J. Linguistics **20** (1984), 329–349. Printed in Great Britain

Romance disagreements: phonology interfering with syntax

FRANS PLANK

Fachgruppe Sprachwissenschaft, Universität Konstanz

(Received 20 March 1984)

1. On the (no doubt reasonable) assumption that cross-linguistic variation is subject to limitations due to the existence of universal constraints on linguistic rules and regularities, it is obviously desirable as a matter of descriptive principle to draw the limits within which individual languages may vary from one another as narrowly as the available cross-linguistic empirical evidence (plausibly interpreted) allows. Focusing on two interestingly interrelated aspects of linguistic regularities, viz. on possible conditions on agreement and on possible interactions of phonology and syntax, this paper once more tells a familiar tale: drawing the limits as narrowly as seems feasible *vis-à-vis* a relatively broad range of data may unfortunately turn out to be unjustified in the light of further, previously unavailable or – worse – ignored evidence. One always hopes, though, that having to redraw the limits is not tantamount to admitting that languages after all perhaps do vary without assignable limit.

2. Much about the agreement regularities in the hypothetical subject–verb agreement pattern (1) is in perfect accordance with what one expects agreement patterns to be like in all languages exhibiting them.

(1) (*a*) i spinn-ø 'I am crazy'
(*b*) du spinn-st 'you are crazy'
(*c*) (i) er/oana/a jeda spinn-t 'he/someone/everyone is crazy'
(*c*) (ii) wer/koana/da Sepp spinn-ts 'who/no one/(the) Joseph is crazy'
(*d*) mir spinn-an 'we are crazy'
(*e*) es spinn-ts 'you (pl.) are crazy'
(*f*) de/alle spinn-an 'they/all are crazy'

It is normal for subjects to trigger agreement; it is normal for (finite) verbs to agree with subjects; it is normal for person and number to serve as agreement categories, in particular if the agreement relation holds between subjects and verbs; and it is normal for agreement markers to neutralize certain categorial distinctions made in the agreed-with constituents (although

the particular neutralization shown in (1 *d*/*f*), collapsing 1st and 3rd person plural, is not exactly very common cross-linguistically).

What is not so normal about (1) are the agreement alternatives with 3rd person singular subjects: one of the 3rd person singular agreement markers (that in 1 *c*(i)) unobjectionably contrasts with all other markers in the paradigm, but its alternant in (1 *c*(ii)) is identical to the 2nd person plural marker (1 *e*). There is no genuinely phonological rule in this hypothetical language that would yield *-ts* as a phonological alternant of *-t*, resembling the 2nd person plural agreement marker by sheer phonological accident. In view of the non-phonological alternation of *-ts* and *-t* with 3rd person singular subjects, it would seem rather implausible to assume that the agreement marker *-ts* neutralizes certain person–number distinctions (that between 3rd singular and 2nd plural) in the same way as *-en* neutralizes the distinction between 1st and 3rd person plural. If *-ts* and *-t* cannot be related by some genuinely phonological rule, they could be related by a rule of allomorphy, in which case the formal identity of one allomorph of the 3rd person singular agreement marker, *-ts*, and the 2nd person plural agreement marker would be a morphological accident. Suppose it is legitimate to generalize from the few data presented in (1 *c*(i)/(ii)) that the choice between *-t* and *-ts* as agreement markers with 3rd person singular subjects is determined by phonological properties of the subject constituent: *-t* is selected with vowel-initial and *-ts* with consonant-initial subjects. This phonological conditioning, then, renders the interpretation of the alternants in (1 *c*(i)/(ii)) in terms of a rule of allomorphy somewhat problematic: it is rather unusual for allomorphs to be phonologically conditioned at a distance, i.e. by morphemes not adjacent to them (cf. Plank, 1982); moreover, conditioning relationships obtaining between separate words rather than word-internally are usually assumed to fall into the domain of syntax rather than morphology, being most naturally accounted for in terms of rules of agreement or government (cf. Plank, 1984). And in fact the relationship between the agreement markers in (1 *c*(i)/(ii)) and (1 *e*) is open to yet another, syntactic interpretation, in terms of this rather straightforward formulation of an agreement, or rather disagreement, regularity: while triggering regular 3rd person singular agreement marking (with suffix *-t*) when vowel-initial, consonant-initial 3rd person singular subjects require 2nd person plural agreement marking (with suffix *-ts*). Under this interpretation the agreement markers *-t* and *-ts* in (1 *c*(i)/(ii)) are related to one another by phonologically conditioned syntactic (dis)agreement rules rather than by phonological or morphological rules; and the agreement marking with 2nd person plural (1 *e*) and some 3rd person singular subjects (1 *c*(ii)) is identical for principled syntactic reasons rather than by sheer phonological or morphological accident.

If you hold as a matter of theoretical principle – as do, for example, Zwicky (1969), Pullum & Zwicky (1975) and Zwicky & Pullum (1983) – that no

(language-specific and rule-specific) conditions on the applicability of syntactic rules in any language may make reference to phonological features, this latter interpretation of our hypothetical pattern in (1) must appear suspect; and if this interpretation of such patterns is more plausible on independent grounds than all rival attempts to make sense of them, such (dis)agreement regularities would not be something you expect to encounter in real life. Furthermore, independently of how strongly one feels about limitations of possible phonology–syntax interactions, (the last interpretation of) our hypothetical regularity would also seem to contradict any reasonably restrictive view of agreement patterns likely to be found across languages, even allowing for all kinds of non-standard agreement including disagreement. Patterns resembling that in (1), interpreted as suggested last, at any rate are not mentioned in the cross-linguistic surveys of agreement and disagreement phenomena that I am aware of (which include Moravcsik, 1978; Delisle, 1973; Corbett, 1979; Lehmann, 1982; Ostrowski, 1982), and in this indirect evidence might be considered universally unattested. The fact that it has been found necessary to actually argue for the recognition even of inherent MORPHOSYNTACTIC properties of individual lexical items, in addition to configurationally assigned syntactic properties, as potentially relevant for syntactic rules such as those of agreement (cf. Anderson, 1982), further confirms the impression that phonological interferences in agreement, in the manner suggested above, should best be considered aberrant.

3. It is instructive to briefly review the patterns of not-so-standard agreement and the kinds of phonological conditioning of agreement variants that any comprehensive theory of agreement should take into account.

3.1. Patterns where agreement alternates with disagreement (or simply non-agreement) as such must of course be reckoned with. Considering only gender and number as agreement categories, it is not uncommon to encounter (dis)agreement alternatives depending on properties of agreeing elements, of agreed-with constituents, and of the constructions containing agreeing and agreed-with constituents.

