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IBERO-ROMANCE: COMPARATIVE PHONOLOGY
AND MORPHOLOGY

by

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INTRODUCTION

This study is designed to show the similarities and differences of the phonological and morphological developments among the three Ibero-Romance languages, Castilian, Portuguese and Catalan. Several studies have been done on the respective languages: R. Menéndez-Pidal, Manual de gramática histórica española, R. Lapesa, Historia de la lengua española, A. Badia Margarit, Gramática histórica catalana, and E. Williams, From Latin to Portuguese. A few of these studies have not been limited to the treatment of one language as in the case of W. Entwistle, The Spanish Language Together With Portuguese, Catalan and Basque, but none has attempted a parallel comparative approach based on the histories, sound systems and word formations of the three Iberian romances.¹

By Ibero-Romance is meant the languages occupying the Iberian Peninsula, and, while there has never been any doubt as to the family group of Portuguese or Castilian, Catalan has been the subject of many debates.² Of the various theories, three may be summarized as representing the major positions taken. W. Meyer-Lubke was the first to consider Catalan as a member of the Gallo-Romance family, basing his

position on the fact that there are a great many lexical items which coincide with Provençal.³ A. Grieria supported this view because of historical evidence which showed that Catalan's affiliations tended to be with the North and France rather than with the South and Spain.⁴ Amado Alonso, in his critical essay on the works of Meyer-Lubke and Grieria in particular and on the Gallo-Romance theory in general, refutes it by stating that, "No más aceptable que el de quien, comparando el provenzal con el francés y el catalán, decidiera el iberromanismo del provenzal, porque está más cerca al catalán que al francés."⁵ Moreover, these conclusions were based largely on only two aspects of language evolution, lexical items and historical influence, making them somewhat tenuous regarding the development of the language as a whole.

Other linguists, led by Menéndez-Pidal, favor the family of Ibero-Romance due to the phonetic similarities among the ancient peninsular dialects: Galician-Portuguese, Leonese, Castilian, Navarro-Aragonese and Catalan. He points out that of the five, Castilian is the least similar to the other four which present a loosely woven linguistic union along the northern provinces.⁶

More plausible is the attitude of P. Fouché who considers Catalan as an independent language which serves as a bridge between these two language families.⁷ Badra Margarit expounds the theory held by most contemporary linguists that "En todo caso, hay un cierto eclecticismo del catalán, o, si se prefiere perifrásicamente, se trata de una

lengua hispánica con mayoría de rasgos lingüísticos ultrapirenaicos" (Badia Margarit, p. 30). Therefore, according to Entwistle, these three languages belong to the same Peninsular group not only because of or exclusively due to philological reasons but because they "have lived together for many centuries in a sharply defined area. They enjoy a kind of symbiosis. They offer similar solutions to the same linguistic problem, indicating a common mental attitude in their speakers. They have experienced the same influences under the same conditions, though each has its own history. Despite the differences between the literary languages, no frontier line can be drawn between the three Romance tongues, which merge into each other over wide bands of country" (Entwistle, p. 8).

Although all three languages have been subjected to the same basic historical influences, it has been to varying degrees due to their different geographical locations. Portuguese felt the influence of the Swabians; Castilian was greatly affected by the Moorish occupation; and Catalan came under the domination of the Franks and has also experienced more influence from another neo-Latin language, Provençal, than the other two.

The major phonological developments of the three languages show changes comparable to the other members of Western Romance, i. e., the voicing of intervocalic stops, the weakening of intervocalic voiced stops to fricatives, and the preference for penultimate syllabic

stress, but these are general changes and do not preclude more specific changes which give each language its own linguistic personality.

Of the three, Portuguese is more vocalic in nature due to the five nasal vowels and the loss in intervocalic -N- and -L- which created a great many falling diphthongs. Catalan, on the other hand, has a more consonantal quality caused by the loss of most post-tonic vowels and the relative absence of diphthongization. Castilian offers a compromise position between the two by the development of rising diphthongs from /ɛ/ and /ɔ/ and the retention of the final vowels, a, o, and e. In the evolution of consonants, Catalan and Portuguese show similarities in their conservative treatment of velar stops preceding front vowels while Castilian has created two unique phonemes, the "ceceo" and the "jota".

Morphologically, Ibero-Romance has again agreed with Western Romance in the retention of the accusative final -s as the sign of plurality, the use of a number of auxiliary verbs and the formation of new verbs with the inchoative suffix -ESCERE without the inchoative aspect, but they are characteristically Ibero-Romance by their choice of MAGIS as a comparative over PLUS. Portuguese and Castilian show their Iberian heritage by resolving many of the same morphological problems in similar fashion, such as the elimination of the -ĒRE conjugation, past participles formed on the present stem. Catalan, however, offers Gallo-Romance solutions in these instances by retaining the four conjugations of Latin and by forming the past participles on the preterite stem.

The present comparative study of Ibero-Romance will, therefore, be divided into three chapters, each dealing with the simultaneous or parallel developments of Castilian, Portuguese and Catalan with regard to their historical, phonological and morphological evolutions. The etyma of the words discussed in this study will appear in uppercase letters, and hypothetical words will be preceded by an asterisk. When a development is shown to occur in two or more of the languages under consideration, the Castilian word will be given first, followed by Portuguese and Catalan. The linguistic characters used in this study are based on the International Phonetic Alphabet with some adaptations. The phonemes, the smallest unit of sound which can be distinguished in a language, will be placed within slash marks. Allophones, which are mutually exclusive variants of a phoneme, will be placed within brackets. The following is a list of phonemes and allophones used in this work, with an approximate English equivalent, followed by examples in Castilian, Portuguese and Catalan when applicable.⁸

VOWELS

/a/ - sad

/a/ - father; casa, caso, clar

/ã/ - close nasal /a/; --, irmã, --

/ɛ/ - there; --, sete, terra

/e/ - obey; mesa, mesa, mes

/ẽ/ - close nasal /e/; --, sentir, --

- /ə/ - neutral e; --, pedir, bona
- /ɪ/ - perish; --, fale, --
- /i/ - machine; mirar, dizer, jardi
- /ĩ/ - close nasal /i/; --, fim, --
- /ɔ/ - fought; --, volota, dona
- /o/ - note; tomar, soldado, jove
- /õ/ - close nasal /o/; --, bom, --
- /u/ - food; una, muluher, una
- /ũ/ - close nasal /u/; --, uum, --

CONSONANTS

- /p/ - pen; padre, pe, pare
- /t/ - toe; tengo, todo, terra
- /k/ - kin; capa, comer, cami
- /b/, [b] - boy; bondad, bastante, bo
 [ɸ] - no equivalent; loba, caber, saba
- /d/, [d] - do; doña, dizer, dona
 [ð] - then; cada, nada, cada
- /g/, [g] - go; gano, gato, gora
 [g̃] - no equivalent; daga, agua, pregar
- /ʃ/ - shoe; --, xis, xic
- /tʃ/ - church; chulo, --, fletxa
- /ʒ/ - azure; --, gente, joc
- /dʒ/ - just; --, --, platja
- /f/ - feed; falso, fome, fum
- /v/ - very; --, vida, vida

/θ/ - thin; cinco, --, --

/s/, [s] - soon; sin, sentir, sol
 [z] - zone; desde, coisa, rosa

/x/ - guttural h; jota, --, --

/l/, [l] - ladder; lata, leite, pala
 [ɫ] - ill; --, mal, vil

/lj/ - million; calle, ilha, lluna

/m/ - more; mono, mais, mosca

/n/ - never; noche, nove, nit

/ŋ/ - sing; finca, branco, fang

/ɲ/ - onion; caña, banho, puny

/r/ - ladder; pero, caro, baro

/rr/ - trilled r; carro, carro, carro

/R/ - uvular French r; --, rio, gran

/w/ - well; auto, língua, quant

/j/ - yet; yo, pai, yate

CHAPTER I

HISTORICAL BACKGROUND

Just as the development of any language is contingent on various historical occurrences, so are these historical developments governed by the geographical properties of the region where they take place. This is especially apparent in the Iberian Peninsula. Almost completely surrounded by seas and oceans, it is held to the rest of the European continent by a narrow strip of land about 240 miles long and topped by the Pyrenees Mountains. This trapezoidal land mass occupies the southwesternmost corner of Europe and is separated from the African continent only by the narrow Strait of Gibraltar.

The historical implications of the geographical location of the Iberian Peninsula are evident upon an examination of the colonizations and invasions that occurred in its early history. While the Peninsula appears to be isolated from the rest of Europe and Africa due to its topographic features, paradoxically it has proven to be a crossroads for various tribes and civilizations which began coming into the area in the eleventh century B.C. with the last great invasion occurring in 711 A.D. It is important to note also, that while the Peninsula has

been commonly referred to as a bridge between the two continents, it more resembles "un callejón sin salida" which many times has been the point of contact for two fundamentally different civilizations.¹ These civilizations settled in the different regions of the Peninsula and their varying degrees of influence on one or more of the languages should provide some insight into the similarities and differences of the three Ibero-Romance sister languages.

While the geographical location of the Peninsula was important to invading forces so was the internal topography important to the establishment of these major languages which correspond roughly to the three largest geographical divisions.² The northeast is segregated from the rest of the Peninsula by the Iberian Mountains and the Ebro River Valley. Within the confines of this area are two language groups: Basque, which is not a Romance language and has thus far defied classification,³ and Catalan. The latter spread its influence southward along the Levantine coast to include the region of Valencia and eastward across the Mediterranean Sea to encompass the Balearic Islands and a small settlement on Sardinia. The Pyrenees Mountains have not imposed an insurmountable boundary as Catalan is also spoken in the southern French region of Roussillon. In this instance, historical developments negated geographical confines.

The central area, dominated by the Meseta Central, forms a wedge-shaped division radiating from the Cantabrian Mountains in the

north and bordered on the east by the Iberian Mountains, on the west by the country of Portugal and on the south by the Mediterranean Sea and the Strait of Gibraltar. It was not until 1492, however, that this central region with the Castilian language could extend its territory to the southern extreme by expelling the Moors from the Sierra Morena.

In the west, the Meseta gently slopes to the Atlantic Ocean, and along its coast Portuguese has established its dominion. As with Castilian and Catalan, Galician-Portuguese began in a mountainous region to the north and slowly pushed its way to the south. As it did so, Portuguese became the predominant of the two dialects and now occupies a separate country and approximately one-fifth of the Peninsula.

It may be seen that the geographical location of the Peninsula with respect to Europe and Africa influenced the invasions which took place on its soil. These in turn affected the historical events by which the three main languages were to derive the impetus to extend themselves over larger geographical regions while at the same time relegating the dialects of Asturo-Leonese, Galician and Navarro-Aragonese into smaller regions and, as a consequence, minor roles in the linguistic history of the Peninsula.

What were these invasions and their influences on Castilian, Portuguese and Catalan? In order to answer this question it is necessary to establish a historical and linguistic framework to which the contributing elements may be added that will eventually give rise to the

three Peninsular languages. Since all three languages are Romance, the major portion of the frame will be composed of Latin elements although other language groups have added significant contributions. These contributions have mainly been in the field of lexicology, and the statement of Ford that "in its phonology, morphology and syntax, Spanish simply modifies or develops purely Latin features"⁴ can be equally applied to Portuguese and Catalan. The Roman conquest then can be used as a chronological and linguistic point of reference for classifying the tribes and invaders of the Peninsula: Pre-Roman inhabitants, Pre-Roman invaders, the Roman conquest and the Post-Roman invaders.

Of the pre-Roman inhabitants, the earliest known were a group of tribes known collectively as the Iberians, a name given to them, perhaps because of their settlements in the north and east along the Ebro River. Their origin is not certain but it is believed that they may have come from Mesopotamia⁵ to the Peninsula by way of Africa. The mystery of the origin of these peoples is no less intriguing than that of their language and its influence on the modern languages. Many linguists believe that modern-day Basque may be a descendant of this ancient tongue. The examples of Iberian-related place names along the northern part of the Peninsula such as Ulliberri in the Basque Provinces, Javier near the Catalan frontier, and Ochanduri near Burgos point to similarities with Basque which have been explained by the common heritage of the two languages. There are several schools of thought on

this which Lapesa summarizes as follows: "según unos, el vascuence es de procedencia africana y presenta significativas coincidencias con las lenguas camíticas (beréber, copto, cusita y sudanés); otros, en cambio, apoyándose principalmente en semejanzas de estructura gramatical, sostienen que hay comunidad de origen entre el vasco y las lenguas del Cáucaso. En la actualidad la hipótesis caucásica va cobrando creciente fuerza, sin cerrar el paso a una teoría conciliadora, según la cual el vasco es una lengua mixta: pariente de las caucásicas en su origen y estructura primaria, incorporó numerosos e importantes elementos camíticos, tomados de la lengua o lenguas ibéricas, recibió influencias indoeuropeas precélticas y célticas . . . " (Lapesa, pp. 20-21). Entwistle favors the North African theory as it "presents fewest physical improbabilities" (Entwistle, p. 30). Not only does this theory present the fewest physical improbabilities but it would also indicate a common geographical link for the two. If the relationship between Iberian and Basque can thus be established, it is then possible to establish Iberian-based etyma for several words in Peninsular Romance, modeling them on modern Basque.

A few of these lexical items are common to all three languages:

MANTECCA > manteca, manteiga, mantega (lard); *BALSA, *BARSA > balsa, balsa, bassa (raft); BARRO > barro, barro, bard (mud); *PĪSTANNA > pestaña, pestana, pestanya (eyebrow); from the Basque ezkerr > izquierdo, esquerdo, esquerre (left); and, from Basque caparra > *gapa-

rrata > garrapata, carrapato, paparra (tick). Pertaining to only the central and western regions with no equivalent development in Catalan are:

*IBICĪRRU > becerro, bezerro (calf); GURDUS > gordo, gordo (fat);

*CAMA > cama, cama (bed); and vega, veiga (plain) which "certainly appears to be cognate with Basque ibaiko 'bank', formed on ibai

'river'." ⁶ There also exist words of Iberian/Basque origin which developed in Castilian and Catalan but failed to evolve in Portuguese, such as Basque lapitz-arri > pizarra, pissarra (slate).

While these words show the diffusion and propagation of pre-Roman elements throughout the Peninsula, the principal area of concentration seems to be in the north central region, i. e. , Castile, since all of the above words appear in Castilian but not necessarily in the other two languages. There are also other lexical items which are peculiar to Castilian: from the masculine correspondent of ARRŪGIA > arroyo (small river); from the onomatopoetic prrr or brrr > perro (dog); NAUA > nava (plain), from which the province of Navarra takes its name; URRACA, a proper name of Basque origin > urraca (magpie). Geography then seems to have played a role in the dispersion of these Iberian/Basque elements to the other languages. Although the Iberian tribes were located throughout the Peninsula, they must have eventually retreated to the isolated mountainous area of the Basque Provinces, where today their heirs reside in an almost complete linguistic isolation. These provinces are bordered on the south by Castile thus providing the only constant means

of transmission of Iberian/Basque elements to a Peninsular Romance language.

Other than the place names and the lexical items listed above, it has been very difficult to assess the influence of Iberian on Castilian, Portuguese and Catalan. The frequency of the suffix -rro ~ -rdo in eight of the fifteen examples, however, points to a morphological impact of this language on Ibero-Romance. Phonologically, many linguists have looked to the Iberian/Basque substratum to explain the evolution of F > h in Castilian since Basque has no such phoneme /f/ evidenced by their substitution of this phoneme by /p/ or /b/: FESTA > pesta; FICU > iko, piko, biko. Menéndez-Pidal states that "como los vascones habitaban al norte y sur de los Pirineos, es notable que los romances hablados en Gascuña (= Vasconia) y en el centro de España, pierdan la f- inicial latina, debiendo achacarse esto a influencia ibérica" (Manual, p. 16). Other linguists believe this phenomenon to be of Latin origin, as there is no evidence to support the evolution of F > /p/, /b/ and /p/, /b/ > h. Another phonological phenomenon which has been attributed to Iberian/Basque influence is the lack of distinction in pronunciation of b and v when the v is not the evolution of the Latin semi-consonant W (Lapesa, p. 28).

The Iberians were not the only pre-Roman tribe to occupy the Peninsula. The Celtic tribes entered from the north in two waves: the first in ca. 1000 B.C. along the eastern end of the Pyrenees and into

Catalonia, and the second and principal wave in ca. 600 B.C. by way of the western Pyrenees. From this last thrust they spread into the central and western regions where they established their principal areas of occupation. In the central region there was a mingling of the Iberians and the Celts which created the new tribe of the Celtiberians. The entrance of the Celts must not have been a peaceful one judging by the suffixes used in the names of the towns they established. In the northern and central regions the suffix -BRIGA (fortress) can be found in Abobriga, Flaviobriga, Nertobriga, Segovia < SEGOBRIGA, and Coimbra < CONIMBRIGA. Along the Pyrenees the suffix -DUNUM, with the same meaning, is found in Berdún, Navardún, Besalú, Verdú, and Salardú.

The Celtic contribution to the vocabulary of the three Romance languages of the Peninsula has come to us as "but part of the Latin taught to Spain, largely under the influence of Gallic innovations" (Entwistle, p. 4). Therefore, the etyma of the words listed below will be in the Latin form, although their roots lie in the more remote Celtic occupation. The fact that most of these come from Latin forms may help to explain their occurrence in all three languages. Spaulding has noted that "most of these words have to do with material things . . . the names of objects which they felt to be theirs or which they did not find in the Mediterranean area."⁷ Among these words are names of animals: CABALLUS (of doubtful origin) > caballo, cavalo, cavall (horse); CATTUS (of doubtful origin) > gato, gato, gat (cat); and

ALAUDA > aloe > alondra, --, alosa (lark); and parts of the body of animals: BECCUS > pico, bico, bec (beak). There are two words which refer to Celtic clothing: CAMĪSIA > camisa, camisa, camisa (shirt); and, from the accusative plural of BRACAE > bragas, bragas, bragas (short pants). The road of a Celt was a CAMMĪNUS > camino, caminho, camí which he traveled by means of a CARRUM > carro, carro, car (cart) and he measured the distance by a LEUCA > legua, légua, llegua (league). The Celt may have lived in a CAPANNA > cabaña, cabana, cabanya (cabin) which he could have constructed himself if he were a CARPENTARIUS > carpintero, carpinteiro, -- (carpenter). He may have been the *VASSALLOS > vasallo, vassalo, vassall (vassal) and sought the protection of a lord. The common drink of the people was probably CERVĒSIA > cerveza, cerveja, cervesa (beer). Two other words seem to have their origins in Celtic: *PĒTTĪA > pieza, peça, peça (piece) and *MĪNA > mina, mina, mena (mine). There is one noun of an abstract nature that can be traced to Celtic origin: *BRĪGOS > brío, brío, brío meaning "strength" or "courage".

Analogous to the characteristic suffix -rro in words of Iberian origin is the prefix ca- in words of Celtic derivation. Phonological developments have also been traced to Celtic, not without some debate. Lapesa attributes the sonorization of intervocalic stops to the Celtic substratum, not only in the Peninsula but in all of Romance, basing his observation on the vacillation in the spelling of words with

voiceless stops: Ambatus and Ambadus, Arcaïlo and Argailo. These examples, along with the same changes in some Latin words "debieron constituir una base favorable para la sonorización de las oclusivas sordas intervocálicas que en los siglos IX al XI aparece especialmente arraigada en Galicia, Portugal, Asturias y León" (Lapesa, p. 30).

Tovar, in his article on this phenomenon, sees a problem with Catalan, which also sonorizes intervocalic voiceless stops, but he is unable to identify the origin of this sonorization when he states that "hubo una fuerte invasión céltica en Cataluña, y si bien, por este solo hecho, no pertenece al dominio catalán primitivo a la España indoeuropea, la evidente conexión del catalán con las lenguas vecinas explica la extensión de la sonorización,"⁸ an argument which again raises the question of the family group of Catalan.

Another phonological change attributed to the Celts is that of the change of the Latin group -CT- to /jt/, at which point the development was halted in Portuguese, and later developed to /tʃ/ in Castilian. (This palatal element is not present in Catalan, since it dropped after having raised the vowel to an e or i). Words such as NOCTEM > noche, noite, *nuit > nit (night); FACTUM > hecho, feito, *feit > fet (done), show these divergent developments. Lapesa supports this theory due to the fact that almost all of the countries under Celtic domination, i. e., Western Romance, undergo this evolution (Lapesa, p. 30). Elcock, however, points out that the change could have been characteristic of

the Latin of the west in which "the dental consonant tended to attract preceding consonants towards a palatal point of articulation, in much the same way as velar plosives were attracted by front vowels" (Elcock, p. 193).

