"Me and her" meets "he and I": Case, person, and linear ordering in English coordinated pronouns

by

Thomas Grano

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Abstract

Some accounts of English pronoun case in coordination (Emonds 1986, Sobin 1997) have argued that the observed data on the phenomenon are the result of a naturally acquired grammar in which coordinated pronouns are universally accusative (Emonds' N[ormal] U[sage]), pitted against an explicitly learned system in which coordinated pronouns are prescribed to be nominative in syntactic environments where a non-coordinated pronoun would be nominative (Emonds' P[restige] U[sage]). The conflict between the natural NU grammar and the allegedly unnatural PU grammar results in a peculiar case distribution in which case interacts not only with syntactic function (and imperfectly so), but also with conjunct ordering (1st conjunct vs. 2nd conjunct) and pronoun agreement features (1sg vs. 3sg), often in ways that are difficult to explain.

In this paper, the results of a sentence judgment experiment show that EVEN WHEN SPEAK-ERS CONFORM TO PU TO A HIGH DEGREE, they impose two additional constraints when coordinating a pronoun with a full-NP, one that limits 1sg nominative to second-conjunct position (the "X and I" constraint), and one that limits 3sg nominative to first-conjunct position (the "s/he and X" constraint).

A survey of advice literature on English usage suggests that the "X and Γ " constraint is likely the result of the way in which PU is taught. As for the "s/he and X" constraint, a large-scale corpus study suggests that (a) this constraint is systematically violated when X = you, and (b) both the constraint and the violation fall out of a more general system of tendencies that governs the ordering of pronouns in coordination. According to the proposed system, when a pronoun is coordinated with a full-NP, the pronoun will tend to be ordered first, and when a pronoun is coordinated with another pronoun (other than 1sg nominative), they will tend to be ordered according to person, in the order 2 < 1 < 3.

Finally, the corpus data show that in both subject and object position, 1sg coordinated pronouns are more likely to be nominative than 3sg pronouns. I correlate this with the finding that, regardless of case, 1sg coordinated pronouns are more frequent than 3sg coordinated pronouns, and argue that in subject position, greater frequency entails greater susceptibility to prescriptive pressure, thus leading to more nominative 1sg. Likewise, as suggested by Boyland (2001), increased frequency in subject position leads to increased overextension into object position. This analysis makes empirical predictions about the range of possible case-marking patterns employed by individual speakers, and these predictions are supported by preliminary evidence.

In addition to improving on our understanding of NU-PU interaction, this analysis (a) provides a first step toward a typology of pronoun ordering tendencies cross-linguistically, and (b) advances additional evidence for the role of frequency in driving pattern extension.

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1 Introduction

It is a well known fact about English that the case of a coordinated pronoun¹ can vary where that of a substituted non-coordinated pronoun cannot:

- (1) a. She/Her and Sandy went to the store yesterday.
 - b. She/*Her went to the store yesterday.
- (2) a. This one is for you and me/I.
 - b. This one is for me/*I.

It is also sometimes pointed out that this variation has its own restrictions:

- (3) Me/?I and Kim are going to see a movie.
- (4) This is between him and her/*she.

Behind these kinds of off-the-cuff grammaticality judgments, however, — which are far from consistent from one linguist to the next — lies a thicket of intertwining internal (syntactic) and external (social) factors that condition the coordinated-triggered variation to define often subtle differences in acceptability.

Emonds (1986) and Sobin (1997) argue that the observed data on pronoun case in coordination are the result of a naturally acquired grammar in which coordinated pronouns are universally accusative (Emonds' N[ormal] U[sage]), pitted against an explicitly learned system in which coordinated pronouns are prescribed to be nominative in syntactic environments where a non-coordinated pronoun would be nominative (Emonds' P[restige] U[sage]). The conflict between the natural NU grammar and the allegedly unnatural PU grammar results in a peculiar case distribution in which case interacts not only with syntactic function (and imperfectly so), but also with conjunct ordering (first conjunct vs. second conjunct) and pronoun agreement features (1sg² vs. 3sg), often in ways

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Nominative: I he she we they Accusative: me him her us them
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As suggested by the row headings, I use the term "nominative" to collectively refer to the subset of pronouns in the first row and "accusative" to refer to those in the second row. While for the sake of completeness the set of nonreflexive personal pronouns should include *you* and *it*, these particular members are irrelevant when discussing case since they do not have distinct nominative and accusative forms. When discussing pronoun ordering tendencies, however, *you* is relevant, and I count it as a member of the set. Also note that this paper will not deal with the interrogative/relative pronouns *who* and *whom*, whose case distribution is quite distinct from that of personal pronouns (see Lasnik and Sobin 2000).

¹Terminological note: throughout this paper I use the term "pronoun" to refer specifically to the following set of English non-reflexive personal pronouns:

²Throughout this paper I use the abbreviation "1sg" for "first-person singular" and "3sg" for "third-person singular". First- and third-person PLURAL pronouns will be de-emphasized in this paper because they are exceptionally rare in coordination.

that are difficult to explain.

Other scholars have approached this problem in very different ways. Parker et al. (1988), and more recently Quinn (2005), both set aside the effects of prescriptivism and instead emphasize the importance of conjunct ordering tendencies in constraining the variation; Parker et al. see these ordering tendencies as pragmatically motivated, and Quinn sees them as phonologically motivated. In yet another vein, Boyland (2001) expands on the popular wisdom that nominative coordinate pronouns in object position are the result of hypercorrection, and argues that it is the specific collocation *you and I*, given its exceptionally high absolute frequency, that drives this overextension. On the sociolinguistic front, Angermeyer and Singler (2003) show that a number of important social factors condition the variation between *me and X, X and me*, and *X and I* in object position.

Methodological problems have, however, hindered research on pronoun case in coordination. Because of the prescriptive ideology that permeates the topic, it is difficult to extract earnest judgments from informants on what they consider to be most natural. As if this weren't enough, coordinated pronouns are also surprisingly rare, making corpus studies difficult. With the recent exception of Quinn (2005), who draws on extensive survey data covering a wide range of syntactic factors, previous evidence has been limited to corpora of certain restricted domains, e.g., 1sg (Boyland 2001) or 1sg in object position (Angermeyer and Singler 2003).

Drawing on the collective wisdom of previous literature and my own research, I focus on syntactic function (subject vs. object position), conjunct ordering (first vs. second), and pronoun person (1sg vs. 3sg) as the three most important internal factors influencing case in coordinated pronouns. To better investigate their effects, I carry out both an acceptability experiment and a large-scale corpus search. In the acceptability experiment, stimulus sentences were manipulated and distributed systematically in such a way as to minimize the effects of extraneous factors affecting judgments, and the judgments were expressed via magnitude estimation, a method which allowed informants to express virtually infinite degrees of contrast in acceptability on a numerical scale which they each defined for themselves. In the corpus study, instances of coordinated pronouns were collected from a database of approximately 10 million words of transcribed telephone conversation, suitably large for such a rare construction. Findings were supplemented with Google search results where necessary.

Results from the acceptability experiment show that even when speakers conform to prescriptive standards to a high degree, 3sg nominative correlates strongly with first-conjunct position (the "s/he and X" constraint), and 1sg nominative correlates strongly with second-conjunct position (the "X and I" constraint). A survey of advice literature on English usage suggests that the "X and I" constraint is likely the result of the way in which the prescriptive standard is taught. As for the "s/he and X" constraint, corpus evidence shows that it is systematically violated when X is you, and that both the constraint and the violation fall out of a more general system of tendencies that governs the ordering of pronouns in coordination. According to the proposed system, when a pronoun is coordinated with a full-NP, the pronoun will tend to be ordered first, and when a pronoun

is coordinated with another pronoun (other than 1sg nominative), they will tend to be ordered according to person, in the order 2 < 1 < 3. These generalizations provides a new perspective on the important observations of Parker et al. (1988) and Quinn (2005).

With the ordering tendencies factored out, I then focus on the different ratio of nominative to accusative coordinated pronouns in the corpus data seen not only between subject and object position, but also between 1sg and 3sg. The fact that nominative case correlates more strongly with subject position than with object position supports the common wisdom that object-position nominative pronouns arise through overextension of subject-position nominative pronouns. The independent fact that nominative case also correlates more strongly with 1sg than with 3sg, on the other hand, I argue to be consistent with Sobin's (1997) argument that nominative pronouns are instantiated through two DISTINCT rules, one for 1sg and one for 3sg. I argue that because 1sg is far more frequent than 3sg, independent of case, it is more likely to succumb to prescriptive pressure and take nominative case in subject position. In the spirit of Boyland (2001), this difference in frequency also entails that nominative 1sg is more likely than nominative 3sg to be overextended into object position.

Finally, I show that these frequency-based arguments make empirical predictions about the range of possible case-marking patterns available to individual speakers, and I give preliminary evidence that speakers occupy points on a cline that are centered around the predicted patterns. This view is enriched by an understanding of how speakers manipulate their location on the cline to achieve various stylistic effects.

The organization of this paper is as follows:

Sections 2 through 5 provide relevant background information. In Section 2, I present an overall survey of syntactic constraints on pronoun case in English, with the goal of demonstrating how coordination-triggered variation relates to other known triggers of case variation. Section 3 begins with a brief summary of the way in which ideology about "proper" pronoun case in coordination is rampant in the advice literature on English grammar and usage, and then focuses on a more subtle aspect of the advice on pronoun case, namely, implicit ordering constraints on coordinated pronouns, which will be important for my analysis of pronoun ordering tendencies. In Section 4, I draw on historical evidence to cast some doubt on pat "hypercorrection" accounts for nominative coordinate objects. Section 5 presents a review of the three primary ways in which pronoun case in coordination is typically treated in the syntax literature.

Sections 6 through 8 detail the evidence and analysis that form the core of my argument. Section 6 presents the methodology and results of the acceptability experiment, and Section 7 presents the methodology and results of the corpus search. In Section 8, I present my analysis, beginning with the conjunct ordering tendencies observed in the acceptability experiment and the corpus study, then focusing on the role of person and syntactic function in constraining case as seen in the corpus study and arguing for a frequency-based explanation, and lastly proposing a typology of case-marking patterns employed by individual speakers.

2 Overview of syntactic constraints on pronoun case in English

One complication for an account of pronoun case in coordination is that even non-coordinate pronouns exhibit case variation in a wide range of syntactic contexts. In this chapter I demonstrate how coordination-triggered variation is properly situated within an overall account of syntactic constraints on pronoun case in English. Other surveys of English pronoun case can be found in CGEL and in Quinn (2005), the latter of which discusses a few rare environments not treated here.

In the account to be developed here, there are two distinct syntactic levels that are relevant in constraining pronoun case. NP-EXTERNALLY, a pronoun's case is constrained by whatever element is selecting for it as an argument. Verbs, for example, uniformly select for accusative objects:

(5) The family met him/*he yesterday.

In (5), the verb *met* requires an accusative object, realized here as *him*. The nominative form *he* is unacceptable.

NP-INTERNALLY, a pronoun's case is constrained when the pronoun is embedded within a larger NP constituent (such that the pronoun is IMMEDIATELY dominated by NP) which is then itself available for selection. Coordination is the most common way in which this occurs, but there are other pronoun-embedding constructions as well. In some limited contexts, for example, a pronoun can occur with an attributive adjective, and in such instances, the pronoun is generally accusative regardless of its NP-external distribution. This is seen in (6):

- (6) a. Poor *I/me will have to start all over again.
 - b. I/*me will have to start all over again.

(6a) exhibits a first-person singular pronoun modified by *poor*; the pronoun is necessarily accusative. (6b) verifies that this restriction is determined NP-internally, since we see that an unmodified pronoun in an otherwise identical context would be necessarily nominative.

Below, each of these two levels is discussed in turn, followed by a discussion of their interaction and of the role of coordination.

2.1 NP-external determination

In the simplest set of scenarios, a pronoun is selected directly by some verb, preposition, or other argument-selecting element, and this selection determines any case restriction on the pronoun. Each relevant scenario is discussed in turn below.

2.1.1 Subject of a finite clause

It has long been generalized (Klima 1964, Emonds 1986, CGEL) that the only condition under which a pronoun is necessarily nominative in all non-creole varieties of English³ is when the pronoun constitutes the entire subject of a finite clause:

- (7) I/*me went to the store.
- (8) Did she/*her go to the store?
- (9) I demand that he/*him be there.
- (7) demonstrates this phenomenon in a simple declarative sentence. (8) show that this restriction holds even under subject-auxiliary inversion; i.e., surface word-order is irrelevant. (9) shows that the restriction holds even for base-form verbs.

There are, however, at least two kinds of constructions suggesting that the conventional wisdom is too strong a generalization. First, as noted by Zwicky (2004), is the so-called inverted-motion construction. In this construction, a motion adverbial (*here*, *there*, *along*, etc.) is followed by a subject and its verb, usually inverted, e.g.:

(10) Here comes trouble.

When pronominal subjects in this construction are inverted, they must be accusative. Zwicky (2004) cites the following, overheard in a radio interview:

(11) People are used to these stories of Alaska that are romantic and beautiful, and flowing wilderness, and here comes me with, y'know, an assault rifle and a jug of R&R.

As Zwicky points out, either the *me* in a sentence like (11) is something other than a subject, or the inverted motion construction presents a categorical exception to the nominative-only rule for subjects of finite clauses.

A second syntactic context that exhibits accusative subjects of finite clauses is exemplified in the following song lyric:

(12) This really blew my mind, the fact that <u>me</u>, an overfed, long-haired leaping gnome, should be the star of a Hollywood movie. (from "Spill the Wine", by Eric Burdon & WAR)

The intervention of an appositive between the subject-position pronoun and the VP seems to loosen the normal case restriction. Similar examples are relatively easy to find on the Internet:

³See Wales (1996) for a discussion of pronoun case in other varieties of English.

- (13) And who also would have thought that <u>me</u>, a man of 36, had not yet mastered such delights. (http://www.manthatcooks.com/2005/10/imbb-20-pork-crackle-and-asparagus.html)
- (14) I never thought that <u>me</u>, a teenager, could actually like this CD.

 (http://www.uniquegiftsale.com/index.php?Operation=CustomerReviews&ItemId=B00004YM0D&ReviewPage=4)
- (15) I guessed that <u>me</u> (a novice brewer) must be missing crucial piece of info that Cindy knew. (http://www.pbm.com/pipermail/hist-brewing/2004.txt)

One could argue that the appositives in these examples are part of the subject NPs, thus rendering the relevant pronoun not the ENTIRE subject and freeing it from the normal case restriction. Even more striking, however, is that the intervening material does not have to be an appositive; certain kinds of intervening adjuncts also license the accusative variant. The following are also attested on the Internet:

- (16) <u>Me</u>, on the other hand, am not so patient.

 (http://groups.google.com/group/alt.consumers.free-stuff/browse_frm/thread/22e5e49f6036de49/4930da530c426f97)
- (17) Me, on the other hand, don't want to control you or others.

 (http://groups.google.com/group/alt.recovery.na/browse_frm/thread/6c31e6e2cb6dd9b3/2706b7aee9796363)
- (18) Me, too, am very disappointed.

 (http://www.darrenbarefoot.com/archives/2005/12/spielbergs-munich-and-sword-of-gideon.html)
- (19) Me, for one, is glad I found this place.

 (http://beta.robotech.com/community/forum/read.php?id=117928&forumid=11)

Unlike the inverted-motion construction, of course, this context exhibits accusative pronouns as mere rare variants rather than the only option available. Still, accusative variants are easy enough to find to suggest that they are grammatical for some speakers. Furthermore, there is a hint of a pragmatic difference between nominative and accusative pronouns in this context. This is especially clear in an example like the following:

(20) <u>Me</u>, on the other hand, is a different story.