For example, noun-phrase-internal elements may have to agree with the head noun as to grammatical gender, while noun-phrase-external agreement may be determined in accordance with the natural gender (sex) of the head-noun referent (but apparently not the other way round). Thus, with neuter nouns of female reference, such as *Mädchen* 'girl', articles and attributive adjectives in German must be neuter, while coreferential pronouns may be feminine. Or, to mention an apparently more arbitrary distinction of agreeing elements, some numerals may agree in gender with their head nouns, while others may show the gender that is opposite to that of their nouns. Thus, the cardinal numerals three to ten in Semitic originally were feminine when the nouns they were quantifying were masculine, and vice versa. (For further

examples of less arbitrarily restricted, though never phonologically conditioned, 'polarity', see Serzisko (1982), who takes care to emphasize the systemic rationale of such polar agreements.)

Concerning conditioning properties of agreed-with constituents, finite verbs may, for example, show singular or plural agreement with formally singular subjects with collective reference, depending on further referential distinctions among subject nominals. Thus collectives in English may trigger plural or singular verb agreement depending on whether or not they refer to humans: compare *the police/committee have decided to disagree* and *the furniture/collection has/*have been sold* (noun-phrase-internal number agreement, where relevant, typically is singular both times in such cases).

Concerning agreement-relevant constructional properties, attributive adjectives, for example, may agree, or fail to agree, in gender and number with their head noun depending on whether they occur in prenominal or postnominal position if both are possible in a language. Thus, in German, postnominal adjectives lack the inflectional agreement markers obligatory with prenominal adjectives (compare *ihr selig-er Mann* and *ihr Mann selig-ø* 'her late husband'), which is cross-linguistically somewhat uncommon, agreement suspension being more familiar with prenominal adjectives. Also order-sensitive is gender agreement, or disagreement, of verbs in Modern Arabic, at least with feminine indefinite subjects, which may occur with masculine as well as feminine verbal agreement forms when in postverbal position, while triggering only feminine agreement preverbally. Comparably, though with additional complications, *be* in English normally shows regular number agreement with preceding subjects and usually with following subjects as well, but in clauses with preverbal *where* and *there* singular (present-tense) agreement is possible despite following plural subjects, though only with the reduced form of *be* (*there/where's some flowers*, *there/where are/*is some flowers*).

Whatever features of such patterns of variable agreement and disagreement (or non-agreement) turn out to be entirely language-specific or to be at least partly predictable on more general grounds, nothing about them can be proscribed by a universal theory of agreement.

3.2. Nor can phonological influences be entirely ignored in descriptions of agreement patterns. Cases are on record of phonological properties of agreeing constituents determining whether agreement does or does not take place. Thus, in Armenian, postnominal attributive adjectives agree with their nouns in number and case irrespective of whether they are monosyllabic or polysyllabic; but if adjectives are in prenominal position, they fail to agree when polysyllabic, while they may show regular case and number agreement when monosyllabic, depending on number and case of the noun phrase. Note that the alternative here is between agreement and non-agreement; I am not aware of analogous cases of phonological influence where, instead of

agreement being alternatively suspended, elements alternatively agree or genuinely disagree. (A relevant case of disagreement would be one that is comparable to the Armenian example except that prenominal polysyllabic adjectives, instead of being uninflected, took, say, accusative plural inflection when their head noun is genitive singular.) Even so, attested agreement regularities of this kind would seem to be hard nuts to crack for proponents of phonology-free syntax. In order to avoid having to recognize phonological interferences in the operating of agreement rules proper, the account of the variation between agreeing and non-agreeing forms would have to be relegated to the domain of rules of allomorphy; but zero allomorphs seem not very convincing under such circumstances.

Agreement may also be influenced by phonological properties of elements other than those that agree. Thus, in Italian, definite articles agree with nouns in number and gender; the masculine articles are alternatively realized as *il* or *lo* in the singular, and as *i* or *gli* in the plural, depending on the initial phonological segment(s) of the subsequent element, clusters of initial /s/ plus consonant, the affricate /ts/, and vowels requiring *lo/gli*, *il/i* appearing elsewhere. (That *lo* is reduced to *l'* when followed by a vowel need not concern us here.) Note that these alternants of the masculine definite articles are determined by the initial phonological segments of whatever syntactic element happens to follow them, not necessarily of the noun the article agrees with in gender (and number). Adjectives intervening between masculine article and noun, when of the appropriate phonological shape, obligatorily alter the article:

(2) (*a*) lo zio 'the uncle', gli zii 'the uncles'
(*b*) il caro zio 'the dear uncle', i cari zii 'the dear uncles'

(3) (*a*) il libro stesso 'the book itself', i libri stessi 'the books themselves'
(*b*) lo stesso libro 'the very book', gli stessi libri 'the very books'

One might be inclined to believe that it is no peculiarity of this particular Italian pattern that only linearly adjacent elements may influence the choice of alternative agreement forms if phonological properties are decisive; it would be nice to be able to draw on a universal constraint barring distant influencing under such circumstances. If valid, there should, then, be no language with an agreement pattern comparable to the Italian one partly illustrated in (2) and (3), differing only in that distant masculine nouns may exert a phonological influence on the choice of articles, as indicated in (2*b'*) and (3*b'*):

(2) (*b'*) * lo caro zio, * gli cari zii

(3) (*b'*) * il stesso libro, * i stessi libri

Note, at any rate, that phonological factors in such cases do not actually cause DISagreement: *lo/gli*, though formally distinct from *il/i* (and not

relatable to them by synchronically regular phonological rules), are still masculine articles like *il/i*, distinct from the feminine definite articles *la/le*. In that respect, this Italian pattern differs from the hypothetical one in (1), where one of the phonologically conditioned agreement alternatives was identical to the agreement marker of another subcategory. A true analogue of (1) would be the appearance of feminine definite articles *la* and *le* with masculine nouns under the phonological circumstances specified above as requiring *lo/gli*:

(2′) (*a*) * la zio, * le zii (*b*) il caro zio, i cari zii

(3′) (*a*) il libro stesso, i libri stessi (*b*) * la stesso libro, * le stessi libri

One might be inclined to assume that it is no language-particular idiosyncrasy that Italian agreement works as it does rather than as devised in (2′)/(3′): phonologically conditioned disagreement of the kind illustrated in (1) and (2′)/(3′) looks as if it should be ruled out by means of a universal constraint. Unlike the pseudo-Italian version, the real Italian agreement alternation need not worry adherents of phonology-free syntax too much, as they could argue, perhaps not implausibly, that the choice between the masculine article variants *li* and *lo*, and *i* and *gli*, does not really involve genuinely syntactic rules but rather rules of allomorphy. Unlike in the hypothetical pattern (1), where the allomorphy interpretation was considered less plausible, the phonological conditioning here does not take place at a distance (cf. 2*b*′, 3*b*′). The only drawback of this interpretation here might, thus, be that the supposed rule of allomorphy syntagmatically relates elements across a word-boundary – although this boundary would seem rather weak, as articles are closely linked to adjacent elements within noun phrases. This alone, therefore, should not suffice to reject the allomorphy interpretation, especially as the rival interpretation, according to which these article alternants would by syntactically governed by adjacent words of whatever syntactic category, has but little appeal, on account of the syntactic variability of the supposed governors and the purely phonological nature of the feature decisive for the supposed government.