A second group of peoples, whose principal interest was commerce and trade, began their invasions of the Peninsula in the eleventh century B.C. They came to establish trading centers and factories and make use of the abundant natural resources. The Phoenicians, establishing colonies on the southern coast of the Mediterranean, brought industry and the art of writing to the Peninsula. Their most important center was Gaddir, modern-day Cádiz, which in their language meant "enclosure" and was located in Tartessos. This word "appears to have been the Phoenicians' name for southern Spain, or rather southwestern Spain" (Spaulding, p. 13). Not only did they name this region but "some scholars believe that Hispania, the name favored by the Romans for Spain, has its root in a Semitic word meaning 'hidden, concealed, remote', a not unsuitable designation for Spain from the point of view of the ancients" (Spaulding, p. 15). It appears that, aside from the contribution of place names, the Phoenicians seem to have had no effect on the languages spoken in the Peninsula.

Five centuries after the establishment of the Phoenician ports in the south, the Greeks came to the Peninsula from the north, along the Costa Brava. According to Elcock, "By comparison with the Celtic 'sub-

stratum' the Greek contribution to Vulgar Latin, a continuous accretion of new terminology from a language of superior civilization, can best be defined as an 'adstratum'" (Elcock, p. 197). In the local speech of the area around Ampurias some substratum elements may be found, but they deal for the most part with the sea and agriculture and are confined to this small area. Greek, having been identified as an adstratum language, made its influence felt on Latin throughout the centuries and served as "a reservoir of cultured terms in all its epochs" (Entwistle, p. 43). This influence was transferred to the Romance languages, and Castilian, Portuguese and Catalan all bear witness to this fact. Entwistle divides the Greek lexical influence into five periods: 1) loan-words of pre-classical date which have rather concrete meanings; 2) those of the Classical period which were more abstract and cultural; 3) those coming in during the late Latin and Romance periods which were principally ecclesiastical in nature; 4) those borrowed through the Arabic; and, 5) the pseudo-Greek scientific and technical terms of more recent times (Entwistle, pp. 43-45). Some examples of Peninsular words of Greek origin are: PĚTRA > pedra, pedra, pedra (stone); COLAPHUS > golpe, golpe, cop (blow); CHŎRDA > cuerda, corda, corda (cord); PLATEA > plaza, praça, plaza (town square); SCHŎLA > escuela, escola, escola (school); CAMERA > cámara, câmara, cambre (room, chamber). Most of the words listed above show a popular development since they came into the languages during the first and second periods of Ent-

wistle's divisions. Some words show an alternate learned development as well and thus have given rise to learned doublets. Such an example is seen with CATHĒDRA > cadera, cadeira, cadira (hip), the popular development, while at the same time the learned influence produces Castilian cátedra, Portuguese cátedra, and Catalan càtedra (university chair). A number of words of Greek origin were brought into Peninsular Romance during the third period. Perhaps due to the influence of the Church on popular speech, most of these words are semi-learned, that is, their popular development was halted at some point and failed to evolve completely due to the influence of the learned forms. Examples of these words are: EPĪSCOPUM > obispo, bispo, bisbe (bishop); ECCLESIA > iglesia, igreja, esglesia (church); DIABOLUS > diablo, diabo, diable (devil); and, ANGELUS > ángel, anjo, àngel (angel). The sixteenth century brought a renewed interest in the Classics and from that time to the present the Peninsula has turned to Greek to accommodate the need for new words. Many of these words are of a technical nature or deal with scientific concepts and oftentimes are made up of two learned elements: telescopio, telescópio, telescopi (telescope); botánica, botânica, botànica (botanical); astronomía, astronomia, astronomia (astronomy); telegrafía, telegrafia, telegrafia (telegraphy); and, termómetro, termômetro, termòmetre (thermometer). It becomes apparent from the English translations of the above words that the act of borrowing from the Greeks was not limited to the Peninsular nor to Romance in general.

Morphologically, Greek influenced Ibero-Romance by the introduction of suffixes: two to form verbs and one for nouns. The verbal suffix -IZARE is seen in such verbs as realizar, realizar, realisar (to realize) and ridiculizar, ridicularizar, ridiculisar (to ridicule); and the suffix -IDIARE in the verbs guerrear, guerrear, guerrajar (to make war) and colorear, colorar, colorar (to color). The nominal suffix -ĪA eventually rivaled the Latin suffix -ĪA as seen in words such as: demasfa, demasia, demesia (excess).

The last group of colonizers with trade interests were the Carthaginians who settled along the central coast of the Mediterranean, where they established the port of New Carthage. The Phoenicians and Greeks established their centers of activity along the coast with little or no interest in conquering the inland tribes. The Carthaginians, however, did extend their domination inland "and this fact should be borne in mind, lest the unification be considered as purely a Roman invention."⁹ The importance of the Carthaginians lies not so much in the fact that they were in the Peninsula, for there are very few vestiges of their presence, but rather in the fact that their presence precipitated wars over the domination of the western Mediterranean. The Punic Wars between Carthage and Rome, and Carthage's final defeat in 201 B.C. led to one of the most important events in the history of the Peninsula: its Romanization.

The process of Romanization was not an easy one and lasted for

approximately two centuries. The reasons for this difficulty were the indefatigable resistance of the natives to the new conquerors and the fact that the conquest began in the east, "lo que es un fenómeno único en la Geografía histórica peninsular, pues las invasiones se han efectuado casi siempre desde el Norte o desde el Sur."¹⁰ The Romans, then, began their conquest with their backs to the sea and had to first establish a strong land-hold before moving inland. The coastal regions were not difficult to conquer as they had been conditioned to repeated invasions, but as the Romans moved inland, resistance became stronger. Vicens divides the Roman conquest into four phases: 1) conquest of the Mediterranean coast and Andalusia; 2) conquest of the approaches to the Meseta; 3) conquest of the Meseta; and, 4) conquest of Galicia and the Cantabrian coast, this last area was affected by Roman domination to a much lesser degree. Perhaps because the Roman take-over was gradual, it was the more complete and enduring, thereby establishing the framework for the modern social and linguistic history of the Peninsula. The Roman domination was precipitated by a desire to expand the Empire and the means which were employed were to have permanent effects.

The Romanization process was not simply the conquering and subjugation of the peoples of the Peninsula, but rather a social, political and cultural reorganization based on the patterns of Rome. The social make-up of the Peninsula was altered by the transplanting of dissi-

dent groups into areas which offered little or no resistance to the Romans. There was also the establishment of colonias or towns to house soldiers and farmers from Rome who had married native women. In these two ways a homogeneous group of people arose from a heretofore divergent society. By imposing Roman law on the inhabitants of the Peninsula and bringing them under the authority of the central government of Rome, legal and political solidarity was established. No less important was the granting of Roman citizenship, a status that was highly desirable, to all inhabitants who demonstrated peaceful acceptance of Roman rule. Roman dominance was manifest not only in social and political administration but also on the cultural plane. The Romans had assimilated much of the culture and plastic arts of Greece and passed these on to the Peninsula. Many examples of their architecture and public works still stand today as a tribute to their genius. Above all, the Romans gave their language, Latin, to the Peninsula. With its status of official language, its influence grew to such an extent that the native languages (except for Basque) eventually disappeared and the Romance languages took their place. These languages arose not from the formal and inflexible Classical Latin but from the popular Vulgar Latin, the language of the people, with all of the changes wrought on it by the unlettered masses. Since Castilian, Portuguese and Catalan are the results of the various changes undergone by the Latin of the people, the discussion of these popular phonological and

morphological developments will be treated in the following chapters.

Suffice it to say that the contributions made by the Romans to the social, political and cultural life gave to the Peninsula a unity and an era of peace which was to last for four centuries until the Germanic tribes invaded in the early fifth century A.D.

The fourth and fifth centuries were years of moral and military decay in the Empire which were to open the doors to the post-Roman invaders, the first groups coming from the north. In 409 A.D. the Germanic tribes of Swabians, Vandals and Alans crossed the western Pyrenees and entered the Peninsula. The first group settled in the northwest (Galicia), the Vandals concentrated in Andalusia, and the Alans occupied the west (Portugal). These last two groups were driven into North Africa by the Visigoths in 414 A.D. who, unlike their Germanic brothers, were more civilized due to their contact with the Romans along the northern borders of the Empire for some three centuries. The Swabians were able to retain their rule in Galicia until 585 A.D. when they were finally absorbed by the Visigothic kingdom. Due to the temporality of the residence of these three tribes in the Peninsula, their imprint on the culture and language was minor. The Vandals are remembered by the name of the region they inhabited, Al-Andalus, a Moorish term meaning "the land of the Vandals" (Spaulding, p. 45). The Alans left very few place names but "Puerta del Alano, at Huesca, and Villalán, at Valladolid" (Elcock, p. 217) are evidence of their residence in

the Peninsula. The Swabians were also to have a toponymic influence in Galicia: Suevos, Sabegode, Godos, Gotones (Spaulding, p. 45). Perhaps due to their longer reign in Galicia (almost 170 years), several lexical items in Galician and Portuguese have been traced back to Swabian origin: Elcock cites "Port. britar 'to break' < BRIUTAN, and the Galician laverca 'lark' < LAWERKA" (Elcock, p. 217). Reinhart also lists several words which exist in Galician, among them: broa < BROAD (bread), trincar < TRINKAN (to drink); and also argues the case for two Portuguese words of possible Swabian origin since these words do not exist in the rest of Hispania or in Gaul: ingreme < INGRIMYIS (terrible) and enguiçar < INWEITHAN (to suggest).¹¹

The Visigoths initially entered the Peninsula in 414 A.D. to aid the Romans in expelling the barbaric tribes mentioned above. They then moved back and settled in southern Gaul around Toulouse, where they stayed until 507 A.D., when they were defeated by the Franks. They withdrew to the Iberian Peninsula where they established their capital first at Barcelona and later at Toledo. There they remained until 711 A.D. when they were overwhelmed by the Moorish invaders from the south. The Visigoths ruled the Peninsula for almost two centuries but were not to make a great contribution to the languages during this period.¹² The reasons for this are two-fold: 1) before their first invasion into Iberia, they had had long and continued contact with the Romans along the northern frontiers and were therefore quite "Roman-

ized", and, 2) the Roman conquest had been so complete and the Latin language so entrenched that the Visigoths readily adopted it as their official language. This is not to say that there was no influence on Castilian, Portuguese and Catalan but this influence was limited "sólo a la introducción de unos cuantos vocablos, y no se extiende a la morfología o gramática del nuevo romance."¹³

Many of these Germanic lexical items had already been adopted into the Roman speech of Vulgar Latin during their period of contact in the north which is evident from the popular development that they have undergone corresponding to that of Vulgar Latin words, and the fact that these words also exist in other Romance languages. Some of these words are: HARI-BERGO > albergo, albergue, alberc (lodging); BANK > banco, banco, banc (bank); SKUMS > espuma, escuma, escuma (foam); MARKA > marca, marca, marca (mark); WERRA > guerra, guerra, guerra (war); WĪSA > guisa, guisa, guisa (manner); BRŪN > bruno, bruno, brun (dark brown); GRĪSI > gris, gris, gris (gray); SAPŌNEM > jabón, sabão, sabó (soap); RAUBON > robar, roubar, robar (to rob); WARDON > guardar, guardar, guardar (to guard, keep). Other words of Germanic origin entered the Peninsula languages during the occupation of the Visigoths from the sixth to the eighth centuries. Among the words which directly entered Ibero-Romance are: BRUTON > brotar, brotar, brotar (to bud); STAKKA > estaca, estaca, estaca (stake); GAINON > ganar, ganhar, guanyar "whose meaning 'to earn' evolved under the influence of an-

other guadanar;"¹⁴ WIDAN > guiar, guiar, guiar (to guide); RAUPA > ropa, roupa, roba (clothes); REIKS > rico, rico, ric (rich).¹⁵ A few words came into Iberia through French or Provençal, usually under Catalan influence, such as: orgullo, orgulho, orgull (pride) and bosque, bosque, bosc (woods). This fact is supported by a number of words which exist only in Catalan and seem to have been introduced by way of Provençal: KOKA > coca (cake); DWALIGON > galiar (to deceive); DARNES > esdarnegar (to become fatigued).¹⁶ It may be noticed that the Germanic vocabulary can be grouped into three main interests: domestic and rural life, agriculture, and military and warlike pursuits, and that many of these words are verbs.

While it has been stated that the Visigothic element made no mark on the languages other than on the lexicon, many linguists concede that the development of the suffix -ING is probably due to their influence. Castilian and Catalan adopted the suffix while Portuguese was less receptive, thus: abolengo, avoengo, -- (ancestry); realengo, --, realeng (royalty); and Catalan aguilenc (aquiline), negrenc (blackish). Some linguists¹⁷ also believe that the diphthongization of ǣ and ǫ may have occurred during the Visigothic reign but supply no real evidence to support their theory. Menéndez-Pidal states that words which show this phonetic change are simply following sound changes already popular in Latin (Manual, p. 21).

The Germanic occupation of the Peninsula lasted until 711 A.D.

when a group of Berbers from northern Africa under the leadership of Tarik, crossed the narrow strait of water separating the continents and disembarked on the rock which now bears his name, Gibraltar. Their sweep through the Peninsula was swift and by 718 A.D. they had conquered Iberia and were threatening the rest of Europe when Charles Martel turned them back from Poitiers in 732. The Moors then retreated to the Peninsula where they established their kingdom of Al-Andalus which was to endure for almost eight centuries. The influence of the Arabic language was reserved, as with the other languages except Latin, to the lexicon, but their cultural, scientific and institutional dominance "is now seen to be second only in importance and benefit to the occupation by the Romans."¹⁸ The Moors, during their occupation of eastern Africa, had come in contact with the Persians and Greeks and so had become a culturally refined nation which synthesized the merging of the eastern and western cultures. The Peninsula was to gain immeasurably from this cultural fusion, and many of these concepts have come down to modern times from the Arabic words used to express them. The Arabic influence is then "después del latino, el más importante del vocabulario español, que le debe (incluyendo formaciones derivadas) más de cuatro mil palabras" (Lapesa, p. 97). Also analogous to the Latin influence is the degree of Arabic influence throughout the Peninsula. The mountainous northern region of Cantabria, the birthplace of the Reconquest and Catalonia, a possession of the Franks and later a buffer state between

the Frankish and Arabic nations, did not suffer the "Arabization" that their neighbors to the south did. Catalonia was in constant contact with the Moors and was subjected to lexical influence but not to the same degree as Castilian and Portuguese. Catalan also differs from the other two in that it does not always agglutinate the Arabic article AL- to the words introduced. According to Solá-Solé, this peculiarity is the result "más que a un superficial contacto con el árabe (argumento válido en el caso del italiano, de las lenguas eslavas e, incluso, de los dialectos etiópicos), a cierta resistencia a aceptar esquemas ajenos a la lengua."¹⁹ He goes on to state that, due to the neutral pronunciation (/ə/) of the atonic a, the al- prefix could then easily be identified with the masculine definite article.

The Arabic borrowings in all three languages show the permeation of Arabic thought on the Peninsula and range from names of objects of everyday life to scientific and medical terms. A restricted list²⁰ of these words would include names of fruits and vegetables: alcachofa, alcachôfra, carxofa (artichoke); zanahoria, cenoura, safranorie (carrot); acelga, celga, -- (beet); arroz, arroz, arròs (rice); azafrán, açafrão, safrá (saffron); azúcar, açúcar, sucré (sugar); algodón, algodão, cotó (cotton); aceite, azeite, -- (oil); civil districts and government: aldea, aldeia, aldea (town); arrabal, arrabalde, raval (suburb); barrio, bairro, barri (ward or suburb); alcaide, --, alcaid (governor); alcalde, --, alcalde (mayor); commerce and trade: tarifa, tarifa, tarifa (tariff); adua-

na, --, duana (customs); Portuguese has borrowed another Arabic word for this term, alfândega; clothing and furnishings: albornoz, --, bar-nús (cloak); babuchas, --, babutxas (slippers); alfombra, --, -- (rug); almohada, almofada, -- (pillow); terms of science and medicine: azu-fre, enxôfre, sofre (sulphur); alcohol, álcool, alcohol (alcohol); alcan-for, cânfora, camfora (camphor); cero, zero, zero (zero); cifra, cifra, xifra (cipher).

Aside from the lexical enrichment of the three languages and the morphological contribution of the agglutination of the article AL-, consistently in Castilian and Portuguese and at times in Catalan, Arabic has also provided a possible phonological influence in Catalan causing the Latin s of some words to become /ʃ/: SIMPLU > ximple (simple); SIBILARE > xiular (to whistle). Menéndez-Pidal notes that a similar change occurs in some words of Castilian but the phenomenon is carried a step further to /x/, a sound which is characteristic and unique to Castilian: SEPIA > jibia (sepia color); SAPONE > jabón (soap); SUCU > jugo (juice); and others (Manual, p. 119). Hall proposes that the palatalization of the long -NN- > /ɲ/ and -LL- > /lj/ "may have been due to imitation of Arabic 'emphatic' articulation."²¹ Elcock attributes the diversity in the accentuation pattern of Castilian to the Arabic occupation, pointing to the increase of oxytones and proparoxytones, which had greatly decreased in the Vulgar Latin period, and the introduction of new paroxytones and polysyllabic words (Elcock, p. 279). This also

carried over to some extent to the other two languages and gave Ibero-Romance a rhythmic flexibility unequaled in the rest of Romance.

One of the most important results of the Arabic occupation of the Peninsula was the Reconquest begun in the north in 722 and sustained for almost eight centuries until 1492 when the Moors were driven from their final stronghold of Granada. "Puesto que sin árabes no hubiera tenido lugar la Reconquista, ellos son, indirectamente, responsables de la actual fragmentación lingüística"²² for it was during this time that five areas and five linguistic types, Galician-Portuguese, Leonese, Castilian, Navarro-Aragonese and Catalan, began to assert themselves politically to drive the invaders from their lands. By the eleventh century three of these areas had become politically and linguistically dominant at the expense of the other dialects. In the west, Portuguese and Galician were split in 1085, when these regions were given to two brothers, and the region south of the Minho River continued the Reconquest, while the northern area of Galicia turned toward Castile. The northeastern region of Catalonia, from the beginning years of the Reconquest, had come under exterior influences which were to aid in the shaping of its political and linguistic personality. The battle of Poitiers began the Frankish reconquest of Gaul which soon stretched southward over the Pyrenees and established the Spanish March, modern Catalonia. In 801 Barcelona was reconquered and given the status of a county under the protection of the Franks. The counts of Barcelona be-

came increasingly more powerful and were able to extend the Reconquest as far south as Alicante. The fact that during these formative years Catalonia was in alliance with Gaul and had constant contact with the Gallic factions, has led many to assert the kinship between Languedoc and Catalan. What is certain is that Catalan has adopted many more words of Frankish origin into its vocabulary than the other Peninsular languages. Some of these words are: BLAO > blau (blue); *BLASIU > bleix (palpitation); *BLATU > blat (wheat); BORD > bord (bastard); BRADO > braó (courage); BŪKON > bugada (clothes washed in lye); *DŪLJA > dolla (hoop); KRESSO > crèixens (water-cress); LAIT > lleig (ugly); LOTHR > lloure (free).²³ The question of phonological and morphological affinity will be taken up in subsequent chapters.

While Portuguese and Catalan were establishing their territories in the west and east respectively, the central region was witnessing the rise of Castile. The cause of the Reconquest was soon taken over by Castile which had become independent in the tenth century under Fernán González. The key victory of Toledo in 1085 under Alfonso VI of Castile was to provide the military impetus for the subsequent political importance and linguistic dominance of this kingdom. For the next four hundred years Castile and Castilian spread out from the north in a wedge-shape fashion to include all of the central region of the Peninsula. It was destined to become the official language of the country of Spain and as such, to become synonymous with Spanish.