(http://www.pauldavidson.net/2004/04/09/dangerous-decisions-or-war-with-canada/)

There seems to be a sense in which the use of the accusative here serves to draw out the referent of the pronoun as a distinct entity to be commented on rather than as inextricable from the speaker.

One difficulty in accounting for this phenomenon is determining exactly what kinds of intervening adjuncts license the accusative variant. Some adjuncts, for example, do not:

(21) *Me probably won't want to go.

In any event, the purpose of this section has been to show that while the conventional wisdom about the domain of nominative pronouns holds in most contexts, even here there are exceptions at the fringes.

2.1.2 Subject of a nonfinite clause

Under standard accounts, it is assumed that a pronoun is nominative ONLY as the subject of a finite clause, and thus the subject of a nonfinite clause is always accusative. While this is generally the case, nominative pronouns are occasionally attested in some nonfinite constructions. Below I discuss infinitival VPs, gerunds, "Mad Magazine" sentences, and verbless clauses.

An infinitival VP, when it does permit a subject, usually follows a verb or preposition, and so the infinitival subject is simultaneously an object. Nominative forms are thus especially rare in this context. They are marginally possible, however, as in the following sentences found on the Internet:

- (22) For <u>I</u> to move on I would have to leave work. (http://boards.straightdope.com/sdmb/showthread.php?p=6931835)
- (23) It is no less a crime for the common man to kill the Ubermensch that I am then [sic] it would be for I toi [sic] kill the other.

(http://boards.straightdope.com/sdmb/showthread.php?t=357054)

Moving on, subjects of gerunds are complicated because genitive forms are also possible in some contexts, and because case appears to interact with the gerund phrase's status as an argument or an adjunct:

- (24) a. *He/Him/His having already left made our departure that much easier.
 - b. He/Him/?His having already left, we were able to slip away unnoticed.

The generalization seems to be that while subjects of argument-position gerund phrases alternate between accusative and genitive (the so-called *poss*-ing and *acc*-ing gerunds), subjects of gerund phrases in adjunct function alternate between accusative and nominative:

	Argument	Adjunct
Nominative	*	good
Accusative	good	good
Genitive	good	?

A further exploration of this phenomenon is in order.

Another type of nonfinite construction involving a possible overt subject is the so-called "Mad Magazine sentence"⁴, so named by Akmajian (1984) after the famous Mad Magazine slogan repeated in (25) below:

(25) What, me worry?

Despite Akmajian's claim that such expressions occur only with accusative subjects, nominative pronouns are indeed attested in this environment:

(26) 'I move out?' Apparently the thought had never occurred to her[...] (from John Mortimer's *The First Rumpole Omnibus* (Penguin, 1983), "Rumpole and the Married Lady", p. 111)

Given this finding, it is also interesting to note that Lambrecht (1990) analyzes the NP in this construction not as a grammatical subject, but rather as a topic. If this analysis is correct, then the case should pattern as with that of dislocated or isolated pronouns, and default to accusative (see Section 2.1.6 below).

A final construction relevant here is the verbless construction, where nominatives are also occasionally attested:

- (27) This guy on the bed with me, dead. Not me dead, <u>he</u> dead. (from *Buffy the Vampire Slayer*, Season 4, Episode 11)
- (28) I forgot all about it eventually and years later while visiting my mother, \underline{I} at the bathroom sink brushing my teeth and \underline{she} in the doorway talking to me, the cabinet succumbed to time and fell from the wall and broke apart[...]

(http://boards.straightdope.com/sdmb/showthread.php?t=353713)

In all of the nonfinite constructions discussed above, hypercorrection likely plays a role in triggering nominative case. Another possible influencing factor is "notional subject"; i.e., nominative case is chosen because it is normally associated with subject position, even though syntactically, nonfinite clauses call for accusative subjects. See Jespersen (1965:236–238) for relevant discussion.

2.1.3 Object

A pronoun is necessarily accusative when it constitutes a direct or indirect object of a verb, or an object of a preposition, as demonstrated in (29)–(31), respectively:

⁴Alternatively, CGEL calls this the "bare predication polar echo construction".

- (29) Mary saw him/*he.
- (30) John gave them/*they the book.
- (31) This one is for us/*we.

Just as subjects of finite clauses are nominative under normal circumstances, objects of verbs and prepositions are normally a straightforward environment for accusative pronouns.

2.1.4 Complement of quasi-preposition

Following CGEL's analysis, there is a class of prepositions in English that can take both sentential complements and NP complements:

- (32) a. Kim is taller than I am.
 - b. Kim is taller than me.
- (33) a. Sandy is at least as well-qualified as he is.
 - b. Sandy is at least as well-qualified as him.
- (34) a. They got there before I did.
 - b. They got there before me.

Among this class of prepositions, *than* and *as*, in formal contexts, are occasionally seen followed by bare nominative pronouns, presumably permitted by ellipsis of the verb following the pronoun:

- (35) Kim is taller than \underline{I} .
- (36) Sandy is at least as well-qualified as I.

It is likely that such examples are largely due to the influence of prescriptivism (see Section 3).

2.1.5 Predicative complement

While pronouns following forms of *to be* are generally accusative, nominatives are permitted in formal register:

- (37) It was I/me who had the most trouble.
- (38) This is she/her.

As with complements of quasi-prepositions, nominative pronouns in this context are likely found due to prescriptive pressure. Some predicative-complement constructions are especially odd with a nominative pronoun, for example, the existential construction:

(39) There's people who understand this, and then there's <u>me/?I</u>.

2.1.6 Dislocation and Isolation

When a pronoun is not selected as an argument by any specific element, it normally defaults to accusative case. This occurs with left- and right-dislocation, and when a pronoun occurs in isolation:

- (40) Her, she never has that problem.
- (41) I don't like to do that, me.
- (42) Who is it? <u>Him</u>?

2.2 NP-internal determination

When a pronoun is a constituent within a larger NP, the case restrictions seen above are often overriden. As noted by CGEL, the combinatoric potential of pronouns is more limited than that of nouns; for example, pronouns cannot take determiners. Still, in a few limited contexts, a pronoun can be preceded by an adjective, or followed by a relative clause. In addition, first- and second-person plural pronouns can function as determiners themselves. These scenarios are discussed below.

2.2.1 Adjective + pronoun

As mentioned in the introduction to this chapter, and illustrated in (6a), in some very limited contexts a pronoun can be modified by an adjective, and in such cases the pronoun must be accusative. According to CGEL, pronouns can combine only with a handful of adjectives (*lucky*, *poor*, and *silly* are cited). The modified pronoun usually occurs in isolation, with exclamatory force, e.g.:

(43) Lucky you! No one noticed you had gone home early. (CGEL:430)

CGEL observes that the pronoun in such contexts must always be accusative, but erroneously claims that it can never occur in subject position. On the contrary, Google Groups searches turn up such examples as:

- (44) Silly me forgot to bring a jacket.

 (http://groups.google.com/group/rec.sport.pro-wrestling.fantasy/browse_frm/thread/5cef4e0ae37806a7/01683e68c941838b)
- (45) oh <u>poor him</u> had to suffer with some chocolate and caramel ice cream.

 (http://groups.google.com/group/alt.mothers/browse_frm/thread/e6b55e8dced3a3e/e59019758ee5f083)

As these examples show, the nominative case required by the finite verb is overridden by the pronoun's combination with an adjective.

2.2.2 Pronoun + relative clause

A relative clause following a pronoun can trigger unexpected case even in academic writing. The following were both found in Erving Goffman's (1977) article, "The arrangement between the sexes" (*Theory and Society*, 4.301-32):

- (46) And, of course, she herself can create the unserious circumstances in which her display of gender will be possible, as when she pummels <u>he who holds her</u>, as if out of hopelessness at having any [...]
- (47) Not uncommonly, then, he uses this channel to redefine what he has not been able to obtain, openly conveying insults to she who has denied him.

In both of these examples, a nominative pronoun is used in object position, and this is seemingly licensed by the following relative clause. As with subjects of nonfinite clauses, notional subject is likely an influencing factor, since in such constructions the relevant pronoun is coindexed with the unexpressed subject of the relative clause that modifies it. Moreover, the use of a relative clause with a pronoun is normally restricted to high registers, which may also help account for the nominative case.

2.2.3 we/us + NP

Unlike other pronouns, first-person plural (and second-person plural) pronouns can function as a determiner. As the following Google Groups quotations show, case variation occurs both in subject position:

- (48) Certainly <u>we students</u> are important.

 (http://groups.google.com/group/git.general/browse_frm/thread/9e9fcbfe3d857a2d/100a4c26c3cd2661)
- (49) <u>Us Americans</u> are always looking for something new. (http://groups.google.com/group/alt.comedy.standup/browse_frm/thread/eb51dd15a9cd1e7f/558b563482127e73)

and in object position:

- (50) Maybe it is time for <u>we democrats</u> to force the pacifists out of the party.

 (http://groups.google.com/group/alt.military.retired/browse_frm/thread/8b65649bced984c3/1f17e5180c3eeb54)
- (51) You Texans are not keeping up with <u>us Californians</u>.

 (http://groups.google.com/group/ca.general/browse_frm/thread/426152e98dcfe7eb/98c8d2473b1ae217)

As is the trend in other environments exhibiting variation, the nominative variant is stylistically more formal.

2.3 The interaction between NP-external and NP-internal determination

As inferable from the above discussion, when a bare pronoun is directly selected by some argument-selecting element, its case is constrained NP-externally, and when a pronoun combines with something else to form a larger NP, internal constraints take precedence over NP-external constraints (as illustrated in (6) above).

The generalization seems to be that NP-internal determination tends toward a default accusative case, but that this default is occasionally overridden by prescriptivism/hypercorrection, the influence of notional subject, conflict with NP-external determination, or some combination of the above.

2.4 The locus of coordination

One of the most salient triggers of pronoun case variation is coordination:

- (52) This is between you and me/I.
- (53) He/Him and Sandy went to the store.

This phenomenon is not conjunction-specific:

- One of my dogs used to get up early in the morning, and either try to play with my husband or I, or roam about the house wreaking havoc.
 - $(http://groups.google.com/group/rec.pets.dogs.behavior/browse_frm/thread/b6cd4a56cb3bc817/268f5cf85f193ea3)$
- (55) He'd feed us if we were bad, but absolutely no dessert, if me or my brother were bad. (http://groups.google.com/group/alt.gossip.celebrities/browse_frm/thread/15a17432e33f78a5/51fc108c3e4a4d5d)

Pronoun case in coordination is, of course, subject to NP-internal determination, since a coordinated pronoun combines via conjunction with some other NP to form a larger NP. It is important to note how the variation triggered by coordination interacts with other kinds of NP-internal determination. For example, coordination can override even the categorical NP-internal constraint seen in adjective + pronoun constructions:

(56) <u>Poor John and I</u> were somehow cast adrift and fetched up here under Werehatrack and Sheldon Brown.

 $(http://groups.google.com/group/rec.bicycles.tech/browse_frm/thread/f635982cb7cd307d/921af24e6a0a482c)$

In (56), it is possible to construe *poor* as modifying the NP *John and I*. But if the adjective is used internal to the coordination structure, then it will override the coordination-triggered variation and require accusative case on the pronoun:

(57) John and poor me/*I were somehow...

Because the topic of inquiry in this paper is variation in pronoun case as conditioned by coordination, I consider only environments in which a substituted non-coordinate pronoun would be obligatorily nominative or obligatorily accusative. For the sake of brevity, throughout the remainder of this paper I will use the term "subject position" to refer specifically to the environment in which pronouns are generally nominative (namely, subject of a finite clause), and I will use the term "object position" to refer collectively to environments in which pronouns are generally accusative (direct and indirect objects, objects of prepositions, and subjects of gerunds).

3 Add, subtract, rearrange: Pronoun case and prescriptivism

3.1 A brief survey

Because of the influence of prescriptivism, pronoun case in a few specific syntactic environments is at the forefront of many an English speaker's linguistic consciousness, and it is a topic fraught with ideology. Indeed, one of the most common responses I received from non-linguists after introducing the topic of my research was along the lines of, "But isn't it wrong to say 'Me and John went'/'between you and I'?" Even setting aside the fact that the association between nonstandardness and special case-marking in coordination is arbitrary,⁵ is the cause and nature of naturally occurring case patterns not still a valid research question?

It is, of course, difficult to change people's minds. Once *I*, *he*, *she*, etc. are labeled "subject pronouns" and *me*, *him*, *her*, etc. are labeled "object pronouns", and this labeling is justified by an appeal to authority, or even rationalized through uncontroversial examples involving only finite clauses and non-coordinate pronouns, the link between form and function is naturalized and treated as a background assumption rather than an object of inquiry. Many prescriptivists would question the intuition of a native speaker before rethinking traditional ideas of grammatical correctness. Strumpf and Douglas, for example, say about nominative predicative complements, "These proper constructions will probably sound awkward to ears that have been hearing the incorrect pronouns for so many years" (1985:20).

Three of the most salient topics in the advice literature on prescriptive English grammar and usage as it pertains to pronoun case are pronouns in coordination, pronouns as complements of *than* and *as*, and pronouns as predicative complements. These three topics are schematized below, along with the standard underlying assumptions and remedies offered for discovering the "correct" case:

Variation trigger	Assumption	Remedy
Coordination	Coordination should not affect	"Separate the thoughts out."
	case choice.	
Complementation with than or	than and as should only select	"Complete the thought."
as	for (finite) clauses, and ellipsis	
	should not affect case choice.	
Complementation with be	A pronoun identified with an NP	"Turn the sentence around."
	in a nominative context should it-	
	self be nominative.	

Depending on the construction, discovering the correct case can involve adding words:

⁵Nominative coordinate objects are, for example, the norm in Spanish (Rini 2001).

He is taller than me/I. \rightarrow He is taller than *me/I am. subtracting words:

My friends and me/I went out. \rightarrow *Me/I went out.

or rearranging words:

The person under discussion is me/I. \rightarrow *Me/I am the person under discussion.

One of the most glib examples of this kind of advice is seen in Elliott's *Painless Grammar*, a book intended for middle-school students. Elliott writes:

How can you tell whether to use a subjective pronoun or an objective pronoun? Add more words to the sentence (or delete words) until you can tell which pronoun sounds right. (1997:19)

This kind of vague advice would, of course, be baffling without concrete examples, which Elliott duly supplies. After all, applying the techniques of adding words and deleting words to the wrong classes of sentences may very well yield case-marking that would be disastrous for any native English speaker:

I went to the store. \rightarrow ?I/me and John went to the store. \rightarrow Me went to the store.

He is taller than I am. \rightarrow He is taller than ?I/me. \rightarrow He is taller than me am.

Of course, no amount of adding or deleting will motivate *It was I* over *It was me*. Later on the very same page, anticipating the problem of predicative complements, Elliott adds:

Here is another trick to use when you are confused: turn the sentence around and notice what sounds right. (1997:19)

Elliott's advice suggests that the grammaticality of *It was me* entails the grammaticality of *Me was it*. And by *reductio ad absurdum*, we recast the expression as *It was I*.

These "tricks" used to discover grammaticality, while useful for achieving standard case-marking patterns, are of course no coherent argument for the intrinsic impossibility or illogicality of naturally occurring case patterns. When extended beyond their intended domain of applicability, they produce such absurdities as *They got here after I* (because "completing the thought" in *They got here after me yields *They got here after me did*).