Rules of allomorphy, rather than of syntactic disagreement, suggest themselves as the most natural solution even with patterns where agreement alternants are not unique to particular subcategories of agreed-with constituents (like Italian *lo* and *gli*, which are exclusively masculine). For example, in the Costa Brava variety of Catalan (as described by Badia, 1951: 284), the masculine singular definite article, *es*, contrasts with its feminine counterpart, *sa*, in preconsonantal position, whereas prevocalically both exhibit the same alternant, *s′*. (Costa Brava Catalan is among those Romance varieties whose definite articles derive from forms of Latin *ipse* rather than *ille*.) Presumably the formal identity of masculine and feminine definite article variants in a certain phonological environment is best considered an accident

of morphology. In view of the distinct variants of masculine and feminine singular definite articles in the complementary phonological environment, it would seem odd to postulate syntactic rules of disagreement instead, stating that masculine nouns occur with a feminine definite article, *s'* (or, if *s'* is arbitrarily considered masculine, that feminine nouns occur with a masculine definite article), if the article precedes a vowel-initial word.

4. There is some evidence, however, suggesting that it would be premature to pronounce seemingly odd patterns of genuine phonologically conditioned disagreement universally impossible. To find it, one need not look very far. One pattern suspiciously similar to the hypothetical one in (1), the pseudo-Italian one in (2')/(3'), and the one just rejected as a plausible analysis for Costa Brava Catalan, can be adduced from French, another one from Spanish.

4.1. The atonic possessive pronouns (or adjectives, if you will) in French are paradigmatically distinguished according to person (1st, 2nd, 3rd) and number (sg., pl.) of the 'possessor' and gender (masc., fem.) and number (sg., pl.) of the 'possession', i.e. the head noun, distinct gender forms being available only when both possessor and possession are singular. Thus, single-possessor possessive pronouns, more audibly than most adjectives, agree with their singular head nouns in gender, as shown in (4).

(4) (*a*) mon/ton/son frère/ami/chapeau
'my/your/his-her-its (masc.) brother/male friend/hat (masc.)'
(*b*) ma/ta/sa sœur/bicyclette
'my/your/his-her-its (fem.) sister/bicycle (fem.)'

Other adnominal words (including articles, demonstratives, certain quantifiers) likewise agree in gender with their head nouns; and some of these gender-agreeing words appear in different form depending on the initial sound segment of whatever word, noun or not, happens to follow them. Thus, both the masculine and the feminine singular definite articles (*le*, *la*) drop their vowel when preceding a vowel-initial word (compare e.g. *le frère/la sœur* with *l'ami/l'amie* 'the male/female friend'). Likewise the masculine demonstrative form *ce*, occurring preconsonantally, alternates with *cet*, which occurs when followed by vowel-initial words – and, incidentally, sounds like the feminine demonstrative, spelled *cette*. Distribution and formal coincidence are the same with adjectives such as *beau/bel* vs. *belle* 'beautiful (masc. preconsonantal/prevocalic vs. fem.)'. The masculine possessive pronouns in (4*a*) do not vary with their phonological environment (if one disregards the purely phonological variation between *n*-ful and *n*-less pronunciations). Their feminine counterparts, however, do show such (non-phonological) variation according to their phonological environment: when followed by vowel-initial words, which may be the agreement-triggering head nouns or other elements,

mon/ton/son have to be used instead of *ma/ta/sa*, which only occur preconsonantally. Thus compare (4*b*) with (5) and (6):

(5) (*a*) mon/ton/son amie/expérience/idée/observation
'my/your/his-her-its female friend/experience/idea/observation (fem.)'
(*b*) mon/ton/son autre sœur/bicyclette
'my/your/his-her-its other sister/bicycle (fem.)'

(6) ma/ta/sa grande amie/expérience/idée/observation
'my/your/his-her-its great female friend/experience/idea/observation (fem.)'

As an archaism that is no longer formed from two elements by productive grammatical rules, *m'amie* 'my sweetheart', with a reduced variant of feminine *ma*, is no synchronic exception to this rule; if anything, it confirms the rule in so far as it has been re-analysed in conformity with this rule though not with etymology, as is reflected in writing: *ma mie*. Clearly nouns such as those in (5*a/b*) remain feminines for all other agreement purposes in spite of the possessives (cf. e.g. *mon idée nouvelle/*nouveau* 'my recent (fem./*masc.) idea').

Interpreted in what appears to be the most straightforward manner, French atonic possessives thus provide a real instance of what could otherwise be regarded as an aberrant pattern of disagreement: depending on phonological properties of elements other than the (dis)agreeing ones, single-possessor possessive pronouns alternatively agree or disagree in gender with their feminine singular head nouns. *Mon/ton/son* surely are no regular phonological variants of the feminine possessives *ma/ta/sa*. They could be considered phonologically conditioned allomorphs, the conditioning element being an adjacent word within a close-knit phrase. While theoretically no doubt possible (and indeed occasionally favoured in the literature: see e.g. Kelly, 1973: 95, on Gascon), this interpretation of course raises the question why on earth allomorphs of feminine possessives should be exactly identical to the corresponding masculine possessives. No such extra question arises if *mon/ton/son* in the neighbourhood of feminine head nouns are taken for what they look like: masculine possessives, even though this requires a somewhat unusual complication of the rules of agreement. The decision to add the complication there rather than in allomorphy could seem to find additional support in the fact that otherwise the prevocalic allomorphs of no less than three feminine possessives (*ma*, *ta* and *sa*) would have to be taken for accidental homonyms of the masculine possessives of the corresponding subcategories. This further argument in favour of true disagreement, however, is not necessarily as persuasive as it looks at first sight. It is not entirely implausible to analyse the atonic possessives as bimorphemic, consisting of bases identifying the person and number of the possessor (viz. *m-*, *t-*, *s-*,

recurring in the tonic possessives *m-ien*, *t-ien*, *s-ien*) and of final elements in (dis)agreement with head nouns as to their gender and number (viz. *-a* and *-on* in the singular, and gender-neutral *-es* in the plural). Even though on this analysis only one homonymy (that of the feminine singular atonic possessive allomorph *-on* and its masculine counterpart) would cry out for an explanation rather than three, I conclude that the disagreement analysis (whether the possessives are considered bimorphemic or not) is still preferable on language-internal grounds, as it assumes no accidental homonymy at all.