During the eight centuries of the Reconquest, these three regions established their political identity and at the same time assimilated the lexical, phonological, morphological and syntactical influences of the previous conquerors and colonizers to create the three literary Peninsular languages of today. It was during the period of the Reconquest that the linguistic personalities of these three languages were sufficiently formed to manifest themselves in writing. The first literary attestations of a Romance language emerging from the divergent influences belong to the central region where the Glosas Emilianenses and the Glosas Silenses were found in the monasteries of San Millán and Silos respectively and date from the eleventh century. It was to be another century, however (ca. 1140), before the epic Poema de Mño Cid was to prove Castilian capable of great literary expression. The earliest example of Portuguese is a text dated in the early twelfth century dealing with the division of lands. Literarily, Portuguese, or Galician-Portuguese, was to have its greatest impact a century later with the emergence of the lyric poetry known as the cantigas. Much the same occurred with Catalan, for while there exists evidence of a written language at the end of the twelfth century with the Homilies d'Organya, its full flowering was to be reserved for the thirteenth century with the troubadour poets.

There have, of course, been influences from modern languages such as French, Italian and English, but these were generally felt in what might be termed modern times (from the sixteenth century) and are

reserved solely to the lexicon since, by 1500, the basic phonological, morphological and syntactical patterns of Ibero-Romance had been formed.

CHAPTER II

PHONOLOGY

As seen in the previous chapter, the basis for the three Ibero-Romance languages was Latin, the Latin brought to the Peninsula by soldiers, traders and merchants. This language was not the pure Classical Latin of the great writers and orators of the Empire but rather the language of the people--Vulgar Latin. It was a spoken language and had already effected changes in the pronunciation of some sounds which were condemned by the grammarians of the day, as in the Appendix Probi. The tendency of Vulgar Latin was to simplify the pronunciation and grammatical forms of the mother language. The simplifications and changes varied from region to region and often characterized the areas where they occurred. Thus, Gallo-Romance and Ibero-Romance, for example, became separate language families because of their different solutions to phonological, morphological and syntactical problems. Naturally, these differences not only existed (and exist) among major language groups but also among the languages within the same family, because of geographical location, historical influences and the needs and interests of the speakers of the language. The

changes treated in this chapter are those of phonology, first the vocalic developments and then the consonantal changes.

VOWELS

The vowel system of Classical Latin had five pure vowels, each of which had two values, one short and one long. These ten vowel lengths were soon converted in Vulgar Latin to open or closed values and "distinctions of quantity gave way to distinctions of quality" (Elcock, p. 43). These changes can be tabulated thus,

noting that the only merging occurred with the Ǻ, Ā. Further reductions and simplifications occurred in the Vulgar Latin which was brought to the western part of the Empire, and these can be illustrated as follows:

Diphthongs are equally important in the vocalic development, in that the three major ones of Classical Latin, AE, OE and AU, tended toward the opening and closing processes seen with the pure vowels: AE > /ɛ/; OE > /e/; and, later, AU > /o/. These seven vowel sounds of Vulgar Latin were the basis for further vocalic development in the Ibero-Romance languages in the tonic or stressed position. In the atonic position these may be further reduced to five (there going no distinction between the

/ɛ/ and /e/ or the /ɔ/ and /o/) or even to three, as is the case with final vowels. A vowel triangle containing these seven vowel phonemes with the addition of the relaxed e /ə/ could be diagrammed as follows:

	Front	Central	Back
High	/i/		/u/
Mid	/e/	/ə/	/o/
	/ɛ/	/ɔ/	
Low		/a/	

Several conditions could influence the development of the seven vowels in the tonic position: 1) the checked or free nature of the syllable; 2) the open or closed quality of the vowel; 3) a following nasal consonant; 4) a preceding or following yod; 5) the fact that a word ended in one of certain unstressed vowels; or, 6) learned influence which impeded popular development.¹ The first five criteria listed will be used in the comparison of the vocalic developments of Castilian, Portuguese and Catalan, since learned influence is seen in conjunction with the other conditions.

Before the actual comparison is made, a definition or explanation of these criteria should be made. A vowel in a free position is one that is followed by a single consonant or by a stop and a liquid (/p,t,k,b,d,g/ plus /l,r/) and is therefore in syllable final position, i. e., CA-RUM, PA-TRE, PE-TRA. A checked vowel is one followed by two consonants other than a stop and a liquid and, as a consequence, can-

not be in syllable final position, i. e., POR-TA, COR-PUM, AL-TU.

This condition is important in the Castilian development of the /ɛ/ and /ɔ/.

The yod or palatal element had perhaps the most dramatic effects of all the above criteria. This palatal element is produced by the vowel e or i in hiatus with another vowel or the vocalization of a velar consonant in a consonant group. The yod could close an open vowel and therefore prevent diphthongization, or it could raise the vowel to a more forward position of pronunciation and thereby cause the vowel sound to approach the palatal point of articulation. For the purpose of consistency, the classification of the yod into four types made by Menéndez-Pidal will be used in this study. These four types of yods can be briefly summarized as follows: 1) the first class came from Classical Latin -TY- or -CY-; 2) the second from Classical Latin -LY-, -C'L-, -NY-, and -GN-; 3) the third was the result of -GY-, -DY-, -BY-, and -MY-; and, 4) the fourth proceeded from -CT-, -X-, -RY-, -SY-, -PY-, or from various types of syncope (Manual, pp. 47-49). The yod not only affected the vowel but also the neighboring consonant and "cuando la yod palatizó muy pronto la consonante, absorbiéndose en ella, no tuvo tiempo para influir sobre la vocal" (Manual, p. 46). The raising or closing influence of the yod on the vowel, then, was inversely proportional to its palatalizing influence on the consonant, as will be seen in the examples which will follow.

The phenomena of nasalization of a preceding vowel and metaphony, the "assimilating influence exerted by a final vowel upon a tonic vowel" (Williams, p. 97), are characteristic of Portuguese in the Iberian Peninsula. The vowels affected by metaphony are tonic /ɛ/, /e/, /ɔ/, /o/, and the final vowels of influence are the a and o. The final vowel a opened tonic /o/ to /ɔ/ and tonic /e/ to /ɛ/, while the influence of final o is comparable to that of the yod in that the tonic vowels were either closed or raised: /ɛ/ > /e/; /e/ > /i/; /ɔ/ > /o/; and, /o/ > /u/.

Tonic Vowels

Tonic /a/ < Classical Latin A, A

Tonic /a/, whether free or checked, generally remained in all three languages; free: CANTARE > cantar, cantar, cantar (to sing); PRATU > prado, prado, prat (meadow); CAPRA > cabra, cabra, cabra (goat); checked: ARCU > arco, arco, arc (arc); CABALLU > caballo, cavalo, cavall (horse); PARTE > parte, parte, part (part).

Tonic /a/ followed by a nasal consonant usually remained in Castilian and Catalan, but became either /ə/ or /ã/ in Portuguese: ANNU > año, ano /ə/, any (year); TANTU > tanto, tanto /ã/, tant (so, so much); MANU > mano, mão /ã/, mà (hand); RANA > rana, rã /ã/, -- (frog).²

Tonic /a/ followed by a yod was raised in all three languages if the yod was of the fourth type, with Portuguese alone showing a change

due to the yod of the third type. This raising process can be illustrated as follows: /a/ + /j/ > /aj/ > /ej/ > /ei/ > /e/. The yod of the first type showed no influence on the vowel: PALATIUS > palacio, palaço, palau (palace); FACIO > hago, faço, faig (I make, do). The vowel was likewise not affected by the yod of the second type: PALEA > paja, palha, palla (straw); NOVACULAM > navaja, navalha, navalla (knife); ARANEA > araña, aranha, aranya (spider); STAGNUS > estanco, estanho, estany (tin). The yod of the third type did not affect the tonic /a/ in Castilian or Catalan, but sometimes in Portuguese the palatal was attracted to the preceding syllable resulting in ai or ei: EXAGIUS > ensayo, ensaio, assaig (essay); LABIUS > labio, lábio, llavi (lip); but, only in Portuguese: CAVEA > gaiva (Old Portuguese, cavity); RABIA > raiva (rage). The yod of the fourth class consistently raised the tonic /a/ to /e/ in Castilian and Catalan, while Portuguese shows the intermediate step of /ei/: FACTUS > hecho, feito, fet (done); LACTE > leche, leite, llet (milk); FRAXINUS > fresno, freixo, freixe (strawberry); the i in the Catalan word is not part of the vowel but, with the x forms the consonantal phoneme /ʃ/; PRIMARIUS > primero, primeiro, primer (first); -ARIUS > -ero, -eiro, -er (noun suffix); BASIUS > beso, beijo, bes (kiss); CASEUS > queso, queijo, -- (cheese); SAPIAT > sepa, saiba, sàpiga (that he know); the Catalan form is based on the perfect by analogy.

Tonic /ɛ/ < Classical Latin Ē, AE

In Castilian the tonic /ɛ/ diphthongized to ie in the free or

checked position but remained /ɛ/ in Portuguese; free: PEDE > pie, pé (foot); CAELU > cielo, céu (sky); the diphthong in Portuguese is not a product of /ɛ/ but the result of two vowels coming into hiatus after the fall of the intervocalic -L-; PETRA > piedra, pedra (stone); checked: TERRA > tierra, terra (land); SEPTE > siete, sete (seven). The diphthongization process or "bimatización" is one of the characteristic phonological phenomena of Castilian. Menéndez-Pidal refers to this process as the effort to "cerrar una de las partes de la vocal"³ and which Canfield and Davis have summarized as "a two-toned conscious effort to keep the open sound [which] produces two impulses with primary stress on the first element and a subsequent shift of stress to the second. The vowel breaks in the effort to hold it to the end, since the end is the important part of the sound."⁴ This same process occurs with the /ɔ/, which will be seen later. The diphthong ie could be raised in Castilian if followed by the palatal consonant /lj/, -ll-, as in the case of CASTELLU > castiello > castillo, castelo (castle) or SELLA > silla, -- (chair). The further raising shows a reaction to two palatal elements in juxtaposition, with the first one changing due to dissimilation by manner of articulation. The raising also took place before an -S and a consonant: VESPERA > víspera, véspera (eve); VESPA > avispa, vespa (wasp); or, if the diphthong occurred in hiatus: DEUS > dios, deus (god); JUDAEU > judío, judeu (Jew).

In Catalan, the development of tonic /ɛ/ did not depend on the

free or checked nature of the vowel but on the consonant which followed the /ɛ/. In the free position the /ɛ/ remained open before /l/: CAELU > cel (sky); MELE > mel (honey); or before /w/ which developed from vocalization of -D-, -CY-, or -TY-: PEDE > peu (foot); DECEM > deu (ten). The /ɛ/ closed to /e/ in the free position before a velar consonant: SECAT > sega (harvest); BECCU > béc (beak); before a labial: LEVAT > lleva (he carries); before an /r/: ERAT > era (he was); *MULIERE > muller (woman); or, before /w/ which proceeded from -V- or -U-: MEU > meu (my); BREVE > breu (brief). In the checked position, the /ɛ/ remained open before /rr/: FERRU > ferro (iron); TERRA > terra; or before /r/ and a consonant which was not labial: APERTU > obert (opened); PERDIT > perd (he loses). In the checked position, the /ɛ/ was closed to /e/ if it was followed by /lj/: SELLA > sella (chair); CASTELLU > castell (castle); by /s/: PRESSA > pressa (speed); EST > es (he is); or by /r/ and a labial: HERBA > herba (grass).

Before a nasal, the vowel /ɛ/ diphthongizes in Castilian, as the /m/ or /n/ had no closing effect, while in Portuguese the vowel closed and took on the nasal quality, becoming /ẽ/: TENET > tiene, tem (he has); VENTU > viento, vento (wind); TEMPUS > tiempo, tempo (time); QUEM > quien, quem (who). In Catalan, the effect was somewhat different in that a nasal following an /ɛ/ in paroxytone words closed the vowel to /e/: SEMPER > sempre (always); VENTU > vent (wind); TENET > té (he has); while in proparoxytones the /ɛ/ followed

by a nasal and a vowel usually remained: TENERE > tenir (to have); GERNERU > gendre (son-in-law).

In the case of /ɛ/ followed by a yod of the first type, there was generally no raising in Castilian, Portuguese or Catalan: *PĚTTĪA > pieza, peça, peça (piece). The second class of yod, however, did raise the /ɛ/: in Castilian it became /e/ and therefore did not diphthongize; in Portuguese the result was also /e/; but in Catalan the solution was /i/. This phoneme could have evolved from the diphthongization of /ɛ/ to */iÉ/, which, in combination with the following yod, became */jɛi/ and later reduced to /i/ by assimilation (Badřa Margarit, p. 134). The following examples illustrate these developments: SPECULU > espejo, espelho, espill (mirror); INGENIU > engueño, engenho, enginy (mind, talent); VENIO > vengo, venho, vinc (I come). The third class yod produced the same effects: MEDIU > medio, médio, mig (middle, average); SEDEAM > sea, seja, sigui (that I be). The yod of the fourth type also resulted in the raising of /ɛ/ to /e/ in Castilian, to /e/ or /ei/ in Portuguese, perhaps due to either the vocalization of the velar consonant or to the attraction of the yod to the tonic vowel, and to /i/ in Catalan. The evolutionary steps of the /ɛ/ influenced by the fourth yod in Catalan are different from those mentioned above. The triphthong /iei/ would have resulted from the diphthongization of /ɛ/ and the vocalization of the velar consonant which did not occur with the yod of the third class. This is also the same process that occurs in

French with the palatalization of -CT-, as Bourciez states concerning the evolution of LECTU to lit: "loin d'être un obstacle à la diphtongaison de e, l'a au contraire favorisée, du moment que la partie initiale de la voyelle était en jeu: lectu a donc passé par *leytu, lieitu, lit, la triphthongue iei se réduisant à i par écrasement de l'élément médial."⁵ Badfa Margarit points out, however, that, since the tonic /a/ was raised to tonic /e/ by the yod, a raising of two steps, it would not be unlikely to suppose the same process of two-step raising for /ε/ > /e/ > /i/ (Badfa Margarit, p. 135). Whatever the process may have been, the results were: LECTU > lecho, leito, llit (bed); PECTU > pecho, peito, pit (breast); MATERIA > madera, madeira, -- (wood). Final long Ī also had the same effect, i. e. , it raised /ε/ to /e/ in Castilian and Portuguese,, and to /i/ in Catalan: HĒRĪ > ayer, eire (O. Ptg.), ahir (yesterday).

Peculiar to Portuguese is the process of metaphony by which the /ε/ is raised to /e/ if the word ends in o: METU > medo (fear).

Tonic /e/ < Classical Latin Ē, Ĭ, ŌE

In Castilian and Portuguese tonic /e/ generally remained, whether in a free or checked position, while Catalan tended to open the vowel to /ε/: SĒTA > seda, seda, seda (silk); CATENA > cadena, cadeia, cadena (chain); the diphthong in the Portuguese word is the result of the vocalization of intervocalic -N-; PĪLU > pelo, pêlo, pèl (hair); POENA > pena, pena, pena (pain).

The nasal consonant could have a raising effect on /e/, especially in Portuguese and Catalan, if it was in a consonant group with a velar, such as /ŋk/ or /ŋg/. These same conditions would occasionally raise the vowel to /i/ in Castilian: DOMINICU > domingo, domingo, diumenge (Sunday); SYRINGA > jeringa, seringa, xeringa (syringe); CINCTA > cinta, --, cinta (belt). There also exists a conservative development in Castilian and Portuguese in which the /e/ remains: ALIENU > ajeno, alheio, aliè (alien); PLENO > lleno, cheio, ple /ɛ/ (full). The i in the two Portuguese words represents the vocalization of the intervocalic -N-.

If a yod was to affect /e/, in Castilian it raised the vowel to /i/; in Portuguese it raised it to /i/ or /ei/; and in Catalan it opened the /e/ to /ɛ/. The yod of the first and second types had no influence on Castilian or Portuguese, but their opening effect is seen in Catalan: TRISTITIA > tristeza, tristeza, tristes /ɛ/ (sadness); MALITIA > maleza, --, malesa /ɛ/ (underbrush); CILIA > ceja, celha, cella /ɛ/ (eyebrow); APICULA > abeja, abelha, abella /ɛ/ (bee); but -GN-: LIGNA > leña, lenha, llenya /e/ (wood). While the yod of the third type continued the opening influence in Catalan, in Castilian and Portuguese the influence was vacillating; sometimes the vowel was raised to /i/ as in: VINDEMIA > vendimia, vindima, verema /ɛ/ (vintage); while in other instances the yod had no effect on the vowel: CORRIGIA > correa, correia, corretja /ɛ/ (leather, strap); the i of the Portuguese word represents the

yod which was attracted to the tonic vowel. The two subclasses of yods of the fourth type had different degrees of influence in Ibero-Romance. For the most part, the yod from Classical Latin -CT- and -X- had no influence on the /e/, except in Catalan where it opened the vowel to /ɛ/: STRICTU > estrecho, estreito, estret /ɛ/ (narrow); DIRECTU > derecho, direito, dret /ɛ/ (right); PISCE > pez, peixe, peix /ɛ/ (fish). The development of /e/ to /ei/ in Portuguese and Catalan does not show influence on the vowel, but rather the vocalization of the velar consonant and, in Catalan, the vowel forms part of the symbol for the phoneme /ʃ/, i. e., ix. The yod coming from Classical Latin -RY-, -SY-, and -PY- did have a raising effect in all three Ibero-Romance languages: CEREU > cirio, círio, ciri (candle, taper); CAMISIA > camisa, camisa, camisa (shirt); SEPIA > jibia, siba, sípia (sepia tone). As with the /ɛ/, the final $\bar{I}$ could also raise /e/: FECI > hice, fiz, fiu (I did, made); VENI > vine, vim, vingui (I came). If the /e/ was in hiatus, usually with /a/, it could also raise, probably by dissimilation by point of articulation resulting in the combination of a front vowel with a back vowel: DIA > día, dia, dia (day); VIAM > vía, via, via (way).

In Portuguese, metaphony occurs as seen in the opening of the tonic /e/ to /ɛ/ by the final a in words such as: APOTHECA > bodega (inn); ILLA > ela (she); META > meda (heap); REGULA > regra (rule). The final o had a raising effect by which /e/ > /i/: IPSU > isso (this).

Tonic /i/ < Classical Latin Ī

Tonic /i/, representing the most closed sound and the highest front vowel in Ibero-Romance, was therefore a stable pronunciation and has not been affected or altered by any of the aforementioned conditions of change for tonic vowels. The /i/ remained in all three Ibero-Romance languages whether in a free or checked position: VENIRE > venir, vir, venir (to come); AMICU > amigo, amigo, amic (friend); FICU -A > higo, figo, figa (fig). It also remained if followed by a nasal consonant, although Portuguese, as was its tendency, nasalized the vowel to /ĩ/: FINE > fin, fim /ĩ/, fi (end). The influence of a yod, as stated, was either to raise or close a vowel. Since the /i/ is the most closed sound and can be raised no further, the yod had no effect on tonic /i/: FILIU > hijo, filho, fill (son); DIXI > dije, disse, digur (I said).

Tonic /ɔ/ < Classical Latin Ō

As with the tonic /ɛ/, the open quality of /ɔ/, an unstable condition, lent itself to the diphthongization process in Castilian so that /ɔ/ > /ɔɔ/ > /uɔ/ > /wɛ/ > /we/, forming, as Menéndez-Pidal states, "un [diptongo] heterogéneo, mezclando una articulación velar y otra palatal."⁶ The shift in stress is also significant in that it produces the characteristic Castilian feature of rising diphthongs, with the /ie/ diphthong resulting from tonic /ɛ/. The /ɔ/ then, whether free or checked, diphthongizes in Castilian but remains unchanged in Portuguese and Catalan: ROTA > rueda, roda, roda (wheel); NOVE > nueve,

nove, nou (nine); FORTE > fuerte, forte, fort (strong); PORTA > puerta, porta, porta (door). If the diphthong of Castilian followed the combination of a labial or velar consonant and a liquid, the /we/ usually reduced to /e/: FLOCCU > flueco > fleco (bangs); FRONTE > frunte > frente (forehead); *COLOBRA > culuebre > culebra (snake). The reason for this is that the consonant sounds together with the diphthong cause "una disimilación eliminadora que excluye el segundo sonido labial" (Manual, p. 61).

The development of /ɔ/ followed by a nasal consonant often depended on the free or checked nature of the syllable. In a free syllable, /ɔ/ became /we/ in Castilian, closed to /o/ in Portuguese, but remained /ɔ/ in Catalan. If the syllable was checked, the /ɔ/ was sometimes raised and did not diphthongize in Castilian, it became /õ/ in Portuguese and generally became /o/ in Catalan. The following examples will further illustrate these developments: BONU > bueno, bom /õ/, bo /o/ (good); but, BONA > buena, boa /o/, bona /ɔ/ (good); PONTE > puente, ponte /õ/, pont /o/ (bridge); MONTE > monte /o/, monte /õ/, mont /o/ (mount).

