CHAPTER FIVE

From Early Old Irish to Middle Irish

1.1 CONSONANT GROUPS ARISING BY SYNCOPE. Between them the apocope of c. 500 A.D. and the roughly mid-sixth-century syncope consti-tute a watershed marking the emergence of a language agreeing in all typolo-gical essentials with the so-called `Classical' Old Irish adequately documented in eighth- and ninth-century sources. That being so, it is convenient to take syncope as the final stage of the **Primitive Irish** epoch discussed in the previous chapter and apply the term **Early Old Irish** to the period from about the middle of the sixth to the end of the seventh century. Although there is some room for doubt about quite how early in this period manuscript texts began to be produced in the vernacular, the handful of contemporary or near-contemporary texts and glosses that constitute the only reasonably reliable witness to sound change at this time all belong almost certainly to the latter half of the seventh century. For present purposes, then, a `prehistoric' first part accessible by historical inference alone is to be distinguished from a second part for which a limited amount of direct evidence is available. The obvious starting point is provided by a number of developments which logically postdate syncope but behind which the surviving written record does not reach.

1.2 Where apocope or syncope had left a nasal or a liquid unsupported after a consonant or between two consonants respectively, a support vowel /ə/ was normally developed in front of the resonant (*GOI* 70) and later coloured appropriately by the flanking consonants in accordance with 4.3 below: e.g., OIr. *domun* /doṽun/ `world' < *\*doṽn* < *\*doṽna* < *\*duṽnah* < *\*dumnos*; *arathar* /arəθər/ `plough' < **araθr* < **araθran* < **aratrom*; nom. sg. *bríathar* `word, verb' < *\*brēθər* < *\*brēθr* < *\*brēθra* < *\*brētrā*, dat. sg. *bréithir* /brēθ′ər′/ < *\*brēθ′r′* < *\*brēθ′rĩ* < *\*brēθrī* < *\*brētrai*; *ebraid* < *\*evraθ′* `will give' but *ebarthi* /evərθi/ `will give it' < *\*evrθ′i* < *\*evraθ′i*; deut. *ad:gládathar* `addresses' but prot. *-accaldathar* /agəldəθər/< **-agəlδaθor* < **-aglδaθor* < **-aglaδaθor* < **-adglādātor*; *ingnad* `wonderful' < *\*ingnaθ* but *ingantu* /ingəntu/ `more wonderful' < **ingənθ′u* < **ɪngnθ′u* < **ɪngnaθ′ū* (< **an-gnāt-*). As can be seen from examples like *domun* above or Wb. *accobor*, *accobur* `desire' < *\*akovr* < *\*akkovra(n)* < *\*ad + kuprom*, this /ə/ tended to be rounded in the vicinity of a labial. Anaptyxis did not apply to a nasal fol-lowed by a homorganic voiced stop as in *aisndís* `narration' < **es′ɪn′d′ew′isu* (IV.3.2; McCone, 1995, 131) or preceded by a liquid, another nasal or *d* as in OIr. *iarn* `iron', *almsan* `alms' (from Lat. *el(e)emosyna*), *ainm* `name', *naidm* `binding'. On the reasonable assumption that a case like dat. *bréithir* reflects

regular palatalisation of the whole cluster by *-ĭ prior to anaptyxis, examples such as gen. *arathair* /arəθər′/ `of a plough', *domuin* /doṽun′/ `of the world' will be due to well motivated replacement of **araithir* /arəθ′ər′/, **duimin* /duṽ′ən′/ < **araθ′r* ĩ, **duṽ′n* ĩ under paradigmatic pressure from the nom./acc. forms above.

1.3 Post-syncope sequences of non-nasal voiced consonant plus unvoiced fricative seem to have become voiceless throughout (*GOI* 80-1): e.g., *neph-chomt(h)etarracti* `incomprehensible' (*neb-*), *deph†thigim* `I contend' (*debuith* `discord'), *prithchibes* `who will preach' (Lat. *pr(a)edicare*), *ad:áich†fer* `I shall fear', *ad:r-áich†setar* `they have feared' (*ad:ágathar* `fears'), *ainmmnich†the* `named' (*ainmnigithir* `names'), *a:trefea* `will inhabit' < **a*θ*:trefˀfa* < **að:trev ʳ†fa* (*ad:treba* `inhabits'), deut. *im(b):soí* but prot. *-impai* /impi/ `turns' < **imphoy* < **imb†hoy* < **œmbi-how* ĩ < **ambi-sowet(i)*, deut. *in(d):samlathar* `imitates' but prot. *-intamlathar* < **inthaṽl-*< **ɪnd†haṽ†l-* < **ande-samal-* (see IV.3.5 on non-palatal *mp*, *nt* here), and probably *creit†fes* /kret′fˀəs/ `who will believe' (*creitid* /kred′əð′/ `believes'), *léic†fimmi* /lēk′fˀəm′i/ `we will leave' (*léicid* /lēg′əð′/ `leaves') etc. despite the failure of Old Irish orthography to distinguish between voiced and voiceless stops in this position.

Numerous Old Irish spellings fail to reflect this regressive assimilation: e.g., *neb-thórtrammad* `non-pestering', *debthich* `quarrelsome' (nom. pl.), *ad:ráig†setar*, *-ainmnig†ther* `is named', *-ulemairb†fe* `you will destroy utterly' (*marbaid* `destroys'), *eirb†thi* `entrusts himself' (*erbaid* `entrusts'), *prid†chim* `I preach'. It is uncertain whether retention of the form or stem found in corres-ponding forms before voiced segments in such cases (e.g. *neb-dénum* `non-doing', *-pridach* `I preached') was purely orthographical or at least sometimes due to analogical levelling reflected in actual pronunciation. Whichever of these factors was involved, the Old Irish Glosses certainly manifest considerable confusion both ways on the evidence of spellings like *neph-dligthich* `irrational' (gen. sg.), *-prithach* `I preached'.

1.4 When syncope brought homorganic consonants into contact (including *l, n, s* plus dental) any fricative(s) present were delenited: e.g., *-accaldathar* and *ingantu* in 1.2; *do:róscai* `stands out' < **de rōsk†ki* < **de rōsk†x′i* < **de rōskox′ī* (prot. *-der†scaigi*); nom. pl. *Ulaid* `Ulstermen' < **Uluθ′* < but acc. pl. *Ultu* < **Ul†θu* < **Uluθū*; *-mitter* `is judged' < **miθ ʳ†θor* (by 1.3) < **miðʳ†θor* < **meðiθor*; *benaid* `strikes' < **benaθ′* but *bentai* `strikes him' < **ben†θ′i* < **benaθ′i*; nom. sg. *césad* `suffering' < **kēsaθ* but gen. sg. *césto* < **kēs†θo* < **kēsaθō*.

A few cases such as *cosaít* `complaining' (vb. n. of *con:saídi*), *foít* `sending' (vb. n. of *foídid*), *techt* (alongside normal *techtad*) `possessing' (vb. n. of *techtaid*), *cruitt* `harper' (arguably *crott* `harp' plus agentive *-(a)ith* <

*-*iyati*-) have been ascribed to sporadic syncope of an unstressed vowel in a final syllable between dentals at this stage (McCone, 1981, 40-1; see IV.1.2). However, *foít*, *techt* and the like could presumably be back-formations from regularly syncopated and delenited gen. sg. *foíteo* < **woiðɪ̃θō*, *techto* < **textaθō* (Schrijver, 1992, 182-3), as can *cosaít* since, for whatever reason, it fails to syncopate the second syllable and then syncopates the third instead (cf. *cumacht*†*g*- in IV.5.1). This explanation by means of analogy will not apply to *cruitt* on account of **krottiyatōs* > **krut´e(y)aθōh* > **krut*†*aθō* > gen. sg. **cruittedo* but, as Schrijver points out, this might simply have been an *i*-stem (*cruitt* < **krutih* < **krottis* vs. *crott* < **krottā*) from the beginning.