Analogous patterns of atonic possessives in (dis)agreement can be found in what in modern times usually count as southern dialects of French rather than as separate languages, such as Gascon (cf. Kelly, 1973: 92–95) and Provençal (cf. e.g. Ronjat, 1937: 77–82). Thus they effectively occur in all Romance varieties boasting full sets of productively used proclitic possessives, alongside tonic possessives, capable of gender agreement (which excludes Spanish). Catalan in fact also retains atonic possessives which agree in gender with singular head nouns (viz. *mon/ton/son* masc. and *ma/ta/sa* fem.), but they are much more marginal than the corresponding tonic possessives, being used only with nuclear kinship terms (e.g. *mon pare* 'my father', *ma mare* 'my mother') and in a number of set phrases (cf. Badia, 1962: 219–223). Most handbooks and grammars point out that prevocalically the syntactically appropriate atonic feminine possessives *ma/ta/sa* have to be replaced by *mon/ton/son* just as in French. But as the only example quoted for illustration uniformly is *mon/ton/son àvia* 'my/your/his-her grandmother (fem.)', it is safe to conclude that such disagreement is not nearly as salient a feature of present-day Catalan as it is of French, including its southern regional varieties.

4.2. In Spanish, articles agree with their nouns in gender and number. The feminine singular indefinite article *una* contrasts with masculine *un*, except when followed by a noun or suitable other word (e.g. an adjective) with initial /a/ (*a* or *ha* in spelling), in which environment *una* loses its final vowel, not by regular phonological rule but surely in a process that is phonologically natural. The close phonological relationship between *una* and its reduced variant *un* should suffice to justify their common categorization as feminine forms, one of which accidentally resembles the masculine form *un*, which is not so different phonologically from the unreduced feminine article to begin with. The feminine singular definite article *la* contrasts with phonologically not-so-similar masculine *el* (ignoring the 'neuter' definite article *lo*), except when followed by head nouns with initial /a/ (spelled *a* or *ha*) stressed on the first syllable, under which circumstances *el* as a rule does duty for *la*:

(7) (*a*) el libro/alumno 'the (masc.) book/pupil (masc.)'
(*b*) (i) la muchacha/voz/manera/sierra/esperanza/amíga/América del Sur 'the (fem.) girl/voice/manner/sierra/hope/girl-friend/South America (fem.)'

(*b*) (ii) el água/árte/hácha/hábla/África occidental 'the water/art/hatchet/idiom/Western Africa (fem.)'

There are a few exceptions to this phonologically conditioned rule of substituting *el* for *la*: *la* rather than *el* exceptionally appears with given or other proper names of females (also with the feminine place name *La Haya*) and with the two phonologically pertinent letter names:

(7) (*b*) (iii) la Ana, la Alvarez; la a, la hache 'the (letter) a/h'

There is usually no doubt that nouns such as those in (7*b* ii)), like those in (7*b* (i)/(iii)), really are feminines; relevant evidence includes their occurrence with the feminine definite article when in the plural (*las/*los aguas/artes/hachas/hablas*) and the feminine agreement of adjectives (e.g. *el agua bendita/*bendito* 'the holy (fem./*masc.) water'). (Occasionally, however, in particular in popular speech, some of these nouns may be accompanied by adjectives, quantifiers, or demonstratives showing masculine agreement, indicating a certain degree of confusion, or vacillation, about the inherent gender of the noun; cf. examples such as *el arte cinematográfico* vs. *arte poética*, *mucho hambre* 'much (masc.) hunger', *este alma* 'this (masc.) soul' (quoted from Alcina Franch & Blecua, 1975: 559, and Cecchini, 1968: 43).) And feminine nouns with *el* also require the usual feminine article when other words (in particular adjectives) without initial stressed /a/ intervene between article and noun (cf. (6) for the French, and (2*b*) for the Italian analogue to this regularity):

(8) la buena agua/hacha, la vieja habla, la pobre Africa 'the (fem.) good (fem.) water/hatchet', 'the (fem.) traditional (fem.) idiom', 'the (fem.) unfortunate Africa'

Recalling what happened in Italian (3*b*) and French (5*b*) when the agreeing element was immediately followed by a word other than the agreed-with head noun but possessing the same phonological properties as head nouns that caused agreement variation or disagreement when adjacent to agreeing elements, we might expect *el* also to appear in analogous contexts in Spanish. What does appear, however, is the regular (in terms of the inherent gender of head nouns) feminine article:

(9) la alta voz y la áspera manera de las muchachas de la alta sierra

Forms such as *el alta sierra*, corresponding to the French (dis)agreement pattern, in fact were the norm in earlier Spanish, but are no longer found in the contemporary language. (An apparent survival such as *el altavoz* 'the loudspeaker' is to be analysed synchronically as a complex masculine noun, rather than as a feminine noun syntactically combined with a feminine adjective preceded by the masculine article form *el*.)

There seems little, and certainly no phonological, justification for cate-

gorizing the *el* that appears in contexts such as those in (7*b* (ii)) as a formal variant of the feminine definite article *la* resembling the masculine counterpart *el* by phonological or morphological accident, by analogy with the interpretation of reduced feminine *un* suggested above. Sophistry aside, the interpretation that requires the least extra explanatory effort is that *el* in (7*b* (ii)) indeed is the masculine article, rather than only resembling it by sheer chance. This, then, represents another non-hypothetical pattern of disagreement of essentially (but not entirely) the same kind as that involving atonic possessive pronouns in French (including its southern varieties): depending on phonological properties of elements other than the (dis)agreeing ones, singular definite articles in Spanish alternatively agree or disagree in gender with their feminine singular head nouns. The relevant phonological properties are again, as in the French case, segmental (vowel vs. consonant initiality). The suprasegmental property also involved here (stress on the first syllable) perhaps should not be seen as an exclusively phonological conditioning factor, considering that stress assignment with Spanish nouns is at least partly morphological, rather than purely phonological and lexical.

5. Under the most plausible interpretations that can be justified on language-particular grounds, (dis)agreement patterns like those of §§4.1 and 4.2 are incompatible with certain restrictive views on the universal limitations of the functioning of agreement rules and of permissible interactions of phonology and syntax (as advocated in particular by Pullum & Zwicky). The question, then, is whether such universal limitations can be suitably relaxed to admit just those kinds of (dis)agreement patterns that are found to occur while still excluding other patterns that are imaginable but cross-linguistically (so far) unattested. If they cannot, one would have to admit that the vagaries of agreement and the influence of phonology upon syntax, specifically with respect to possible effects of phonological properties of elements other than those that are supposed to agree, indeed are areas where individual languages may vary without assignable limit.