As seen previously, the yod of the first type was the weakest as far as influencing the tonic vowels was concerned. This holds true for the /ɔ/, since the -TY-, -CY- only acted upon the /ɔ/ of Portuguese: FORTIA > fuerza, fôrça, força (strength). The yod of the second type does, however, show the raising or closing tendency by which the /ɔ/

in Castilian and Portuguese is changed to /o/ and does not diphthongize in Castilian. In Catalan, the /ɔ/ is raised by the yod also, but it is taken a step further to /u/. This is an analogous development to that in which /ɛ/ became /i/ under influence of the yod. The development of /ɔ/ was first to diphthongize to /wɛ/ and this diphthong, in contact with the yod, was reduced from /wɛj/ to /ui/ to /u/. It would seem that, as with the development of /ɛ/ to /i/, a more likely explanation would be found to the north, in Gallo-Romance, where the tonic /ɔ/ with a yod became /yi/, i. e., NOCTE > nuit. The Iberian language, however, refrains from the strong palatal pronunciation of Gaul. There is one further peculiarity regarding the second class yod in Castilian: the -LY- and -C'L- do raise the /ɔ/ to /o/, while -NY- and -GN- had no effect, and the /ɔ/ diphthongized as usual. Examples of /ɔ/ and the yod of the second type are: FOLIA > hoja, folha /o/, fulla (leaf); OCULU > ojo, olho, ull (eye); SOMNIU > sueño, sonho, suny (sleep). The yod of the third type showed consistent influence in all three languages, since in Castilian and Portuguese the /ɔ/ became /o/ and in Catalan the /ɔ/ became /u/: HODIE > hoy, hoje, vui (today); PODIU > poyo, pojo, puig (bench). Yods of the fourth type also showed a consistency in that the /ɔ/ closed to /o/ in Castilian since the palatal /j/ was absorbed by the consonant and was prevented from further influencing the vowel. The Portuguese result of /ɔ/ and -CT- and -X- shows the intermediate stage of Castilian in which the i is the product of the

vocalization of the velar consonant and, in Portuguese, the evolution was halted at this point. Catalan words, which developed from /ɔ/ and a fourth class yod, show the raising of /ɔ/ to /u/ and the retention of the /i/ from the vocalization of the velar. Some words which illustrate this development are: OCTO > ocho, oito, vuit (eight); NOCTE > noche, noite, *nuit (O. Cat.) > nit (night); *COXU > cojo, coxo, coix (lame). The last two examples indicate some irregularities in Portuguese and Catalan. The development of nit, according to Badía Margarit, "presupone un cambio de acento: ant. núyt > *n(u)ft > nit" (Badía Margarit, p. 145), while the word coix "resulta inexplicable" since COXA > cuixa (thigh) does show the normal development. The development of the same word to coxo in Portuguese does show absorption of the /i/ by the palatal consonant /ʃ/.

As with /ɛ/ and /e/, Portuguese undergoes the influence of metaphony exerted by the final o which closes tonic /ɔ/ to /o/: FOCU > fogo (fire); POPULU > povo (people); POSITU > posto (place).

Tonic /o/ < Classical Latin O, U, AU

The tonic /o/ in Ibero-Romance was a more stable vowel than its front counterpart in that, in all three languages, in both free and checked positions, the /o/ remained: AMORE > amor, amor, amor (love); NOMEN > nombre, nome, nom (name); BUCCA > boca, boca, boca (mouth); CORTE > corte, corte, cort (court). If /o/ preceded a consonantal group of a nasal and a velar (/ŋk/, /ŋg/), the vowel was usually raised to /u/

in all three languages: NUMQUAM > nunca, nunca, -- (never); UNGULA > uña, unha, ungla (fingernail); PUNCTU > punto, ponto, punt (point); JUNCU > junco, junco, jonc (rush, bot.). The Portuguese ponto and Catalan jonc demonstrate a degree of learned influence.

The yod of the first type, as was the case with the previous tonic vowels, showed no raising influence: PUTEU > pozo, poço, pou (well). The second type of yod showed two different results depending on whether it was from -LY-, -C'L- or -NY-, -GN-. The first subgroup usually exercised no influence on Ibero-Romance tonic /o/ as evidenced by: CUSCULIU > coscojo, --, coscoll (scarlet); GENUCULU > hinojo, joelho, genoll (knee); but, ACUCULA > aguja, agulha, agulla (needle). The Portuguese word joelho shows metathesis of the two vowels and the loss of the intervocalic nasal. The later developing subgroup of the second class yod which became /ɲ/ raised /o/ to /u/: PUGNU > puño, punho, puny (fist); but sometimes had no effect: CONIA > cigüeña, cegonha, cigonya (stork). The unusual development in Castilian to what appears to be a diphthong is, in fact, the attraction to the preceding syllable of the yod while still retaining its effect on the consonant. The yod of the third type regularly raised /o/ to /u/ in Castilian while in Portuguese it was usually attracted to the preceding syllable and Catalan shows both developments: FUGIO > huyo, fujo, fujo (I flee); RUBEU > rubio, ruivo, roig /ɔ/ (blond). The yod of the fourth type from -CT- or -X- raised /o/ to /u/ in all three languages

with Catalan the only one not absorbing the vocalized velar consonant:

LUCTA > lucha, luta, lluïta (fight); TRUCTA > trucha, truta, truita (trout).

In Portuguese, the process of metaphony caused the tonic /o/ to be opened by a final a and raised to /u/ by a final o: FORMA > forma /ɔ/ (form); HORA > hora /ɔ/ (hour); TOTU > tudo (all).

Tonic /u/ < Classical Latin Ū

Representing the third point of the triangle and, as such, the highest back vowel in Ibero-Romance, the tonic /u/ was practically unaffected by the conditions which determine the development of tonic vowels and generally remained unchanged. In the free or checked position there was no alteration: ACUTU > agudo, agudo, agut (sharp); MULIA > mula, mula, mula (mule); LACTUCA > lechuga, --, lletuga (lettuce). Followed by a nasal consonant, it also remained although in Portuguese it may become /ũ/ in syllable final position: UNU > uno, um /ũ/, un (one); LUNA > luna, lua, lluna (moon); FUMU > humo, fumo, fum (smoke). Since the yod could not raise the vowel, it had no effect on /u/: FRUCTU > fruto, fruto, fruit (fruit); LUCTU > luto, luto, -- (mourning). Both of these words show learned influence in the Castilian result since the -CT- did not develop to palatal /tʃ/. The Old Portuguese forms of these words (fruito, luito) and the modern Catalan words show the vocalization of the velar /k/.

The seven vowels of Vulgar Latin were reduced, in the tonic position, to five pure vowels and two diphthongs in Castilian whereas in

Portuguese and Catalan, the seven vowels were retained if they were not affected by surrounding conditions. In the atonic, or unstressed position, these seven vowels were reduced to five vowels in Ibero-Romance. Dependent upon their atonic position, that is, initial, internal or final, and the contributing surrounding conditions, these five could undergo further reductions, either to weakened phonemes or to complete loss. The first development of atonic vowels to be considered will be those in initial position.

Atonic Vowels

An atonic vowel in initial position is simply the first vowel in the word not receiving stress and may or may not be the first letter of the word. The influences which affect a vowel in this position are often the same as those for tonic vowels. However, since these vowels are weaker by virtue of their position, they are more likely to suffer changes due to assimilation to or dissimilation from the tonic vowels as well as confusion with prefixes added to the word. These vowels also develop differently when brought into hiatus with other vowels after the elimination of an intervocalic consonant.

Initial a < Classical Latin Ā, Ā

The initial a was maintained orthographically in all three languages if not affected by the above mentioned conditions. Because of the unstressed nature of the vowel, however, pronunciation was relaxed to /ə/ in the case of Portuguese and Catalan: AMICU > amigo, amigo,

/ə/, amic /ə/ (friend); CAMISIA > camisa, camisa /ə/, camisa /ə/ (shirt). The yod, as with tonic /a/, raised the vowel to /e/ by being attracted to the atonic syllable resulting in /a/ + /j/ > /ej/ > /ei/ > /e/. Portuguese shows the intermediate step as in: BASIARE > besar, beijar, besar (to kiss); LAXARE > dejar, deixar, deixar (to leave), this word suffered confusion with the prefix DE-; LACTUCA > lechuga, --, lletuga (lettuce). The initial a in combination with /w/ became respectively o /o/, ou /o/, and u /u/: AUDIRE > oír, ouvir, oir (to hear); HABUIMOS > hobimos (O. Cast.), houvemos, -- (we had); and, in Catalan, *AU-CELLU > ocell (bird). In Castilian and Catalan the development of initial a in hiatus was more or less sporadic while in Portuguese it was regularly conditioned due to the more consistent loss of the intervocalic consonants: initial a with tonic /a/ > /a/: *PANATARIU > paadeiro > padeiro (baker); with tonic /ɛ/ or /e/, the a raised to /ɛ/: SAGITTAM > saeta > seta (arrow); with tonic /o/ the two vowels merged to produce /ɔ/: MAJOREM > maor > mór (chief); with tonic /i/ and /u/ the initial a remained: SALIRE > sair (to leave); SALUTU > saúde (health).

Initial e < Classical Latin Ē, AE, Ē, Ĭ

In the initial atonic position there is no distinction between long and short, open or closed e since all merge to /e/ in Castilian and to the relaxed articulation of /ə/ in Portuguese and Catalan: LEGUME > legumbre, legume /ə/, llegum /ə/ (vegetable); CAEPULLA > cebolla, cebola /ə/, ceba (onion). Because of syncope, the Catalan word de-

veloped a tonic /e/ before the labial consonant [ɸ]. Other developments of atonic e are: SECURU > seguro, seguro /ə/, segur /ə/ (sure); PLI-CARE > llegar, chegar /ə/, -- (to arrive). The initial e often evolved to /i/ due to the raising quality of the yod: in Castilian RENIONE > riñón (kidney); in Portuguese VINDEMIARE > vindimar (to gather grapes); and, in Catalan, MELIORE > millor (better). A similar development was caused by /w/: AEQUALE > igual, igual, igual (equal). If the initial e was followed by r, it often opened to /a/: *VERRERE > barrer, varrer, -- (to sweep); AERAMEN > alambre, arame, aram (wire). In the word SILVATICU > salvaje, selvagem, salvatge (savage), the initial e became /a/ due to assimilation to the tonic vowel. In Portuguese a following nasal consonant could nasalize the e producing /ẽ/: MENDICU > men-
digo /ẽ/ (beggar) or, with the consonant group /ŋg/, the e could be raised to /i/ and further changed to /ĩ/ as it is checked by the nasal consonant: VINDICARE > vingar (to avenge). The case of EPISCOPU becoming obispo (bishop) in Castilian with the initial e > /o/ has been explained by the influence of the following labial consonant though, according to Menéndez-Pidal, there are no other similar cases to support this phenomenon (Manual, p. 71). However, Menéndez-Pidal's theory finds support to the east where in Catalan *IMPLIRE > omplir (to fill) and REMANERA > romandre show the same changes. The initial e in hiatus, as with a, shows many more changes in Portuguese: with a tonic /e/ > /e/: VIDERE > ver (to see); with pre-tonic /e/ > /ɛ/: CREDITORE >

credor (believer); with tonic /a/, /o/, or /u/ it usually developed to /i/: MINUTU > miudo (small); VENIRE > vir (to come). The e in hiatus with /a/ was raised to /i/ in all three languages: CREARE > criar, criar, criar (to nurse, care for).

Initial i < Classical Latin Ī

As was the case with the tonic /i/, the atonic vowel in initial position suffered none of the changes of the other vowels of less stable pronunciation. Unless affected by assimilation or dissimilation, the initial i generally remained intact: CIVITATE > ciudad, cidade, ciutat (city); in the Portuguese word, the loss of intervocalic y between two atonic vowels caused the merging of these initial and pre-tonic vowels; PRIMARIU > primero, primeiro, primer (first); but, through dissimilation, the initial i > /e/ in Castilian and Catalan: VICINU > vecino, vizinho, vef (neighbor).

Initial o < Classical Latin Ō, Ō, AU, Ū

Just as in the case of initial atonic e, there was no distinction between /ɔ/ and /o/ in the atonic position, causing the merging to /o/ in Castilian and the more relaxed pronunciation of /u/ in Portuguese and Catalan although the orthographic representation is o. Examples of this development are: MORIRE > morir, morrer /u/, morir /u/ (to die); NOMINARE > nombrar, nomear /u/, nomenar /u/ (to name); SUPERARE > sobrar, sobrar /u/, sobrar /u/ (to remain, be left). The yod generally raised the o to /u/, as in the examples: *MULIERE > mujer, mulher,

muller (woman); COGNATU > cuñado, cunhado, cunyat (brother-in-law); DORMIAMUS > durmamos, durmamos, -- (that we sleep). The initial o could become /a/ through assimilation: NOVACULA > navaja, navalha, navalla (knife); or dissimilation: COLOSTRU > calostro, --, calostre (colostrum). Dissimilation could also cause initial o to become /e/: ROTONDU > redondo, redondo, redó (round); (HO)ROLOGIU > reloj, re-lógio, rellotge (watch). Hiatus again was experienced more in Portuguese in which the initial o in contact with tonic /o/ became /o/: COLORE > côr (color); with a pre-tonic /o/ it became /ɔ/: COLORATU > corado (red); and, with tonic /a/, /e/, or /i/ it remained o but pronounced /u/ or /w/: VOLARE > voar (to fly); DOLERE > doer (to hurt). All of the above examples of hiatus are caused by the characteristic loss of the intervocalic -L-.

Initial u < Classical Latin Ū

Representing the most stable pronunciation of the back vowels, the atonic u, like the atonic i, generally remained in all three Ibero-Romance languages: DURARE > durar, durar, durar (to last); SUDARE > sudar, suar, suar (to sweat); MURALIA > muralla, muralha, muralla (wall).

The next consideration of atonic vowels will be in the internal position. A vowel in this position, according to the number of syllables in the word, could be either pre-tonic, that is, preceding the tonic vowel, as in VECINITÁTE, or post-tonic, following the tonic vowel, as in

ÓRPHANU. The vowels in these two positions reacted differently and must, therefore, be discussed separately. Due to their weak position, usually between the primary (tonic) stress and secondary stress, these vowels generally had one of two alternative developments: they fell, which was the usual case, or they remained as a vowel of support. Unlike the tonic and initial vowels, if these vowels were retained, their weak position within the word prevented their being affected by surrounding conditions, such as the yod or nasal. The first of these positions to be considered will be the pre-tonic vowels.

Internal Pre-tonic Vowels

Many pre-tonic vowels in the internal position (other than a) were lost early, even in Vulgar Latin: VER(E)CUNDIA > vergüenza, vergonha, vergonya (shame); COMP(U)TARE > contar, contar, contar (to count); CAL(I)DARIU > caldero, caldeiro, calderó (cauldron); HON(O)-RARE > honrar, honrar, honrar (to honor). The tendency to drop the unstressed vowel continued in the early Romance period: *SOL(I)DATA > soldada, --, soldada (pay, salary); COM(I)TATU > condado, condado, comtat (county); DEL(I)CATU > delgado, delgado, -- (thin).

There existed certain conditions, however, that prevented or impeded the loss of internal pre-tonic vowels. If there were two pre-tonic vowels the one closest to the tonic vowel was dropped since the one that was retained usually carried the secondary stress, thus: VINCINITÁTE > vecindad, --, veinatge (neighborhood); HUMILITÁTE > hu-

mildad, humildade, humilitat (humility); the Catalan word shows learned influence; AMĪCITĀTE > amistad, amizade, amistat (friendship). The pre-tonic a was usually retained: PARADISU > paraíso, paraíso, paradís (paradise). A vowel in the pre-tonic position was also generally retained if the consonant group, which would have resulted, proved difficult to pronounce, such as -vll- and -lnt- in the following examples: AVELLANA > avellana, avelã, avellana (hazel-nut); VOLUNTATE > voluntad, vontade, voluntat (will). In the last example Portuguese shows its characteristic dropping of the intervocalic -l- which then caused the merging of the o and u and, with the influence of the nasal consonant, the result was /õ/. If the intervocalic voiced consonant was dropped, the pre-tonic usually remained: COGITARE > cuidar, cuidar, cuidar (to care for). In Portuguese and Catalan the pre-tonic e preceded by /m/ and followed by /n/ was retained while Castilian usually replaced the vowel with the intrusive b after the dissimilation of /n/ > /r/ (see the section on Medial Consonant Groups): NOMINARE > nombrar, nomear, nomenar (to name). The merging in Portuguese of the pre-tonic a, e and o with the initial a, e and o respectively, was discussed previously in the section on initial vowels.

Internal Post-tonic Vowels

As a general rule, the post-tonic vowels fell, even in the first century A.D. as attested in the Appendix Probi: SPECULUM non SPECULUM, CALIDA non CALDA, OCULUS non OCLUS (Elcock, pp. 29-30).

Aside from these examples, it is evident that this trend continued throughout the Vulgar Latin period in which the vowel was usually lost after l: SOLIDU > sueldo, sôldo, sou (pay); *PULICA > pulga, pulga, puça (flea); after r: VIRIDE > verde, verde, vert (green); EREMU > yermo, êrmo, erm (waste land); after s: POSITU > puesto, posto, post (put); *VISITU > visto, visto, vist (seen); and, as seen above, in CUL > cl: OCULU > ojo, olho, ull (eye); SPECULU > espejo, espelho, espill (mirror). Later, in Western Romance, "buscan la acentuación trocaica - ◡, y generalizan la pérdida de la postónica (salvo la a) entre cualesquiera consonantes" (Manual, p. 76). Thus this unstressed vowel fell after n: GENERU > yerno, genro, genre (son-in-law); MANICA > manga, manga, manega (sleeve); the post-tonic e was normally retained in -ĬCA, -ĬCU endings in Catalan; ANIMA > alma, alma, ànima (soul); after m: SEMITA > senda, senda, senda (path); COMITE > conde, conde, comte (count); after t: LITTERA > letra, letra, lletra (letter); after p or b: LEPOREM > liebre, lebre, llebre (hare); POPULU > pueblo, povo, poble (people, town). The Portuguese example of the last word shows retention of the post-tonic vowel which came into hiatus with the final o due to the loss of the intervocalic -l- > povoo, and the subsequent merging of the two atonic vowels.

The internal post-tonic vowel was generally retained if it was an a, although the pronunciation was relaxed in Portuguese and Catalan just as with the pre-tonic a: ORPHANU > huérfano, órfão, orfe (orphan);

RAPHANU > rábano, rabanete, rave (radish); STOMACHU > estómago, estômagô, estômac (stomach). In Castilian and Catalan, the vowel remained if the intervocalic voiced stop was dropped: TEPIDU > tibio, tépido, tèbeu (tepid); Portuguese shows learned influence; SUCIDU > sucio, sujo, sútzeu (dirty). In Portuguese and Catalan the post-tonic e was retained after m and before n: HOMINE > hombre, homem, home (man); in the Portuguese word the post-tonic e became /ẽ/ because of the following nasal; FEMINA > hembra, fêmea, femella (female); Castilian dissimilates the n to r and inserts the intrusive b. In Catalan, if the post-tonic vowel immediately precedes the final vowel (which was lost), the post-tonic remains: OLEU > óleo, óleo, oli (oil); APIU > apio, aipo, api (celery); STUDIU > estudio, estudo, estudi (study). The effect in Portuguese of vowels in hiatus is no less characteristic of the post-tonic vowels than of the previous positions: post-tonic a with tonic /ɛ/ or /ɔ/ merged with the tonic and became /ɛ/ and /ɔ/ respectively: PELAGU > pego (whirlpool); MONACHU > mogo, and through the process of metaphony, the /ɔ/ became /o/. The post-tonic /o/ and a final a in hiatus has become /wə/: TABULA > tábua (plank); NEBULA > névoa (fog).

Final Vowels

The last type of atonic vowels to be considered are those in the final position, that is, either the last vowel in the word or the last letter in the word. Of the three languages, Castilian is the most con-

servative, Catalan is the most drastic, and Portuguese occupies the middle ground for the changing of the vowels in final position.