1.5 When a palatal and a non-palatal consonant came into direct contact as a result of syncope of the intervening vowel, this new group became palatal or non-palatal throughout by progressive assimilation to the quality of the first consonant. Thus pal. + non-pal. > pal. + pal. but non-pal. + pal. > non-pal. + non-pal.: e.g., OIr. *-mitter* (pal. *-tt-*) `is judged'< *\*mið´θor* < *\*miðɪ̃θor*, *bentai* (non.pal. *-nt-*) < *\*benθ´i* < *\*benaθ´i*, deut. *for:cenna* `terminates' (pal. *c*, non-pal. *n(n)*) vs. prot. *-foircnea* (pal. *-rcn-*) < **wor´k´*ɴ*a*< **wor´kɪ̃*ɴ*a* and deut. *fo:gaibet* (non-pal. *g*, pal. *b*) `they find' vs. prot. *-fogbat* (non-pal. *-gb-*) < **woγv´od*< **woγav´eod*.

Greene's claim that `a few archaic spellings like *coicsath*, for later *coicsed*, show the older state of affairs' (1973, 134-5) before the progressive assimilation to (in this case) palatal quality throughout would entail a date around the mid-seventh century for this development, since this and other examples such as *tu:esmot* `who shed' (later *do:esmet*) are from the Cambrai Homily. However, *ad:rímther* `is reckoned' presumably represents /rīṽ´θ´ər/ < **rīṽ´θor* in the same text, where partial retention of the original quality of unstressed internal vowels (4.3) raises the possibility that *coicsath* and *tu:esmot* reflect assimilated /kog´s´aθ/, /tu es´ṽ´od/ without orthographic indication of the palatal off-glide (I.6.7) rather than unassimilated /kog´saθ/ (or even /kog´səθ/), /tu es´ṽod/. Consequently an earlier post-syncope date can hardly be excluded.

1.6 The gap in the stop system produced by Proto-Celtic loss of *p* was initially filled in Primitive Irish by loanwords like OIr. *penn* `pen' < Lat. *penna* (III.1.4; McManus, 1983, 36-40 and 48), a new voiceless *p* corres-ponding to voiced *b* being admitted on the pattern of the relationship between inherited *t* and *d*, $k^{(w)}$ and $g^{(w)}$. A similar use of loanwords to fill out gaps (e.g. new *b* to existing *p* on the model of *d/t*, *g/k*) in the inherited system of a Southern Pacific language has been described by Lenormand: `It is clear that Lifu speakers have managed to reproduce such foreign phonemes as somehow filled the `gaps' in the pattern. This is easily understandable if one realizes that a `gap' in the pattern means that a combination of two articulations, each of

which was widely used in the language, is not made use of for distinctive purposes. It will certainly be easier for the speakers of that language to combine two existing articulations than to reproduce a totally strange one' (1952, 256).

A new `native' *-p-* later arose internally after syncope in Irish because *-h-* (< *-s-*) resisted otherwise general intervocalic loss some time before the first palatalisation (2.3) at the beginning of a word, including the root of compound verbs (III.1.4) or a pronoun suffixed to a preposition. After syncope this *-h-* devoiced any voiced consonant in contact with it by 1.3 before disappearing everywhere except in postvocalic anlaut, where it has survived right down to Modern Irish: e.g., OIr. *a ṡíl* /a hīl/ `his seed/offspring' vs. gen. sg. *int ṡacairt* /iNt agəR´d´/ `the priest's' (ModIr. *an tsagairt* /ən tagəR´t´/) < **ind hagaR´d´* < **indi hagardi*; OIr. *a ech* /a hex/ `her horse' (ModIr. *a heach*) < **eā hex$^{w}$a* < **eyāh ex$^{w}$ah* vs. *int ech* /iNt ex/ `the horse' (ModIr. *an t-each*) < **ind hex* < **inda hex^{w}a* < **indah ex^{w}ah* (IV.4.2); deut. *do:sluindi* `denies' vs. prot. *-díltai* /dīLti/ (ModIr. *diúltaíonn*) < **dīhLnti* < **dī-hL$^{\dagger}$n´d´i* < **dī-hLon´d´ī* < **dī-slondīt(i)* (see 4.4 on *lnd/t* > *ld/t*); *impu* `around them' < **Imb†hū* < **æmbi-hūh* < **-sūs* and also *-impai*, *-intamlathar* in 1.3 above.

2.1 SEMIVOWELS AND DIPHTHONGS. Stressed *i* (< *i* or *e* by IV.1.5) in hiatus before *a/o* was regularly lowered to *e* by IV.2.1(c) but then raised to *i* again in hiatus after syncope: e.g., subj. 3 pl. rel. *crete* < **k´r´e†d´e* < **k´r´ead´e* < **kriy-ad´iya* < **krey-āsonti-yo* (*crenaid* `buys') vs. 3pl. conj. *-criat*; nom. sg. *scé* `whitethorn' < **ske* < **sk^{w}eya* < **sk^{w}iy-as* vs. gen. *sciad* < **sk´eaθ* < **sk^{w}´eaθa* < **sk^{w}iy-at-os* (MW *yspydat*) and probably nom. sg. *biáil* `axe' vs. gen. *béla* (IV.5.1).

2.2 It has been seen (IV.4.1) that *w* became *v* after a voiced consonant before the loss of final *-n*, while merger of *h* plus *w* as *f* (chrono)logically precedes the general loss of postvocalic *h* (2.3), a rather early date supported by the substitution of *s(w)-* for (at this stage lenited only < **hw*) *f-* in some old Latin loanwords such as OIr. *sroigell* `whip' < Lat. *flagellum* (McManus. 1983, 51-6). Both /f/ and /v/ (written *f/ph* and *b*) then remained unaltered throughout the Old (and Middle) Irish period. Notwithstanding Russell's blithe assertion that `the final stages of the change of **-sw-* > **-hw-* > *-f-* are relatively late within Primitive Irish at a point when internal *w* would already have disappeared' (*JCeltLing* 2, 1993, 166), the likes of Og. (gen.) CUNOVALI (MW *Cynwal*), EOIr. *Conual* and OIr. *Conall* demonstrate the survival of unmodified *w* until after syncope and its retention after a consonant right down to the seventh century, whereas logic dictates that *hw* had become *f* not just before loss of `internal *w*' in *Conual* etc. but actually some time before the apocope of c. 500 A.D.