Aside from this kind of fallacious reasoning, the advice literature sometimes makes claims that are factually incorrect. Zwicky (2005b) notes two common selective-attention effects that often accompany discussions of perceived case problems (and grammatical problems in general). To paraphrase:

- (58) Recency Illusion: phenomena which an author has recently noticed have indeed emerged only recently.
- (59) Frequency Illusion: phenomena which an author believes to be frequent are indeed frequent.

Cochrane's take on nominative coordinate objects in his appropriately titled book, *Between you* and *I: a little book of bad English*, for example, illustrates both of these (underlining added):

Yet <u>all too often</u> nowadays we find people saying, or even writing, "Between you and I" or "From the wife and I" or "To Maggie and I." This oddity, which seems to have emerged only in the last twenty or so years, presumably arises from a feeling of discomfort about using the word me, a sense that it is somehow impolite or "uneducated." (2004:14)

The speculation that this kind of construction emerged only twenty years ago is not unique to Cochrane. In an online English usage column, Dr. Language writes (underlining added):

Young people in the U. S. have been so exposed to this oversimplified explanation of the "me-and-you" problem, that about 20 years ago U.S. English-speakers began switching "me and X" to "X and I" everywhere the phrase occurs — in Subject and Object positions. (2003)

Notwithstanding Cochrane's and Dr. Language's estimates, evidence shows that people have been not only using but also complaining about nominative coordinate objects for well over 200 years. The following excerpt is taken from a footnote to a 1767 edition of Archibald Campbell's *Lexiphanes*, in which Campbell defends his use of *between you and I* which had been criticized in an earlier edition (underlining added):

In the first Edition of this work, I had used the phrase *between you and I*, which tho' it must be confessed to be ungrammatical, is yet almost universally used in familiar conversation, and sometimes by our best comick writers: see Wycherley's *Plain Dealer*. This very trivial slip, if it be one, has not escaped the diligence and sagacity of the learned and candid Reviewers. (footnote in Archibald Campbell's (1767) *Lexiphanes*, as quoted in Leonard 1929:187–188)

Even more striking in light of the historical evidence is that some authors who complain about nominative coordinate objects also espouse alarmist viewpoints calling for swift corrective action lest the "error" become rampant. Dr. Language continues:

However, since yourDictionary.com has caught this speech error in its early stages, it is possible to stop its spread. [...] Join yourDictionary in the fight to nip this linguistic virus in the bud!

Dr. Language's tone is admittedly facetious, but his content is not informed by facts.

The Frequency Illusion, too, is all too easy to succumb to. For Campbell writing in 1767, nominative coordinate objects are "almost universally used in familiar conversation", and for Cochrane writing in 2004, they occur "all too often". Though perceptually salient to those who care about them, they are not, in reality, particularly common. Later in this paper I will show that a search through 60% of an approximately 10 million word corpus of transcribed telephone conversations yielded fewer than 50 nominative coordinate objects, or one per 120,000 words.

3.2 Zeroing in: "she and John" or "John and she"?

The primary purpose of this paper is to explore how pronoun case in coordination interacts with syntactic function, pronoun agreement features, and conjunct ordering. While the advice literature is unanimously clear about how case should interact with syntactic function,⁶ it is not immediately obvious what other effects might be hiding beneath the surface yet still influencing consumers of the advice. This section explores trends in the ordering of coordinated nominative pronouns in example sentences in English usage guides.

3.2.1 1sg

The placement of 1sg nominative *I* as a second conjunct rather than a first conjunct (the "X and I" constraint) is nearly categorical in the advice literature. I have only encountered one counterexample; Thurman's *The only grammar book you'll ever need* corrects *Me and her see eye-to-eye on lots of things* to read *I and she see eye-to-eye on lots of things* (2003:74). But Thurman immediately resumes:

Actually, it's considered polite to put the other person first, so it's better to word the sentence like this: *She and I see eye-to-eye on lots of things*. (2003:74)

Usually, the "X and I" constraint is implicit only; i.e., all example sentences conform to it, but the author never draws attention to this fact. Hubbard's *The New Grammar*, for example, includes

⁶There is, however, occasional disagreement (at least implicitly) over whether the predicative complement of infinitival *to be* should be nominative or accusative. Some advice (e.g., Fowler 1959, Morsberger 1972) states that a predicative complement should match the presumed case of its subject (e.g., *They expect it to be me*, since the subject of an infinitive is normally accusative). Other authors (e.g., Princeton Review 1993) simply state that predicative complements should always be nominative, implicitly suggesting that something like *They expect it to be I* is correct.

a set of exercises in which the student is supposed to choose the correct sentence from among two alternatives. For nine of the ten pairs, the two alternatives differ only in the case of one pronoun; the ordering is intact. In one pair, however, *Me and my brother live in Toronto* alternates mysteriously with *My brother and I live in Toronto* (1990:391). The interaction between case and ordering remains unspoken.

In some instances, the constraint is made explicit, but no justification is given, e.g.:

- "When the form *I* is used, it is almost invariably the last element in the phrase." (American Heritage 1996:30)
- "With I as part of a compound subject, make the pronoun I the last subject, not the first." (Raimes 2004:107)

In other cases, as in the Thurman excerpt above, authors justify the constraint with an appeal to politeness. Opdycke (1983) goes so far as to state that the constraint should be obeyed unless the coordinate NP in question "takes on disadvantage or fault" (61):

Used co-ordinately with a series of nouns and pronouns, both **I** and **we** should be given last position [...]. But when **I** or **we** takes on disadvantage or fault, it may by "courtesy placement" stand first, as **I** and Bill broke the windows.

This shows how far the appeal to politeness can be taken. Other examples of this kind of justification include:

- "Mentioning others before oneself is considered a form of polite expression: *Jim and I went fishing* instead of *I and Jim went fishing* or *Me and Jim went fishing*." (Irmscher 1972:439)
- "You will never be outclassed if you put 'I' or 'me' last. Say, 'he and I' or 'him and me' not 'me and him' or 'I and he'" (Heller 1997:last page, facing inside of back cover)

The Heller excerpt brings up another point, namely, that if the "X and I" constraint is for the sake of politeness, then logically there should also be an "X and me" constraint. In practice, however, very few authors seem to mention this. An "X and me" effect is usually implicit, both in subject position in pre-corrected sentences and in object position in correct sentences; however, this is most likely a simplifying device. By avoiding "me and X", authors need not elaborate on the interaction between case and ordering.

3.2.2 3sg

In contrast with 1sg, explicit ordering constraints for 3sg pronouns are virtually non-existent. I have only found one explicit 3sg ordering constraint anywhere in the advice literature. *The American Heritage Guide to Contemporary Usage and Style* wisely observes (the bracketed portion is in the original text):

Note that all the pronouns except *I* normally precede the noun in these compound subjects: *She and John* [not *John and she*] *will be giving the talk.* (2005:380)

Even here, the constraint is framed as an observation rather than an explicit piece of advice.

Elsewhere in the advice literature, is this "s/he and X" constraint at least implicitly operative? In a survey of a few dozen advice manuals, I isolated 49 example sentences (taken from 20 books) in which a 3sg nominative pronoun was coordinated with a full-NP. Because the goal was to discover implicit notions of correctness, I counted only those example sentences which were purported to be correct (that is, I eliminated examples such as ...between he and John which were only present to illustrate a class of errors). In counting how many of the 49 sentences obeyed the "s/he and X" constraint, the astonishing result is that only 8 of them (or just over 16%) did. In fact, 15 of the 20 books contained only instances of "X and s/he", none of "s/he and X". The advice literature is rife with such alleged exemplars of good grammar as (underlining added):

- "As for my mother, <u>Father and she</u> have always encouraged me to do my best." (Wykoff and Shaw 1957:498)
- "John and she are partners." (Berry 1971:50)
- "Eileen and he enjoy dancing." (Perrin 1994:31)
- "<u>Ludmilla and she</u> went to the spitball-throwing contest yesterday." (Woods 2001:223)
- "Joel ran away from home because his stepfather and he had quarreled." (Hacker 2004:197)

Indeed, the only time *s/he* is commonly seen as a first conjunct is when the other conjunct is *I*, where the "X and I" constraint invariably wields its power. (I did not include instances of pronoun-pronoun coordination in the above sample.)

One possible explanation for this oddity is that it is part of a more general trend in the advice literature to oversimplify. Correct case for 1sg pronouns is seen as more central than correct case for 3sg pronouns, since 1sg pronouns occur more frequently, and as suggested in the previous section, the strong "X and I" constraint leads to an "X and me" effect so that no explanation about case-order interaction is required. Extending this notion even further, authors seemingly tend to

observe an "X and [pronoun]" constraint for ultimate simplicity. At least two authors even suggest (quite incorrectly) that pronoun case trouble arises only in second-conjunct position (underlining added):

- "Sometimes a pronoun occurring <u>as the second element</u> in a compound nominal is used incorrectly." (Frank 1972:30)
- "When the pronoun <u>follows</u> and (sometimes or) as part of a compound unit, determine its use in the sentence and choose the appropriate case form." (Emery et al. 1986:172)

As these excerpts show, whether through deliberate oversimplification or through sloppy wording or thinking, the advice literature often mischaracterizes the nature of a grammatical phenomenon, in this instance, pronoun case in coordination. The result, I argue, is an unnatural selection of example sentences.

As we shall see in a later section, the results of both the acceptability experiment and the corpus study indicate a near-categorical conformity to the "X and I" constraint, and yet there is also a strong tendency for the ordering *s/he and X* over the ordering *X and s/he*. I take from this that the "X and I" constraint is the result of explicit instruction, such as in the advice cited above. Children are not simply corrected into using *I* in coordination, they are specifically corrected into using the formulation *X and I*. The "s/he and X" ordering constraint, on the other hand, is not imposed through explicit instruction, as the above survey makes clear. Rather, it falls out of a more general system of pronominal conjunct ordering tendencies to be discussed below.

4 Betweene you and I: Diachronic gleanings

By far the most common explanation suggested, both by linguists and by many non-linguists, for the presence of object-position *X* and *I* is hypercorrection. That is, children are corrected for using accusative coordinate subjects (e.g., *Me* and *John* went to the store), and end up extending the corrected version (*John* and *I*) into all other syntactic environments.

One of the most common counter-arguments to this viewpoint, in turn, is that Shakespeare himself once penned a nominative coordinate object:

(60) All debts are cleerd betweene you and I ... (Shakespeare, Merchant of Venice, 1596)

Barnard (1979) (as quoted in MWDEU) argued that Shakespeare's usage casts doubt on the hypercorrection account, since Shakespeare learned Latin grammar in school rather than English grammar, and thus had no standard against which to hypercorrect.

The specific collocation *between you and I* has special status both in historical discussions and in usage discussions since it is felt to be the most frequent manifestation of the nominative coordinate object. The earliest recorded example of a nominative coordinate object, also from Shakespeare, is, however, not of this form:

(61) Now Margaret's curse is fall'n upon our heads, When she exclaimed on <u>Hastings</u>, you, and I ... (Shakespeare, *Richard III*, 1593)

In any case, MWDEU's entry labeled "Between you and I" suggests that the construction was common before the eighteenth century, fell out of favor, and then reemerged in the late nineteenth century as a hypercorrection. MWDEU points to the lack of evidence for instances of *between you and I* between roughly 1700 and 1850 to motivate this reemergence hypothesis. This very time period, however, is the locus of quite a few attested nominative coordinate objects, though not necessarily of the form *between you and I*.

Jespersen (1965), for one, cites a number of early eighteenth century examples from author Daniel Defoe, including:

- (62) [...] ask why God does not kill you and I [...] (1719)
- (63) [...] there was nothing between Mr. Robert and I [...] (1722)
- (64) So far had this innocent girl gone in jesting between her and I [...] (1724)

In addition, Tieken-Boon van Ostade (1994) cites six instances of object-position *X* and *I* in a diary of Thomas Turner's spanning from 1754 to 1765. Examples include:

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(65) [...] for my wife and I [...]
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- (66) [...] between my brother and I [...]
- (67) [...] gave my wife and I an invitation [...]

According to Tieken, there were, in Turner's diary, six instances of object-position *X* and *I* out of a total of 38 object-position coordinate constructions (unfortunately, Tieken does not indicate how many of the remaining 38 involved 1sg, although she does say that one was of the form *me* and my wife). In subject position, on the other hand, there were 196 instances of *X* and *I*. Tieken therefore suggests that in Turner's diary, the rarity of object-position coordinate constructions in general leads to the use of certain collocations — such as the particularly frequent my wife and *I* — regardless of syntactic function.

A more thorough investigation of historical evidence will be required to see whether there was at any point a surge in object-position X and I and whether this surge correlated with the emergence of prescriptivism against subject-position me and X. But pending this investigation, Tieken's suggestion is appealing. In light of the early historical evidence for nominative coordinate objects, and the relative rarity of object-position coordinate constructions, as will be confirmed by the corpus study results later in this paper, I think it is likely that object-position X and I is, to a degree, a NATURAL extension of subject-position X and I; hypercorrection reinforces rather than causes it. Therefore in the analysis section of this paper, I will use the term "overextension" rather than "hypercorrection" to remain neutral about the degree to which overextension is the result of explicit instruction.

5 Previous approaches to case in coordination

The puzzling distribution of case in English coordinated pronouns has sparked a number of attempted explanations. It is taken as uncontroversial in these explanations that in most (if not all) dialects of English, there is under some circumstances a mismatch between the case of a coordinated pronoun in a given syntactic environment and the case of a replaced non-coordinated pronoun in that same environment. At issue is under what syntactic circumstances this mismatch occurs, why this mismatch occurs, and why there is variation between speakers and even within a single speaker.

Some explanations take case variation to be syntax-internal, and among these, some model it as resulting from optionality (Schwartz 1985, Johannessen 1998) or underspecification (Parker et al. 1988) in the syntax, and others model it as constraint reranking (Sadock 2005) or reweighting (Quinn 2005). Still, other explanations take case variation to be the result of a natural variation-free grammar pitted against explicit prescriptive instruction, through which speakers adopt either *ad hoc* transformational rules (Emonds 1986) or grammatical viruses (Sobin 1997) in an attempt to conform to the prescriptive standard. In this section I present a survey of these different approaches.

5.1 Syntactic optionality/underspecification

Three previous accounts of pronoun case in coordination model variation as the result of syntax-internal optionality/underspecification, namely, Schwartz (1985), Johannessen (1998), and Parker et al. (1988).

Schwartz (1985), relying on her own judgments, makes the following generalizations regarding pronoun case in coordination in subject position:

- (68) a. He and she/I will drive to the movies.
 - b. She and he/I will drive (to the movies).
 - c. *I and he/she will drive
- (69) a. Him and her/me will drive
 - b. Her and him/me will drive
 - c. Me and him/her will drive
- (70) a. He and me/him/her will drive
 - b. She and me/him/her will drive
 - c. *Him/her and he/she will drive
- (71) a. Me and he/she will drive
 - b. Him/her and I will drive

Schwartz argues that the data in (68) are due to percolation of case to individual conjuncts (from the mother NP), with an "X and I" constraint stipulated, given (68c); the data in (69) are due to the fact that percolation of case is optional and accusative is the default case, and the data in (70) show the possibility of partial case percolation, with the stipulation (given (70c)) that nominative case is assigned from the right to left, and thus it is the first conjunct that receives this partial percolation. Finally, the exceptions in (71) are due to the fact that I and I me "neutralize in conjunction structures" (176) and therefore can appear where otherwise unexpected.

For object position, Schwartz makes the following judgments:

- (72) Gramps will kiss
 - a. him and her/me.
 - b. her and him/me.
 - c. me and him/her.
- (73) Gramps will kiss
 - a. he and him/her/me.
 - b. she and him/her/me.
 - c. *he and she.
 - d. *she and he.
 - e. *him and he/she.
 - f. *her and he/she.
 - g. *me and he/she.
- (74) Gramps will kiss
 - a. him/her and I.
 - b. he/she and I.