5.1. An effort has been made by Delisle (1973) to explain away disagreements as actually being manifestations of non-agreement, with forms of the unmarked category appearing whenever proper agreement is suspended. Although Delisle has no example of phonological conditioning of alleged agreement suspensions, his constraint as such could easily be adapted to accommodate such cases as well. Thus, assuming (with Delisle) that masculine is universally the unmarked member of masculine–feminine gender oppositions, one could exclude feminine forms from ever serving as non-agreement forms with masculines, while permitting masculine forms to serve as non-agreement forms with feminines. The permissible latter pattern in fact is what we find with French atonic possessive pronouns and with Spanish definite articles; and Delisle's hypothesis would imply that it is no pure accident that

we do not find feminine possessives and feminine definite articles in non-/disagreement with masculine nouns (which surely is an imaginable pattern). However, to the extent that the French and Spanish non-/disagreement patterns can be made sense of, if diachronically, in phonological terms (as will be suggested below, §6), the appearance of an unmarked category in non-/disagreement would seem rather accidental and, while not strictly speaking disconfirming Delisle's hypothesis, could hardly be claimed to follow from it either. As a matter of fact, a language closely related to Spanish, viz. Catalan, provides direct counter-evidence to Delisle's claim that masculine is universally unmarked *vis-à-vis* feminine. As in Spanish, *el* and *la* contrast as masculine and feminine singular definite articles; both definite articles usually (though not without exceptions as far as *la* is concerned) reduce to *l'* when preceding vowel-initial nouns, and thus do not exhibit the disagreement pattern characteristic of Spanish. With a definite article preceding an indefinite article, Catalan does show disagreement, though: in front of masculine singular *un* (contrasting with feminine *una*) a reduced form is possible (*l'un* 'the one'), but alternatively the feminine definite article may be used, i.e. *la un* 'the (fem.) one (masc.)', while the reverse pattern of a masculine definite article disagreeing with a feminine indefinite, i.e. the only deviation from standard agreement permitted by Delisle's hypothesis, is not found (*la una* 'the (fem.) one (fem.)'/**el una*). (See Badia, 1962: 155–157, where the disagreeing *la* in *la un* is suggested to derive from *lo*, the traditional and dialectally still attested form of the masculine definite article.)

Even if one is prepared to reserve judgement on the value of Delisle's supposedly universal constraint on non-standard agreement patterns, it would seem unwise to abandon any distinction between genuine disagreement and mere non-agreement. For one thing, as suggested above (apropos of the Armenian adjective agreement, §3.2), they might not be equally sensitive to phonological conditioning. And it is often plainly desirable to actually distinguish non-agreeing (i.e. non-inflecting or neutrally inflecting) forms from disagreeing forms. Compare, for example, the case of the non-agreeing (i.e. non-inflecting) postnominal attributive adjectives in German (which could use inflectional forms to signal genders opposite to those of their head nouns) with that of the disagreeing definite articles in Spanish (where in principle an article form would be available that is neutral between masculine and feminine, viz. *lo*). At any rate, there is a further reason to doubt that a constraint like that suggested by Delisle on the basis of his analysis of syntactic feature switches and their interpretation as the results of non-agreement is really pertinent to disagreement patterns like those observed in Romance: his non-standard agreements have clear morphological function, viz. to signal information for which the languages concerned happen not to have other morphosyntactic or lexical signalling devices (cf. Delisle, 1973: 109), which is not the case with our phonologically conditioned non-standard agreements in Romance.

5.2. Another potential constraint pertains to the kind of phonological information in principle available to syntactic rules like those of disagreement. If syntactic rules must, on empirical grounds, be permitted to possibly refer to phonological properties, one might still maintain that only such phonological properties are in principle available to syntax as are contained in lexical, or underlying, phonological representations, no syntactic rule in any language thus being capable of referring to phonological properties resulting from the operation of properly phonological rules. If stress assignment for Spanish nouns were properly phonological, stress-sensitive article disagreement in this language would be a counter-example to that constraint barring phonological rules from applying prior to syntactic ones. As was pointed out above, however, this assumption is ill founded, since it is lexically determined where the relevant main stress will fall. Turning to segmental phonology, there also appear to be no properly phonological rules (presupposing relatively concrete phonological analyses) affecting vowel- or consonant-initial lexical representations of post-possessival or post-articular words in French and Spanish so as to alter the phonological environments that are crucially referred to by the respective (dis)agreement rules. Thus, one may conclude, if tentatively, that so far there are no reasons for allowing non-lexical, derived phonological features to interfere with (dis)agreement rules.

5.3. There can be no doubt and no reservation about one constraint evidently surviving the impact of non-standard agreement patterns like those in Romance: whenever phonological properties of elements other than those that (dis)agree manage to condition alternations of agreeing constituents including genuine disagreement, the phonologically conditioning elements must be linearly adjacent to the (dis)agreeing constituents exhibiting formal variation. If phonologically conditioned, alternations of agreeing and disagreeing, or of agreeing and otherwise non-standardly agreeing, elements may not be caused by agreed-with elements unless these are adjacent; and if elements (in the same phrase) other than those (dis)agreed with may cause the same phonologically conditioned alternations, they too must be adjacent in order to be able to do so.

That adjacency constraint is certainly not violated by the not really non-standard alternation of masculine definite articles in Italian (cf. 2/3), as observed above. The more unusual true disagreement patterns in French and Spanish likewise abide by it. It is by virtue of this constraint that distantly conditioned disagreements as shown in (6′) and (8′) can be ruled out as universally impossible rather than merely language-particularly unattested patterns.

(6′) * mon/ton/son grande amie/expérience/idée/observation

(8′) * el buena agua/hacha, * el vieja habla, * el pobre Africa

The adjacency constraint as such is not affected by the variation between French and Spanish concerning which elements may serve as adjacent disagreement conditioners. Contemporary Spanish allows only those elements that trigger morphosyntactic (dis)agreement to serve as phonological conditioners for alternations of (dis)agreeing elements, while French (and also earlier Spanish), more liberally, also allows phonological conditioning by elements other than those (dis)agreed with. Language-particular, rather than universal, conventions, thus, must be held responsible for the grammaticality contrasts between (5*b*) and (5*b*′) in French, and between (9) and (9′) in modern Spanish.

(5) (*b*′) * ma/ta/sa autre sœur/bicyclette

(9′) * el alta voz y el áspera manera de las muchachas del (= de el) alta sierra

With the necessary coincidence of morphosyntactic (dis)agreement trigger and phonological conditioner in Spanish, the likelihood of total morphosyntacticization of agreement conditioning (e.g. by way of gender changes of nouns, instances of which were mentioned in §4.2) would seem to be greater than in French with its potential distribution of (dis)agreement-triggering properties (i.e. 'feminine gender') and phonologically conditioning properties ('vowel-initiality') between separate words (within the same phrase, though).