Before a consonant or in absolute auslaut non-palatal *w* coalesced with a

preceding stressed vowel to form a diphthong: e.g., OIr. *Éogan* < **Ew†γen* < **Ewaγena* < **Iwaγenah* (Og. gen. IVAGENI) < **Iwo-genos*; EOIr. gen. sg. *bou* (probably = *bóu*) `cow' < **bow* < **bow-os*; OIr. nom. sg. *béo* `alive' < **bew* < **bewah* < **biwos* but pl. *bí* < **biy* < **biw̃i* < **biwī,* gen. *aisndísen* < **es†Ndiy†s´on* < **essæNdew´issonah* (preferable to McCone, 1995, 131) < **-s(i)yonah* (1.2; IV.3.2). Palatal *w* also survived the syncope, whereupon it was lost before a vowel but became *y* at the end of a word or before a consonant (cf. Toch. A *want* but B *yente* `wind' < **wēntos*). This *y* also coalesced with a preceding vowel: e.g., OIr. *bí*, *aisndísen*, *oac* `young' < **oweg* < **yowænkos* vs. *oítiu* `youth' < **oyd´u* < **ow$^{\dagger}$d´u* < **yow̃idu* < **yowæn-tūs* (cf. Lat. *iuventus*); OIr. *oí* `sheep' < **oy* < **ow´* < **ow̃i* < **owih* (non-raising of *o* over *w* by *i* here as opposed to *iy* in *nu(i)e* below or *bue* in IV.2.4; cf. *daig* vs. *lige* in IV.2.2) < PC **owis*< PIE **$h_2$ow-i-s* (Lat. *ovis* etc.); OIr. *druí* `druid' < **druy* < **druw´* < **druw̃i* < **druwi(d)-s*. It appears from Wb. *nuie* `new' < **nuye* < **nuw´eya* < (raising by *iy*) **nowiyah* < IE **new-yo-s* (Skt. *navyas*, OE *nēowe*) that *y* < *w´* made a diphthong with *u* before *-e* but Ml.and Sg. *nu(a)e* indicate that this *i* was soon lost within the Old Irish period. The above follows Cowgill's (1967) perceptive treatment of the fate of *w* in Primitive and Early Old Irish in positing these basic developments prior to the general post-syncope loss of any *w* that had neither been changed to *f* or *v* nor combined with a preceding vowel into a diphthong (now see further Uhlich, 1995): e.g., *Conual* > *Conall* above .

A peculiar development *w-* > *f-* confined to unlenited initial position before the loss of unmodified *w* is a rather unattractive way of accounting for the likes of OIr. *fer* `man' < *\*wer* < *\*werah* < *\*wiros*. It seems more likely (following Watkins, 1966, 70-1) that the anomalous patterning seen in nom. sg. *\*wer* `man' vs. *in fer* `the man' (< *\*inda fera* < *\*indah wirah*), gen. sg. *ind fir* /ir´/ `the man's' and pl. *inna fer* /ver/ `the men's' (< *\*indan veran*; *w* > *v* after a voiced consonant) and so on in anlaut was tending to be replaced by nom. sg. *fer*/*in fer* etc. under analogical pressure from the normal alternations seen in a case like nom. sg. *corp* `body', *in corp* `the body', gen. sg. *in choirp* `the body's', gen. pl. *inna corp* /gorp/ `the bodies". Variants such as *\*wer*/*fer* could then have triggered uninflected doublets like *\*wor*/*for* (OIr. *for* `on'), **wo*/*fo* (OIr. *fo* `under') before *f-* triumphed throughout.

2.3 Although *-oi* and *-ai* were monophthongised to *-ī* quite early (III.5.7), new final *i*-diphthongs arose as a result of the loss of *h* (< *s*) between vowels: e.g., the verbal endings **-asi* (S3 2 sg. abs. pres.), **-mosi* (1 pl. abs.), **-mosi-yo* (1 pl. rel.), **-āsisi*/**-āsis* (2 sg. *a*-subj. abs./conj.) > **-ahi*, **-mohi*, **-mohiya*, **-āhihi*, **-āhih* > **-ai*, **-moi*, **-moiya*, **-āiyi*, **-āi* respectively. The palatal *-m(m)-* of OIr. 1 pl. *-aimmi* < **-om´ī* (replacing **-oṽī* under the copula's influence) shows that monophthongisation of *-ai*, *-oi* to *-ī* here

occurred after the shortening of long vowels in IV.2.1(a) but before the first palatalisation between IV.2.1(b) and (c). Thereafter *-āi* was shortened to *-ai*, whence 2 sg. *ā*-subj. > **-aiyi*, **-ai*, and this new *-ai* was still a diphthong when the apocope produced further instances of *-ai*/*-oi*: e.g., 1 pl. rel. **-moi* < **moiya*, 2 sg. abs. subj. **-ai* < **-aiyi*, **-boi*/**-rovoi* `was/has been' < *\*boy* < *\*bowĩ* < *\*bowe* (2.2). This `third generation' post-apocope *-ai*/*-oi* was monophthongised to *-ē* in unstressed syllables: e.g., OIr. *ro:boí* `has been' < (stressed) *\*-boy* < *\*bowĩ* < *\*bowe* vs. *ní:ra-bae* `has not been' < **-vē* < (unstressed) **-voy* < **-vowĩ* (OIr. *-impai* `turns' for *\*-impae* < *\*-impē*< *\*-imb$^{\dagger}$hoy* < *\*ımbi-howĩ* owing to analogical pressure from *-léici* `lets', *-accai* `sees' etc.); OIr. 1 pl. rel. *-aimme* /-əm´e/ (palatal *m* on the analogy of abs. *-aimmi* above) < *\*-omē* < *\*-omoi* (or *\*-oṽoi*); 2 sg. subj. *berae* /bere/ < *\*berē* < *\*berai* (cf. McCone, 1982, 25-6); *gáe* /gai/ `spear' < **gay* < **gaya* < **gaihah* < **gaisos* vs. *foga(e)* /foɣe/ `small spear' < *\*woγē* < *\*woγay* etc.; *senchae* `custodian of tradition' < **seno-xē* < **seno-x^{w}oya* < **seno-x^{w}oih(y)ah* < **seno-k^{w}oisos* `ancient seer' (McCone, 1995b).

2.4 It thus appears that the shortening of unstressed final vowels seen in OIr. gen. sg. *dego* `of flame'< *\*deγō* < *\*deγ$^{w}$ōh* (IV. ), *-marba* `kills' < **-marvā* < **marw-āh* (< **-āθ* < **-āt(i)*) etc. took place after this mono-phthongisation of tertiary *-ai* to *-ē* (> OIr. *-e*). On the other hand, a short stressed vowel or the first element of a *u*-diphthong was lengthened in absolute final position: e.g., OIr. *me-sse* `I/me' (emphatic) vs. *mé* `I/me' < **me*; *tu-ssu* `you' (sg., emphatic) vs. *tú* `you' (sg.) < **tu*; 3 sg. abs. *s*-subj. *geis* `may pray' < *\*ges´* < *\*g$^{w}$essi* vs. conj. *-gé* < *\*-ge* < *\*g$^{w}$eh* < *\*g$^{w}$ess*; 3 sg. abs. pres. *baid* `dies' < **baeθi* vs. conj. *-bá* < **-ba* < **baeθ*. The upshot was lack of phonemic length in final vowels, since the feature [±length] was comple-mentarily distributed in this environment: final vowels were automatically long under the stress but otherwise short.