Schwartz argues that the data in (72) are due to normal percolation of case, and that the data in (73) show that conjunctions themselves can assign nominative case, but, as seen in (73c)–(73g), they can only do so from right to left. The exception in (74) is again due to the fact that I "neutralize[s] in conjunction structures".

Aside from being somewhat *ad hoc* (why would 1sg pronouns be unique in neutralizing in conjunction structures?), some of Schwartz's judgments are questionable, especially those repeated here in (71a), (73a) and (73g). Even so, in this early paper, Schwartz observes the relevance not only of syntactic function (subject position vs. object position), but also of pronoun agreement features (1sg vs. 3sg) and of conjunct ordering, in constraining pronoun case.

Johannessen's (1998) approach is quite similar to Schwartz's; conjuncts in a coordinate NP can either take default (accusative) case, or they can receive case from their mother NP. Also as in

Schwartz, conjunctions can themselves assign case. For Johannessen, however, conjunctions assign case to the second conjunct rather than the first. This correctly predicts the grammaticality of sentences like (74a), where the first conjunct supposedly gets case from its mother NP and the second conjunct receives nominative case from the conjunction. If we accept Schwartz's judgments, however, this account fails to predict the grammaticality of (71b), (73a), (73b), and (74b), and it fails to predict the ungrammaticality of (73e)–(73g).

The discrepancies between the set of predictions made by each of these two accounts highlight the weakness to any approach that attempts to reduce oftentimes subtle distinctions in acceptability to a set of categorical syntactic constraints. The distinctions in acceptability are simply too subtle, and there is too much room for differences in acceptability from one speaker to the next. While it is plausible that syntactic optionality simply allows room for variation, and that differences between speakers are due to external social constraints on the variation, the problem is that there is not a clear enough line between what is socially marked for some and what is categorically ungrammatical for everyone. Both Schwartz's and Johannessen's accounts, for example, rule out object-position coordinate NPs in which both conjuncts are 3sg nominative. And yet the following is attested on the Internet:

(75) You just cannot go around grabbing children in today's world. No, you cannot grab a child and drag <u>he or she</u> down to his or her house if you don't know the kid.

http://boards.straightdope.com/sdmb/showthread.php?t=323714

Do we really want to say that this kind of example is an outlier, a performance error? On the contrary, it would seem that there is a cline of markedness/acceptability, and that factors such as syntactic function, conjunct ordering, and pronoun agreement features interact to define points on this cline, but that very little (if anything), as far as case in coordination is concerned, is strictly ungrammatical.

Along these lines, Parker et al. (1988), in fact, argue that NP is simply a barrier to case assignment, and so pronouns in a coordinate NP can be freely nominative or accusative regardless of that NP's syntactic function. In other words, this account predicts that, syntactically, all of the data in (68)–(74) above is grammatical. The authors take this a step further, however, by making a number of important pragmatically motivated generalizations regarding conjunct-ordering tendencies. These generalizations go a long way in predicting which kinds of patterns are rare, without ever appealing to syntactic function. Because pronoun ordering tendencies are central to my analysis, Parker et al.'s findings will be discussed in detail in Section 8.2 below, where they will be compared to findings in the present corpus study.

5.2 Constraint weighting/ranking

Rather than appealing to syntactic optionality/underspecification, both Quinn (2005) and Sadock (2005) model variation via constraint weighting/ranking.

Quinn (2005), based on extensive survey data, adduces evidence that the pronouns *me*, *he*, *she*, *we* and *they* tend to appear in first-conjunct position, and the pronouns *I*, *him*, *her*, *us* and *them* tend to appear in second-conjunct position. Quinn argues that these tendencies are justified on phonological grounds (thus providing grounds for the otherwise odd finding that nominative 1sg patterns with accusative non-1sg and accusative 1sg patterns with nominative non-1sg), and presents a weighted-constraint approach to pronoun case in which these ordering tendencies interact with other factors (roughly, syntactic function and the trend toward invariant accusative case) to define constraints on possible case forms in given environments.

Quinn's account combines flexibility (due to constraint reweighting) with considerable accuracy (since it is based on extensive survey data), but as an explanatory tool, it does not suggest why the ratio of nominative to accusative is so much higher for 1sg pronouns than for non-1sg pronouns, in both subject and object position, as usage data will show in a later section. Rather, Quinn simply observes, "the trend towards an invariant strong [i.e., accusative] 1sg form is generally less advanced than the development of invariant strong non-1sg forms" (171). Furthermore, Quinn does not observe that, as will also be seen in a later section, the tendency for *he* and *she* to appear in first-conjunct position is systematically overruled when the other conjunct is *you*, in favor of the ordering *you and s/he*.

Sadock (2005) suggests a simple set of alternatively ranked constraints for capturing a number of possible dialects. First, normal case-marking patterns in non-coordinate environments is captured via the following two constraints applied in succession:

- (76) $S[FIN] \rightarrow NP[NOM] VP[FIN]$
- (77) $[+PRONOUN] \rightarrow [+OBJECTIVE]$

In other words, the subject of a finite verb phrase is nominative, and everywhere else a pronoun is accusative (in Sadock's terminology, "objective"). These two constraints alone are sufficient for a dialect in which conjuncts are universally accusative, as guaranteed by (77). For the alleged standard dialect, in which coordination does not affect case-marking, the following constraint is applied before (77):

(78)
$$NP[Case \alpha] \rightarrow NP[Case \alpha] Conj NP[Case \alpha]$$

By (78), when a coordinated pronoun is in subject position, the case of the mother-NP will apply to each conjunct, yielding nominative-case pronouns.

Finally, for dialects in which object-position pronouns exhibit nominative case, the following constraint is ranked before both (77) and (78):

(79)
$$NP \rightarrow NP[NOM] / Conj, ____$$

It is unlikely, however, that anyone's grammar is as straight-forward as these constraints suggest, and problematic for Sadock's account is that his data is limited to 1sg pronouns. This is especially apparent when he proposes two additional "trigger adjacency" constraints to explain why "me and John" is better than "John and me" in subject position (since the pronoun is not adjacent to the finite verb which normally assigns nominative to its subject) and why "John and I" is better than "I and John" in object position (since the pronoun is not adjacent to the verb or preposition, which normally assigns accusative to its subject). If Sadock had considered non-1sg pronouns, it would have been apparent that, for example, both "she and John" and "her and John" are better than "John and she" and "John and her", respectively, in both subject and object position; I is simply an anomaly in preferring second-conjunct position. Still, the idea that trigger adjacency plays a role in conditioning case (albeit a relatively weak one compared to independent ordering tendencies) will be taken up again in my final analysis.

To conclude, constraint ranking/weighting provides an elegant way of accounting for variation in pronoun case, but there is still room for such an account to be worked out in an even more descriptively accurate and explanatorily satisfying way. One of the goals of this paper to bring to light new data and argue for generalizations that might ultimately lend themselves to this kind of approach.

5.3 Syntax-external approaches

Finally, Emonds (1986) and Sobin (1997) argue for approaches in which variation occurs only under the influence of prescriptive pressure.

Emonds argues that all English-speaking children acquire NU ("normal usage"), a grammar in which coordinated pronouns are universally accusative, and that this grammar is captured through a transformational rule by which accusative pronouns (which are taken to be the default forms) become nominative only when adjacent to and immediately governed by a finite verb. Since coordinated pronouns are constituents of a higher NP, they are never immediately governed by a finite verb, and thus always accusative. Variation occurs only via "ad hoc transformations" (115), as speakers attempt to achieve standard usage (what Emonds calls PU, "prestige usage"). The alleged impossibility of internalizing PU leads to hypercorrection, hence nominative coordinate objects.

Sobin (1997) makes the same assumptions as Emonds regarding NU and PU, but expands on Emonds' idea of "ad hoc transformations" by arguing instead that nominative coordinate pronouns are achieved through "grammatical viruses" rather than transformations within the grammar proper.

In particular, Sobin proposes the "and I" rule, which ensures nominative case for 1sg pronouns in second-conjunct position, and the "that she" rule, which ensures nominative case for 3sg pronouns in first-conjunct position. Evidence that such rules are extra-syntactic is that they are lexically specific (applying to 1sg and 3sg pronouns to different degrees), directional (applying to one conjunct and not the other), sometimes overextended (causing hypercorrection), sometimes underextended (not applied consistently), and insensitive to hierarchy (applying blindly to surface strings without regard for constituency). Sobin bases much of his arguments on empirical survey evidence found in Quattlebaum (1994). Although Quattlebaum's survey was designed to test schoolchildren's ability to conform to PU rather to adduce their natural case preferences, the trends seen in her survey results were similar to those seen in the corpus study to be presented below, thus providing further support for Sobin's arguments.

The appeal of both Emonds' and Sobin's accounts is that they capture the intuition shared by many that the most natural, untutored kind of English uses only accusative pronouns in coordination, and it is only through prescriptive pressure that speakers begin to use nominative pronouns in some contexts in coordination. In the absence of language acquisition evidence to the contrary, I adopt the viewpoint that children acquire a grammar in which coordinated pronouns are generally accusative; HOWEVER, given the long historical precedence of nominative coordinate objects, as seen in Section 4, I follow MWDEU in maintaining that variation from this is not entirely due to prescriptivism, but rather merely amplified by it. In all likelihood, pronoun case in coordination in modern-day English tends toward a default accusative, but is nevertheless a naturally unstable feature.

6 Acceptability experiment

In this experiment, conducted over the Internet, informants were shown one sentence at a time and asked to judge how acceptable they found each one according to a flexible numerical scale. Among the sentences that each informant saw were ones exhibiting coordinated pronouns of a variety of different types and in a variety of different syntactic environments. The following sections describe in detail the design, implementation and results of this experiment.

6.1 Methodology

In the experiment described below, the independent variable is the sentence to which an informant is exposed (henceforth, the "stimulus"), and the dependent variable is the numerical value that the informant assigns to this sentence (henceforth, the "judgment"). The principles underlying the preparation of the stimuli are borrowed heavily from Cowart (1997).

The first key principle is that extraneous factors possibly affecting judgments are to be minimized by varying stimuli only along the factors under examination. Suppose, for example, that we are interested in how case affects the acceptability of 1sg pronouns as the second conjunct of a coordinate NP in subject position. We might construct the following sentences as stimuli:

- 1a. Sandy and I went to the store.
- 1b. Sandy and me went to the store.

By altering only the factor under consideration, namely, the case of the pronoun, the effect of extraneous factors are minimized. Henceforth, the term "item" will be used to refer to a set of sentences varying only along the condition(s) under consideration. The second key principle is that each informant should only see each item once, under a single condition. If an informant were given both sentences (1a) and (1b) above, it is likely that the judgment of the second sentence would be affected by its similarity to the first. Thus we might expand our stimuli to include a second item:

Item 1 Item 2

1a. Sandy and I went to the store.1b. Sandy and me went to the store.2a. Kim and I watched a movie.2b. Kim and me watched a movie.

Now, we can satisfy our second principle by organizing the stimuli into two lists such that each list contains only one sentence of each item. One set of informants will see List 1, and another set will see List 2:

List 1 List 2

1a. Sandy and I went to the store.2b. Kim and me watched a movie.2a. Kim and I watched a movie.

As the number of factors under consideration increases, so does the number of items, lists, and informants required for a maximally efficient design. Nevertheless, the same underlying principles are in effect. Note also that in the above example, the number of conditions equals the number of items. While it is possible to have more items than conditions (and desirable even, so that each informant can judge each condition more than once), it will of course be necessary that the number of item be a multiple of the number of conditions.

Another principle which constrains the design is that stimuli should include both the test sentences of interest to the experimenter, and a number of "filler" sentences designed to inhibit informants from detecting patterns across the stimuli in a way that might affect their judgments.

Designing the experiment thus involved deciding on a set of factors to be tested as ones possibly affecting sentence acceptability, instantiating these factors within sentences to create item sets, and distributing the members of the item sets across a number of lists for use with individual informants.

6.1.1 Factors tested

In contrast with corpus-based studies, experimental methods have the disadvantage of heavily restricting the range of phenomena that can be reasonably tested at a time. In other words, while it is easy to construct searches for finding nearly every instance of a coordinated pronoun in a given corpus, an experimental design requires very clear restrictions on the range of pronoun types and surrounding syntactic environments to be tested. An informant cannot be expected to judge more than 100 or so sentences in one sitting, and in order to allow for the putative effect of a given factor on the acceptability of a given sentence to reach statistical significance, each factor must be tested numerous times across several different stimuli and across several different informants as described above. Thus, I limited the experiment to testing the relative acceptability of sentences with coordinated pronouns as the following four factors relating to the pronoun are manipulated:

Case Nominative or accusative

Person 1sg or 3sg

Ordering First conjunct or second conjunct
Function Subject of finite clause or direct object

There are thus a total of $2^4 = 16$ conditions. Each informant saw each condition twice (a total of 32 test sentences), along with 32 filler sentences.

6.1.2 Preparation of items

While a sentence with a coordinated pronoun can easily be manipulated to change the case, person, and ordering of the pronoun, the syntactic function of the pronoun is more difficult to manipulate. For example, (1a) above can easily be changed to "Sandy and me...", "Sandy and he...", "I and Sandy...", etc., but there is no way to make "Sandy and I" a direct object without building a new sentence entirely. For this reason, I decided to use one set of items for testing coordinated pronouns in subject position, and one set of items for testing coordinated pronouns in direct-object position.

All items were based on naturally occurring sentences found on Google Groups. I used search strings such as "he and...", "she and...", "him and...", etc. to find sentences containing coordinated pronouns. I then either selected, altered slightly, or rejected sentences based on the principles listed below until I had arrived at a set of 16 sentences with a coordinated pronoun in subject position and 16 sentences with a coordinated pronoun in direct-object position.

The sentence:

- 1. contains only one finite verb.
- 2. is easy to parse under all conditions to be tested (e.g., for the object-position items, there would be no way to misinterpret a third-person singular pronoun as being anaphoric to the subject of the sentence.)
- 3. is semantically and pragmatically plausible under all conditions to be tested.
- 4. conforms to standard English.
- 5. is free of slang, vulgarisms, and any content that might be considered offensive to informants.

Applying principles 2–5 was inevitably somewhat subjective, but on the whole, since the goal is to arrive at plausible sentence material, this method of collecting items is likely far more effective than constructing artificial ones altogether.

I decided that for each item, the relevant pronoun would be coordinated with a popular American given name. To this end, I used the US Social Security Administration website (http://www.ssa.gov) to obtain the most frequent 16 male names and most frequent 16 female names given to newborns in 1980, and then I randomly associated each item with one of these names.

For the conditions testing 3sg pronouns, half of the items were assigned masculine pronouns and half were assigned feminine pronouns. This was done in such a way as to equalize the number of female-female, male-male, and female-male pairings between the pronoun and the given name coordinated with it.

To see the items and the given name and 3sg pronoun gender associated with each one, refer to Appendix A.

6.1.3 Distribution of stimuli

Because of my decision to use one group of token sets for subject-position coordinated pronouns and another group of token sets for object-position coordinated pronouns, each of the 32 token sets had only 8 members each (2 cases X 2 persons X 2 orderings). Thus only 8 lists were needed to distribute all of the stimuli such that each list exhibited exactly one sentence from each token set and each list exhibited each condition exactly twice. These 8 lists were generated via a Latin square design.

Within each list, the stimuli were then divided into two blocks so that each block exhibited each condition exactly once. Aside from this constraint, the distribution of stimuli into blocks was randomized separately for each list.