5.4. Concerning the phonology–syntax interface, the most restrictive generalization possible to emerge from these patterns, then, is that syntax operates independently of phonology unless elements related by syntactic rules such as those of (dis)agreement, or occurring in the same constituent (possibly the same phrase) as agreeing and agreed-with elements, are linearly adjacent, under which circumstances phonological properties may serve as conditions for the functioning of syntactic rules. As it is not feasible, in the light of French, to universally limit phonological conditioning to elements that are directly related to one another by syntactic rule (i.e. to agreeing and agreed-with elements in agreement rules), it would be desirable to at least restrict the set of elements satisfying the conditioning of 'occurring in the same constituent as agreeing and agreed-with elements' beyond that limitation that is achieved by the adjacency requirement. To that effect, one could consider including within this set only elements (in the same phrase) that, if not directly related by syntactic rule, are at least indirectly relatable to one another syntactically. In the case of (dis)agreement rules this would allow phonological properties of all elements in a (dis)agreement relationship with one (dis)agreement-triggering element to become syntactically relevant to rules pertaining to other (adjacent) elements also (dis)agreeing with the same (dis)agreement trigger. Further data from French, however, suffice to undermine this hypothesis. If a vowel-initial adverb, which is not involved in

noun-phrase-internal agreement relationships, intervenes between an atonic possessive and an adjective agreeing with a feminine noun, the possessive again shows disagreement rather than exhibiting feminine form like the adjective:

(10) mon/*ma autrement bonne bicyclette
'my (masc./*fem.) otherwise good (fem.) bicycle (fem.)'

Thus, common phrase-membership may be the only universal constraint on elements whose phonological properties may influence syntactic rules, apart from adjacency.

5.5. In view of the limited empirical data base, one should not be too confident about the cross-linguistic validity of possible further constraints on phonologically conditioned disagreement. One further restriction, admitting patterns like the French and Spanish ones while excluding patterns resembling the hypothetical one in (1), might be that such disagreements are only possible with agreement rules that have phrases as their domain, but not with agreement rules linking elements at the clausal and the cross-clausal levels. The case of optional 'playful' agreement in Somali which Hetzron (1972) adduces as one instance of syntactic rules referring to phonology, would run counter to this tentatively suggested phrase-internality constraint, involving (dis)agreement between subjects and verbs. Zwicky & Pullum (1983), however, successfully dispose of this potential counter-example by demonstrating that the relevant (dis)agreement rule in Somali actually refers to morphological features, rather than phonological properties, of subject nominals.

Yet there are other counter-examples that may be more difficult to dispose of. Consider only Standard (Barcelona) Catalan clitic pronouns, which indicate person, number, gender, animacy, and grammatical relation of their referents, and which must 'agree' in these categories with full noun phrases or adverbials having the same referents, if such are present. The relationship between full noun phrases or adverbials and these clitics clustering around verbs is thus, strictly speaking, one of cross-reference rather than agreement (see Hutchinson, 1977, for further details on this distinction); but for our purposes we need not dwell on the differences between the two, apart from noting that elements in cross-reference cannot be constituents of one and the same phrase, while elements in agreement can.

Now, 3rd person non-reflexive clitics fall into three order classes: in combinations of clitics, those of the first group (including *li* 3rd sg. animate indirect object, *los/els* 3rd pl. animate indirect object) precede those of the second (which includes the 3rd person direct object forms *lo/el/l'* sg. masc., *la/l'* sg. fem., *los/els* pl. masc. and *les* pl. fem.), which precede *hi*, the cross-reference marker for 3rd person inanimate indirect objects (as in e.g. 'to devote a lot of time *to something*') and animate as well as inanimate oblique objects including locative adverbials (as in e.g. 'to go *with somebody*'

and 'to send something *there*'). If, however, the 3rd sg. indirect object clitic *li* were to precede any member of the second group, i.e. a direct object clitic, only the combinations in (11*b*) are found instead of those expected, shown in (11*a*).

(11) (*a*) * li-lo, * li-la, * li-los, * li-les
(*b*) lo-hi, la-hi, los-hi, les-hi
'him to him, her to him, them (m.) to him, them (f.) to him'

That is, the expected 3rd sg. animate indirect object clitic is replaced, in the environment of direct object clitics, by the number-neutral clitic indicating inanimate indirect objects (and also adverbials, whether animate or inanimate), which appears in its customary position at the end of the clitic sequence. If the replacing form, *hi*, is interpreted as what it appears to be, there is thus animacy disagreement between animate full indirect object noun phrases and the inanimate clitic cross-referencing them:

(12) No podem enviar-los-hi (*li-los), al meu oncle.
'We can't send-3pl.masc.dir.Obj.-inanim.indir.Obj. (*3sg.anim.ind. Obj.-3pl.masc.dirObj.), to my uncle' (i.e. 'We can't send them to him, to my uncle')

And there can be little doubt that this disagreeing *hi* actually is the inanimate indirect object cross-reference marker rather than being an allomorph of the 3rd person singular animate indirect object marker *li*, resembling the inanimate marker by morphological accident. Its position in the clitic sequence provides one piece of evidence. Moreover, this replacing *hi* pre-empts this structural position, and excludes any further adverbial cross-reference marker *hi* as the third element in a clitic sequence (cf. **No podem enviar-los-hi-hi, al meu oncle* 'We can't send them to him there, to my uncle', contrasting with *No podem enviar-los-els-hi* 'We can't send them to them there/in it/with her etc.'). (For more detailed accounts of the Catalan clitic system see Badia, 1962: 168–214, or Wheeler, 1979: ch. IV, where the emphasis is on phonology.)

The factor conditioning the replacement of *li* by *hi* could be sought in the morphosyntactic category of the neighbouring clitics, which must indicate direct objects. On the other hand, as direct object clitics fail to exert any influence on the preceding plural animate indirect object clitic *los/els*, the conditioning factor appears not to be morphosyntactic but phonological: the agreeing cross-reference marker *li* is replaced by the disagreeing marker *hi* when it would precede a cross-reference marker with initial /l/, apparently in order to avoid the sound sequence /lil/ that has been claimed to offend against the norms of euphony (by Badia, 1962: 179). Note that the disagreement-conditioning elements are linearly adjacent to the disagreeing element, in accordance with the adjacency constraint suggested in §5.3. The disagreeing elements, viz. full indirect object noun phrases and indirect object

clitics cross-referencing them, however, are not constituents of one phrase but at best of one clause, contradicting the phrase-internality constraint tentatively put forward above.