3.1 VOICING OF CONSONANTS. The most significant development in the consonant system between the Early Old Irish of the seventh and the (Classical) Old Irish of the eighth and ninth centuries was the voicing of dentals on the word boundary (including the boundary between a proclitic and the stressed word following it) next to an unstressed vowel (McCone, 1981). This resulted in word-final [θ] > [ð] (spelt *-th* and *-d*) after an unstressed vowel and in [t] > [d] at the beginning of a proclitic (*t-* > *d-* orthographically) or at the end of a word (where it was still spelt *-t* in accordance with I.6.6) after an unstressed vowel. Thus EOIr. *ro:slogeth* (Wb. 13^{d}24 *prima manus*) vs. OIr. *ro:slocad* `has been swallowed', EOIr. subj. *gorith* (Cambrai) vs. OIr. *gor(a)id* `may warm', EOIr. *díltuth* (Wb. 6^{c}2 *prima manus* and Cambrai) vs. OIr. *díltud* `denial', EOIr. 3pl. *tu:esmot* (Cambrai) vs. OIr. *do:esmet* `who spill'. Although

Lat. *sagitta* must have been borrowed into Irish as /saɣ´it/, Modern Irish *saighead* `arrow' leaves little doubt that OIr. *saiget* `arrow' was actually pronounced /saɣ´əd/ as a consequence of the voicing of final [t]. This sound law accounts for numerous grammatical alternations in Old Irish such as those between deut. *do:beir* `brings' (*t- > d-* before proclitic vowel) and prot. *-tabair* (*t-* unchanged before stressed vowel), deut. *do:gníth* `was done' (*-th* unchanged after stressed vowel) and prot. *-dénad* < **-deγniθ* (*-th* voiced to *-d* after un-stressed vowel), deut. *ad:géuin* `recognised' (*-th > -d* after proclitic vowel) and prot. *-aithgéuin* (unaltered *-th-* after stressed vowel), nom. sg. *lepuid* `bed' and gen. sg. *leptho* or *beirid* `carries' and *beirthi* `carries it' (final *-th > -d* after unstressed vowel and unaltered internal postconsonantal *-th-* respectively).

A late seventh-century date for this voicing is indicated by the fact that the Cambrai Homily consistently ignores it and the Würzburg *prima manus* of about 700 A.D. has only one clear instance of *-d* in pl. *dilgid* `forgive!' as opposed to several of *-th* or proclitic *tu-/to-* (OIr. *du-/do-*).

3.2 There was also a marked tendency to voice a dental fricative between unstressed vowels, [θ] > [ð] here being responsible for Old Irish doublets such as *-comalnathar* (Wb. 31^{c}14) or *-comalnadar* (15^{b}14) `fulfils' as well as alternations such as that between *-cruthaigedar* `forms' (Ml. 140^{b}5) and synco-pated *-cruthaigther* `is formed' (cf. *lebuid*, *leptho*), EOIr. *-étatham* `we will obtain' (Cambrai; cf. Wb. *prima manus* 21^{a}4 *siglithi* glossing Lat. *signati*) and OIr. *-étada* `will obtain' (Ml. 129^{b}5). The evidence suggests an early eighth-century date for this intervocalic voicing, whence the considerably higher frequency of conservative *-th-* spellings here in eighth- and ninth-century sources than is found in the case of final *-th/-d* after an unstressed vowel.

3.3 Voicing of *f* to /v/ written *b* occurred under virtually identical condi-tions to those just described in 3.1-2: e.g., *-soífea* `will turn' (retention after stressed vowel), *-léicfea* `will let' (retention after consonant) vs. *-léiciub* `I will let' (regular voicing in auslaut after unstressed vowel) and *-pridchabat* `they will preach' or *-comalnabadar* `will fulfil' (voicing between unstressed vowels) alongside conservatively spelt *-élafae* `you will escape'. As Peter Schrijver points out to me, OIr. *feb* `excellence, worth' < **wefa* < **wehwā* < **weswā* indicates that this particular voicing was general in final position, even after a stressed vowel.

3.4 Voicing of the palatal velar /-x´/ to /-ɣ´/, spelt *-ch* and *-g* respec-tively, at the end of the word after an unstressed vowel or between unstressed vowels apparently occurred in tandem with the similar developments above in the dentals and labials. Hence EOIr. nom. pl. *dásachtaich* (Wb. 19^{b}3, *prima manus*) vs. OIr. *dásachtaig* `madmen' (nom. sg. *dásachtach* with unaltered non-palatal *-ch*) and Old Irish morphophonemic alternations of the type nom. sg./gen. pl. *pecthach* `(of) sinner(s)', gen. sg./nom. pl. *pecthaig* (also spelt

pecthich Ml. 57^{d}1) or adj. (nom. sg.) *sóinmech* `prosperous', abstract noun *sóinmiche* or *sóinmige* (cf. *-athar* or *-adar* in 3.2).

Such was the centrality of alternations between broad and slender con-sonance to various Old Irish inflectional and derivational processes, especially in the nominal system, that this patterning became productive with the result that broad *-ch* /-x/ might replace original broad *-g* /-ɣ/ in paradigmatic alter-nation with slender *-g*(-) /ɣ′/ by analogy (see Penny, 1991, 84-6 for a similar acquisition of an unlenited variant [b] by [v] in Spanish on the analogy of original [b] with its lenited variant [v]). Despite the problem of the preceding stressed vowel (perhaps compounds like *ríg-thech* `palace' for *-theg* provided the trigger), a probable example is replacement of the original NVA sg. *teg* `house' (cf. Gk. *(σ)τέγος* `roof', Lat. *teg-* `cover') still surviving in Wb. 23^{b}8 (*prima manus*) by *tech* alternating with gen. *tige*, dat. *t(a)ig* in Old Irish.

3.5 After *r*, *l*, *n* or (unlenited) *m* and an unstressed vowel final *n* /n/ and *l* /l/ were strengthened to *n(n)* /N/ and *l(l)* /L/ in accordance with MacNeill's Law (see Hamp, 1974): e.g., OIr. nom. pl. *anman(n)* `names', *céim(m)en(n)* `steps' < **anmen*, **kēmmen* < **anmena* (cf. OW *enuein*; Gaul. *anuana*), **kanxsmena* (cf. OW *cemmein*); *lán* `full' but *comlann* `complete' < **koṽ-lan* (< **koṽ-lān-ah*; 6.2a), *Caulann* < **kaulon* (IV.1.3).

4.1 BREAKING, PROCLISIS AND UNSTRESSED VOWELS. Contrasts such as those between EOIr. *Neel* /nēl/ (Tírechán; see I.3.2) or gen. sg. *fédot* (Cambrai) and OIr. *Níal(l)* `Niall', *fíadat* `of a lord' show that, unlike the mid low *é* /ɛ̄/ due to compensatory lengthening (e.g., OIr. *cét* `hundred' and *én* `bird'; IV.1.3 and 5.1), old mid high *é* /ē/ underwent breaking to a diphthong *ía* before a non-palatal consonant around the end of the seventh century. This development is responsible for plentiful Old and Modern Irish grammatical alternations of the type nom. sg. *cíall* `sense', *grían* `sun' but gen. sg. *céille*, *gréine* (/ē/ before non-palatal and palatal consonant respectively).

Even though the precise conditions responsible have not been established (*GOI* 39-41), *úa* often replaces *ó* in Old Irish: e.g., nom. sg. *túath* `tribe' < *\*tōθ*, gen. sg. *túaithe* < *\*tōθ′e*, nom. sg. *slóg* or *slúag* `host', gen. sg. *slóig* or *slúaig*. A comparison between EOIr. *ood* (= *ód*), *ōnni* (Cambrai) and OIr. *(h)úad* `from him', *(h)ónni* or *(h)úanni* `from us' indicates that this development too originated around the end of the seventh century. It would be tempting to suppose that this breaking, like that of *é* to *ía*, originally occurred before a non-palatal consonant but, if so, there had already been considerable analogical confusion both ways by the time of Old Irish.

4.2 It is clear from the sources that the seventh century witnessed a number of changes peculiar to proclitic elements such as conjunctions, conjunct particles, pretonic preverbs, prepositions, possessive pronouns and the copula.