Filler sentences were then dispersed throughout so that each block had an equal number of test sentences and filler sentences. While the same 32 filler sentences were used for all 8 lists, the distribution of filler sentences into blocks was determined randomly for each list. The filler sentences were borrowed from those used as filler sentences in the experiment described in Staum (2004).

Finally, for each list, the order of presentation of the stimuli within each block was randomized.

6.1.4 Informant response method

Magnitude estimation was chosen as the method for collecting informant responses. This method has been shown to elicit more subtle degrees of acceptability than traditional category scale methods (Bard et al. 1996, Cowart 1997, Featherston 2005). Informants are given a "reference sentence" and asked to assign it any positive number. Then as the reference sentence and the value assigned to it remain on the screen, informants are shown one stimulus at a time and asked to assign each one a number based on how acceptable it seems in comparison to the reference sentence. For this experiment, the reference sentence was "We're going to try and bake a chocolate cake for my sister's birthday." The instructions seen by informants prior to taking the experiment are repeated in Appendix B.

6.2 Results

Each informant's responses were divided by the number assigned to his or her reference sentence. Then, the natural logs for each of these numbers were computed, so that deviations from zero represent deviations in acceptability from the reference sentence. Finally, I averaged together all these transformed scores for each of the 16 conditions. Graphs indicating these 16 values are presented in Appendix C.

With the scores transformed in the manner described above, I conducted a series of repeated-measures ANOVAs in order to test the significance of the factors under examination and their various interactions. Since the data for subject position came from one set of items and the data for object position came from another, I conducted one ANOVA for the subject-position data and another for the object-position data. Results indicated that the following effects are statistically significant (note: by-subject and by-item ANOVAs produced nearly identical results. Below, reported p-values are for the by-item ANOVAs):

Subject position:	CASE	(p < .000)
	PERSON * ORDERING	(p < .003)
	CASE * PERSON * ORDERING	(p < .016)
Object position:	CASE	(p < .000)

In subject position, CASE was significant; nominative pronouns were more acceptable than accusative pronouns. There was also a significant interaction between PERSON and ORDERING; first-person singular pronouns were more acceptable as second conjuncts and third-person singular pronouns were more acceptable as first conjuncts. Looking at the two graphs for the subject-position data in Appendix C, it is apparent that this interaction is accounted for entirely by the nominative pronouns; hence, we see also a significant interaction between CASE, PERSON, and ORDERING.

In object position, the only significant effect was CASE, accusative pronouns being more acceptable than nominative pronouns.

7 Corpus study

7.1 Methodology

The transcripts for Fisher English Training Speech Part 1⁷ were used as a corpus. The corpus consists of 10-minute telephone conversations that took place between strangers given prompted topics. Although the corpus is not tagged syntactically, nor is it limited to native speakers of English,⁸ it is attractive because it is rather large (approximately 10 million words) and because it consists of informal, spoken language.

To find first- and third-person singular pronouns in coordination, ⁹ I used grep to return lines of utterance containing any of the 12 strings in the table below:

	NOM1	ACC1	NOM2	ACC2
1sg	i and	me and	and i	and me
3sg m.	he and	him and	and he	and him
3sg f.	she and	her and	and she	and her

I then manually filtered the output to include only those utterances in which the relevant pronoun constituted a conjunct in a coordinate NP. For 1sg, I stopped after cataloguing 998 tokens, drawn from the first 60% of the corpus. For 3sg, I exhausted the entire corpus, yielding 341 tokens. ¹⁰

Finally, in order to confine the data to coordination-triggered variation, I further filtered the tokens to include only those in which a substituted non-coordinate pronoun would be either invariably nominative, or invariably accusative. This in effect removed tokens in which the relevant coordinate NP was syntactically isolated or of indiscernible function, or in which the relevant coordinate NP was a predicative complement, a complement of *than* or *as*, or a left- or right-dislocated subject. The remaining tokens were then each labeled "subject position" or "object position" according to the syntactic function of the relevant coordinate NP. As stated earlier in this paper, the label "subject position" is for environments in which a substituted non-coordinate pronoun would be invariably nominative, namely subjects of finite clauses, e.g.:

(80) I/*Me went to the store.

⁷Released by the Linguistic Data Consortium.

⁸Approximately 10% of its informants reported a native language other than English.

⁹In a pilot study of several small parsed corpora, less than 4% of the pronouns in coordination were first- or third-person plural. In addition, Parrott (2005) deems first- and third-person plural pronouns "vanishly rare" in coordination. For this reason they are omitted from the present study.

¹⁰The strings "and he" and "and she" yielded 5524 and 3694 hits, respectively. After examining the first 20% of the hits for each of these strings and not finding any relevant tokens, I concluded that *NP and s/he* constructions were either non-existent or negligibly rare in the corpus, and ignored the remaining 80% of the hits.

The label "object position", in turn, is for environments in which a substituted non-coordinate pronoun would be invariably accusative, namely, direct objects, indirect objects, prepositional objects, and subjects of argument-position gerund VPs, ¹¹ as exemplified in (81), respectively:

- (81) a. Kim met me/*I downtown.
 - b. Sandy gave me/*I a book.
 - c. This is a gift for me/*I.
 - d. Me/*I getting the help I needed made everyone feel better.

7.2 Results

The overall results are represented in Appendix D, which summarizes the effects of ordering, pronoun agreement features, and syntactic function on case. Because case and ordering are so intimately related, and because variation in ordering, like variation in case, does not affect the truth-conditional semantics of a given sentence, I calculate relative frequencies based on four-way choices that involve case and ordering together.¹²

In order to examine ordering effects in more detail, Appendix E presents ordering preferences for given pairs of conjunct types. In each case, preferences were consistent across syntactic function, and so distinction between subject and object position is collapsed in this table. Also note that these data reinstate the coordinate NPs that had been excluded from the table in Appendix D for not fitting into the subject-position/object-position binary.

¹¹Recall from Section 2.1.2 that for subjects of argument-position gerund VPs, such as that seen in (81d), genitive forms (*my*, *his*, *her*) are also possible. These will not be discussed in this paper.

¹²Angermeyer and Singler (2003) also consider case and ordering simultaneously in this way. I depart from them in not considering reflexive (-self) forms as also part of the choice.

8 Analysis

8.1 Acceptability experiment vs. corpus study

The most robust effect for the acceptability experiment was that in subject position, nominative pronouns are significantly more acceptable than accusative pronouns, and in object position, accusative pronouns are significantly more acceptable than nominative pronouns, which suggests conformity to prescriptive rules. Interestingly, however, despite this acute conformity to standard pronoun usage, at least one other factor had an effect on acceptability, namely, the interaction between person and ordering for subject-position nominative pronouns, which suggests an "X and I" constraint and a "s/he and X" constraint. Even in object position, this same effect is also emergent, though not sufficiently so to achieve statistical significance. It is likely that the effect was eclipsed by an overall distaste for nominative pronouns in object position.¹³

As seen in Section 3.2, the "X and I" constraint is operative in the advice literature, always implicitly and sometimes even explicitly, and so this constraint is likely due to the way the prescriptive standard is taught. Curiously, however, it was also seen in Section 3.2 that there is no "s/he and X" constraint, either explicit or implicit, in the advice literature. Thus the "s/he and X" constraint borne out in the experiment must have some other cause.

The corpus study, in contrast, demonstrated a more nuanced distribution of case. Although for each pairing of person and syntactic function, the prescriptively correct case was chosen more than 50% of the time, the exact percentage of conformity was far from consistent across pairings. This is seen in the following table, which gives the percentage of prescriptive case conformity (% nominative in subject position and % accusative in object position) for each pairing:

	Subject position	Object position
1sg	82%	66%
3sg	57%	94%

Given the high number of tokens, these inconsistencies are not likely due to chance. The raw numbers are as follows:

¹³ Another effect borne out in the acceptability experiment is that among the stimuli exhibiting the most favorable pronoun case and ordering patterns, those with coordinated pronouns in subject position were more acceptable than those with coordinated pronouns in object position. This could be due to the fact that the referents of both conjuncts in the coordinate NPs were animate, and animate referents are more preferred in subject position than in object position, since subject-position tends to correlate with agentive and hence animate referents. Another possible factor is that pronouns refer to given information, and given information tends to be manifest in the subject rather than the object of a transitive verb (see Du Bois 1987).

1su 1ob 3su 3ob standard case 514 82 105 73 nonstandard case 110 43 79 5

A chi square test reveals that this distribution is highly significant (p < 0.001), and while this result says nothing about whether the difference between any two of the four percentages is significant, the percentages are fairly evenly distributed (that is, it is not the case that three of the percentages all fall in a similar region while the fourth one is exceptional), and thus it is likely that they all contribute to the statistical significance. Furthermore, the closest groupings of percentages are 1su and 3ob (82% and 94%), and 3su and 1ob (66% and 57%), and there is no *a priori* why one would expect the percentages to group in this way.

As far as ordering preferences are concerned, the corpus study was similar to the acceptability experiment in the virtually categorical adherence to the "X and I" constraint and the "s/he and X" constraint (there were no instances of *X and s/he* and only only one instance of *I and X* as against 580 instances of *X and I*). Unlike the acceptability experiment, these constraints took precedence even over syntactic function in determining case (for example, there were more instances of subject-position *X and him/her* than there were of subject-position *X and s/he*, even though the latter would be prescriptively correct). In addition, there were strong ordering preferences for accusative pronouns as well. The table in Appendix E, which generalizes over syntactic function and breaks down ordering preferences for each kind of conjunct pairing, shows an even more nuanced system of ordering tendencies.

Overall, the results of the acceptability experiment are thus considerably more straightforward than those of the corpus study. One reason is that all the counterbalancing necessary for an effective acceptability experiment limits the range of conditions that can be tested. Whereas the corpus study was able to extract all coordinated pronouns regardless of what the other conjunct was, the acceptability experiment was limited to pronouns coordinated with a proper name. And whereas the corpus study was able to extract coordinated pronouns in any syntactic environment, the acceptability experiment was limited to subjects of finite clauses and direct objects.

A second reason the acceptability experiment produced more straightforward results is that it required more-or-less conscious judgments on the part of informants, and so the results corresponded more closely to prescriptive standards. Although the instructions seen by the informants made it clear that the experiment was seeking linguistic intuition rather than knowledge of prescriptive rules (and the page seen by informants prior to the instructions stated, "we are interested in your INTUITION about language as it is actually used and not in your knowledge of 'proper' English grammar."), it is nevertheless likely that when faced with a sentence judgment task, informants were operating with a heightened sensitivity to grammar and usage. This sensitivity is especially likely in the present experiment because, as discussed in Section 3, pronoun case in coordination is a particularly salient source of prescriptivism among English speakers. It is thus likely that informants were, to an extent, conscious of the pronouns in the stimuli that they perceived as

nonstandard, and this was reflected in the acceptability scores assigned to them. Furthermore, the subject pool consisted of people who were, at minimum, computer-savvy (since the experiment was administered over the Internet), and they also included a fair number of university students. Even those who were not university students themselves were at least associated with university students or others in the academic world. This suggests that the subject pool represented a level of education, and, in turn, an attention to standard English, not typical of the average English speaker.

Consequently, the results of the acceptability experiment will be de-emphasized in this analysis, except for the important result that the "X and I" constraint and the "s/he and X" constraint are strong enough to emerge even for informants giving conscious judgments and conforming to prescriptive standards to a high degree.

This analysis has three parts. First, I focus on the ordering tendencies borne out in the acceptability experiment and in the corpus study to argue for a principled system of tendencies governing the ordering of pronominal conjuncts in relation to each other and to full-NPs, and I suggest possible motivations for this system. Second, with the ordering tendencies factored out, I focus on the different degrees of prescriptive conformity borne out in the corpus study as a function of syntactic function and person, and argue for a frequency-based explanation. Finally, I show how this analysis predicts a typology of pronoun case-marking patterns around which individual speakers orient themselves, and I draw on evidence from a number of case studies to lend support to this prediction.

8.2 Pronoun ordering tendencies

As mentioned earlier, Parker et al. (1988) go so far as to argue that ordering constraints are the only case-related restrictions on coordinated pronouns. Based on survey data, they posit the following linear precedence tendencies regarding lexical status and person:

(82) Coordinated pronoun ordering tendencies, adapted from Parker et al. (1988:223–4)

Lexical Status:

Nominative: Pronoun < Lexical NP Accusative: Pronoun = Lexical NP

Person:

Nominative: 2nd = 3rd < 1stAccusative: 2nd < 1st < 3rd

As for lexical status, we see in Appendix E that in the present corpus study, with the exception of 1sg nominative I which strongly favors second position, both nominative and accusative pronouns tend to precede full-NPs. We can thus modify as follows:

(83) Lexical Status (revised version):

"I": full-NP < pronoun otherwise: pronoun < full-NP

As for person, we see in Appendix E that for nominative pronouns, 1sg is always ordered last, as predicted by Parker et al. The claim that *you and s/he* is equally preferred to *s/he and you*, however, cannot be assessed, since neither ordering occurred in the present corpus study. We also see in Appendix E that for accusative pronouns, 2sg tends to precede 1sg, as predicted by Parker et al., but again, there are not enough 2sg X 3sg tokens to assess the claim that *you and him/her* is preferred over *him/her and you*.

These gaps in the data can be filled in via carefully constructed Google Groups searches. Sadock (2005) suggests the search frame "X and Y are", where X and Y are pronouns, as an effective way of finding coordinated pronouns in subject position. The plural verb form "are" is used to increase the chance that "X and Y" forms an NP constituent. Because the pronoun *you* takes the verb *are*, however, I adopt the frame "X and Y are both" as an extra precaution. To find coordinated pronouns in object position, I use the frame "between X and Y". Because the preposition *between* normally requires a plural object, this also helps ensure that "X and Y" forms an NP constituent.

The results of these searches are displayed in the table in Appendix F, in the sections of the table labeled **2sg X 3sg nom** and **2sg X 3sg acc**. While the results must be taken with caution because of the quirks of Google searches and the inevitable degree of "noise" in the data, the consistency across syntactic function and across gender suggest that *you and s/he* is indeed preferred over *s/he and you*, in both subject and object position. Moreover, *you and him/her* is preferred over *him/her and you*, consistent with Parker et al.'s generalizations. Based on these findings, we can modify Parker et al.'s generalization as follows:

(84) **Person** (revised version):

Nominative: 2nd < 3rd < 1st Accusative: 2nd < 1st < 3rd

Regarding coordinated NPs that exhibit overt case mismatch between two pronouns, Parker et al. note that such constructions "appear to be asystematic, if indeed they occur at all" (223). As seen in Appendix E, however, one such construction undoubtedly does occur, namely, him/her and I. And while all other instances of case mismatch were nonexistent in the corpus data, we can again turn to Google Groups to exhaust the other possibilities. These are indicated in Appendix F in the sections of the table labeled **1sg acc X 3sg nom** and **3sg nom X 3sg acc**. The raw hits suggest that such pairings are rare, though to the extent that they do occur, the generalization appears to be that

the nominative pronoun precedes the accusative pronoun:¹⁴

(85) **Case:**

(86)

"I": accusative < nominative otherwise: nominative < accusative

The ordering trends, exhaustively summarized in (83)–(85), can be modeled in a more succinct fashion through hierarchical ranking:

Pronoun Linear Precedence Constraints (PLP)

"X and I": [anything] < I
 Lexical Status: pronoun < full-NP

3. Case: nominative < accusative

4. Person: 2 < 1 < 3

Under PLP, the highest ranking constraint is the "X and I" constraint: whenever the pronoun *I* is involved, it will be ordered second. When *I* is not involved, a pronoun will tend to precede a full-NP. When neither *I* nor a full-NP is involved, then a nominative pronoun will tend to precede an accusative one. Finally, when none of these other constraints apply, then a second-person pronoun will tend to precede a first-person pronoun, and a first-person pronoun will tend to precede a third-person pronoun. Each of these constraints is discussed in more detail below.