Final a < Classical Latin $\check{A}$, $\bar{A}$

The final a remains in all three languages except that the pronunciation is relaxed to /ə/ in Portuguese and Catalan: PORTA > puerta, porta /ə/, porta /ə/ (door); CANTAT > canta, canta /ə/, canta /ə/ (he sings); CAUSA > cosa, cousa /ə/, cosa /ə/ (thing). An interesting development occurs in Catalan due to this weakened pronunciation. In the plural forms of nouns, that is, if the vowel is followed by s, or by another consonant, the orthography reflects the relaxed pronunciation and a > e /ə/: PORTAS > portes (doors); VACCAS > vagues (cows); CANTANT > canten (they sing). In Portuguese the final a in hiatus with tonic /ɔ/ > /ɔ/: *AVULA > avó (grandmother) but did not occur if the intervocalic n was dropped: BONA > boa /o/ (good); SONAT > soa (it sounds). A nasal consonant nasalized the final a which became /ão/ by analogy with VADUNT: AMANT > amam /ão/ (they love).

Final e < Classical Latin $\bar{E}$, $\check{I}$, $\check{E}$, AE

The final e in Ibero-Romance is a result of the merging of $\bar{E}$, $\check{I}$, $\check{E}$, and AE and was usually retained in Castilian and Portuguese. Catalan did not usually keep the final vowel except as a vowel of support after difficult consonant groups. Examples of the development of final e are: CARNE > carne, carne, carn (meat); DENTE > diente, dente, dent (tooth); in Castilian DE UNDE > donde (where), but for Portuguese and

Catalan UNDE > onde, on (where). Often Portuguese retains the final vowel while Castilian and Catalan do not: ILLE > él, êle, ell (he); VERITATE > verdad, verdade, veritat (truth). If final e followed a yod, it was raised to /i/ represented in Castilian by y: REGE > rey, rei, rei (king); LEGE > ley, lei, lleí (law). The e was also raised to /i/ in Castilian when the final vowel came into hiatus with the tonic vowel, thus: HODIE > hoy, hoje, avui (today); BOVE > buey, boi, bou (ox). The effect of hiatus on Portuguese was, as usual, more complicated and the end results depended on the vowels which came into hiatus. If final e was in hiatus with /e/ through the loss of d, it became /e/: FEDEM > fe, fé /e/, fe (faith); CREDIT > cree, crê, creu (he believes); if it was through loss of n, the vowel became /ẽ/: TENES > tienes, tens /ẽ/, tens (you have); or with tonic /a/, /o/, or /u/, it became /i/: CIVILES > civiles, civis, civils (civil); VADIT > va, vai, va (he goes). After simple consonants which could stand alone the final e generally fell: MALE > mal, mal, mal (evil); MENSE > mes, mês, mes (month); MARE > mar, mar, mar (sea); VICE > vez, vez, -- (time); Catalan forms its word on *VICATA > vegada (time).

Final i < Classical Latin Ī

In Castilian, the normal development was for final i to become /e/, thus FECI > hice (I made); VENI > vine (I came); ILLI > le (to him). This was also the case with Portuguese: HABUI > hove (I had); ILLI > lhe (to him), except after a single c, s or l in which case the final

vowel dropped: FECI > fiz (I made); POSUI > pus (I put). The general tendency of Catalan was to drop the final i if not converted to e /ə/ as a vowel of support.

Final o < Classical Latin Ō, Ō, Ū

The final o remained in Castilian and in Portuguese although the weakened position gave the vowel the pronunciation /u/ in the latter. This pronunciation is also seen in Catalan when the final o remained, usually only as a vowel of support. Words showing these developments are: CASU > caso, caso, cas (case); QUANDO > cuando, quando, quan (when); VINU > vino, vinho, vi (wine); FERRU > hierro, ferro, ferro (iron); MURRU > morro, morro, morro (mound).

In the case of final o in hiatus in Portuguese, there were several changes: with /a/ or /ɛ/ the o became u /w/: CAELU > cielo, céu, cel (sky); MALU > mal, mau, mal (bad); DEUS > dios, deus, déu (god); with tonic /ɔ/ > /o/: *AVULU > abuelo, avô, avi (grandfather); with post-tonic /ɔ/ > /u/: POPULU > pueblo, povo, poble (people); with tonic /u/ > /u/: CRUDU > crudo, cru, cru (raw). In Castilian the final o of some determining adjectives drops in proclitic use: BONU > bueno, but buen chico; UNU > uno, but un chico. A peculiarity of Catalan is the replacement of the final in the plural of words ending in a sibilant: BRACCHIU > braç, but braços (arms); TRISTE > trist, but tristos (sad).

Final u < Classical Latin Ū

In Castilian and Portuguese the final u became o but in Portu-

guess the atonic position weakened the pronunciation to /u/ while the Catalan final u fell completely: FRUCTUS > frutos, frutos, fruits (fruits).

Many of the developments of the vowels in the three Ibero-Romance languages have been the same while others have shown quite divergent evolutions, Portuguese being perhaps the least stable of the three languages. In the following section on consonants, it will be seen that these were no less subject to change than were the vowels, and, while the vowels often were governed by surrounding consonants so were the consonants subject to influences of the surrounding vowels.

CONSONANTS

If one were to compare the results of the vocalic and consonantal developments in the three languages, it would become immediately apparent that the consonants underwent more changes in their evolution from Latin to Romance. The ten vowels of Classical Latin were reduced to seven in the tonic position, which, aside from diphthongs, vowels in hiatus and vocalization of velar consonants, have remained essentially the same. To the fifteen consonant phonemes of Classical Latin, Ibero-Romance has added some sixteen others through palatalization, relaxation of intervocalic pronunciation, or by simply evolving to completely new and unique sounds, i. e., the jota and the ceceo. These new sounds did not evolve in isolation and, as with the vowels, were influenced by various surrounding conditions: 1) their position in the word

(initial, medial, or final); 2) whether they were simple consonants or in groups; 3) whether the group was Latin or Romance; 4) whether or not there was a yod to act on the consonant; 5) assimilation to or dissimilation from other consonants; and, 6) the nature of the surrounding vowels, i. e. , front or back.

Just as the vowels are classified by means of the vowel triangle as front, back, high, low, there are three criteria for classifying the consonants: 1) point of articulation, that is, which organs of speech are required to produce the sound; 2) manner of articulation, the way in which the air is released in the production of the sound; and, 3) whether the consonant is voiced, with the vibration of the vocal chords, or unvoiced. The table on the following page will illustrate the consonant phonemes of Ibero-Romance following the above stated criteria. When two consonants occur in the same box, the one on the right is voiced, the one on the left is voiceless. The first group of consonants to be discussed will be simple consonants in the initial position.

Initial Simple Consonants

Labials (P, B, V, F)

The voiceless and voiced bilabial stops (/p/, /b/) remained unchanged in all three languages: PANE > pan, pão, pa (bread); PACE > paz, paz, pau (peace); BALNEU > baño, banho, bany (bath); BIBERE > beber, beber, beure (to drink); BUCCA > boca, boca, boca (mouth). The voiced labiodental fricative /v/, which was produced from the bilabial

CONSONANT PHONEMES AND ALLOPHONES OF IBERO-ROMANCE⁷

	Bi-labial	Labio-dental	Inter-dental	Dental	Dento-alveolar	Alveolar	Alveo-palatal	Velar	Uvular	Glottal
Stop	p b			t d				k g		
Fricative (Affricate)	ɸ	f v	θ ð		s z		ʃ ʒ dʒ	ʁ		x
Lateral						l	lj	ɭ		
Tap						r				
Trill						rr				
Vibrant									R	
Nasal	m					n	ɲ	ŋ		
Semi-consonant	w						j			

W, was often confused with the bilabial /b/ and eventually became interchangeable with this phoneme in the eastern and central regions of Ibero-Romance. Portuguese, however, retained the labiodental pronunciation, thus: VIRIDE > verde, verde /v/, vert (green); VANU > vano, vão /v/, va (vain); *VIVIRE > vivir, viver /v/, viure (to live). The confusion between these two phonemes was such that the spelling sometimes reflected the change, as in: VOTA > boda, boda, boda (wedding). The initial unvoiced labiodental /f/ remained in Portuguese and Catalan but in Castilian its change to h has occasioned much controversy and speculation. Menéndez-Pidal believes that, since the area of loss, Castile, is next to the Basque Provinces which also lack the phoneme /f/: "debemos suponer que la sustitución de la f- por la h-, y sub-siguiente pérdida, en Castilla es un fenómeno primitivo hijo de la influencia ibérica, de los dialectos indígenas vecinos al vasco" (Manual, pp. 122-23).⁸ He also points to the fact that the f does not exist in Gascony which is to the north of the Basque Provinces. Entwistle can see no proof that the f > h is Iberian but states that "it is certainly to be connected with the similar want of the labiodental as a genuine Basque sound and is caused by the community of intercourse or origin between Cantabrians and Basques" (Entwistle, pp. 160-61). The f > h did not generally occur in Castilian before the liquid /r/ or the diphthong ue. The following examples will show the above developments: FABULARE > hablar, falar, -- (to speak); FICATU > hřgado, fřgado, fetge (liver);

FILIUS > hijo, filho, fill (son); FOLIA > hoja, folha, fulla (leaf); but, FORTE > fuerte, forte, fort (strong); FRONTE > frente, fronte, front (front).

Palatals and Velars (K, G, J)

The development of the voiceless velar stop /k/, generally represented by c, depended on the nature of the following vowel. If the vowel was /a/, /o/, /u/, a back vowel, the consonant remained /k/: CABALLUS > caballo, cavalo, cavall (horse); CORPUS > cuerpo, corpo, cos (body); COLORE > color, côr, color (color). There is also the occasional voicing to /g/, as in CATTUS > gato, gato, gat (cat). If the following vowel was the front /ε/, /e/, or /i/, the voiceless /k/ shifted its pronunciation forward to approach that of the vowel with the following changes: /k/ + /ε/, /e/, /i/ > /kj/ > /tj/ > /ts/ > /s/ at which point the development was halted in Portuguese and Catalan. One of the characteristics of Castilian, however, is that this dentoalveolar was changed further to the interdental /θ/, a phoneme unique to Castilian. Therefore, CAELUS > cielo /θ/, céu /s/, cel /s/ (sky); CENTUS > ciento /θ/, cento /s/, cent /s/ (hundred); CIVITATE > ciudad /θ/, cidade /s/, ciutat /s/ (city). Occasionally the development was to /tʃ/ in Castilian and /ʃ/ in Catalan: CICCUS > chico, --, xic (small).

The voiced velar /g/ also depended on the front or back nature of the following vowel. Before a back vowel /g/ remained: GURDUS > gordo, gordo, gort (fat); GALLINA > gallina, galinha, gallina (hen); GAUDIUS > gozo, gôzo, goig (joy). If the initial /g/ was followed by a

front vowel, another consideration had to be taken into account: whether the vowel was tonic or pre-tonic. This development was important in Castilian and Catalan but not in Portuguese where the development was the same regardless of stress. In the tonic position the initial /g/ in Castilian followed the evolution of /g/ + /ɛ/, /e/, /i/ > /gj/ > /dj/ > /j/ while Catalan continued the process to the affricate stage of /dʒ/. In Portuguese the dental element was dropped and the fricative /ʒ/ remained. Therefore, in the following examples, all three solutions are present: GENERU > yerno /j/, genro /ʒ/, gendre /dʒ/ (son-in-law); GELU > hielo /j/, gelo /ʒ/, gel /dʒ/ (ice). If the front vowel was in the pre-tonic position the /j/ was absorbed by the vowel and disappeared, its existence now represented by silent h. The Catalan development was to also go a step farther and drop the dental, becoming then /ʒ/ which corresponds to the Portuguese development: GERMANU > hermano /-/, hirmão /-/, germã /ʒ/ (brother). According to Williams, the Portuguese word "developed regularly at first. The loss of the g in irmão has been attributed to its intervocalic position in the frequent occurrence of germão and germãa with possessive adjectives" (Williams, p. 60). Words which show regular development of /g/ before a front vowel in pre-tonic position are: GELARE > helar /-/, gelar /ʒ/, gelar /ʒ/ (to freeze); GENUCULU > hinojo /-/, joelho /ʒ/, genoll /ʒ/ (knee).

A comparable development is encountered with the Latin J /j/.

Portuguese and Catalan show the development of this alveo-palatal

from the semi-consonant to the fricative as /j/ > /d₃/ > /ʒ/ before either a front or back vowel. In Castilian the /j/ remains before a tonic /a/ but drops before a pre-tonic front vowel. The development of /j/ followed by a tonic or pre-tonic back vowel becomes one of the characteristic phonemes of the language, namely the /x/, through the process: /j/ + /ɔ/, /o/, /u/ > /d₃/ > /ʒ/ > /x/. Words which show these changes are: JAM > ya /j/, já /ʒ/, ja /ʒ/ (already); JACET > yace, jaz, jeu (he lies); JANUARIU > enero, janeiro, gener (January); JOCU > juego /x/, jôgo /ʒ/, joc /ʒ/ (game); JURARE > jurar, jurar, jurar (to swear).

Dentals (T, D, S)

The initial dental consonants were, for the most part, retained unchanged. The voiceless /t/ remained: TECTU > techo, teito, -- (roof); TELA > tela, tela, tela (cloth); TENERE > tener, ter, tenir (to have). The voiced counterpart /d/ also remained: DENTE > diente, dente, dent (tooth); DIGITU > dedo, dedo, dit (finger); DECEM > diez, dez, deu (ten). The dento-alveolar /s/ likewise generally remained: SETA > seda, seda, seda (silk); SEPTE > siete, sete, set (seven).

There are instances of a further evolution to the fricative /ʃ/ in Portuguese and Catalan and to /x/ in Castilian because of the influence of the pronunciation of the Moriscos, such as in SAPONE > jabón /x/, sa-bão, sabó (soap); SIMPLU > simple, simple, ximple /ʃ/ (simple); SYRINGA > jeringa /x/, xeringa /ʃ/, xeringa /ʃ/ (syringe).

Nasals (M, N)

The nasals generally remained unchanged as in the case of the bilabial /m/: MARE > mar, mar, mar (sea); MONETA > moneda, moeda, moneda (coin); METU > miedo, medo, -- (fear). The initial /m/ could nasalize the following vowel in Portuguese, thus: MULTU > mucho, muito /ũi/, molt (much); MATRE > madre, mãi, mare (mother).⁹

The initial /n/ also remained as in NOVU > nuevo, novu, nou (new); NATARE > nadar, nadar, nedar (to swim). As was the case with /m/, the initial /n/ could nasalize the following vowel in Portuguese: NEC > ni, nem /ẽ/, ni (neither); *NE QUEM > --, ninguém /ĩ/, ningú (nobody).

Liquids (R, L)

The consonants, generally referred to as liquids due to their ability to blend with other consonants, remained. In the case of initial /r/, the pronunciation has been intensified, the result being the trill, /rr/, or the variant /R/ in Portuguese: ROTA > rueda, roda, roda (wheel); RIVU > río, rio, riu (river); ROMPERE > romper, romper, rompre (to break). The initial lateral /l/ also remained except that in Catalan, and perhaps because of the influence of the other liquid /r/ and its intensified pronunciation in the initial position, the /l/ became the palatalized /lj/: LECTU > lecho, leito, llit (bed); LUNA > luna, lua, lluna (moon); LEPORE > liebre, lebre, llebre (hare).

Initial Consonant Groups

The initial consonant groups can be divided into five main types of combinations: a consonant and the liquid /r/, a consonant and the liquid /l/, the dento-alveolar /s/ and a consonant, a velar consonant and the /w/, and, a consonant and the /j/.

Consonant plus R

If a stop (/p, b, t, d, k, g/) formed an initial group with /r/, it generally remained: PROBARE > probar, provar, provar (to prove); PRATU > prado, prado, prat (meadow); BRACCHIU > brazo, braço, braç (arm); BRACAS > bragas, bragas, bragues (pants); TRACTARE > tratar, tratar, tractar (to treat, deal with); TRUCTA > trucha, truta, truita (trout); DRACONE > dragón, dragão, dragó (dragon); CREDERE > creer, crer, creure (to believe); CRESCERE > crecer, crescer, crèixer (to grow). Sometimes there was a voicing of the velar /k/ to /g/: CRETÀ > greda, greda, greda (clay); CRYPTA > gruta, gruta, gruta (cave). The voiced /g/ with the liquid /r/ remained: GRANU > grano, grão, gra (grain); GRAECU > griego, grego, grec (Greek). An initial fricative and /r/ also remained: FRAXINU > fresno, freixo, freixe (strawberry); FRONTE > frente, fronte, front (front).

Consonant plus L

The combination of a voiceless stop or fricative and the liquid /l/ developed to palatal consonants in Castilian and Portuguese, but remained unchanged in Catalan. Thus, the stops /p/ and /k/ and the

fricative /f/ with the /l/ became: /pl/ > /plj/ > /lj/; /kl/ > /klj/ > /lj/; and, /fl/ > /flj/ > /lj/ in Castilian while in Portuguese the development was /pl/ > /plj/ > /pj/ > /tj/ > /tʃ/ > /ʃ/; /kl/ > /klj/ > /kj/ > /tj/ > /tʃ/ > /ʃ/; and, /fl/ > /flj/ > /fj/ > /tj/ > /tʃ/ > /ʃ/ represented orthographically by ch. These differences can be seen in the following examples: PLANU > llano, chão, pla (smooth, plain); PLORARE > llorar, chorar, plorar (to cry); PLENU > lleno, cheio, ple (full); CLAMARE > llamar, chamar, clamar (to call); CLAVE > llave, chave, clau (key); FLAMMA > llama, chama, flama (flame). Portuguese sometimes shows a confusion of the liquids and replaces /l/ with /r/ in which case the combination remains: PLANCTU > llanto, pranto, plant (weeping); CLAVU > clavo, cravo, clau (nail); FLACCU > flaco, fraco, flac (thin). The retention in Castilian of the original consonant groups of the last two examples would indicate either a late borrowing or learned influence.

The voiced stop /b/ with the lateral remains in Castilian and Catalan but in Portuguese there is again the confusion of liquids: BLITU > bledo, bre-do, blet (amaranth); BLANDU > blando, brando, bla (soft). The velar /g/ in combination with /l/ usually fell in Castilian and Portuguese but was retained in Catàlan: GLANDE > lande (O. Cast.), lande, glà (acorn).

S plus Consonant

A characteristic of Western Romance is the addition of the prosthetic vowel e to words beginning with an impure s, that is, an s fol-

lowed by a consonant. The s was usually followed by a voiceless stop or the bilabial nasal, as seen in: SPATHA > espada, espada, espasa (sword); SPONSU > esposo, espôso, espòs (husband); SPECULU > espejo, espelho, espill (mirror); STARE > estar, estar, estar (to be); SCALIA > escala, escala, escala (scale); SCHOLA > escuela, escola, escola (school); SMARAGDU > esmeralda, esmeralda, maragda (emerald).

Velar (C, G) plus /w/

The development of the velar /k/ and the semi-consonant /w/ depended on the type of vowel that followed it, either front or back, and whether or not it was tonic or pre-tonic. With the examples of a following tonic /a/, the semi-consonant remained /kwa/: QUANDO > cuando, quando, quan (when); QUATTUOR > cuatro, quatro, quatre (four); QUALE > cual, qual, qual (which). If the /a/ was in the pre-tonic position the semi-consonant could fall: QUATTUORDECIM > ca-torce, catorze, catorze (fourteen). In other instances it remained in Castilian and Portuguese but in Catalan the back vowel could drop in pronunciation resulting in /ku/ although the vowel is retained in spelling: *QUARESIMA > cuaresma, quaresma, quaresma /ku/ (lent); *QUARANTA > cuarenta, quarenta, quaranta (forty). Before a front vowel, the semi-consonant was lost in pronunciation in all three languages: QUI > que, que, qui (what); QUINDECIM > quince, quinze, quinze (fifteen); QUEM > quien, quem, que (who); *QUOMODO > como, como, com (how).

The voiced velar /g/ and the semi-consonant did not occur in

Classical Latin, but rather came from the Germanic W. Before a back vowel the /gw/ remained: WARDON > GUARDARE > guardar, guardar, guardar (to keep). As with the voiceless velar, before a front vowel the semi-consonant sound was dropped: WERRA > GUERRA > guerra, guerra, guerra (war); WISA > GUISA > guisa, guisa, guisa (way).

Consonant plus /j/

The voiced dental /d/ and the /j/ developed to the fricative /ʒ/ in Catalan through the following steps: /d/+ /j/ > /dj/ > /dʒ/ > /ʒ/ as in the word DIURNUS > jorn (day). The few words that exist in Castilian and Portuguese containing this initial consonant group development were probably borrowings from the French which they adapted to their sound systems. Thus, DI-URNALE > jornal /x/, jornal /ʒ/, jornal /ʒ/ (journal) evolved only in Catalan since the word jorn would seem to support these developments.