5.6. Further possible constraints may have to do, not so much with the domains of agreement rules, but rather with agreement categories, of which some (such as gender or animacy) may eventually turn out to be likelier than others (maybe person) to be involved in non-standard, phonologically influenced (dis)agreement patterns. In so far as there is a certain correlation between agreement categories and domains of agreement rules (person, for instance, does not usually figure in phrase-level agreement), the empirical fate of such further constraints may not be entirely independent of that suggested, and rejected, in the previous section.

5.7. It has been taken for granted in the preceding sections that patterns which are plausibly interpreted as phonologically conditioned disagreement disconfirm the hypothesis that syntactic rules operate independently of phonology: (dis)agreement rules, in other words, were presupposed to be syntactic. Obviously the allocation of particular types of rules to one or another component of grammars should be neither an axiomatic nor a purely terminological matter. If (dis)agreement rules are appropriately characterized as syntactic, they should demonstrably share essential features with other types of rules that are also placed in the syntactic component. If it should turn out that (dis)agreement rules have more in common with rule types that are collectively characterizable as morphological and are substantially different from other rule types with sufficient similarities among one another to justify combining them in another, syntactic component, all our conclusions drawn from the data presented in §§4.1, 4.2 and 5.5 would pertain to the interaction of phonology and morphology, rather than syntax. But there is not much to be said for simply calling disagreement rules morphological rather than syntactic in order to be able to maintain strict universal limitations on phonology–syntax interactions, in spite of agreement rules otherwise behaving like other syntactic and unlike other morphological rules.

What is not at issue here is the distinction between allomorphic agreement variation (like the Italian masculine definite article variants *il/lo* and *i/gli*, §3.2) and genuine disagreement (as in §§4.1, 4.2, 5.5): the question is whether standard agreement and genuine disagreement themselves belong to syntax or morphology. It will presumably not do to draw the dividing line between morphology and syntax according to whether regularities are word-internal or not: allomorphy, it seems, can be conditioned word-externally without acquiring syntactic status (cf. again the Italian articles, §3.2). The adjacency requirement for phonologically conditioned disagreement (§5.3) is reminiscent of a requirement that has been claimed to hold universally for morphological rules of allomorphy and similar morphological adjustment regularities (see

Plank, 1982, also for evidence throwing doubt on the universal validity of adjacency in morphology). To consider disagreement rules morphological on the strength of this analogy alone seems not very convincing either, as it has been claimed (e.g. by Wilkins, 1980) that all syntactic rules too, especially movement rules, affect only adjacent constituents. Hudson (1977) is among the few (if not the only one) to have suggested explicitly that all agreement rules should be considered morphological; but one of his primary criteria is precisely that morphological rules, unlike syntactic ones, may refer to phonology – on which grounds our phonologically conditioned disagreement patterns would have to be allocated to morphology almost by definition. Another of Hudson's criteria is that morphological rules, unlike syntactic ones, are not subject to universal constraints – on which grounds our disagreement patterns presumably were to be regarded as syntactic. I cannot here review the arguments in favour of the traditional position of treating agreement, including non-standard agreement (except allomorphic agreement variation), within syntax; but on the whole the arguments produced so far for treating it on a par with prototypical morphological rules of derivation and compounding, and also of inflection that is not contextually determined, do not strike me as very persuasive.

6. Regardless of the feasibility of universal constraints like those put forward in §5, and of their relevance for the interaction of phonology with syntax or morphology, the permissible patterns of phonologically conditioned disagreement considered above appear to be cross-linguistically so rare, and in this sense to be so highly marked, that one would be surprised if (speakers of) languages resorted to them without good reasons. That is, one would hope to be able to identify – if possible beforehand – structural or functional factors permitting or facilitating the violation of widely observed standards of agreement. In the cases at hand, it is in fact possible to point up such facilitating factors.

In earlier French, up to the end of the twelfth century in eastern dialects (and longer elsewhere, longest perhaps in Provençal), the pertinent atonic feminine possessive pronouns, instead of being replaced by their disagreeing masculine counterparts, lost their final vowel when followed by vowel-initial words (thus e.g. *m'amie* rather than *mon amie*), and non-syllabic allomorphs of atonic feminine possessives thus alternated with syllabic ones, their distribution being phonologically determined, just like the distribution of the later agreement and disagreement variants. Teleologically, the abandoning of the reduced allomorphs and the concomitant innovation of the disagreement rule can then be interpreted as a means to ensure that atonic possessives will be uniformly syllabic, *mon/ton/son* being fitter than *ma/ta/sa* to resist the reductive forces of phonology (cf. Lausberg, 1972: 169 f. for this rationalization). Frequently used attributive adjectives whose feminine agreement form was rhyming with the masculine atonic possessives (e.g. *bon(e) amie*),

as well as occasional vacillations of nominal gender in Old French may have been additional supportive factors (cf. Pope, 1934: 329 f.). An increasingly strong insistence on the preservation of uniform syllabicity could also be invoked as a factor permitting the replacement of feminine *la* by masculine *le* in Spanish, with the phonology being particularly prone to reduce the feminine definite article *la* to non-syllabic *l* in front of stressed syllables with initial /a/.

There is, however, a further, more convincing diachronic rationale for disagreement in Spanish. The Spanish disagreement rule as such was not innovated in the way the French one was; rather, it quite naturally evolved from the original phonological distribution of allomorphs of the feminine definite article *ela* (deriving from Latin demonstrative *illa*). Preceding consonant-initial words, the initial vowel of *ela* was dropped (cf. 13a), while its final /a/ used to be elided in front of all vowel-initial words, whether their initial syllable was stressed or not (cf. 13*b*).

(13) (*a*) ela > la sierra/buena agua
(*b*) ela > el agua/alta sierra/armáda/esperanza

Thus, two allomorphic monosyllabic variants of the feminine definite article were created which, on account of their different syllable structures (CV vs. VC), could be used as was expedient in terms of optimal syllable structures within phrases, with single consonants ideally alternating with single vowels and, above all, without vowels clashing at syllable boundaries. The co-occurrence of *la* with two morphosyntactic classes of feminine nouns (viz. names of females and letters) where *el* was to be expected on phonological grounds, and in particular some subsequent redistributions of the two feminine article alternants, with *la* making inroads upon the territory of *el*, replacing it in front of phonologically and morphosyntactically defined sets of vowel-initial words (i.e. with nouns other than those with initial stressed /a/, and generally with non-nouns, especially adjectives), somewhat obscured this original phonological rationale. It would be implausible to assume that, in spite of the increasing influence of non-phonological factors on the conditioning of the distribution of feminine *la* and *el*, the two article forms continued to be derivable as simple phonological variants of (synchronically) basic *ela*. It is more plausible to assume that in these accidental historical circumstances of one partly phonologically, partly morphosyntactically conditioned variant of the feminine definite article having become homonymous with the corresponding masculine article (shortened from Latin *ille*), this agreeing variant was actually re-interpreted as an instance of the masculine article, disagreeing with feminine head nouns on partly phonological, partly morphosyntactic conditions. With paradigmatic homonymy as an ingredient, mere allomorphic agreement variation should thus have given rise to genuine disagreement.