8.2.1 "X and I"

The strong "X and I" constraint, operative in both the corpus study and in the acceptability experiment, appears to be an extremely pervasive prescriptive effect. Its unnaturalness is apparent by the fact that it contradicts all the other constraints: it forces full-NP < pronoun rather than pronoun < full-NP, accusative < nominative rather than nominative < accusative, and 2 < 3 < 1 rather than 2 < 1 < 3.

It is often thought of as a consideration of politeness (that is, it is polite to mention oneself last); however, it seems unlikely that a politeness effect would become grammaticalized to the degree seen here, especially considering that there is no such effect on 1sg accusative. As seen in Section 3.2, the advice literature prescribing nominative 1sg in coordination is virtual categorical in obeying the "X and I" constraint, and following Emonds' (1986) and Sobin's (1997) respective arguments that nominative coordinated pronouns are instantiated through explicit instruction, it is likely that the "X and I" constraint is a result of the way the prescriptive standard is taught.

¹⁴Searches of this nature with the "between X and Y" object-position frame produced even fewer hits, so this data is omitted from the table, though the same ordering tendencies bore out.

Google searches have revealed at least one principled way in which the "X and I" constraint is systematically violated, and this is when the other conjunct is in some sense inherently secondary in the discourse, e.g.:

- (87) I and everyone around me noticed the strange noise.
- (88) I and others have been having this problem.

Examples like these suggest that there is a limit to the "X and I" constraint, at some pragmatic level, but otherwise, its effect is very strong.

8.2.2 Lexical Status

It is well known that short phrases tend to precede long phrases, and that given information tends to precede new information (see, for example, Wasow 2002). Since pronouns tend to be shorter than full-NPs, and since pronouns almost always refer to given information, these weight and information-status effects thus provide independent motivation for the Lexical Status constraint.

There does remain the question of why this effect would be stronger for nominative pronouns than for accusative pronouns. Sobin (1997) argues that nominative pronouns in coordination arise specifically through instantiation of the "that she" rule, which primarily affects first-conjunct pronouns rather than second-conjunct pronouns. The results of the present study support this argument. Accusative pronouns can appear as either conjunct, although they exhibit somewhat of a tendency to appear in first-conjunct position, whereas nominative pronouns are more limited in their distribution.

Thus, it would appear that while the "s/he and X" constraint is likely related to the status of coordinated nominative 3sg as an explicitly learned construction, the fact that it is a "s/he and X" constraint rather than an "X and s/he" constraint is the result of a more general system of ordering tendencies rather than the result of explicit instruction. Furthermore, the preference for *you and s/he* over *s/he and you* show that, unlike the "X and I" constraint, the "s/he and X constraint" is still subject to the 2 < 1 < 3 person ordering tendency.

8.2.3 Case

The Case constraint is likely a further manifestation of the "s/he and X" constraint. Pronouns are likely to be ordered first regardless of case, but for nominative 3sg pronouns this tendency is stronger, and so they will be ordered first when coordinated with accusative pronouns.

8.2.4 Person

As for the Person constraint, while little is known about pronoun linear ORDERING tendencies in other languages, the HIERARCHICAL arrangement 2-dominates-1-dominates-3 has borne out for certain domains in other languages, for example, Algonquian morphology (Zwicky 1977). Typological data regarding conjoined pronoun ordering tendencies is difficult to come by. It is not a topic typically discussed in reference grammars, and the tendencies are presumably often slight, and thus difficult to ascertain from informants. It is, however, a topic suitable for sufficiently large corpora, and experimentation with Google searches suggests that the 2-before-1-before-3 ordering tendency seen here for English is also operative in Mandarin Chinese.

8.3 Person and syntactic function: The role of frequency

After ordering tendencies are factored out, the corpus data still show differences in the proportion of nominative pronouns to accusative pronouns across person and syntactic function. The percentage of nominative case in each relevant environment can be summarized as follows:

	Subject position	Object position
1sg	82%	34%
3sg	57%	6%

The stronger factor is syntactic function; both 1sg and 3sg in subject position exhibit more nominative case than either 1sg or 3sg in object position. The fact that nominative case occurs more frequently in subject position than in object position supports the hypothesis that nominative pronouns originate in subject position and are then overextended into object position.

We also see a person effect: 1sg pronouns are nominative more frequently than 3sg pronouns, across syntactic function. In this section, I adapt an argument originally proposed by Boyland (2001) to argue that this effect is predicted by taking into account frequency information.

8.3.1 Boyland 2001

Boyland (2001) assumes the hypothesis that object-position X and I is the result of overextending subject-position X and I, and she uses corpus evidence to argue that more frequently occurring strings are more likely to be overextended. Of 218 collected instances of subject-position X and I, Boyland shows, 40 were of the form you and I; this was by far the most frequently occurring instantiation. Boyland compares this proportion to the proportion of object-position X and I tokens which were of the form you and I:

	you and I	<i>X</i> and <i>I</i> where $X \neq you$	% you and I / total X and I
Subject position	40	178	18%
Object position	5	4	55%

Based on the fact that *you and I*, the most frequent instantiation of subject-position X and I, is even MORE frequent as an instantiation of object-position X and I (18% vs. 55%), Boyland argues that the overextension of X and I into object position is being driven by the influence of *you and I* specifically.

Problematic for Boyland's argument, however, is that she does not control for independent factors that may account for the especially high proportion of *you and I* in object position. Perhaps there are independent reasons why 1sg pronouns tend to be coordinated with 2sg pronouns in object position more frequently than in subject position. To control for this, we need to calculate whether, in object position, 1sg is nominative AS OPPOSED TO ACCUSATIVE when coordinated with 2sg more frequently than when coordinated with some other pronoun or with some full-NP. By taking into account the frequency of accusative 1sg, we can tell whether *you and I* is really "hypercorrect" more than expected.

Boyland provides the data from her corpus on *X* and me, so this is something we can check. The following table shows the raw distribution of 1sg in coordination in object position as provided by Boyland:

	X = you	$X \neq you$
X and I	5	4
X and me	18	12
% nominative	22%	25%

As this table shows, the putative effect disappears once we take into account accusative forms. *you and I* is not used in object position more than expected; rather, 1sg simply happens to be coordinated with 2sg in object position more than in subject position, regardless of the case of the 1sg pronoun.

A final objection might be that we also need to take into account instances of me and X. Boyland does not provide this data, but doing so would very likely give the semblance of recovering her argument. As seen in the corpus data in Appendix E X is unlikely to be you in the context of me and X. Adding me and X data would thus decrease the % nominative in the $X \neq you$ column in the above table while not significantly altering the percentage in the X = you column, and so it would appear as though 1sg is more likely to be nominative when X is you. However, this would be a mere epiphenomenon of two unrelated facts: (1) 2sg tends to be ordered before 1sg (regardless of case), and (2) 1sg in second-conjunct position tends to be nominative.

¹⁵Throughout this paper the assumption has been that case constrains conjunct-ordering rather than vice versa. That is, one might choose to say *X* and *I* rather than me and *X* in an attempt to use prescriptively standard case-marking, but

Notwithstanding this objection to Boyland's argument, I believe that frequency does play a role not only in driving pattern extension, but also in increasing conformity to prescriptive pressure. Instead of considering the frequency of specific instantiations of the conjunct with which a pronoun is coordinated, however, I merely consider differences in frequency between 1sg pronouns and 3sg pronouns.

8.3.2 1sg vs. 3sg in subject position

Recall Emonds' (1986) and Sobin's (1997) argument that in subject position, coordinate pronouns are nominative only through the pressure of explicit correction. In light of historical evidence, let us assume a weakened version of this argument, namely, that while coordination is an inherently unstable case environment, it is more natural for pronouns in this environment to be accusative, and it is prescriptive pressure that drives against this and imposes more nominative-case pronouns. Thus, a subject-position instantiation of *me and X* or *X and me* is occasionally corrected to *X and I*, and some speakers assimilate this correction into their speech; likewise, a subject-position instantiation of *him/her and X* or *X and him/her* is occasionally corrected to *s/he and X*, and some speakers assimilate this correction into their speech.

Sobin (1997) argues that the assimilation of "correct" nominative coordinate pronouns happens via two DISTINCT rules, the "and I" rule and the "that she" rule:

Input type	Input string	Rule	Result
1sg	me and X X and me	"and I" rule	X and I
3sg	him/her and X X and him/her	"that she" rule	s/he and X

If we adopt Sobin's argument that 1sg and 3sg input types are corrected via two distinct rules, then it follows that a speaker could apply one rule but not the other, or apply one rule significantly more than the other. I propose that the following principle largely determines frequency differentiation in the application of these two rules:

(89) **Frequency-based prescriptive conformity**: All other things being equal, the more frequent an input type, the more opportunity it has of being exposed to, and thus succumbing to, prescriptive pressure.

one would not make this choice on the basis of a preferred conjunct ordering. Though I believe this is largely correct, I am suggesting here that once the correlation between case and ordering is naturalized, as it were, a speaker may *a priori* order *you* first, and then when faced with the need for a second-conjunct 1sg pronoun, be more likely to use *I* rather than *me* because of the correlation between case and ordering.

Since we see in Appendix D that in subject position, 82% of coordinated 1sg pronouns are nominative whereas only 57% of coordinated 3sg pronouns are nominative, the principle would predict that, regardless of case, coordinated 1sg pronouns in subject position are more frequent than coordinated 3sg pronouns in subject position.¹⁶

This prediction indeed holds. As seen in Appendix D, the corpus contained 624 tokens of coordinated 1sg pronouns in subject position; since this was drawn from the first 60% of the corpus, we can extrapolate that the entire corpus contained approximately 624/0.6 = 1040 tokens of this type. In contrast, the entire corpus contained only 184 tokens of coordinated 3sg pronouns in subject position, almost six times fewer.

To think about this more intuitively, if a child with prescriptively-minded parents has occasion to say "me and X" as the subject of some finite verb five times a week, and "him/her and X" as the subject of some finite verb only once a week, which of the two patterns is more likely to be corrected to nominative case frequently enough that the child begins to assimilate the correction? In all likelihood, it would be the more frequent 1sg coordination rather than the 3sg coordination.

Further evidence for the greater likelihood of 1sg to be corrected to nominative can be found by considering instances of case mismatch that sometimes occurs when two case-bearing pronouns are coordinated with each other. As Appendix E shows, *him/her and I* occurred 11 times in the corpus, whereas neither *s/he and me* nor *me and s/he* occurred at all. This asymmetry suggests that for a given speaker using a given grammar, use of nominative 3sg usually entails use of nominative 1sg, but not vice versa. This is predicted by the hypothesis that the "and I" rule has a greater chance of being applied than the "that she" rule.

8.3.3 1sg vs. 3sg in object position

Frequency-based prescriptive conformity appears problematic for the object-position data. 60% of the corpus contained 125 instances of 1sg in coordination in object position; extrapolating, this means approximately 125/0.6 = 208 tokens for the whole corpus, as against 78 tokens of 3sg in coordination in object position. And yet 3sg object-position coordinated pronouns conform to prescriptive standards significantly more than 1sg object-position coordinated pronouns do (94% vs. 66%).

I argue that the lack of frequency-based prescriptive conformity is explained by two independent factors. First, and most importantly, the use of accusative coordinated pronouns in object

¹⁶Granted, we actually want to know specifically whether accusative (pre-corrected) pronouns are more likely to be 1sg than 3sg, because it is the accusative pronouns that expose themselves for explicit correction. Even though the corpus data exhibit a proportion of nominative (post-corrected) pronouns, however, we can assume that the rules yielding the nominative pronouns do not actually alter the likelihood of coordinating a given pronoun in a given syntactic environment; the frequency with which one coordinates 1sg in subject position, for example, is most likely a function of the state of the world, discourse pragmatics, and human cognition. The rules merely increase the likelihood of the pronoun being nominative.

position is both natural AND prescriptively standard, and therefore coordinated pronouns in object position are not eligible for prescriptive correction until AFTER subject-position pronouns are corrected and the nominative forms extended into object position. Second, even after object-position coordinate pronouns are eligible for correction, there remains the fact that object-position coordinated pronouns are much less frequent than subject-position pronouns, and thus in general less susceptible to prescriptive pressure.

Rather, the effect we see here is much like the one Boyland argued for: because, as seen in the previous section, *X* and *I* is more frequent than s/he and *X* in subject position, the former is more likely to be overextended into object position:

(90) **Frequency-based overextension**: All other things being equal, the more frequent a pattern, the more likely it is to be overextended.

Because 1sg is so much more frequent than 3sg in subject position, a speaker is more likely to adopt the "and I" rule than the "that she" rule, and thus more likely to overextend the former rule than the latter rule into object position. Of course, this is not to say that this "hypercorrection" reproduces itself anew each generation. Though originally it was frequency that differentiated 1sg from 3sg, object-position *X* and *I* is now widespread enough that it can safely be considered a mainstream feature of educated American English, and thus, to an extent, immune from the kind of stigma that plagues subject-position *me* and *X* or *him/her* and *X*.

Whereas subject-position *me* and *X* or *him/her* and *X* is marked as nonstandard and colloquial, there is evidence that object-position *X* and *I* has considerable currency in educated language. Angermeyer and Singler (2003), in their quantitative corpus study of object-position coordinated 1sg pronouns, found strong correlations between education level and use of object-position *me* and *X* vs. *X* and *I* vs. *X* and me. High school-educated people were most likely to use me and *X*; those who had attended some college, on the other hand, were most likely to use *X* and *I*. In fact, it was only at the level of Ph.D. that people favored *X* and me. These results suggest strongly that object-position *X* and *I* lacks the stigma necessary to be noticed and corrected, at least for a majority of people.

Al-Banyan and Preston (1998) provide further evidence for the accepted status of object-position *X and I*. They present results of a survey administered to 4,459 Michigan State University undergraduates, in which students were asked to rate 12 sentences on a 5-point scale according to whether they would use the sentence in question (ranging from "Always" to "Never"). Each of the sentences exhibited some kind of prescriptively incorrect or socially stigmatized feature. Results indicated that of all the sentences, the one containing a nominative coordinate object ("The award was given to Bill and I.") had the lowest percentage of "Never" ratings, at 20.73%. The sentence was even more acceptable than one that failed to use the arguably archaic *whom* ("I know who Jack cheated."), which had 24.35% "Never" ratings, and one that exhibited an accusative complement to *as* ("George is just as smart as me."), which had 26.32% "Never" ratings.

There is even some anecdotal evidence of 1sg accusative coordinate objects being "corrected" into nominative coordinate objects. Redfern (1994) cites an exchange between a biology professor and his nine-year-old daughter:

(91) **Nine-year-old:** Give it to me and Cindy.

Father: What?

Nine-year-old: Give it to me and Cindy.

Father (sternly): What?

Nine-year-old: Give it to Cindy and I.

Father: That's better.

Similar exchanges can be found in online message boards:

(92) User A: Actually, one major difference between you and me[...]

User B: (If Im not mistaken, it should be "you and I")

(http://groups.google.com/group/rec.org.mensa/browse_frm/thread/c46ab8a8d4f85b5d/b0cb45e81682b8c5)

Sometimes, users are adamant about the correctness of nominative coordinate objects:

(93) **User A:** [...]even those that that have "joined forces" against Brian and I, trying to get us to "surrender and swear an Oath of Fealty to GOD"[...]