Voicing of *t-* to *d-* before the unstressed vowel of a proclitic has already been covered (3.1). Further important developments confined to proclitics were depalatalisation of consonants and a corresponding retraction of *u*, *e* to *o*, *a* respectively: e.g., EOIr. *amail* /aṽal′/ (Wb. 21ᶜ10, 22ᶜ24 *prima manus*) but OIr. *amal* /aṽəl/ `as, like'; EOIr. *ocuis* /ogus′/ (Cambrai) but OIr. *ocus* /ogus/ `and'; EOIr. *ine lāim* /in′e/ (Cambrai) but OIr. *ina láim* /ina/ `in his hand'; EOIr. *le* [l′e] (Cambrai) but OIr. *la* [la] `with'; EOIr. *óire nu-ndem* (Cambrai) but OIr. *(h)óre/(h)úare no-ndan* `because we are'. Both voicing of *t-* and depalatalisation of *-m* can be seen in the OIr. preposition *dochum* `towards', a proclitic version of *tochim* `stepping towards' (verbal noun of *do:cing*). It is probable that *u*-spellings such as *dochum*, *ocus*, *du* and so on still found in Old Irish sources simply reflect the possibility of spelling the single rounded vowel phoneme resulting from the neutralisation of the distinction between high back /u/ and mid back /o/ in proclisis as *o* or *u*. Retraction of proclitic *e* accounts for grammatical alternations such as that between deut. *as:beir* `says' and prot. *-epir* (stressed *e* unaffected by retraction).

Nevertheless, alongside examples such as the above with palatal con-sonants and unretracted vowels in proclisis the Cambrai Homily also contains examples of the depalatalisation and retraction typical of `Classical' Old Irish: e.g., *ocus* beside *ocuis*, *ara* /ara/ beside *are* /ar′e/ `so that', 3 pl. rel. *ata* /ada/ of the copula (McCone, 1995). It seems, then, that both of these processes had affected the spoken language before the composition of this homily, probably in the second half of the seventh century, but that the written language was a little slow in recognising them at first.

4.3 The same applies to non-final unstressed *a*, *e*, *i* and *o*, which had merged as mid central `schwa' /ə/ before a consonant by the time of Old Irish. This `schwa' phoneme was then written in various ways in order to indicate the quality of the flanking consonants (I.6.7), most likely because colouring by these had endowed /ə/ with several allophones. It was thus written *a* (= [a]?) between two non-palatal consonants, *i* (= [i]?) between two palatal consonants or a non-palatal and a palatal consonant (= [ɪ]?; in this case it was optionally written *ai* to indicate the non-palatal status of the preceding consonant) and *e* (= [e]?) between a palatal and a non-palatal consonant. In hiatus after *i* (2.1) /ə/ was represented as *a* (= [a]?) before a non-palatal but as *ei* or *i* (= [e], [i]?) before a palatal consonant, the former apparently being preferred before *r′* and *γ′* at least: e.g., OIr. sg. acc. *sieir* /siər′/ `sister' < *\*s′ior′* < *\*s′eor′* < *\*swehor-en* < *\*swesor-æn*; nom. *lieig* /liəɣ′/ `leech, doctor' < **ʟ′iaγ′* < **ʟeaγ* ĩ < **-is* (but gen. *lego* < **ʟ′e†γo* < **-ōs* and *leiges* `cure' < **ʟ′e$^{\dagger}$γ′-es* < **-issos*); pres. 3sg. abs. *biid* /biəð′/ `is wont to be' < **bieθ′*, 3pl. abs. *biit* /biəd′/, conj. *-biat* /biəd/ `are wont to be' < **biod′*, **biod*, 3sg. fut. abs. *bieid* `will be' /biəð′/ < **biaθ′* < **biāθi* (conj. *-bia* /bia/ < **biāh*),

sg. acc. *liic* /liək′/ `stone', gen. *liac* /liək/ < **li(y)akk-* (?; nom. sg. *lie* < **liah* < **liyaxs*?).

There are a number of examples of this new system in Cambrai alongside examples of the old system prior to merger: e.g., 1 pl. (pres.) *ar:foímam* `we receive', (*s*-subj.) *fris:tóssam* `we may refuse' < **-oṽ* < **-o-mos*, 3 sg. pres. pass. *ad:rímther* `is reckoned' < *\*ad:rímthor* < *\*að ʀīṽ′[ĭ]θor*. Nevertheless, the following fine examples of the pre-merger state of affairs indicate that this crucial development had not taken place long before the composition of the homily: 3 pl. rel. pres. *tu:esmot* `who spill', *tu:thégot* `who come', 3sg. pret. *aut:rubert* `said it', *saíthor* `work', gen. sg. *fēdot* `lord's' (Cambrai) and *ro:slogeth* `has been swallowed' (Wb. *prima manus*) corresponding to Classical Old Irish *do:esmet* /do es′ṽ′əd/, *do:thíagat* /do θiaɣəd/, *at:rubart* /ad ruvərt/, *saíthar* /saiθər/, *fíadat* /fiaðəd/ and *ro:slocad* /ro slogəð/.

This post-syncope alteration of internal unstressed vowels around the middle of the seventh century is responsible for plentiful paradigmatic alter-nations in Old Irish such as those between deut. *do:beir* `gives' and prot. *-tab(a)ir* /tavər′/ (< *\*taver′*), pret. *as:bert* `said' and perfect *as:rubart* /as ʀuvərt/ `has said' (< *-rubert*), deut. *fo:gaibet* /fo gav′əd/ `they find' and prot. *-fogbat* /foɣvəd/ or deut. *for:cennat* /for k′eɴəd/ `they finish' and prot. *-foircnet* /for′k′n′əd/ (*GOI* 75).

This development not only reduced a fivefold phonemic opposition among short unstressed preconsonantal vowels to a twofold one between /ə/ and /u/ (e.g., *as:ruburt* /as ʀuvurt/ `I have said' vs. *as:rubart* /as ʀuvərt/ `he has said' or dat. sg. *formut* /formud/ vs. nom./acc. sg. *format* /formәd/ `jealousy'), but also significantly extended the phonemic status of palatalisation versus non-palatalisation of internal single consonants by eradicating originally crucial conditioning distinctions between the non-final unstressed vowels following them. For example, before this stage the phonemic distinction between 3sg. abs. pres. [b′er′eθ′] and subj. [b′eraθ′] could be stated in terms of the post-consonantal vowels as /bereθ′/ vs. /beraθ′/, whereas after it only the palatal versus non-palatal internal consonant was phonemically relevant in /ber′əθ′/ (OIr. *be(i)rid*) vs. /berəθ′/ (OIr. *ber(a)id*).

Prior to lowering and apocope palatalisation was a purely allophonic feature, the distribution of which was determined by the quality of flanking vowels. As a consequence of the apocope and syncope above all, palatalisation of consonants attained major phonemic status in the course of the first half or so of the sixth century but the five basic short vowel articulations also retained their phonemic relevance in all environments. The vital seventh-century developments just documented created a further major phonemic shift away from the quality of vowels to that of consonants not only by expanding the incidence of phonemic palatalisation of consonants but also and even more importantly by making any differences between a range of short unstressed vowels into a mere

allophonic concomitant of the quality of the flanking consonants. Only stressed vowels and unstressed final vowels retained a fivefold phonemic distinction between /a/, /e/, /i/, /o/ and /u/. As a result of syncope, loss of *y* etc. pho-nemic distinctions of consonant quality had already come into being before final unstressed *-a, -e, -i, -o, -u* and the only point in the system where the opposition between non-palatal and palatal consonants had not yet attained phonemic status was at the beginning of a word, i.e. before a stressed vowel.