Euphony has already been mentioned as a possible motivation for animacy

disagreement in Standard (Barcelona) Catalan (§5.5); but a more important clue to its *raison d'être* may have to be sought in the precarious relational distinction of indirect objects and oblique objects or adverbials, bound up with animacy distinctions. The historical point of departure, still preserved in dialects such as that of Valencia (cf. Badia, 1962: 200), was standard agreement between animate indirect object noun phrases and the sequence-initial clitics cross-referencing them, i.e. the pattern represented in (11*a*). It seems that the oblique/adverbial and inanimate indirect object clitic *hi* was increasingly used in indirect object or 'dative' function with animate referents in contexts not really calling for the replacement of *li* by *hi*, in colloquial and less extensively also in Standard Catalan (cf. Wheeler, 1979: 145, who provides examples such as *Us hi referiu* 'you refer to him'). The relational distinction between indirect objects and adverbials and oblique objects may have become increasingly blurred, with the indirect object relation losing ground as a distinct category; it has in fact never been entirely clear-cut in typical contexts with verbs such as 'send': note that there is but little difference between 'We can't send them there, to my uncle' and 'We can't send them to him, to my uncle', both of which translate as (12) in contemporary Standard Catalan. With *hi* having always been capable of animate as well as inanimate reference when used in adverbial/oblique function, it is not so surprising that it should have expanded its referential potential from exclusively inanimate to animate reference also when used in a further function, indirect object, that is not radically different from the adverbial/oblique function. On account of the phonological condition limiting the replacement of animate indirect object clitics by *hi* to the singular form *li*, the resulting pattern is recognizable as one of animacy disagreement. In the long run, however, this pattern may turn out to be an intermediate step in the neutralization of animacy distinctions in non-direct-object cross-reference.

Synchronic or diachronic motivations like these, invoking syllabicity requirements, hiatus and homonymy avoidance, and euphony and blurred categorial distinctions, however plausible as such in the individual cases at issue, may seem ad hoc. But this objection is inevitable considering the scarcity of empirical data from which to generalize. Pending the development of more general diachronic scenarios, with the emphasis on linking individual structural features and functional necessities in a more principled manner, one has to be content, for the time being, with such explanatory speculations that are at best retrodictive – unless one is prepared to admit that languages may after all develop marked patterns of phonologically conditioned disagreement at any time, under all circumstances, and for no particular reason (except perhaps to spoil otherwise plausible hypotheses about universal limitations of agreement rules and phonology–syntax interferences).[1]

[1] For helpful comments on an earlier version of this paper I would like to thank Nigel Vincent and an anonymous reader for *JL*, who has inspired the extended discussion of Catalan in §5.5 and has supplied crucial data. A shorter version of this paper was read at the LAGB Autumn Meeting at Colchester, 15 September, 1984.

REFERENCES

Alcina Franch, J. & Blecua, J. M. (1975). *Gramática española.* Barcelona: Ariel.

Anderson, S. R. (1982). Where's morphology? *LIn* **13**. 571–612.

Badia Margarit, A. M. (1951). *Gramática histórica catalana.* Barcelona: Noguer.

Badia Margarit, A. M. (1962). *Gramática catalana,* tomo I. Madrid: Gredos.

Cecchini, M. (1968). *Manuel de sintaxis española.* Napoli: Liguori.

Corbett, G. G. (1979). The agreement hierarchy. *JL* **15**. 203–224.

Delisle, G. L. (1973). Non-standard agreement and the marking hypothesis. *Working Papers on Language Universals* **11**. 85–138.

Hetzron, R. (1972). Phonology in syntax. *JL* **8**. 251–265.

Hudson, R. (1977). The power of morphological rules. *Lingua* **42**. 73–89.

Hutchinson, L. G. (1977). Cross-reference. In Drachman, G. (ed.), *Akten der 2. Salzburger Frühlingstagung für Linguistik*, Tübingen: Narr. 127–140.

Kelly, R. C. (1973). *A descriptive analysis of Gascon.* The Hague: Mouton.

Lehmann, C. (1982). Universal and typological aspects of agreement. In Seiler, H. & Stachowiak, F. J. (ed), *Apprehension. Das sprachliche Erfassen von Gegenständen, II: Die Techniken und ihr Zusammenhang in Einzelsprachen*, Tübingen: Narr. 201–267.

Moravcsik, E. A. (1978). Agreement. In Greenberg, J. H. *et al.* (eds), *Universals of human language, IV: Syntax*, Stanford: Stanford University Press. 331–374.

Ostrowski, M. (1982). Zum Konzept der Kongruenz. In Seiler. H. & Lehmann, C. (eds), *Apprehension. Das sprachliche Erfassen von Gegenständen, I: Bereich und Ordnung der Phänomene*, Tübingen: Narr. 252–269.

Plank, F. (1982). Conditioning at a distance and variable ordering in morphology. Unpublished paper (read in part at the LAGB Autumn Meeting, Canterbury).

Plank, F. (1984). Two cases in English where a general constraint against non-local conditioning of allomorphy could prove beneficial. Paper read at the conference on Theoretical Approaches to Morphology, Budapest.

Pope, M. K. (1934). *From Latin to Modern French with especial consideration of Anglo-Norman. Phonology and morphology.* Manchester: Manchester University Press.

Pullum, G. K. & Zwicky, A. M. (1975). Sections from 'The principle of phonology-free syntax.' *Working Papers in Linguistics* (Ohio State University) **18**. 172–183.

Ronjat, J. (1937). *Grammaire istorique des parlers provençaux modernes*, tome III. Montpellier: Société des Langues Romanes.

Serzisko, F. (1982). Numerus/Genus-Kongruenz und das Phänomen der Polarität am Beispiel einiger ostkuschitischer Sprachen. In Seiler, H. & Stachowiak, F. J. (eds), *Apprehension. Das sprachliche Erfassen von Gegenständen, II: Die Techniken und ihr Zusammenhang in Einzelsprachen*, Tübingen: Narr. 179–200

Wheeler, M. (1979). *Phonology of Catalan.* (Publications of the Philological Society **28**.) Oxford: Blackwell.

Wilkins, W. (1980). Adjacency and variables in syntactic transformations. *LIn* **11**. 709–758.

Zwicky, A. M. (1969). Phonological constraints in syntactic description. *PiL* **1**. 411–463.

Zwicky, A. M. & Pullum, G. K. (1983). Phonology in syntax: the Somali Optional Agreement Rule. *Natural Language and Linguistic Theory* **1**. 385–402.