User B: Brian and ME, dear. That should be ME.

User A: Oh-"I" feel so sorry for your students. "against Brian and I" is the gramatically correct version, sorry about that.

(http://groups.google.com/group/alt.video.tape-trading/browse_frm/thread/3199d9c2178fd9ee/3c4784760a3b66d7)

Boyland (2001) presents results from a survey study in which informants were presented with a number of sentences containing 1sg coordinated pronouns (of both nominative and accusative variety) and asked to rate them according to whether they sounded natural, and whether they would be approved of by an English teacher. Results indicated that while some informants were prestige speakers (marking 1sg nominative coordinate objects as both unnatural and prescriptively incorrect) and some were hypercorrectors (marking 1sg nominative coordinate objects as unnatural but prescriptively correct), there was also a number of informants for whom 1sg nominative coordinate objects were natural. This latter group came in two varieties: some informants realized that 1sg nominative coordinate objects were prescriptively incorrect even though they were natural, and still other informants were under the impression that they were prescriptively correct.

To recap, I have presented usage data that college-educated speakers use and accept 1sg nominative coordinate objects, anecdotal evidence that some speakers are convinced that 1sg nominative coordinate objects are prescriptively correct, and survey results that indicate that some speakers find

1sg nominative coordinate objects to be natural. All of this is to say that object-position *X* and *I* is prevalent and widely accepted. This is in contrast to subject-position me and *X*, which is prevalent but widely marked as colloquial and prescriptively incorrect, and object-position s/he and *X*, which is not prevalent at all.

I argue that object-position *X* and *I* is more accepted than subject-position me and *X* because the former occurs as the result of overextension of a PRESTIGE form, whereas the latter occurs naturally among children, and, due especially to the high frequency of coordinating 1sg in subject position, is salient for prescriptive correction. At the same time, object-position *X* and *I* is more prevalent than object-position he and *X* because the high frequency of 1sg over 3sg in subject position gives rise to much more *X* and *I* than s/he and *I*, and thus the former is more likely to be overextended. The overextension is so prevalent that object-position *X* and *I* now exists as a natural pattern for some speakers, whereas object-position s/he and *X* remains a fairly rare variant.

In all likelihood, there is yet another factor influencing the distinct case patterning of 1sg versus 3sg in object position. As mentioned earlier, Sadock suggests that an adjacency effect is what causes subject-position *me and X* to be better than subject-position *X and me*, and object-position *X and I* to be better than object-position *I and X*. In other words, when the pronoun is not adjacent to the verb assigning its mother NP nominative or accusative case, it is more likely to exhibit nonstandard case. We know now that there are independent ordering tendencies that would predict these same preferences. We also see that in the present corpus study, subject-position *X and him/her* is more frequent than subject-position *X and s/he*, against Sadock's predictions. Nonetheless, given the independent ordering tendencies seen for both 1sg and 3sg pronouns, it is likely that the separation between the verb/preposition and the pronoun in object-position *X and I* versus the adjacency between the verb/preposition and the pronoun in object-position *s/he and X* reinforces the interaction between case, person and syntactic function demonstrated above.

8.4 Toward a typology of case-marking patterns

In the absence of reliable data that track the usage patterns of individual speakers, we have so far been generalizing over all the speakers who contributed to the data in the corpus study. The frequency-based arguments in the previous section, however, make empirical predictions about the range of possible pronoun case patterns employed by individual speakers:

- (94) **Prediction 1**: If a pattern is overextended into object position, then it is used in subject position.
- (95) **Prediction 2**: The "that she" rule cannot be applied to a greater extent than the "and I" rule.

Prediction 1 is a consequence of the assumption that object-position coordinated pronouns are nominative as the result of overextension from subject-position nominative coordinated pro-

nouns. Prediction 2 is a consequence of both FREQUENCY-BASED PRESCRIPTIVE CONFORMITY and FREQUENCY-BASED PATTERN OVEREXTENSION as formulated in (89) and (90) respectively. In subject position, 1sg is more likely to be corrected into nominative than 3sg, and so nominative 3sg entails nominative 1sg. In object position, 1sg is more likely than 3sg to be nominative through overextension, and so nominative 3sg again entails nominative 1sg.

Assuming that syntactic function and person interact to determine case, 17 there are *a priori* sixteen possible case-marking systems. This is because there are four function-person pairings (1sg subject position, 3sg subject position, 1sg object position, 3sg object position), each of which can be either nominative or accusative ($2^4 = 16$). Of the 16 patterns, ten are ruled out by the above predictions. This is schematized in the table below. Patterns that are not ruled out by either of the predictions (labeled P1 and P2) are labeled as Patterns I–VI.

	$1 \mathrm{su}^{18}$	3su	1ob	3ob	P1	P2	
1.	Acc	Acc	Acc	Acc			\rightarrow Pattern I
2.	Acc	Acc	Acc	Nom	***	***	
3.	Acc	Acc	Nom	Acc	***		
4.	Acc	Acc	Nom	Nom	***		
5.	Acc	Nom	Acc	Acc		***	
6.	Acc	Nom	Acc	Nom		***	
7.	Acc	Nom	Nom	Acc	***		
8.	Acc	Nom	Nom	Nom	***	***	
9.	Nom	Acc	Acc	Acc			\rightarrow Pattern II
10.	Nom	Acc	Acc	Nom	***		
11.	Nom	Acc	Nom	Acc			\rightarrow Pattern III
12.	Nom	Acc	Nom	Nom	***		
13.	Nom	Nom	Acc	Acc			\rightarrow Pattern IV
14.	Nom	Nom	Acc	Nom		***	
15.	Nom	Nom	Nom	Acc			\rightarrow Pattern V
16.	Nom	Nom	Nom	Nom			\rightarrow Pattern VI

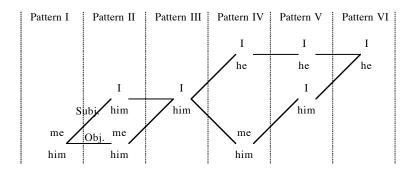
Desirably, these predictions rule out unattested and implausible case-marking patterns and leave only patterns which are intuitively plausible and for which there is some anecdotal evidence.

The following diagram indicates how these six predicted patterns might plausibly relate to one another. For Patterns I, III, and V, syntactic function does not affect case. In the diagram, *me* indicates that 1sg in coordination is always accusative, and *I* indicated that it is always nominative. Likewise, *him* indicates that 3sg in coordination (whether masculine or feminine) is accusative, and *he* indicates that it is always nominative. For Patterns II, IV and V, syntactic function does affect

¹⁷Note that I exclude ordering tendencies from this discussion. I maintain that case constrains ordering rather than vice versa, and except for Angermeyer and Singler's (2003) finding that object-position *X* and me and me and *X* have social correlates (the former being the prestige ordering), it is likely that ordering tendencies remain roughly consistent from one speaker to the next.

 $^{^{18}}$ 1su = 1sg subject position, 3su = 3sg subject position, 1ob = 1sg object position, 3ob = 3sg object position

case; the upper tier indicates pronoun case in subject position and the lower tier indicates pronoun case in object position.



Pattern I is Emonds' NU, the most colloquial and allegedly most natural pattern, in which all coordinated pronouns are accusative regardless of syntactic function. It is presumably the unmarked pattern in informal situations for certain social circles, but marked as highly colloquial and nonstandard in formal speech and writing.

Pattern II results for speakers who adopt the "and I" rule without overextending it, but do not adopt the "that she" rule. Of this six predicted patterns, this is the one for which there is the least evidence; however, Zwicky (personal communication) reports on a speaker who exhibits both nominative 1sg and accusative 3sg in subject position, but (to Zwicky's knowledge) does not use nominative pronouns in object position. This would suggest that this speaker is using Pattern II.

Pattern III occurs for speakers who use both subject-position *him/her and X* and object-position *X and I*, as though the "and I" rule has been internalized and overextended but the "that she" rule is not employed at all. As argued in the previous section, this can happen because 1sg is more frequent than 3sg and thus more susceptible to prescriptive pressure.

Pattern IV is Emonds' PU, the prescriptively correct pattern, which is the most difficult to conform to because it requires the clearest distinction in syntactic function. Despite its difficulty, it is undeniable that some speakers learn to conform to it to a high degree.

In Pattern V, speakers maintain a distinction in syntactic function for 3sg pronouns, but use nominative for 1sg regardless of syntactic function. In other words, Pattern V speakers use entirely standard case, except they extend *X and I* into object position. Complaints in the between-you-and-I tradition are directed at this kind of speaker.

Finally, Pattern VI is stylistically the opposite of Pattern I, and thus allegedly the most unnatural pattern. While it is doubtful that anyone uses this pattern exclusively, I will provide evidence below that there are speakers who lean toward this pattern, at least in certain stylistic contexts.

The outline above is obviously an idealization. In the real world, speakers exhibit variable casemarking in any given syntactic context. Some of this may be unconscious free variation from one pattern to the next, but given the prescriptive ideology that permeates pronoun case in coordination, a large part of it is likely stylistic choice, sometimes unconsciously, but sometimes consciously. As mentioned earlier, Angermeyer and Singler (2003) show that variation in object position between *me and X, X and I* and *X and me* has social meaning, and this is likely the case not only for 1sg pronouns but also for 3sg pronouns, and not only for object position but also for subject position. For example, a teenager may employ Pattern I for casual conversation among friends so as not to appear excessively proper, but switch to another pattern for use with parents and/or teachers. And whether an individual switches to, say, Pattern IV or Pattern V for this purpose may very well depend more on the kind of language they heard growing up than on their understanding of prescriptive standards. Similarly, someone who grew up exposed primarily to, say, Pattern V, may maintain that for informal conversation but switch to the standard Pattern IV for formal written contexts.

Note that the ordering of the patterns in the diagram is meaningful and that the patterns might be said to form points on a cline. On the left is the most natural and colloquial pattern, toward the middle is the prescriptive standard, and on the right is the least natural and most overextended pattern. I propose that speakers in given stylistic settings occupy points on a continuous cline, and that these points are centered around those labeled Patterns I–VI in the above diagram. This typology of patterns is meant not only as a rough classification of speaker types, but also as a classification of patterns which one speaker may switch between depending on the desired stylistic effect. Three case studies based on Usenet data provide initial evidence for three points on this cline corresponding most closely with Patterns I, III, and VI, respectively.

8.4.1 A Pattern I speaker

As suggested above, Pattern I is the most colloquial of the six patterns. Evidence for this pattern comes from a Usenet poster who posts almost exclusively to the group rec.music.hip-hop, a venue appropriate for casual style. For the 55 pronouns in coordination collected from this speaker, the following table indicates the percentage that were nominative in each relevant syntactic context:

As we see in the table, object-position coordinated pronouns were invariably accusative; i.e., this speaker never overextended. And while a few nominative pronouns turned up in subject position, even here the majority are accusative. This speaker thus corresponds most closely to Pattern 1.

Examples of accusative coordinate subjects include:

- (96) Turns out me and some of my boys are heading down to Boston for the long weekend of August 6th.
 - $(http://groups.google.com/group/rec.music.hip-hop/browse_frm/thread/36e721c9f941b7a9/f7a2aedd3f39a520)$
- (97) Him and trick daddy are both just bananas on the commercial southern rap tip, neither can do any wrong pretty much, just so ignorant and so charismatic...

 $(http://groups.google.com/group/rec.music.hip-hop/browse\ _{f}rm/thread/ec6d85451fd27b81/c0ec4c8ba79a4f2d)$

Note how nominative pronouns in these two examples would have conflicted with, or at least diminished somewhat, the casual style.

8.4.2 A Pattern III speaker

Evidence for a Pattern III speaker comes from yet another Usenet poster. The following table indicates the percentage of nominative pronouns in the relevant syntactic environments for the 23 tokens collected from this speaker:

```
Subject position Object position

1sg 100\% (n = 3) 75\% (n = 8)

3sg 43\% (n = 7) 0\% (n = 5)
```

These percentages must be taken with caution because of the low numbers, but the main point is to illustrate that there are indeed speakers who use both subject-position him/her and X and object-position X and I. This is demonstrated in the following two example tokens:

- (98) Her reply to me would be meaningless unless I understood her vocabulary. Unless I understood the lattice work from which she spoke. Unless https://example.com/group/rec.org.mensa/browse_frm/thread/a0255d85d53495bb/d18989f9e0a8eb4a)
- (99) Thats almost what happened with <u>Max and I</u>. (http://groups.google.com/group/alt.pets.rabbits/browse_frm/thread/fb21b61cb4ac83d5/31eb04944f4dab94)

8.4.3 A Pattern VI speaker

Finally, we have an example of a Usenet poster who, at least in the context from which the data was sampled, exhibits Pattern VI. The style of this speaker is somewhat lofty, which may explain the choice to use nominative pronouns to such an extreme degree. Of 271 1sg and 3sg pronouns in coordination that were collected from this author, the following table gives the percentage of these that were nominative:

Subject position Object position 1sg 100% (n = 107) 63% (n = 48) 3sg 100% (n = 67) 82% (n = 49)

Examples of the 3sg nominative coordinate objects include:

- (100) His doctrines and belief structure are solely between he\text{ and GOD}, my opinion is of no value, and being a non believer, your opinion is worth even less.

 (http://groups.google.com/group/alt.christnet.theology/browse_frm/thread/9cd3b3430a6356b6/d6aa25540871d727)
- (101) Now, teresita hates me, because I am a Protestant, and she feels I have insulted she and Catholicism, you love me, but talk like you hate me, because I am a Catholic jesuit [...]

 (http://groups.google.com/group/alt.religion.christian.adventist/browse_frm/thread/887d3583bc3a0790/622e17076bd63c32)

While accusative pronouns would certainly have been in plausible in these contexts, they would have detracted somewhat from the rhetorical force of the passages.

9 Conclusions

A few concluding remarks are in order on how this paper has contributed to research on English pronoun case in coordination and what questions it has raised for further study.

9.1 Summary of contributions

From a methodological standpoint, the two main sources of data collection used in this paper each contribute to the body of empirical data in novel ways. The acceptability experiment was, to my knowledge, the first experimental investigation of English pronoun case in coordination to elicit judgments via magnitude estimation and to make full use of stimulus counterbalancing. While the results corresponded more closely with prescriptive standards than I would have hoped, this outcome highlighted the strength of the "X and I" ordering constraint and the "s/he and X" ordering constraint, given that they were operative even on top of all the prescriptive conformity. The corpus study, in turn, was, to my knowledge, the first to draw a sizable number of both 1sg and 3sg coordinated pronouns from a single source, thus for the first time allowing us to investigate the relationship between case, syntactic function, person, and the relative frequency with which a 1sg or 3sg pronoun is likely to be coordinated.

From a theoretical standpoint, the new data has allowed me to draw from and expand on several previous kinds of approaches to case in coordination. I take as fundamental the basic arguments of Emonds (1986) and Sobin (1997) regarding the status of nominative coordinate pronouns in modern English, albeit with the qualification that coordination gives rise to an inherently unstable case environment. Nevertheless, in working out the distribution of nominative coordinate pronouns in more detail, I have benefitted from attention to the ordering tendencies explored by Parker et al. (1988) and Quinn (2005), and from attention to the arguments in Boyland (2001), which led me to consider the role of frequency in conditioning case variation. Ultimately, this synthesis has resulted in a better understanding of NU-PU interaction. We see now that after adducing a set of ordering tendencies and factoring them out of the equation, the remaining interaction between person, case and syntactic function follows a very principled distribution. Furthermore, we now have a preliminary model of available case-marking patterns employed by individual speakers, and drawing on Angermeyer and Singler (2003), we have ideas about how individual speakers position themselves within this system.

