer, Margarita. 1988. The role of agreement in clitic-doubled constructions. *Natural Language and Linguistic Theory*, 6:391–434.

Svenonius, Peter. 2001. On Object Shift, Scrambling, and the PIC. In *A Few from Building E39*, eds. Elena Guerzoni and Ora Matushansky, vol. 39, *MIT Working Papers in Linguistics*, 267–289. Cambridge, MA: MITWPL.

Tada, Hiroaki. 1993. *A/A-bar Partition in Derivations*. Doctoral dissertation, Cambridge, MA: MIT.

Taraldsen, Knut Tarald. 1995. On Agreement and Nominative Objects in Icelandic. In *Studies in Comparative Germanic Syntax*, eds. Hubert Haider, Susan Olsen, and Sten Vikner, 307–327. Dordrecht: The Netherlands: Kluwer Academic Publishers.

Thráinsson, Höskuldur. 1979. *On Complementation in Icelandic*. Doctoral dissertation, Harvard University (Cambridge, MA), New York, NY: Garland Publishing.

Thráinsson, Höskuldur. 2007. *The Syntax of Icelandic*. Cambridge: Cambridge University Press.

Torrego, Esther. 1996. Experiencers and raising verbs. In *Current Issues in Comparative Grammar*, ed. Robert Freidin, 101–120. Dordrecht: Kluwer Academic Publishers.

Ura, Hiroyuki. 1996. *Multiple feature-checking: A theory of grammatical function splitting*. Doctoral dissertation, Cambridge, MA: MIT.

Uribe-Etxebarria, Miryam. 1989. *On noun incorporation in Basque and some of its consequences in the phrase structure*. Ms., Storrs, CT: University of Connecticut.

Van Craenenbroeck, Jeroen. 2006. Transitivity failures in the left periphery and foot-driven movement operations. In *Linguistics in the Netherlands 2006*, eds. Jeroen van de Weijer and Bettelou Los, 52–64. Amsterdam: John Benjamins.

Van Riemsdijk, Henk. 1978. *A Case Study in Syntactic Markedness: The Binding Nature of Prepositional Phrases*. Dordrecht: Foris.

Vikner, Sten. 1997. The Interpretation of Object Shift, Optimality Theory, and Minimalism. *Working Papers in Scandinavian Syntax*, 60:1–24.

Vinokurova, Nadya. 2005. *Lexical Categories and Argument Structure: A study with reference to Sakha*. Doctoral dissertation, Utrecht: LOT Dissertation Series: UiL-OTS.

Walkow, Martin. to appear. A Unified Analysis of the Person Case Constraint and 3-3 Effects in Barceloní Catalan. In *Proceedings of the 40th conference of the North East Linguistic Society (NELS 40)*, Amherst, MA: GLSA.

Webelhuth, Gert. 1992. *Principles and Parameters of Syntactic Saturation*. Oxford University Press.

Williams, Edwin. 1994. *Thematic Structure in Syntax*. Cambridge, MA: MIT Press.

Woolford, Ellen. 1997. Four-Way Case Systems: Ergative, Nominative, Objective and Accusative. *Natural Language and Linguistic Theory*, 15:181–227.

Woolford, Ellen. 2000. Ergative Agreement Systems. *University of Maryland Working Papers in Linguistics*, 10:157–191.

Woolford, Ellen. to appear. PF Factors in Clitic Selection in Tzotzil. In *Representing Language: Essays in honor of Judith Aissen*, eds. Rodrigo Gutierrez Bravo, Line Mikkelsen, and Eric Potsdam, Santa Cruz, CA: LRC Publications.

Wurmbrand, Susi. 2001. *Infinitives: Restructuring and Clause Structure*. New York, NY: Mouton de Gruyter.

Wurmbrand, Susi. 2006. Licensing Case. *Journal of Germanic Linguistics*, 18:175–236.

Yip, Moira, Joan Maling, and Ray Jackendoff. 1987. Case in tiers. *Language*, 63:217–250.

Zaenen, Annie, Joan Maling, and Höskuldur Thráinsson. 1985. Case and grammatical functions: The Icelandic passive. *Natural Language and Linguistic Theory*, 3:441–483.

Zeijlstra, Hedde. 2004. *Sentential Negation and Negative Concord*. Doctoral dissertation, Amsterdam: University of Amsterdam.