Consonants in the medial position had a different course of evolution from those in the initial position because of the fact that there is a tendency to approach the surrounding sounds. For example, simple unvoiced consonants tend to voice due to assimilation to the vowels which are voiced phonemes. Once they have voiced, they usually tend to weaken to a fricative to ease the pronunciation from one vowel to another. With some idea of the basic tendencies of the simple consonants in medial position, a more detailed examination of these changes in the three languages will show their differences and similarities.

Medial Simple Consonants

Labials (P, B, V, F)

As stated, the most obvious change of the voiceless bilabial stop is its change to the voiced stop /b/ and further weakening to the fricative [β]: RIPA > riba, riba, riba (slope); SAPERE > saber, saber, saber (to know); or, it could weaken further to the labiodental /v/ in Portuguese: POPULU > pueblo, povo, poble (people). The medial voiced /b/ also weakened to [β] in Castilian and Catalan and to /v/ in Portuguese: CABALLU > caballo, cavalo, cavall (horse); FABU > haba, fava, fava (bean); BIBERE > beber, beber, beure (to drink). The Portuguese word shows influence of the Latin form or assimilation to the initial consonant while Catalan vocalized the consonant to /u/. The medial v, as seen in the initial position, became confused with the /b/ and in Castilian and Catalan these two consonants have evolved the same fricative pronunciation, [β], while Portuguese has the weaker pronunciation of labiodental /v/: NOVU > nuevo [β], novo /v/, nou (new); LAVARE > lavar [β], lavar /v/, -- (to wash). The voiceless labiodental /f/ voiced to /v/ which became confused with the /b/ and became the fricative [β]: RAPHANU > rábano, rabanete, rave (radish); STEPHANU > Esteban [β], Estevão /v/, Esteve β (Steven). In the medial position all four labial consonants are reduced to two phonemes in Ibero-Romance: [β] and /v/.

Palatals and Velars (K, G, J)

The evolution of the voiceless velar stop was, as with the labi-

als, to voice from /k/ to /g/ and to further weaken to [ɣ] if the /k/ preceded a back vowel: LACTUCA > lechuga, --, lletuga (lettuce); PACARE > pagar, pagar, pagar (to pay); SECURU > seguro, seguro, segur (sure). Before a front vowel the evolution of /k/ to Castilian /θ/ was similar to that of the initial position, with the exception that the steps of development were somewhat altered, evidenced by the results in Portuguese. The first steps taken with /k/ + /ε/, /e/, /i/ > /kj/ > /tj/ > /ts/ correspond to those taken by the initial consonant. At this point, however, the consonant phoneme voiced, through assimilation to the surrounding vowels, and became /dz/ at which stage the dental element dropped and the phoneme /z/ was the result in Portuguese. Castilian and Catalan each went a step further; Catalan dropped the consonant entirely and Castilian resolved its evolution in /θ/, perhaps through the influence of the initial /θ/. Examples show: VICINU > vecino /θ/, vezinho /z/, vef /-/ (neighbor); COCINA > cocina, cozinha, coina (kitchen); PLACERE > placer, plazer, plaer (pleasure). The voiced velar /g/ before a back vowel weakens to the fricative [ɣ]: LEGUME > legumbre, legume, llegum (vegetable); PLAGA > llaga, plaga, plaga (wound), or it may simply drop: LITIGARE > lidiar, lidar, lluitar (to fight); REGALE > real, real, ral (royal); LEGALE > leal, leal, lleial (loyal). Before a front vowel the voiced velar generally fell in all three languages: COGITARE > cuidar, cuidar, cuidar (to care for); DIGITU > dedo, dedo,

dit (finger); MAGISTRU > maestro, mestre, mestre (teacher). In Catalan, if the following front vowel was in the tonic position the consonant evolved to /ʒ/: PAGENSE > payés, --, pagès /ʒ/ (country man); SAGITTA > saeta, seta, sageta (arrow). The Latin /j/ had different developments in all three languages. In Castilian, it was either maintained as /j/ or was dropped; in Portuguese and Catalan, it was either retained as /ʒ/ or dropped: MAJORE > mayor, mór, major (larger); *JAJUNARE > ayunar, jejuar, dejunar (to fast); PEJORE > peor, pior, pitjor (worse). The Catalan word of the last example shows a change from the fricative /ʒ/ to the affricate /dʒ/.

Dentals (T, D, S)

For the most part, the voiceless dental voiced to /d/ and then weakened to the fricative [ð] in all three languages: VITA > vida, vida, vida (life); SETA > seda, seda, seda (silk); MUTARE > mudar, mudar, mudar (to change). The voiced dental /d/ either weakened to [ð] or fell in Castilian while it usually fell in Portuguese and Catalan: CRUDU > crudo, cru, cru (raw); SUDARE > sudar, suar, suar (to sweat); NUDU > nudo, nu, nus (knot); CREDERE > creer, crer, creure (to believe); Catalan vocalizes the /d/ to /u/; PEDE > pie, pe, peu (foot). Sometimes the /d/ became /z/ > /s/ in Castilian: ALAUDA > alosa (lark).

The dento-alveolar /s/ usually remained, but, as with the other voiceless consonants, voiced in the medial position to /z/. One of the characteristics of Castilian is the subsequent unvoicing of this

phoneme.¹⁰ Examples show CASA > casa /s/, casa /z/, casa /z/ (house); ROSA > rosa, rosa, rosa (rose); PAUSARE > posar, posar, posar (to stop, rest); CAUSA > cosa, coisa, cosa (thing). Catalan may completely drop the phoneme, as in RESINA > resina, resina, reina (resin).

Nasals (M, N)

The nasal consonant /m/ in the medial position usually was preserved in the three languages: FUMU > humo, fumo, fum (smoke); RAMU > ramo, ramo, ram (branch). In Castilian and Catalan the /n/ usually remained, although there is the example of /n/ > /r/ in Catalan because of dissimilation to another nasal: *NONANTA > noranta (ninety). The medial n in Portuguese had various developments, depending on the surrounding vowels, the position of the accent, and the consonant following the second vowel. Of the possible developments, three are principal: 1) the nasal affected the vowel preceding it causing it to nasalize; 2) the nasal consonant became a nasal palatal /ɲ/ with no nasalizing effect on the vowel; or, 3) it disappeared.¹¹ These three developments are graphically illustrated in: BONU > bueno, bom /õ/, bon (good); GERMANU > hermano, irmão /ão/, germã (brother); in this case the /n/ nasalized the vowel which then became a nasal diphthong after the fall of the nasal consonant; VINU > vino, vinhu /ɲ/, vi (wine); GALLINA > gallina, galinha /ɲ/, gallina (hen); TENERE > tener, ter, tenir (to have); LUNA > luna, lua, lluna (moon).

Liquids (R, L)

In Ibero-Romance, the medial /r/ was usually retained: MAURU > moro, mouro, moro (Moor); CORONA > corona, coroa, corona (crown); CARU > caro, caro, car (expensive). The liquid /l/ was maintained in Castilian and Catalan but in Portuguese, after becoming attached to the preceding vowel, it became gutturalized and fell in the tenth century: DOLORE > dolor, dor, dolor (pain); MALU > mal, mau, mal (bad).

Medial Consonant Groups

The medial groups can be divided into two types: those that existed in Latin and those that were formed in Romance due to the loss of an unaccented vowel (syncope). These two groups, at times, had the same evolutionary processes with the same end results. Often, however, the Romance groups not only offered different combinations, but the consonants forming these may have undergone some changes before the loss of the vowel, such as voicing of the intervocalic stop. The Latin groups will, therefore, be considered first.

Geminates

The geminate consonants, labials, velars, dentals, nasals, and liquids, all simplified in Romance: PP > /p/: CAPPA > capa, capa, capa (cape); PUPPE > popa, popa, popa (poop deck); BB > /b/ which weakened to [β]: ABBATE > abad, abade, abat (abbot); FF > /f/: OFFENDERE > ofender, ofender, ofendre (to offend). The velars simplified and then evolved as did the simple medial velars: CC > /k/ > /θ/ or /s/ before

front vowels and /k/ before back vowels: BUCCA > boca, boca, boca (mouth); SICCU > seco, sêco, sec (dry); ACCENTU > acento /θ/, acento /s/, accent /ks/ (accent); GG > /x/ or /ʒ/ before a front vowel: EXAGGERARE > exagerar /x/, exagerar /ʒ/, exagerar /ʒ/ (to exaggerate).

The dental geminate -TT- also simplified to /t/: SAGITTA > sae-ta, seta, sageta (arrow); GUTTA > gota, gota, gota (drop). The dento-alveolar -SS- simplified to /s/ in all three languages but in Portuguese and Catalan the spelling -ss- signifies the voiceless quality of the consonant: PASSU > paso, passo, pas (pass); OSSU > hueso, ôssu, os (bone); MASSA > masa, massa, massa (mass). The loss of the final o in Catalan in the first two examples allows the simplification of -ss- to -s which is in the final position.

Nasal -MM- became /m/ in all three Romance languages:

FLAMMA > llama, chama, flama (flame); COMMUNE > común, comum, comú (common). The -NN- simplified to /n/ in Portuguese and after a tonic front vowel in Catalan, but the prolonged pronunciation of these two consonants caused them to become the palatalized /ɲ/ in Castilian and Catalan: CANNA > caña, cana, canya (cane); PANNU > pañu, pano, -- (cloth); NINNA > niña, --, nina (girl). If the palatal exists in Portuguese, the word was generally borrowed from Castilian: PINNA > peña, penha, penya (cliff).

The liquids did not simplify to single consonants, as seen with -RR- > /rr/, the result of the strong pronunciation: CARRU > carro,

carro, carro (cart); TERRA > tierra, terra, terra (earth); the Portuguese variant, /R/, is an alternative pronunciation of the -rr- in that language. Because of the prolonged pronunciation of -LL- this consonant group evolved to the palatal /lj/ in Castilian and Catalan while Portuguese shows the conservative simplification: CABALLU > caballo, cavalo, cavall (horse); GALLINA > gallina, galinha, gallina (hen).

First element is labial

If a labial consonant was in combination with another, the group thus formed generally simplified, except in the case of a labial and a liquid which remained. If the first consonant was voiceless it normally voiced. Examples of these changes: PT > /t/: SEPTE > siete, sete, set (seven); PS > /s/ in Castilian and Portuguese but remained in Catalan: IPSE > ese, êsse, -- (this); GYPSU > yeso, gêso, guix (chalk), but Catalan CAPSA > capsa (box); PR > [ʝr]: CAPRA > cabra, cabra, cabra (goat); APRILE > abril, abril, abril (April); PL > [ʝl] in Castilian and Catalan but [ʝr] in Portuguese: DUPLARE > doblar, dobrar, doblar (to double); BT > /t/: SUBTILE > sutil, sutil, sotil (subtle); BR > [ʝr] in Castilian, [ʝr] or /vr/ in Portuguese, and /wr/ or [ʝr] in Catalan: FEBRE > fiebre, fevre, febre (fever); LIBRA > libra, libra, lliura (pound); BL > [ʝl]: PUBLICU > público, público, públic (public) which is probably a semi-learned word.

First element is palatal or velar

The simple velar consonants were those most disposed to

change and, in combination with other consonants, they again demonstrate this characteristic. The medial -CT-, which resulted in a yod of the fourth type, first vocalized the velar to i /j/, as testified to by the Portuguese forms. After this initial change, which is common to all three languages, the subsequent changes were governed by the preceding vowels, especially apparent in the evolution of Catalan words.

Castilian normally developed the /jt/ to /tʃ/ and Portuguese usually retained the medial step of it except after u. The following examples show the divergence in development. After an /ɛ/, the palatal in Castilian raised the vowel to /e/ and the consonant became /tʃ/; Portuguese shows the middle step of vocalization /jt/ while Catalan shows the further raising to /i/ through the steps /ɛ/ > /ié/ > /iej/ > /i/:

PROFECTU > provecho, proveito, profit (profit); *JECTAT > echa, --, gita (he throws); LECTU > lecho, leito, llit (bed). After an /a/ the yod raises the vowel to /e/ but has no influence on /e/ except to open it in Catalan: FACTU > hecho, feito, fet (done); DIRECTA > derecha, di-reita, dreta /ɛ/ (right). After a back vowel, /ɔ/, /o/, or /u/, the palatal element is lost in Portuguese but remains in Catalan: TRUCTA > trucha, truta, truita (trout); LUCTA > lucha, luta, lluïta (fight). Sometimes the -CT- simplified to /t/: MACTARE > matar, matar, matar (to kill).

The combination of /ks/, represented in Latin by -X-, became the glottal /x/ in Castilian and the palatal /ʃ/ in Portuguese and Cata-

lan. The steps of this evolution are: /ks/ > /js/ > /ʃ/ (Portuguese and Catalan) > /ʒ/ > /x/ (Castilian). Examples: DIXIT > dijo /x/, disse /ʃ/, digué (he said); FRAXINU > fresno, freixo /ʃ/, freixe /ʃ/ (strawberry). The voiceless /k/ was generally voiced in combination with the liquids: -CR- > [ʝr]: SOCRU > suegro, sogro, sogre (father-in-law); LACRIMA > lágrima, lágrima, llagrima (tear); -CL- > [ʝl] except in Portuguese which gave [ʝr]: ECCLESIA > iglesia, igreja, església (church).

The voiced velar /g/ in combination with /r/ either remained or simplified to /r/; in Portuguese the velar sometimes vocalized becoming -ir-: NIGRU > negro, negro, negre (black); INTEGRU > entero, inteiro, enter (whole). The voiced /g/ in combination with the nasal /n/ became the palatalized /ɲ/ in all three languages: SIGNA > seña, senha, senya (sign); COGNATU > cuñado, cunhado, cunyat (brother-in-law); LIGNA > leña, lenha, llenya (wood).

First element is dental

The voiceless /t/, followed by the liquid /r/, usually voiced to [ʝr]; or the dental element could fall, as it did in Catalan: PATRE > padre, pai, pare (father); PETRA > piedra, pedra, pedra (stone). The voiced /d/ with /r/ usually dropped but must have, at one time, vocalized to /i/. Evidence of this phenomenon can be found in Portuguese and Catalan in the word CATHEDRA > cadera, cadeira, cadira (hip). The presence of the i in the Portuguese word and the fact that the result to /i/ in Catalan was analogous to the result of /ɛ/ followed by -CT-

seem to support this theory.¹² Normally the group simplified to /r/:
 QUADRAGINTA > cuarenta, quarenta, quaranta (forty).

The dento-alveolar with another consonant usually remained:
 VESPA > avispa, vespa, vespa (wasp); FESTA > fiesta, fiesta, fiesta
 (party); PHANTASMA > fantasma, fantasma, fantasma (ghost). The com-
 bination -SC- remained if followed by /a/: PISCARE > pescar, pescar,
pescar (to fish); but before a front vowel the result was /θ/ in Castil-
 ian and /ʃ/ in Portuguese and Catalan: CRESCERE > crecer, crescer,
créixer (to grow); influenced by the Latin orthography, the Portuguese
 word is pronounced with the double fricatives /ʃs/: PISCE > pez, peixe,
peix (fish).

First element is nasal

The bilabial nasal /m/ was usually found in combination with
 another labial or with the other nasal. The tendency of -MP- was to
 remain in the three languages: RUMPERE > romper, romper, rompre (to
 break); TEMPUS > tiempo, tempo, temps (time). The combination of the
 two voiced labials (/m/ and /b/) usually simplified to /m/ in Castilian
 and Catalan but remained in Portuguese: PALUMBU > palomo, pombo,
 and, in Catalan, COLUMBA > coloma (pigeon); LUMBU > lomo, lombo,
llom (loin). The /m/ with /f/ became /nf/ in Castilian and Portuguese
 but remained in Catalan: TRIUMPHARE > triunfar, triunfar, triomfar (to
 triumph). The two nasals in combination produced the nasal palatal /ɲ/
 in Castilian and Catalan but simplified in Portuguese to /n/: DAMNU >

daño, dano, dany (hurt); AUTUMNU > otoño, outono, autumne (autumn); the Catalan word demonstrates learned influence.

The alveolar palatal /n/ was very often retained in combination with other consonants. In the case of /n/ and /f/, there is a regressive development in the word INFANTE which at first lost the nasal element but later returned it to the word in all three languages due to learned influence, as seen with infante, infante, infant (infant, or title of a child of the royal household). The nasal and the voiceless velar /k/ before a back vowel usually was preserved: BLANCA > blanca, branca, blanca (white); TRUNCU > tronco, tronco, tronc (trunk of a tree). The same combination before a front vowel shows retention of the nasal and the same development of the /k/ as in initial position, i. e., it became /θ/ in Castilian and /s/ in Portuguese and Catalan: VINCERE > vencer, vencer, vencer (to win). Badía Margarit points out that this change occurred in Catalan in the post-tonic position but usually changed to /s/ with the dropping of the nasal in the pre-tonic citing the example of VINCENTIUS > Vicenç (Vincent) (Badía Margarit, p. 193). However, this change is also seen in Castilian Vicente and Portuguese Vicente and may have been occasioned by dissimilation of the nasals.

The nasal and the voiced velar /g/ before a back vowel usually preserved both elements becoming /ŋg/: SYRINGA > jeringa, xeringa, xeringa (syringe). Before a front vowel the development in Castilian

and Catalan was normally to the palatal /ɲ/ (if this resulted in Portuguese, the word was probably borrowed from Castilian): RINGERE > reñir, renhir, renyir (to scold); PLANGERE > --, --, plànyer (to weep). In Castilian and Catalan this combination sometimes developed to /nθ/ and /nz/ respectively as in *SINGELLU > sencillo, --, senzill (simple). The most common evolution in Portuguese of -NG- and a front vowel was to become /nʒ/: ANGELLU > ánel, anjo, angel (angel); both Castilian and Catalan show learned influence; or, LONGE > --, longe, -- (far).

The group of the nasal /n/ with the voiceless dental /t/ shows the tendency to remain: ANTE > antes, antes, -- (before); CANTARE > cantar, cantar, cantar (to sing). With the dento-alveolar /s/ the group usually simplified to /s/: PENSARE > pesar, pesar, pesar (to weigh); SPONSU > esposo, espôso, espòs (husband).

First element is liquid

The liquids, due to their very nature, are capable of blending easily with other consonants and, for this reason, are very often preserved in consonant groups. The second element may change due to the nature of a following vowel but the liquid is normally retained.

The combination of the liquid /r/ with a labial was usually maintained, except that the bilabial /b/ became the fricative [β] and, due to the confusion of y and b, the labiodental also became [β] in Castilian and Catalan, although it remained in Portuguese: RP > /rp/: SER-

PENTE > serpiente, serpente, serpent (serpent); RB > [rβ]: BARBA > bar-ba, barba, barba (beard); HERBA > hierba, erva, herba (grass); Portuguese shows the further weakening of /b/ > [β] > /v/: RV > rv [rβ] in Castilian and Catalan, /rv/ in Portuguese: SERVU > sirvo, sirvo, serveixo (I serve); NERVIU > nervio, nervo, nervi (nerve). The /r/ with the voiceless velar /k/ before a front vowel was unaltered resulting in /rk/: *CIRCARE > cercar, cercar (to surround), cercar (to look for); ARCU > arco, arco, arc (arc). Before a front vowel the velar developed as it did in the initial position producing /rθ/ in Castilian and /rs/ in Portuguese and Catalan: MERCEDE > merced, mercê, mercè (mercy); *TORCERE > torcer, torcer, torcer (to twist). The liquid and the voiced velar development also depended on the front or back nature of the following vowel. Before a back vowel the combination remained as /rg/: LARGA > larga, larga, llarga (long). Before a front vowel the velar became the fricative /θ/ in Castilian and the /ʒ/ in both Portuguese and Catalan, thus, ARGILLA > arcilla, argila, argila (clay). The combination of /r/ and the voiceless dental /t/ remained: MARTELLU > martillo, martelo, martell (hammer); PORTA > puerta, porta, porta (door); as did the liquid combined with the voiced dental /d/: PERDICE > perdiz, perdiz, perdiu (partridge); CHORDA > cuerda, corda, corda (string). The /r/ with the dento-alveolar /s/ was usually simplified to /s/: URSU > oso, urso, os (bear); the Portuguese word shows learned influence. The combination of the /r/ with either nasal /m/ or /n/, usually remained in all

three languages: FORMOSU > hermoso, formoso, formos (beautiful); FORMIGA > hormiga, formiga, formiga (ant); TORNARE > tornar, tornar, tornar (to return).