In the Introduction to this paper, I referred to a thicket of intertwining internal and external factors that condition the coordination-triggered pronoun case variation in complex ways. It is my hope that the data and analysis presented in this paper do their part in identifying and untangling some of the thicker vines of internally conditioned variation, as well as providing some tools for continuing to get at the even more richly nuanced external factors.

9.2 Implications and speculations

Of course, this paper has raised at least as many questions as it has answered, each of which lends itself to a future line of research.

I have proposed a set of constraints influencing the ordering of pronominal conjuncts in English. Of these, the 2 < 1 < 3 person ordering tendency is the one that most surprises people I have talked to, for whom 1 < 2 < 3 would have been more plausible since it reflects a known prominence hierarchy (see, for example, Aissen 1999). Promisingly, initial evidence suggests that the 2 < 1 < 3 tendency is borne out in Mandarin Chinese. But for the rest of the world's languages — or, at least, those which exhibit coordinated pronouns — whether this same tendency bears out is an open question. For English, it is the 2 < 1 tendency that appears to be the least robust — both *you and me* and *me and you* are not all that uncommon. This instability could point to a more natural instinct to order oneself first, pitted against the politeness of putting the listener first. But it is more than just politeness; this same effect is operative in popular song lyrics. Notwithstanding such fence-sitters as The Turtles' "So Happy Together" ("Me and you, and you and me / No matter how they toss the dice, it had to be..."), a Google site search of the song lyrics database at www.sing365.com yields 78,900 hits for the string "you and me", as against just 45,800 for "me and you". This could be a reflection of the fact that many songs are written in a way that spotlights an addressee that the artist has in mind.

I have also proposed two kinds of frequency-based principles, first, that the more frequently a nonstandard construction occurs, the more likely it is to succumb to prescriptive pressure, and second, that among prescriptively induced and otherwise unstable constructions, greater frequency entails increased susceptibility to overextension. Even without venturing outside the realm of English pronoun case, it remains to be seen whether these same principles are operative in other variation-triggering environments such as those outlined in Section 2 of this paper. For example, is 1sg more frequent than 3sg in complementation with than and as, and if so, is 1sg more likely than 3sg to be nominative in this environment? Preliminary evidence drawn from the Fisher corpus (the same one used for the main corpus study in this paper) shows that 1sg is indeed more frequent than 3sg following than, but the numbers are too low to say whether 1sg is more likely than 3sg to take nominative case in this environment. Furthermore, my impression is that the use of nominative pronouns as complements to than and as is occasionally overextended to complements of like just look at the title of Anita Loos' 1966 autobiography A Girl Like I. Is this overextension driven by 1sg? And, of course, beyond the realm of pronoun case exists a slew of constructions in English which exist in competition with prescriptively imposed — and for many, less natural — variants. Perhaps the prescriptively imposed variants of some of these other constructions are distributed in ways analogous to nominative pronouns in coordination. With frequency as an explanatory tool, we have a new way of exploring this possibility.

Lastly, I have adapted my arguments to make predictions about the possible ways in which individual speakers employ case in coordinated pronouns. These predictions are intuitively satisfying and are supported by preliminary evidence, but the details still need to be worked out. Tracking the behavior of an individual speaker with respect to this phenomenon can be a laborious process (Google Groups makes this possible, though quite time-consuming), but this process is somewhat simplified by having a hypothesis in hand, ready to be supported or revised by the observed data. Granted, speakers are expected to switch from one pattern to another with seeming spontaneity, but this alone does not doom our predictions; rather, variation within a speaker in a given stylistic setting is expected to follow a predicted frequency distribution.

As a final sidenote, this project has also turned up a few phenomena suggesting that pronoun case can sometimes have pragmatic consequences. One such phenomenon was alluded to in Section 2, where I suggested that the use of an accusative subject in sentences like Me, on the other hand, is a different story (where intervening material between the subject and the predicate marginally allows accusative pronouns in an otherwise strictly nominative environment) causes, in some sense, the referent of the pronoun to be drawn out as entity dissociated from, though still identified with, the speaker. Two other slight pragmatic effects deal more specifically with pronoun case in coordination. First, as presented by Zwicky (2005a) in what has been termed the Paco effect, Emily Hite (a student in Zwicky's sophomore seminar) noted that nonstandard formulations such as Me and Paco are best friends sound better with the realization that Paco is a chihuahua, as though unpretentious sentiments call for unpretentious grammar, or perhaps even pointing to an animacy effect. Second, there is a sense in which independent case licensing in coordinated NPs prevents conjuncts from being interpreted together as a single unit. This is apparent in, for example, idioms such as me and my big mouth, or other collocations such as me and my identity. In these constructions, the ordering of the conjuncts is fixed because the second conjunct is treated as an extension of the first (hence my big mouth and I/me is not possible). But even in subject position, I and my big mouth is just as absurd as my big mouth and I — independent case licensing is inconsistent with the interpretation of the two conjuncts as a single unit. Teasing apart these various subtle pragmatic effects will provide an even more enlightened view of constraints on case variation.

Appendices

Conditions

A Acceptability experiment stimuli

a. [I and \overline{X}] e. [s/he and X]		
b. [X and I] f. [X and s/he]		
c. [me and X] g. [him/her and X]		
d. [X and me] h. [X and him/her]		
<u>Items</u>	Pronoun gender ¹⁹	<u>X</u>
1. [] finished loading the dishwasher.	f	Michael
2. [] sat down in the kitchen to eat a snack.	f	Eric
3. [] did this together.	f	Daniel
4. [] headed toward the exit.	f	Christopher
5. [] bought a place not that far from here.	f	Jennifer
6. [] began holding meetings about how to respond and retaliate.	f	Amanda
7. [] spoke a lot on the telephone.	f	Jessica
8. [] shared a disturbed look.	f	Melissa
9. [] didn't really have much of a friendship.	m	Matthew
10. [] climbed out of the car.	m	James
11. [] had a big fight over it.	m	Brian
12. [] took the kids fishing nearly every day.	m	David
13. [] managed to flee the scene.	m	Sarah
14. [] wound up getting double the profits of the other team.	m	Heather
15. [] took a road trip to the East coast.	m	Nicole
16. [] had a nice conversation.	m	Amy
17. It would be a bad idea to put [] under the same roof.	f	John
18. That was one of the things that made [] close.	f	Justin
19. It just kills [] to admit it.	f	Joseph
20. They hadn't even noticed [] in the hallway.	f	Joshua
21. They tried to get [] matching shirts.	f	Elizabeth
22. This is the article that got [] kicked out of the resort.	f	Michelle
23. Comparing [] makes no sense whatsoever.	f	Kimberly
24. Some people saw [] at the cafe.	f	Angela
25. It would be fun to see [] match wits.	m	Robert
26. Fate joined [] even closer than before.	m	Ryan
27. It would be nice to see [] as best friends again.	m	Jason
28. They supported [] through all the ups and downs.	m	William
29. Nobody knows who nominated [] for the position.	m	Stephanie
20.36		ED. CC

30. Mary invited [] on a long walk.

31. It was great having [] back together.

32. They sure do miss [] back at home.

m

m

Tiffany

Lisa

Christina

¹⁹For conditions e-h only.

B Acceptability experiment instructions

Instructions

Part 1: Judging Line Length

Before doing the main part of the experiment, you will do a short task involving judging line length. A series of lines of different length will be presented on the screen. Your task is to estimate how long they seem by assigning numbers to them. You are supposed to make your estimates relative to the first line you will see, your *reference* line. Give it any number that seems appropriate to you, bearing in mind that some of the lines will be longer than the reference and some will be shorter.

After you have judged the reference line, assign a number to each following line so that it represents how long the line is in proportion to the reference. The longer it is compared to the reference, the larger the number you will use; the shorter it is compared to the reference, the smaller the number you will use. So if you feel that a line is twice as long as the reference, give it a number twice the reference number; if it's a third as long, provide a number a third as big as the reference.

	-			
If you have to judge t	this line, you	ı might ass	sign it 17:	
And this one might b	e 2.5:			

So, if the reference is this line, you might give it the number 10:

There is no limit to the range of numbers you may use. You may use whole numbers or decimals. If you assigned the reference line the number 1, you might want to call the last one 0.25. Just try to make each number match the length of the line as you see it.

Parts 2 and 3: Judging Sentences

In Part 1 of the experiment you used numbers to estimate the length of lines on the screen. In Parts 2 and 3 you will use numbers to judge the acceptability of some English sentences in the same way.

You will see a series of sentences presented one at a time on the screen. Each sentence is different. Some will seem perfectly OK to you, but others will not. Your task is to judge how good or bad each sentence is by assigning a number to it.

As with the lines in Part 1, you will first see a *reference* sentence, and you can use any number that seems appropriate to you for this reference. For each sentence after the reference, you will assign a number to show how good or bad that sentence is in proportion to the reference sentence.

For example, if the reference sentence was:

(1) The dog the bone ate.

you would probably give it a rather low number. (You are free to decide what 'low' or 'high' means in this context.) If the next example:

(2) The dog devoured yesterday the bone.

seemed 10 times better than the reference, you'd give it a number 10 times the number you gave to the reference. If it seemed half as good as the reference, you'd give it a number half the number you gave to the reference.

You can use any range of positive numbers that you like, including decimal numbers. *There is no upper or lower limit to the numbers you can use*, except that you cannot use zero or negative numbers. *Try to use a wide range of numbers and to distinguish as many degrees of acceptability as possible*.

There are no 'correct' answers, so whatever seems right to you is a valid response. We are interested in your first impressions, so please don't take too much time to think about any one sentence: try to make up your mind quickly, spending less than 10 seconds on each sentence.

Procedure

First please fill in the Personal Details questionnaire, and then press the SUBMIT button.

The experiment will take at most 15 to 25 minutes, and will consist of the following 3 parts:

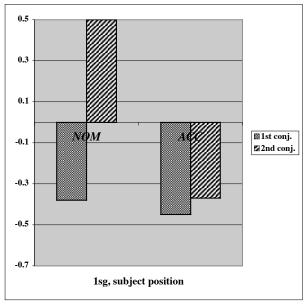
- Training session: judging 3 lines (Estimated Completion Time: 1-2 min.)
- Practice session: judging 6 sentences (ECT: 2-3 min.)
- Experiment session: judging 64 sentences (ECT: 12-20 min.)

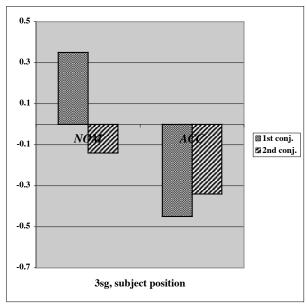
In each part you will see the reference item in the experiment window. Please enter your reference number and then press the Next button. The test items will appear one after the other in the experiment window. Please type your judgment in the box below each item.

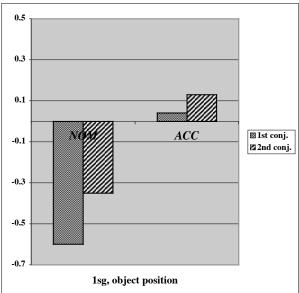
Please keep in mind:

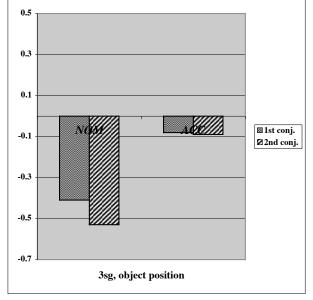
- Use any number you like for the reference sentence.
- Judge each sentence in proportion to the reference.
- Use any positive numbers which you think are appropriate.
- Use high numbers for 'good' sentences, low numbers for 'bad' sentences and intermediate numbers for sentences which are intermediate in acceptability.
- Try to use a wide range of numbers and to distinguish as many degrees of acceptability as possible.
- Try to make up your mind quickly, and base your judgments on a careful first impression.

C Acceptability experiment results









D Corpus study: Overall results

Condition	Sample lexification	Rel. freq.	Inferred acceptability					
1sg, subject position (n = 624)								
1. NOM1	[I and Sandy] went.	.000	dispreferred					
2. ACC1	[Me and Sandy] went.	.168	somewhat acceptable					
3. NOM2	[Sandy and I] went.	.824	acceptable					
4. ACC2	[Sandy and me] went.	.008	dispreferred					
		1.00						
1sg, object	position (n = 125)							
5. NOM1	between [I and Sandy]	.008	dispreferred					
6. ACC1	between [me and Sandy]	.528	acceptable					
7. NOM2	between [Sandy and I]	.336	acceptable					
8. ACC2	between [Sandy and me]	.128	somewhat acceptable					
		1.00						
3sg, subject	position (n = 184)							
9. NOM1	[S/He and Sandy] went.	.571	acceptable					
10. ACC1	[Him/her and Sandy] went.	.353	acceptable					
11. NOM2	[Sandy and s/he] went.	.000	dispreferred					
12. ACC2	[Sandy and him/her] went.	.076	somewhat dispreferred					
		1.00						
3sg, object	position (n = 78)							
13. NOM1	between [s/he and Sandy]	.064	dispreferred					
14. ACC1	between [him/her and Sandy]	.821	acceptable					
15. NOM2	between [Sandy and s/he]	.000	dispreferred					
16. ACC2	between [Sandy and him/her]	.115	somewhat acceptable					
		1.00						

E Corpus study: Ordering results

Conjunct type	Competing orderings	n	Rel. freq.	Inferred ordering tendency
1sg X full-NP	I and full-NP	453	.002	full-NP < I
	full-NP and I		.998	
	me and full-NP	80	.925	me < full-NP
	full-NP and me		.075	
3sg X full-NP	s/he and full-NP	55	1.000	s/he < full-NP
	full-NP and s/he		.000	
	him/her and full-NP	115	.983	him/her < full-NP
	full-NP and him/her		.017	
1sg X 2sg	I and you	62	.000	you < I
	you and I		1.000	
	me and you	15	.133	you < me
	you and me		.867	
1sg X 3sg	s/he and I	55	1.000	s/he < I
	I and s/he		.000	
	s/he and me	0		n/a
	me and s/he			
	him/her and I	11	1.000	him/her < I
	I and him/her		.000	
	him/her and me	12	.083	me < him/her
	me and him/her		.917	
2sg X 3sg	you and s/he	0		n/a
	s/he and you			
	you and him/her	3	1.000	n/a
	him/her and you		.000	
3sg X 3sg	s/he and him/her	0		n/a
	him/her and s/he			

F Supplementary Google Groups search data

Conjunct type	Search string	Raw hits	Rel. freq.	Inferred ordering tendency
2sg X 3sg nom	"you and he are both"	360	.767	you < he
	"he and you are both"		.233	
	"between you and he"	592	.894	
	"between he and you"		.106	
	"you and she are both"	113	.796	you < she
	"she and you are both"		.204	
	"between you and she"	137	.891	
	"between she and you"		.109	
2sg X 3sg acc	"you and him are both"	44	.750	you < him
	"him and you are both"		.250	
	"between you and him"	1,663	.548	
	"between him and you"		.452	
	"you and her are both"	33	.576	you < her
	"her and you are both"		.424	
	"between you and her"	1,129	.831	
	"between her and you"		.169	
1sg acc X 3sg nom	"he and me are"	83	.759	he < me
	"me and he are"		.241	
	"she and me are"	101	.911	she < me
	"me and she are"		.099	
3sg nom X 3sg acc	"she and him are"	64	.984	she < him
	"him and she are"		.016	
	"he and her are"	48	1.000	he < her
	"her and he are"		.000	

Searches conducted on groups.google.com on 4/30/06. Raw hits indicate the number of unique hits (rather than total hits) as estimated by Google's search engine.

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