4.4 As a comparison between OIr. *álaind* `beautiful' < *\*ālɪNdih* and comparative *áildiu* `more beautiful' < **ālᵗN′d′u* < **ālɪNdiyūh* shows, *n* was lost between *l* and a stop at some time between the operation of syncope (cf. *-díltai* in 1.6) and the approximately late-seventh-century Cambrai Homily (*diltuth* `denial').

5.1 CHANGES IN THE OLD IRISH PHONEMIC SYSTEM. The foregoing considerations imply the inventory of consonant phonemes ascribed in I.6.1 to the beginning of the Old Irish period. This system remained virtually unchanged throughout the Old and Middle Irish periods. By and large, fricatives arose from the corresponding stops by up to three successive waves of lenition (III.4.1-4). Since /p/ inherited from Proto-Indo-European had been changed to /x/ etc. or lost before the end of the Proto-Celtic period (II.1.5), there was originally no /p/ in Primitive Irish to lenite to /f/. Even when this gap in the system had been filled with the help of loans from Latin from the later fifth century A.D. onwards (1.6), there was reluctance to lenite *p-* in the absence of an inherited native pattern for this, whence OIr. *tech* `house', *mo thech* `my house' etc. but normally *popul* /pobul/ `people' (< Lat. *populus*), *mo popul* (cf. Ml. 77ᵃ12) `my people'. Gradually, however, *p-* began to be lenited to *ph-/f-* on the analogy of the system seen with *t-*, *c-* vs. lenited *th-*, *ch-*, whence occasional examples like voc. sg. *a phopul* `o people' (Wb. 33ᵃ15). The chief source of OIr. *f* was thus *hw* and *w-* (IV.4.1). The rise of palatal phonemes (indicated by ′) has already been dealt with (4.5 above and IV.3.1-5), as has the opposition between tense or unlenited /N/, /R/, /L/ and lax or lenited /n/, /r/, /l/. The phoneme /h/ had only marginal sub-lexical status, occurring in Old Irish merely as a mutation of an initial vowel or *s-* in certain circumstances: e.g., OIr. *ní (h)ed* /nī heð/ `it is not' (ModIr. *ní hea*) < **nīh eð* (< **nīs.. < *nēsti.. < *ne esti..*), *a (h)ech* /a hex/ `her horse' (ModIr *a heach*) < **eāh ex* (< **esyās ekwos*) or *a ṡét* /a hēd/ `his path' < **ea hēduh* (< **esyo sɪntus*). Since palatalisation of initial consonants was still non-phonemic (4.3), *h-* did not yet have a phonemic palatal counterpart.

5.2 The basic vowel phonemes were /a/, /e/, /i/, /o/, /u/ and their long counterparts /ā/, /ē/, /ī/, /ō/, /ū/. The OIr. variants *-moinethar*, *-muinethar* beside rarer *-mainethar* < **manyetor* < **mn̥-ye-tor* testify to a tendency to

round stressed *a* between labial *m* and palatal *n* at least. The contrast between /a/, /e/, /i/ and /o/ had been neutralised as /ə/ in unstressed syllables before a consonant by 4.3. The straightforward contrast between mid high /ē/ and mid low /ɛ̄/ (see IV.5.1) before a non-palatal consonant had been eradicated by 4.1. and there is no evidence that a phonemic distinction between mid high /ō/ and mid low /ɔ̄/ had survived either.

5.3 The Old Irish diphthongs have been subjected to a detailed investigation by Greene (1976). The only diphthongs inherited from Proto- via Insular Celtic into Primitive Irish would seem to have been *ai* and *oi*, which are the only ones found on Ogam inscriptions (McManus, 1991, 121) and duly survived down to the Old Irish period: e.g., Og. MAILAGNI, OIr. *maíl*/*máel* `bald' < *\*mailo-* (OW *mail*, MW *moel*), Og. COIMAGNI, OIr. *coím*/*cóem* `fair' < **koimo-* (OB *-cum*, MW *ku*). Further instances of these arose as a result of various Primitive Irish developments (e.g. IV.5.2) and *ui* was added to them as a result of *-w´ > -y*: e.g., OIr. *druí* `druid' < **druy* < **druw´* etc. in 2.2.

New *au*, *iu*, *eu* and *ou* diphthongs were created by *u*-affection (IV.2.3) and by the merger of word- or syllable-final *w* with a preceding vowel as in 2.2 above. The corresponding long diphthongs *áu*, *íu*, *éu* and *óu* were also the product of two separate developments. Firstly there was compensated loss of certain fricatives before a nasal or liquid (IV.5.1), as in gen. sg. **k´en´eθ´l´ > *k´en´ēul´* (OIr. *cenéuil*/*ceníuil*) and dat. sg. (**keneθlu >*) **k´en´euθl > *k´en´ēul* (OIr. *cenéul*/*ceníul*), and secondly there was lengthening of the first part of a stressed final diphthong (2.4), as in *bóu* and *béo* in 2.2 above, 1 sg. pres. *-bíu* `I am wont to be' < *\*biu* < *\*biuyu* < *\*biyu* < *\*biyū*, *a:táu* `I am' < **tau* < **ta-u* < **ta-ū*, subj. *-béu*/*-béo* `I may be' < **beu* < **be-u* < **be-ū*. The late seventh-century breaking of *é* and *ó* responsible for the diph-thongs *ía* and *úa* has been described in 4.1.

It seems that *ou* and *óu* did not outlive the Early Old Irish period. To begin with, *u*-affection often failed to apply to *o* for the simple reason that this had already been raised to *u* by IV.2.1(a), as in nom. sg. *locc* `place' < *\*ʟogah* (< Lat. *locus*) vs. dat. sg. *lucc* < *\*ʟugu* < *\*ʟugū* < *\*ʟogū*. This *o/u* pattern apparently ousted the unraised type with nom. sg. *roth* `wheel' and dat. sg. EOIr. *routh* early, whence OIr. *ruth* and so on. As for *óu*, it had merged with *áu* before the end of the seventh century on the evidence of a case like EOIr. gen. sg. *bóu* `cow's' < *\*bow* < *\*bow-os* vs. OIr. gen. pl. *báu*/*báo* `cows" < **bow* < **bow-om* (McCone, 1991c). Hence the Old Irish inventory:

/ai/	/oi/	/ui/
/au/	/eu/	/iu/
/āu/	/ēu/	/īu/

/ia/ /ua/

5.4 The number of diphthong phonemes was evidently on the wane in the course of the Old Irish period. Confusion of /ai/ and /oi/ is found as early as *maídem* (Wb. 17^{c}14) `boasting' alongside normal *moídem* (Wb. 17$^{c}$11 etc.). Indeed, Peter Schrijver has reminded me of a surprisingly earlier instance in Ogam (McManus, 1991, 121), namely VRAICCI (Sg. *froích* `of heather') < **wroikī* (MW *gruc*). Old Irish sources also show a marked tendency to monophthongise *au* to *u* and *áu* to *ó*, as in acc. pl. *baullu* or *bullu* `members' (Wb. 3$^{b}$26 and 9$^{d}$4 respectively), 1 sg. *for:chun* `which I teach' (Wb. 10^{a}13) for **for:chaun*, *-táu* (Wb. 32^{a}10) and *at:tó* (Wb. 21^{c}19 etc.) `I am' and so on.