The lateral liquid /l/ and the voiceless bilabial /p/ were retained in PALPARE > palpar, palpar, palpar (to touch), although this seems to be a learned doublet in Portuguese and Castilian, since the usual development is the vocalization of /l/ > /u/ when preceded by /a/. This change is seen in the popular development of *TALPARIU > --, toupeira, -- (mole), and in Castilian and Catalan TALPA > topo, --, talp (mole). The lateral and the voiced bilabial normally remained in Castilian and Catalan although the labial weakened to produce /lv/ in Portuguese: ALBA > alba, alva, alba (dawn). The combination -LV- usually remained in spelling but in Castilian and Catalan the confusion of the voiced labials caused the group to be pronounced [lv̞]: SILVA > selva, selva, selva (jungle). The group formed from the lateral with the voiceless velar /k/ preceding a front vowel was retained orthographically in Castilian and Catalan although phonological changes result in /lθ/ in Castilian and /ls/ in Catalan: DULCE > dulce, doce, dolç (sweet). The Portuguese word indicates the changes of /o/ + /l/ > /ou/ > /o/. After a back vowel, especially /a/, the consonant often vocalized in Portuguese and sometimes in Castilian: -ALC- > auc > /o/: CALCEM > coz, couce, -- (kick). The voiced velar with the lateral normally was unchanged: ALGA > alga, --, alga (seaweed).

The liquid and the voiceless dental /t/ offer three possible developments: the group could remain after /ɔ/: SOLTU > suelto, solto, solt (loose); the /l/ could vocalize to /u/ after an /a/ and then become /o/: ALTERU > otro, outro, autre > altre (other); or, in the case of -ULT-, the liquid could become the palatal /j/ (this medial step is apparent in Portuguese) and go on to become the palatal /tʃ/ in Castilian: MULTU > mucho, muito, molt (much); AUSCULTARE > escuchar, ascuitar > escutar, escoltar (to listen). Catalan was the conservative member of Ibero-Romance and showed no alteration in this group. The liquid with /s/ remained in all languages: FALSU > falso, falso, fals (false) as was the normal case with /l/ and /m/: PALMA > palma, palma, palma (palm).

Groups of three consonants

If the group of three consonants consisted of a nasal or an /s/ for the first element and an /r/ for the third, the group normally was preserved: NOVEMBRE noviembre, novembro, novembre (November); RASTRU > rastro, rastro, rastre (trace); the more common Portuguese word is rasto which indicates dissimilation of the liquids. In the medial group -NCT- the last two elements simplified to t becoming /nt/: SANCTU > santo, santo, sant (saint); JUNCTU > junto, junto, junt (together). The consonant groups -PL-, -FL-, and -CL- preceded by another consonant (normally a nasal) usually developed as they did in the initial position in Portuguese, i. e., they became ch /ʃ/. They resulted

in the same orthographical group in Castilian though the pronunciation is that of the affricate /tʃ/. Catalan shows no development of these groups. Examples of these changes are: AMPLU > ancho, ancho, ample (wide); IMPLERE > henchir, encher, -- (to fill, stuff); INFLARE > hinchar, inchar, inflar (to swell). The group -FFL- shows a development analogous to that of initial group -FL- in Castilian and Portuguese becoming /ʃ/ in Portuguese and /lj/ in Castilian: AFFLARE > hallar, achar, -- (to find).

Consonant plus yod

As stated previously, the yod has been divided into four types which correspond to their chronological influence on the vowels and consonants surrounding them. The yod of the first type demonstrates an early influence on the consonants, while that of the fourth type remained longer and shows consistently greater influence on the vowels. While the normal effect of a yod on a vowel was to raise or close it, the effect on the consonant was to palatalize it or to alter it from a stop to a fricative. By so doing, the yod assimilates the consonant to the characteristics of the yod, i. e., its palatal quality.

A labial consonant and a yod, which were of the third and fourth types, showed more influence on the vowel than on the consonant, which usually remained intact: SAPIAT > sepa, saiba, sàpiga (that he know). The voiced labial and a yod also remained: LABIU > labio, lábio, llavi (lip); RABIA > rabia, raiva, rabia (rage). There is the alter-

nate development in which the labial element drops to result in /j/ in Castilian and /ʒ/ in Portuguese and Catalan, as in: HABEAT > haya, haja, hagi (that he have). The word RUBEU > rubio, ruivo, roig /tʃ/ (blond) shows the raising of /o/ to /u/ in Castilian while retaining the yod, attraction of the yod to the preceding syllable in Portuguese, and the palatalizing of the consonant in Catalan (the phoneme /ʒ/ changes to /tʃ/ when it becomes final). The -VY- combination shows developments similar to those of -BY-: the combination remained after raising the vowel, it dropped after raising the vowel, or it acted upon the consonant making it palatal. All of these developments are seen in the three results of PLUVIA > lluvia, chuva, pluja (rain). Portuguese words show a greater tendency to retain the yod that was attracted to the preceding syllable: CAVEA > gavia, gaiva, gabia (topsail).

The voiceless velar /k/ and a yod, which belong to the first type, show the familiar development of /k/+ /j/ > /kj/ > /tj/ > /ts/ > /s/ (Portuguese and Catalan) > /θ/ (Castilian). The front vowel was absorbed in the consonant so that before a back vowel this phoneme is represented by z in Castilian and ç in Portuguese and Catalan: BRACHIU > brazo, braço, braç (arm); AD MINACIA > amenaza, ameaça, ameaça (threat). The voiced velar /g/ and the yod, which produce a yod of the third type, still exercise influence on the consonant resulting in /j/ in Castilian, /ʒ/ or /j/ in Portuguese and /ʒ/ in Catalan which changes to /tʃ/ when in final position. Examples of these are:

FUGIO > huyo, fujo, fujo (I flee); EXAGIU > ensayo, ensaio, assaig (essay).

The voiceless dental /t/ and a yod generally had the same development to /θ/ in Castilian, as did the /k/ and yod. In Portuguese and Catalan, though the results often corresponded to those obtained from /k/ and a yod, the steps of development were different. After a vowel, the consonant became voiced in Portuguese to /z/ and fell in Catalan if the stress followed the consonant group: RATIONE > razón, razão, raó (reason); TITIONE > tizón, tição, tió (firebrand); the Portuguese word may have been borrowed from Castilian. If the /t/ plus yod was post-tonic the resultant consonant in Portuguese and Catalan was the voiceless ç /s/: PLATEA > plaza, praça, plaça (town square); and, if this consonant was to become final, it vocalized in Catalan to /u/: PUTEU > pozo, poço, pou (well); PRETIU > precio, preço, preu (price). Following a consonant the result was again /θ/ in Castilian and /s/ in Portuguese and Catalan: FORTIA > fuerza, fôrça, força (strength); LECTIONE > lección, lição, llicó (lesson).

The voiced dental /d/ and a yod (third type like -GY-) was still influencing the consonant and created the palatal /j/ in Castilian after a vowel but /θ/ after a consonant. In Portuguese the result was /ʒ/ if following a vowel and /s/ if following a consonant or a diphthong. In Catalan the results were similar to -GY-, that is, -DY- became /ʒ/ after a vowel but became /tʃ/ if it resulted in the final posi-

tion. These changes are apparent in the following examples: ADIUTA-RE > ayudar, ajudar, ajudar (to help); PODIU > poyo (bench), --, puig (peak). After a consonant the development is to /θ/ in Castilian and to /s/ in Old Portuguese: VERECUNDIA > vergüenza, vergonça > vergonha, vergonya (shame). In the modern Portuguese form and in Catalan, the tendency is to drop the dental element and resolve the /n/ to the palatalized /ɲ/.

The dentoalveolar /s/ was not affected by the yod in Castilian or in Catalan since this fourth type yod generally raised the vowel only. In Portuguese too, the vowel was raised but the consonant likewise underwent changes to become the fricative /ʒ/ as in: BASIUM > beso, beijo, bes (kiss); CASEU > queso, queijo, -- (cheese). The consonantal combination of -SSY-, however, shows the change in Castilian to /x/ and in Portuguese and Catalan to the voiceless fricative /ɣ/: BASIUM > bajo, baixo, baix (low) indicating an effect only on the consonant with no raising of the vowel.

The bilabial nasal /m/ and a yod usually remained /mi/ after raising the preceding vowel: PRAEMIUM > premio, premio, premi (prize). In the case of the word VINDEMIA > vendimia, vindima, verema (vintage), each language offers a separate solution: Castilian retains the group /mi/ after it raised the preceding vowel; Portuguese drops the /i/ after it raised the preceding vowel; and Catalan seems to have lost the palatal element before it could affect the vowel.

The nasal /n/ and the yod was consistent in all three languages by resolving to the palatal /ɲ/: VINEA > viña, vinha, vinya (vineyard); SENIORE > señor, senhor, senyor (lord, sir).

The liquid /r/ and a yod group shows the attraction of the yod to the preceding vowel with no effect on the consonant: CŎRIU > cuero, coiro or couro, cuir (skin, leather). The Castilian does not demonstrate the diphthongization of /ɔ/, as might be suspected upon seeing the combination of ue, but rather the closing of /ɔ/ to /o/, with the attraction to that syllable of the front vowel thus forming in Old Castilian "*coero, que asimilando oe al diptongo ue, tan frecuente en el idioma, fué cuero" (Manual, p. 63).

The development of the lateral liquid /l/ and a yod produced, as the conditions would indicate, the palatal /lj/ in Portuguese and Catalan, but had a much more radical development in Castilian. The steps of the process were /lj/ > /dj/ > /dʒ/ > /ʒ/ > /x/ as seen in: MULIERE > mujer, mulher, muller (woman); FILIU > hijo, filho, fill (son); ALLIU > ajo, alho, all (garlic).

Consonant and wau /w/

The combination of a consonant and /w/ was usually present in the verb forms of the Latin -UI perfects, the palatal /w/ normally being absorbed by the preceding vowel. This phenomenon existed in Castilian and Portuguese, but not in Catalan, which replaced these perfects with new forms.¹³ The voiceless /p/ and /w/, as seen in the Latin perfect

SAPUIT > *saupe > sope > supe, soube (I found out) or the voiced /b/ and /w/ in HABUIT > *haube > hobe > hube, houve (I had), show the combination of the /w/ with the /a/ by attraction to the tonic vowel, which then developed to /o/ following the normal procedure for the diphthong au.¹⁴ The intervocalic bilabial /p/ voiced and then became the fricative [ɸ] in Portuguese in soube, but not in Castilian, perhaps because of learned influence. The voiced consonant did weaken to the fricative [ɸ] in Castilian in hube and further weakened to labiodental /v/ in Portuguese.

The voiceless velar /k/ and /w/ consistently show a voicing of the velar to /g/ before the back vowel /a/ becoming [gʷ]: ACQUA > agua, águā, aigua (water); the Catalan word shows the vocalization of c to i; AEQUALE > igual, igual, igual (equal). Before a front vowel /e/ or /i/, the /k/ also voiced, but the /w/ was dropped in pronunciation, although the u was retained to indicate voicing: SEQUERE > sequir, seguir, seguir (to follow); AQUILA > águila, águila, aguila (eagle). Before the back vowel /o/ the velar voiced and the /w/ fell as in ALIQUOD > algo, algo, -- (something). The voiced velar /g/ and /w/ were retained in all three languages, as witnessed by LINGUA > lengua, lŕngua, llengua (tongue).

The voiceless dental /t/ in combination with /w/ is found in the Latin -UI perfects, as were the /p/ and /b/, with very similar results in Castilian and Portuguese. Again Catalan did not retain these

perfects. The /w/ was attracted to the preceding vowel and the /t/ voiced to /d/, thus POTUIT > poude > pode > pude, pude (I could).

The nasal /n/ in combination with the /w/ was not affected, but the preceding vowel was raised in Castilian and Catalan while the vowel in Portuguese was not affected: JANUARIU > enero, janeiro, gener (January).

Medial Romance Groups

The medial Romance groups, as previously stated, were those that developed as early as the Vulgar Latin period and resulted from the loss of the unstressed vowel or syncope. The Appendix Probi, from the first century A.D., lists a number of examples which were to bring into contact many consonants theretofore separated by a pre-tonic or post-tonic vowel. Many of the combinations thus created did not exist in Classical Latin and offered new problems for Romance.

First element is liquid

As with the Latin group, the nature of the liquid allowed it to blend with the other consonants and it was therefore generally retained. The group of the liquid /r/ and a consonant was usually preserved, as in: PIRULA > perla, perla, perla (pearl), although there could be a confusion of liquids and the /r/ could become /l/ especially when followed by /b/: HARIBERGU > albergo, alberque, alberg (inn). Often, before syncope could occur, the voiceless consonant voiced as in the case of VERECUNDIA > vergüenza, vergonha, vergonya (shame); VERITATE >

verdad, verdade, veritat (truth); the Catalan word indicates learned influence.

The lateral liquid /l/, when in combination with another consonant, usually remained: *FALTARE > faltar, faltar, faltar (to lack). However, in combination with the voiceless velar /k/, the group offered several possible solutions. After the back vowel /a/, the liquid usually vocalized in Castilian to /u/ but remained in Catalan, thus: SALICE > sauce, --, salze (willow); CALICE > cauce, --, calze (bed of a river). If the vowel preceding the liquid was /o/ or /u/, the liquid was absorbed by the vowel in Catalan, but remained in Castilian and Portuguese: *COLAPUS > golpe, golpe, cop (blow); POLYPU > pulpo, polvo, pop (octopus); *PULICA > pulga, pulga, puça (flea). This last example shows the voicing of /k/ to /g/ before syncope occurred in Castilian and Portuguese. This was, in fact, the normal development in all three languages: DELICATU > delgado, delgado, -- (thin); FOLLICARE > holgar, folgar, folgar (to rest).

First element is nasal

The nasal /m/ and the dental /t/ usually resolve to /nd/, after the /t/ has voiced and the bilabial becomes the alveolar nasal by assimilation by point of articulation: LIMITARE > lindar, limitar, llindar (to border); the Portuguese word shows learned influence; SEMITA > senda, senda, senda (path). The combination of the two nasals, /m/ and /n/, created the necessity for the transitional consonant /b/, consistently

in Castilian and sometimes in Catalan. In Portuguese, however, there was often no syncope, and the need for the transitional consonant was avoided. Prior to the introduction of the /b/, the second nasal had become /r/ by dissimilation. Words which illustrate these developments are: SEMINARE > sembrar, semear, sembrar (to sow); NOMINE > nombre, nome, nom (name); FEMINA > hembra, fêmea, fembra (female); this Old Catalan form was replaced in the modern language by FEMELLA > femella; HOMINE > hombre, homem, home (man). The nasal /m/ and the liquid /r/ created the same need for the transitional consonant /b/, which vacillated according to the degree of learned influence: HUMERU > hombro, ombro, -- (shoulder); NUMERU > número, número, nombre (number). In combination with the lateral liquid /l/ the results were either -mbl- or -lm- in Castilian, -mbr- in Portuguese, and -mbl- in Catalan: CUMULU > colmo, combro, comble (heap, abundance); TREMULARE > temblar, tremar, tremolar (to tremble).

A voiceless consonant before being grouped to the nasal /n/ had usually voiced, as BONITATE > bondad, bondade, bondat (goodness). The nasal /n/ with /m/ often became /r/ or /l/ by dissimilation: ANIMA > alma, alma, arma (soul); this Old Catalan form was replaced in the modern language by the learned form, ànima. With the liquid /r/ there were several developments: the group remained although the /r/ became /rr/; a transitional consonant, in this instance /d/ by assimilation by point of articulation, was introduced; or, the group suffered

metathesis from /nr/ to /rn/ (in Castilian). These changes are seen in the following words: HONORARE > honrar, honrar, honrar (to honor); INGENERARE > engendrar, engendrar, engendrar (to engender); GENERU > verno, genro, gendre (son-in-law); VENERIS > viernes, --, divendres (Friday).

First element is dental

The voiceless dental /t/, in combination with the nasal /n/, shows metathesis in its development in Castilian, but did not develop in Portuguese to the loss of the intervocalic nasal. In Catalan, the consonantal combination remained in spelling but, because of assimilation of the dental to the nasal, the pronunciation is /n/ as in *CUTINA > cotna. In Castilian the development is seen in CATENATU > can-
dado, --, cadenat (lock); RETINA > rienda, rédea, regna (rein); the Catalan word was probably influenced by REGNUM or REGERE (to guide).

The /t/ which came into contact with the liquid /l/ very early became confused with the evolution of -C'L-, both groups becoming /x/ in Castilian and /lj/ in Portuguese and Catalan developing through the changes /tl/ > /kl/ > /klj/ > /lj/ (Portuguese and Catalan) > /dʒ/ > /ʒ/ > /x/ (Castilian). The most obvious example of these changes is VETU-
LU > VECLU > viejo, velho, vell (old). In some words in Catalan the voiceless dental was retained while Castilian and Portuguese show the popular development: SPATULA > espalda, espádua, espatlla (back).

The voiced /d/ with the liquid /r/ was preserved in Castilian

but Portuguese lost the dental element. In Catalan the dental vocalized to /u/, as in: HEDERA > hiedra, hera, heura (ivy).

In Castilian and Portuguese the dentoalveolar /s/, grouped with the nasal /n/, was retained, while Catalan simplified the group to either one of the consonants: ASINU > asno, asno, ase (ass); *DISJUNARE > --, --, dinar (to eat). The /s/ with the liquid /l/ was preserved in Castilian but became the palatal /lj/ in Portuguese and Catalan, as exemplified by INSULA > isla, ilha, illa (island).

Consonant (stop) and /r/

The stop consonants, with the liquid /r/, generally may be said to evolve in similar manner to the intervocalic stops or to the Latin groups, that is, the voiceless /p,t,k/ voiced to /b,d,g/ and then became the fricatives [β,ð,ɣ]. The voiced stops also generally weakened to the fricatives and, in the case of Portuguese, the [β] further weakened to /v/. The voiced could also be so weakened as to drop entirely or to vocalize to /j/ or /w/ as in Catalan. These phenomena can be observed in: RECUPERARE > recobrar, recobrar, recobrar (to recover); APERIRE > abrir, abrir, obrir (to open); LEPORE > liebre, lebre, llebre (hare); LIBERARE > librar, livrar, alliberar (to free). The vocalizing tendency of Catalan is seen in the following common verbs: DICERE > decir, dir, dir (to say); SCRIBERE > escribir, escrever, escriure (to write); VIVERE > vivir, viver, viure (to live); CREDERE > creer, crer, creure (to believe).

Consonant (stop) and /l/

The Romance group of a bilabial /p/ and the lateral /l/ normally developed by voicing the bilabial stop, thus becoming /bl/. In Portuguese the voicing to [β] occurred and then the consonant further weakened to /v/ while at the same time dropping the liquid /l/. Thus, POPULU became pueblo, povo, poble (people). The -P'L- group could also produce the palatal /lj/: SCOPULU > escollo, escolho, escull (reef). The -B'L- group generally became [βl] in Castilian, /l/ or /v/ in Portuguese, and /wl/ in Catalan, although it could also evolve to /lj/ in Castilian, [βr] in semi-learned words in Portuguese, or [βl] in Catalan. Illustrations of these changes are: NEBULA > niebla, névoa, neula (fog); FABULARE > hablar, falar, -- (to speak); NOBILE > noble, nobre, noble (noble). The Latin word SIBILARE (to hiss) offers some interesting developments in that in Castilian a learned doublet arose: chillar (to shriek, to hiss) and silbar (to whistle); in Portuguese the result was silvar (to hiss, whistle), and in Catalan xiular (to whistle).

The velar consonants, whether voiceless /k/ or voiced /g/, with the lateral /l/, became consistently /x/ in Castilian, /lj/ in Portuguese and Catalan. Since the group -T'L- soon became -C'L-, the steps of change for the velar group are the same as those seen for the dental group. These changes are exemplified by: OCULU > ojo, olho, ull (eye); VERMICULU > bermejo, vermelho, vermell (crimson); APICULA > abeja, abelha, abella (bee); TEGULA > teja, telha, teula (tile);

Catalan shows vocalization of the velar; REGULA > reja, relha, rella (grate, blade of a plow).