Notwithstanding alternations such as *cenéuil*/*ceníuil* above, *éo*/*éu* and *íu* resisted confusion when grammatical distinctions such as nom. sg. *béo* `alive' vs. dat. sg. *bíu* or 1 sg. *-bíu* `I am wont to be' vs. subj. *-béu*/*-béo* `I may be' were involved. It is to be noted that either *u* or *o* could represent the second element of the diphthongs /āu/, /ēu/ orthographically and that in the second of these the syllable centre may already have been shifting in the Old Irish period to produce /ō/ between two palatal consonants, a process probably more or less complete in Middle Irish: e.g., nom. pl. *beóil* `lips, mouth' (Wb. 7$^{d}$9; /b′ōl′/?) or gen. sg. *a cheneóil* `of his race' (Wb. 6^{d}6; /xen′ōl′/?). This at best very limited occurrence of C′- before a stressed back vowel would have marked the barest beginning of a phonemic opposition between non-palatal and palatal initial consonants within Old Irish itself. In addition, alternations such as that between nom. sg. *fis* /fis/ (Ml. 46^{c}24) and *fius* /fius/ `knowledge' (Wb. 10$^{b}$27 etc.) or dat. sg. *ar chinn* /xiN/ (Wb. 2$^{a}$9 etc.) and *ar chiunn* /xiuN/ `in front of, awaiting' (Wb. 2^{a}9 etc.) testify to an Old Irish tendency to simplify *iu* to *i* (plus non-palatal on-glide phonetically). Both this and the previous shift of syllable centre prefigure major Middle Irish developments to be discussed below.

The upshot of all of this is that the Old Irish period witnessed significant progress towards a reduction from the eleven phonemic diphthongs in 5.3 to a mere five: /ai/, /ui/, /eu/, /ia/, /ua/.

5.5 No significant change affected the vowel system during the Old Irish period except that final unstressed *-o* and *-a* began to merge as *-a* quite early with the result that the short vowel phonemes in this environment were reduced from five to four: e.g., *u*-stem gen. sg. *betho* `of (the) world', *gnímo* `of a deed' mostly in Wb. alongside examples of *betha* (Wb. 15^{d}9) and *gníma* (Wb. 6^{a}11), the normal forms from Ml. onwards. In view of the surprisingly early contrast between nom. *feda* (for expected *fedo*) and gen. *fedot* (*e*= /ē/ in both) in the Cambrai Homily it is tempting to suggest that final /-o/ was lowered to [-ɔ] around the middle of the seventh century and that this sound intermediate between [o] and [a] could be spelt either *-o* or *-a* as in Würzburg (and Cambrai?) before it was unrounded to /-a/ normally spelt *-a* as in Milan.

5.6 As a result of syncope hiatus could only normally be found between

a stressed and an unstressed vowel in Old Irish disyllables (see 2.1), whence alternations of the type subj. 3sg. *-tlia* < **-tlea* < **-tli(y)āh* < **-tleyāset* but *-rothla* < **-ro-θl[e]a* < **-ro-tli(y)āh* etc. or pass. *-tlethar* < **-tle[a]θor* < **-tli(y)āθor* etc. (pres. *-tlen* `removes'). Typical examples of hiatus disyllables are OIr. *a:taat* `are', *biid* `is wont to be', *soid* `turns', *-soat* `turn', *tee* `hot' (< **teēh* < **tepents*), and a trisyllable by anaptyxis (1.2) such as *loathar* /loəθər/ `tub' < *\*loaθr* < *\*lowatr* apparently also retained hiatus at first but soon contracted to *lóthur* in Old Irish. Contrasts such as that between *gniid* `does' < **gnieθ′* (4.3) < **gniyeθi*, *gníthi* `does it' < *\*gnieθi* < *\*gniyeθiy-e*, *ol-daas* `than is' and *táthut* `you have' (< *\*taeθiu-tu*), or *tee* `hot' and dat. pl. *-thétib* (< **teedov′*) are most straightforwardly explained by positing a pre-syncope (otherwise **gnithi* < **gni[e]θi*) contraction of *ie*, *ae*, *ee* to *ī*, *ā*, *ē* respectively in a tri- as opposed to a di-syllable after the main apocope. On the other hand, it is difficult to square a form like 3pl. rel. *gníte* `who do' vs. *gniit* `they do' < **gniod′* < **gneod′* < **gniyonti* with the development seen in *-tlethar* above, gen. *lego* `leech's' in 4.3, 3pl. rel. *crete* in 2.1 and so on, since this would surely imply **gniyonti-yo* > **gneod′e-(y)a* > **gne[o]d′e* > OIr. pres. **gneite* indistinguishable from the corresponding subj. form. That being so, a form like *gníte* was probably created from abs. *gniit* on the analogy of *gníthi* in relation to EOIr. *gniith* (> OIr. *gniid* by 3.1). Occasionally syncope could leave two unstressed vowels in hiatus but in such cases contraction would seem to have taken place by the beginning of the Old Irish period: e.g., *aisndís* < **es†ndiis* < **es[ɪ]ndewis* (1.2) or 3sg. subj. *do:intá*, *tintá* `may return' < **t(o) ɪnd†hoā* < **ænde-howāθ*, vb. n. *tintúd* < **t'ind†howuθ* < **t'ind†howeuθu* < **t'ænde-howeθuh*.

6.1 MIDDLE IRISH DEVELOPMENTS. Although the numerous innovations of Middle Irish (c. 10th.-12th. cent.) in relation to Old Irish concern morphology (see *EIV* 176-266 on the verb and Breatnach, *SnaG*, 221-333 in general) rather than phonology for the most part, a number of significant phonological developments in the vowel system above all will be briefly considered here (further details in Breatnach, *SnaG*, 227-36). A number of these also occur sporadically in Old Irish sources (McCone, 1985c, 85-8), which probably indicates that they were becoming current in ordinary speech by then but had not yet gained full recognition in the learned standard.

A phenomenon that affected both the vowel and consonant systems seems a suitable starting point. Many Modern Irish (as opposed to Scots Gaelic) forms indicate a shift in the syllable centre whereby sequences of short back vowel plus palatal on-glide or short front vowel plus non-palatal on-glide became sequences of non-palatal off-glide plus *i* or palatal off-glide plus *a* at some time after the Old Irish period: e.g., OIr. *fer* /fer/ [fe^{a}r] vs. ModIr. *fear* /f′ar/ `man'

(ScoG. *fear* /f´er/), OIr. *guide* /guð´e/ [guʲð´e] vs. ModIr. *guí*, trad. *guidhe* /gī/ or /giyə/ `prayer' (ScoG. *guidhe* /guyə/). Spelling fluctuations of the type OIr. *coire* /kor´e/ `cauldron' or *laig-* /Laɣ´-/ `lie' but *coire*, *caire*, *cuire* or *laig-*, *loig-*, *luig-* in later manuscripts point to a stage where what was variously written *a/u/o* was a non-palatal off-glide in emergent pronunciations /kir´ə/, /Liɣ´-/ and so on. Occasional Middle Irish spellings such as *-chrean* (cf. OIr. *-cren* /-kren/), *-cear* `fell' (OIr. *do:cer* /-ker/) probably reflect shifted /-x´r´an/, /-k´ar/. Before a guttural fricative rounding, which can be formu-lated as OIr. (C)/ex/ɣ/ = [eᵒx/ɣ] > MidIr. (C´)/ox/ɣ, tended to accompany this shift: e.g., MidIr. *-deochatar* `they went', acc. pl. *euchu* `horses', *-geogain* `killed' vs. OIr. *-dechatar*, *echu*, *-geguin*. In unstressed internal syllables [e]/ə/ and even /ē/ apparently underwent a comparable development to yield [a]/ə/ and /ā/ respectively: e.g., MidIr. *-aichneastar* `recognised' with -C´[astar] for OIr. *-estar* -C´[estar] (both phonemically -C´/əstər/) or *aileán* `island' (also *oil-*) reflecting /il´ān/ for earlier *ailén* /al´ēn/.

A crucial result of these changes, which were probably more widespread in the speech of the Middle Irish period than the generally conservative orthography suggests, was to phonemicise the opposition between non-palatal and palatal consonants in anlaut, since an initial non-palatal consonant could now be followed by a front as well as a back vowel and conversely a palatal consonant could now precede [ō] (5.4), [o] and [a] as well as a front vowel.

6.2 Beyond this the consonant system underwent little major change between Old and Middle Irish, although a number of assimilations and dissimilations are worth mentioning. For instance, OIr. *ln, ld* and *nd* undergo progressive assimilation in Middle Irish, whence O/MidIr. *comallaid* `fulfils' (OIr. *comalnaithir*), MidIr. *ac(c)allam* `address' (OIr. *ac(c)aldam)*, MidIr. *clann* `offspring' (OIr. *cland*). The optional preservation of a spelling like *cland* when /klaN/ had become the normal pronunciation generated `hypercorrect' spellings like *cend* alongside *cenn* (OIr. *cenn* /keN/) in Middle Irish. Although /ṽ/ and /v/ continue to be written *m* and *b* respectively with such consistency that the sounds were clearly still distinct as a rule, MidIr. pret. *mebaid* `broke' (OIr. *memaid* /meṽəð´/) shows dissimilation of /ṽ/ to /v/ after /m/ plus vowel while *náem* `saint' (OIr. *nóeb* /noiv/) manifests the reverse assimilation of /v/ to /ṽ/ after /n/ plus vowel. Initial *mr-* and *ml-* had usually become *br-* and *bl-* in Middle Irish: e.g. OIr. *mrath* `treachery' and *mligid* `milks' but MidIr. *brath*, *bligid*. Occasional spelling confusions such as *anag* `remaining' for *anad* and gen. *mullaid* `crown's' for *mullaig* suggest that the Modern Irish merger of /ð/, /ð´/ and /ɣ/, /ɣ´/ as /ɣ/, /y/ was already under way in Middle Irish.

6.3. Although early hiatus has survived right down to the present in Scots Gaelic, in Ireland hiatus disyllables were beginning to undergo contraction to monosyllables with a long vowel as early as Old Irish on the evidence of

occasional spellings in the Glosses like *-tat* for *-taat*, *bíad* for *biad*, *-gníat* for *-gniat* and sporadic contracted forms in Old Irish poems like *Félire Óengusso* (Carney, 1983, 194-6). In view of I.6.4 it is quite possible that spellings like *bíid* `is wont to be' in the Glosses represented contracted /bīð´/ rather than hiatus /biəð´/ or the like. Be that as it may, contracted forms like *óc* `young' for OIr. *oac* steadily gained the upper hand in the Middle Irish period, Breatnach (*SnaG*, 231) noting metrically determined instances such as mono-syllabic *déc* `-teen', *síur* `sister', *cóir* `right' for normally disyllabic *deac*, *siur*, *coir* in Old Irish.

It has already been seen (5.3-4) that streamlining of the system of diphthongs was well under way in Old Irish. These trends neared completion in Middle Irish with the probable replacement of *u* as the second element of a diphthong by a mere non-palatal on-glide, as in dat. *nirt* /niʀt/ for *niurt* instead of OIr. *neurt* (nom. *nert*) on the analogy of *fer*, dat. *fiur* etc. (see 2.3). The product of the merger of /ai/ and /oi/, designated /ai/ in 5.4, appears as a monophthong in all Modern Irish and Scots Gaelic dialects, although the details vary considerably (see O'Rahilly, 1932, 27-38), and some examples of the typical southern monophthongisation to /ē/ are found in Middle Irish texts: e.g. *é(i)n-* for *óen-* `one', *ébind* for *aíbinn* `pleasant', *-fébair* for *-fáebair* `sharp edges'. Examples of /ī/ established by rhyme instead of /ai/ and /ui/ are *a:taí* `you are' rhyming with *do:gní* `you do' and *druí* `druid' rhyming with *rí* `king' (Breatnach, *SnaG*, 233). The only inherited diphthongs unaffected by this attrition were the latecomers /ia/ and /ua/ first developed around the end of the seventh century (4.1) but this process of simplification was rapidly overtaken in the spoken language by the development of new diphthongs as a result of the loss of various internal voiced fricatives during the Early Modern Irish period (cf. Greene, 1976, 44).

6.4 By far the most important phonological development in Middle Irish was the complete eradication of such phonemic distinctions between short unstressed vowels as Old Irish had maintained (but see McCone, 1985c, 87-8 on sporadic early confusions in unstressed final vowels). It will be recalled that proclitics basically had only three short vowel phonemes /a/, /o/ (written *o* or *u*) and /i/ as a result of 4.2, that internal unstressed vowels only differentiated /ə/ and /u/ phonemically after 4.3, and that the full fivefold distinction between /a/, /o/, /u/, /e/, /i/ in absolute final position was reduced quite early in the eighth century to a fourfold one as a result of the merger of /a/ and /o/ as /a/ by 5.5. In Middle Irish all of these unstressed vowels were reduced to schwa /ə/, a process which inevitably had enormous morphological repercussions and is clearly reflected in the loss of distinctions between unstressed final vowels in rhyme.

Orthographically this was manifested in the widespread confusion of previously distinct spellings. A few examples of this will suffice here. As far

as proclitics were concerned, there was no longer a distinction between pres. 3sg. cop. *is* `is' and rel. *as* `which is' (OIr. /is/ and /as/, MidIr. both /əs/) or between the vowel of *ro:gab* `has seized' and that of *ra:ngab* `has seized him' (OIr. /ro/ and /ra/, MidIr. both /rə/), the upshot being that both copula forms could be spelt *is* or *as* and that *ra:gab* and *ro:ngab* became alternatives to the original spellings (*EIV* 183). Old Irish differentiation of internal unstressed /ə/ as in *as:rubart* `he has said' from /u/ as in *as:ruburt* `I have said' disappeared in Middle Irish when the latter became /-ruvərt/ (often written *-rubart*) too, an ambiguity that triggered a new 3sg. *-rubairt* with palatal final (*EIV* 264-5). The falling together of all short final vowels as schwa had particularly serious consequences. For instance, a *yo*-stem like *céile* `client' with OIr. sg. nom. *céile*, voc. *céili*, acc. *céile*, gen. *céili*, dat. *céiliu*, pl. nom. *céili*, voc./acc. *céiliu*, gen. *céile*, dat. *céilib* simply became /kēl′ə/ throughout except for the dat. pl. in Middle Irish with the result that all of the vowel-final forms could be written *céili*, *céile* or (rarely except for the dat. sg. or acc. pl.) *céiliu* indifferently. Similarly forms with preceding non-palatal consonant such as *dalt(a)e* (nom., acc. sg., gen. pl. in OIr.), *dalt(a)i* (voc., gen. sg., nom. pl. in OIr.), *daltu* (dat. sg., voc./acc. pl. in OIr.) `foster son(s)' became free variants (although *-u* was rare outside the dat. sg. and voc./acc. pl.) in Middle Irish alongside *dalta*, all representing /daltə/. It is hardly surprising that this serious ambiguity gave rise to new analogical plural forms (Greene, 1974, 195-6).