Stop and nasal

The velar stop /k/ usually came into contact with a nasal through the loss of post-tonic /i/ in Castilian. Before the loss, the consonant had voiced to /z/ (represented by z), but later unvoiced to /θ/. There was no loss of the vowel in Portuguese, so no group was formed. In Catalan, the velar vocalized to /u/ as an intermediate stage to becoming /lm/. These three changes in the respective languages are illustrated by: DECIMU > diezmo, dřzimo, delme (tithe).

Stop and stop

The Romance group offers a development different from that of the Latin group of two stops, since the consonants both had an opportunity to undergo the voicing process. The second consonant is also stronger in a Romance group, since it is in the syllable initial position.

In the Romance groups of a labial (/p,b,v/) and a dental (/t,d/), the result in Castilian was to voice the consonants to become /bd/ and then vocalize the first element to /u/. Unlike the Latin group, which normally dropped the labial element, the Romance group retains it. Very much the same occurred in the other two Peninsular languages, except that Portuguese had rather fewer groups because of less syncope, and Catalan often retained the voiceless nature of the dental element. A few examples of these changes are: CAPITELLU > caudillo, caudilho,

cabdill (leader); DEBITA > deuda, dřvida, deute (debt); CIVITATE > ciu-
dad, cidade, ciutat (city).

The Latin group of a velar and a dental generally developed to a palatal, but the Romance group retained the dental element, albeit altered to a different form. The Romance group -C'T-, when the atonic vowel was a front /e/ or /i/, developed to /z/ in all three languages with Castilian later unvoicing the phoneme to /θ/: PLACITU > plazo, prazo, -- (term); RECITARE > rezar, rezar, resar (to pray). This same development takes place in the Portuguese word for "friendship", while the Castilian and Catalan words demonstrate a degree of learned influence producing /st/: AMICITATE > amistad, amizade, amistat.

The Romance group of the voiced velar /g/ and the dental /t/ was resolved in all three languages by the loss of the velar and the voicing of the dental. The voicing occurred in Catalan if the dental was intervocalic; if not the consonant retained the voiceless quality. Words showing these developments are: COGITARE > cuidar, cuidar, cuidar (to care for); DIGITU > dedo, dedo, dit (finger).

The voiceless dental and the velar /k/ voiced to /zg/ in Castilian, with the dental later becoming voiceless /θ/. In Portuguese the product was the fricative /ʒ/ and Catalan was resolved with the affricate /dʒ/: PORTATICU > portazgo, portagem, -- (toll); Catalan shows the development in VIATICU > viaje, viagem, viatge (trip). The voiced dental and the velar also developed along similar lines except that the

velar element is lost in all three languages: DUODECIM > doce, doze, dotze /3/ (twelve).

In the development of two dentals, Castilian assimilates the voiceless to the voiced, Portuguese drops the voiced /d/ and voices the /t/ producing the same effect, and Catalan assimilates the voiced to the voiceless, thus, HEREDITATE > heredad, herdade, heretat (estate).

Groups of three consonants

If the group contains a geminate, this usually simplifies and the two consonants then remain: LITTERA > letra, letra, lletra (letter); QUATTUOR > cuatro, quatro, quatre (four).

The group of three consonants consisting of a nasal, liquid or /s/ plus a consonant plus a liquid normally remained intact in all three languages: COMPERARE > comprar, comprar, comprar (to buy). The first element can vocalize as in: ALTERU > otro, outro, altre (other); VULTURE > buitre, abutre, voltor (vulture); or, /l/ > /w/ and may be absorbed by the preceding /o/ or /u/: SULFURE > azufre, enxofre, sofre (sulphur). Often the liquids were confused as in: ANCORA > ancla, âncora, àncora (anchor), or, if the last element was not a liquid it changed to one, especially in Castilian: SANGUINE > sangre, sangue, sang (blood); INGUEN > ingle, --, engonal (groin). If the first and the third elements were the same, such as bilabials, the first one fell: SEPTIMANA > semana, semana, setmana (week).

The Romance group of a consonant plus -C'L- developed to /tʃ/

consistently in Castilian and Portuguese which lost the dental to become /ʃ/. Catalan occasionally develops the /tʃ/: ASTULAM > hacha, acha, atxa (axe); CONCHULA > concha, concha, -- (shell); MASCULU > macho, macho, mascle (male). Catalan shows learned influence also in the group -NG'L- which became /ɲ/ in Castilian and Portuguese: UNGULA > uña, unha, ungle (fingernail).

Other Romance groups of three consonants usually preserve only the first and the last elements, as in VINDICARE > vengar, vingar, venjar (to avenge); the Catalan word lost the velar consonant and the /d/ plus yod > /ʒ/; EPISCOPU > obispo, bispo, bisbe (bishop); COMPUTA > cuenta, conta, conta (he counts).

Final Consonants

The medial consonant groups had different developments which were dependent on whether the group existed in Latin or was a product of a change in Vulgar Latin or Romance. The final consonants, too, could have existed in Latin and undergone changes which consonants that became final in Romance did not experience. The converse is also true.

The final simple consonants of Latin normally fell in Western Romance, except for the -S, -L, and -R, the last usually becoming interior due to metathesis. The final nasal -M, which usually dropped early, remained in Portuguese in monosyllables as an indication of nasality. The bilabial was converted to /n/ in Castilian and Catalan

in monosyllables. The normal tendency in Catalan, however, was to drop the final nasal. Words exemplifying these changes are: NOVEM > nueve, nove, nou (nine); CABALLUM > caballo, cavalo, cavall (horse); SUM > soy, sou, sóc (I am); but, QUEM > quien, quem, que (who). The velar -C /k/ and the dentals -T, -D, and -N also fell: NEC > ni, nem, ni (neither); *ACCU-HIC > aquí, aquí, aquí (here); CAPUT > cabo, cabo, cabo (end); CANTAT > canta, canta, canta (he sings); ALIQUOD > algo, algo, -- (something); AD > a, a, a (to, at); NON > no, não, no (no). The dentoalveolar -S was retained: MINUS > menos, menos, menys (less); VENIS > vienes, vens, vens (you come); and, as an indication of plurality: CASAS > casas, casas, cases (houses). The liquid -L remains in monosyllables, although frequently pronounced as a vocalized /w/ in Portuguese: MEL > miel, mel, mel (honey); SAL > sal, sal, sal (salt). In Ibero-Romance the -R remains but becomes internal: INTER > entre, entre, entre (between); SEMPER > siempre, sempre, sempre (always); and, in Catalan, remains in monosyllables: COR > cor (heart); PER > per (for).

The final Latin groups generally simplified: -ST > /s/: EST > es, é, és (he is); -NT > /n/: CANTANT > cantan, cantam, canten (they sing); the Portuguese m is a sign of nasality of the preceding vowel; and, -X > /s/: SEX > seis, seis, sis (six).

Romance tolerated the three final consonants from Latin and accepted still others that became final due to the loss of the atonic

final vowel. Castilian is the only language to possess the final /d/, usually developing from the voicing of -T-; Portuguese retains the final vowel, while Catalan keeps the voiceless /t/: CARITATE > caridad, caridade, caritat (charity); BONITATE > bondad, bondade, bondat (goodness). Castilian and Portuguese both resolve a final velar or dental plus a yod to a fricative: Castilian > /θ/; Portuguese > /z/; Catalan often vocalizes it to /w/: PACE > paz, paz, pau (peace); VICE > vez, vez, vegada (time). The nasal /n/ is retained in Castilian while Portuguese converts it to m only as an indication of nasality as it has lost its consonantal quality: BENE > bien, bem, bé (well); FINE > fin, fim, fi (end). It will be noted that Catalan drops the final /n/ but restores it in the plural of the words, such as: PANE > pa, but pans; RATIONE > raó, but raons. The /r/ is accepted as final in all three languages, except that in Catalan it is generally not pronounced in popularly developed words: CANTARE > cantar, cantar, cantar (to sing); MARE > mar, mar, mar (sea). Catalan, due to the great loss of final vowels, accepts many more final simple consonant sounds than Castilian and Portuguese, such as: /m/: LUMEN > llum (light); /p/: NAPU > nap (turnip); /k/: DICU > dic (I say); /t/: NEPOTE > nebot (nephew). On the other hand, Catalan also vocalizes the consonants -B-, -D-, -C- + /e/, /i/ and -TY- to /w/: DEBET > deu (he owes); DICIT > diu (he says); PRETIU > preu (price).

Since Castilian and Portuguese have very few words ending with

a consonant phoneme, there are few consonants that can be final. In Castilian words can end in d [ð], s /s/, z /θ/, n /n/, r /r/, and l /l/. In Portuguese, these are reduced to three in that the nasal consonant affects the preceding vowel and ceases to have consonantal characteristics, the final s and z are pronounced /ʃ/, and the d does not become final.

As stated, one of the characteristics of Catalan is that it has demonstrated a great affinity for dropping final vowels, and, by so doing, has caused a number of simple consonants as well as consonantal groups to be final. Some of these final groups found in Catalan are: /ns/: TENES > tens (you have); /ls/: VOLES > vols (you want); /st/: JUSTU > just (just); /sk/: FRISCU > fresc (fresh); /rm/: DORMIT > dorm (he sleeps); /rn/: FURNU > forn (oven); /rt/: PORTU > port (port); /ɲ/: PUGNU > puny (fist); /lj/: OCULU > ull (eye); /jt/: FRUCTU > fruit (fruit).

CHAPTER III

MORPHOLOGY

The previous chapter dealt with the evolution of the sound systems, vocalic and consonantal, in the three Ibero-Romance languages and the words studied traced the changes in pronunciation from Classical Latin to the modern languages. With these internal phonological and phonemic changes in mind, the next task is to trace the evolution of the external morphological changes; the formation of words and their grammatical functions.

The characteristic tendency of Vulgar Latin and the Romance languages was the simplification of the mother tongue, Classical Latin. While this desire for simplification often led to more complex solutions in the phonological developments with the creation of palatals, nasals and fricatives which had not previously existed, the morphological results show a definite reduction and simplification of the complex systems of Classical Latin, especially in the nouns and verbs. This statement must, however, be qualified, for the changes in the nominal (and along the same lines, the adjectival) and verbal systems did not occur in isolation but were dependent on their functions within a sen-

tence. Therefore, as with the phonological developments, the simplification of one morphological aspect often occasioned the need for new forms to fill the void in meaning brought about by simplification. The flexional system of Classical Latin was thus simplified and lost its synthetic quality, giving rise to the use of prepositions, articles and auxiliary verbs and the analytic quality of Romance.

Nouns

The nominal system of Classical Latin was a complex one comprised of three genders, five declensions and six cases, both singular and plural. Each noun, then, had to be inflected according to gender and declension, case and number. This system proved to be inconvenient, especially for the common man not schooled in grammar, and in the early Vulgar Latin period signs pointed toward reduction and simplification.

The cumbersome six-case system of Classical Latin consisting of separate flexions for the nominative, genitive, dative, accusative, ablative and vocative functions of the noun were soon reduced to two, nominative and accusative, in Vulgar Latin. The functions of the discarded cases were assumed by the other two in conjunction with various prepositions. The two-case system survived for some time in Romance, as evidenced by texts in Old French and Provençal, but Ibero-Romance further reduced the system to only the accusative. The desire for simplification of the case system was further reinforced by confusion

of the case endings due to phonological changes. The early loss of final -M, which caused confusion between the nominative and accusative cases in the singular, and the change in the vocalic system from one of quantity (long or short) to one of quality (open or closed) had a direct bearing on the disappearance of a case system.

Ibero-Romance does, however, possess a few vestiges of the nominative, genitive and ablative cases, while the dative and vocative have completely disappeared. The most numerous examples of these nouns are those that belong to the nominative case, due to the fact that it remained longer than the other four: DEUS > dios, deus, déu (god); CARŎLUS > Carlos, Carlos, Carles (Charles); HOMO > --, ome (Old Portuguese indefinite pronoun), hom (one); RES > --, --, res (something). The vestiges of the genitive case are limited to a few place names and to three days of the week: MARTIS > martes, martes (Old Portuguese), and DIES MARTIS > dimarts (Tuesday); JOVIS > jueves, joves (Old Portuguese), and DIES JOVIS > dijous (Thursday); VENERIS > viernes, vernes (Old Portuguese), and DIES VENERIS > divendres (Friday). As stated, the dative case has left no trace in modern Ibero-Romance, nor has the vocative, as its form generally coincided with the nominative. A few isolated examples of the ablative may be seen with HĀC HŎRA > ahora, agora, ara (now) and the adverbial suffix -MENTE > -mente, -mente, -ment (-ly).

The reduction of the five declensions of Classical Latin to three

in Romance corresponded to the reduction of the three genders to two, masculine and feminine, the neuter being most consistently assimilated to the masculine. The following chart of the accusative case endings of the five declensions shows the similarities which caused the confusion and subsequent reduction in Ibero-Romance.

	<u>Singular</u>	<u>Plural</u>
First declension		
Feminine	-AM	-ĀS
Second declension		
Masculine	-UM	-ŌS
Neuter	-UM	-A
Third declension		
Feminine	-EM	-ĒS
Masculine	-EM	-ĒS
Neuter	-(E)	-(I)A
Fourth declension		
Masculine	-UM	-ŪS
Neuter	-Ū	-UA
Fifth declension		
Feminine	-EM	-ĒS

Nouns of the first declension were generally feminine and normally retained that gender in Romance with the characteristic final vowel -a in the singular and -as in the plural.¹ Catalan, due to the atonic nature of the final vowel, has reduced the pronunciation to /ə/ and represents this change orthographically in the plural with -es. Examples of first declension words evolving into Ibero-Romance are: POENAM -AS > pena -as, pena -as, pena -es (pain -s); CAPRAM -AS > cabra -as, ca-
bra -as, cabra -es (goat -s); VITAM -AS > vida -as, vida -as, vida -es (life, lives).

Also, since nouns of the fifth declension were, for the most part, feminine, some of these were adapted to the first declension by modifying their flexions to coincide with the characteristic -a of the first declension. Words which show this shift are: RABIEM -ĒS > *RABIAM -ĀS > rabia -as, raiva -as, rabia -es (rage -s); MATERIEM -ĒS > MATERIAM -ĀS > madera -as, madeira -as, -- (wood -s). One word, which was masculine in the fifth declension, retained the masculine gender in Romance but adopted the feminine -a ending: DIEM -ĒS > *DIAM -ĀS > día -as, dia -as, dia -es (day -s). Other words of the fifth declension were normally absorbed into the third due to the similarities in their flexions. There existed a few neuter nouns whose plural form, -A, was taken to be a feminine flexion and, as such, they were assimilated to the first declension. Their meaning was taken to be singular so that a plural form was created analogous to that of the first declension (-as for Castilian and Portuguese, -es for Catalan). Some neuter plurals that became feminine singulars were: ARMA > arma, arma, arma (arm, weapon); FOLIA > hoja, fôlha, fulla (leaf); Catalan does possess a masculine singular, full, with the same meaning which came from the neuter singular FOLIUM; ŌPERA > obra, obra, obra (work); VŌTA > boda, boda, boda (wedding). The fact that most of these nouns had a collective meaning probably aided their assimilation to the singular feminine form.

The second declension nouns of Classical Latin were either

masculine or neuter in gender. Neuter nouns whose plural had not been mistaken for feminine singular, such as FOLIUM -A, were readily assimilated to the masculine by virtue of the similarities in the accusative singular case endings. Just as the feminine nouns have the characteristic vowel -a, the masculine gender is usually identified by -o in the singular and by -os in the plural. This is, however, not the case with Catalan, which normally loses the final vowel, unless it is a vowel of support. The endings for the singular masculine noun in Catalan are: -, -e, -o; and in the plural: -s, -es, -os. Masculine nouns of the second declension such as, AMICUM -ŌS > amigo -os, amigo -os, amic -s (friend -s); POPULUM -ŌS > pueblo -os, povo -os, poble -es (town -s, people -s); and, CERVUM -ŌS > ciervo -os, cervo -os, cervo -os (deer) retained their gender in all three languages.

The neuter nouns were confused with the masculine, since the singular endings were the same, which aided their absorption into the masculine paradigm: CAELUM -A (-ŌS) > cielo -os, céu -us, cel -s (sky -ies); BASIUM -A (-ŌS) > beso -s, beijo -s, bes -sos (kiss -es). The second -s- is added in Catalan to retain the voiceless quality of the consonant in the intervocalic position.

The second declension attracted and absorbed the fourth declension, due to the fact that most of the nouns of the latter declension were also of masculine gender and had flexions that were quite similar to those of the second declension; these nouns were assimilated to the

general masculine group. The few neuter nouns which belonged to this declension also adopted the masculine endings. Fourth declension nouns such as: FRUCTUM -ŪS > fruto -s, fruto -s, fruit -s (fruit -s) and CORNŪ -UA > cuerno -s, corno -s, corn -s (horn -s) show this tendency. One noun of the fourth declension was feminine, and, while it followed the other nouns in developing the endings -o, -os, it retained its feminine gender: MANUM -ŪS > mano -s, mão -s, ma -ns (hand -s). The Catalan word shows the normal reinstatement of the nasal consonant in the plural of monosyllables, while the intervocalic -n- in the Portuguese word drops after having nasalized the preceding a.

Nouns of the third declension were either masculine, feminine or neuter. As seen in the chart on page 114, the endings for the masculine and feminine were the same. Rather than assimilating to the endings of their respective genders, they retained the characteristic vowel -e. The result is that nouns ending in -e, -es normally retain the gender that they had in Classical Latin. Therefore, feminine nouns such as VIRTUTEM -ĒS > virtud -es, virtude -s, virtut -s (virtue -s); CIVITATEM -ĒS > ciudad -es, cidade -s, ciutat -es (city -ies) and PACEM -ĒS > paz -ces, paz -es, pau -s (peace -s) were all brought into Ibero-Romance as feminine nouns. In addition to the nouns which originally belonged to the third declension feminine group, the nouns of the fifth declension, which had not been assimilated to the feminine nouns of the first declension by adopting the characteristic -a ending, were

treated as feminines of the third declension since they had the same flexions and the same gender: FIDEM -ĒS > fe -s, fé -s, fe -s (faith -s); FACIEM -ĒS > haz -ces, face -s, faç -es (surface -s).

Third declension masculine nouns, likewise, normally retained their gender in Ibero-Romance: LEONEM -ĒS > león -es, leão -ões, lleó -s (lion -s);² HOMINEM -ĒS > hombre -s, homem -ns, home -s (man, men); AMOREM -ĒS > amor -es, amor -es, amor -s (love -s). And, as with the neuter nouns of the second and fourth declensions, the normal development for neuter nouns of the third was assimilation to the masculine. In the case of several of these nouns, the accusative singular form ended in -US, which made them readily adaptable to the second declension masculine nouns with the characteristic vowel -o. This singular form did offer some difficulty in that the final -s was taken as a sign of plurality in which case "hubo de formarse un singular anti-etimológico" (Manual, p. 215). Neuters of this type are: CORPUS > cuerpos, corpos, cossos (bodies); TEMPUS > tiempos, tempos, temps (times). The anti-etymological singulars are cuerpo, corpo; tiempo, tempo in Castilian and Portuguese. The Catalan singular forms of these nouns are etymologically formed from the accusative singular of Latin resulting in cos and temps. The plural noun, cossos, is formed by analogy with the masculine plurals of the second declension, i. e., bessos and, according to Badía Margarit "se ha creado un plural extra-etimológico" (Badía Margarit, p. 254). The word temps is invariable as

either singular or plural. Other neuter nouns of the third declension were not so easily identifiable, and, as a consequence, suffered some vacillation between the two genders. MARE became mar (sea) in all three languages, but it is both masculine and feminine in Castilian (the masculine is a more modern development by analogy with other masculine nouns ending in -r) and masculine in both Portuguese and Catalan.

While most nouns of the third declension from Classical Latin evolved with the same gender, there are a few that did change. ARBOREM was feminine in Latin and retained that gender in Portuguese, a àrvore, but adopted the masculine gender in Castilian and Catalan: el árbol, el arbre (tree). Conversely, the Latin word SANGUINEM was masculine, the gender that it retained in Portuguese, o sangue, while Castilian and Catalan opted for the feminine: la sangre, la sang (blood). The Latin word FLOREM was originally masculine but changed to the feminine gender in all three Ibero-Romance languages: la flor, a flor, la flor (flower). The Latin masculine word FINEM retained that gender in both Castilian and Portuguese: el fin, o fim, but became feminine in Catalan, la fi (end).

All of these changes, reductions and simplifications of the nominal system in Ibero-Romance left the three languages with three declensions, including only two genders, which, in turn, were based on only one case. The following paradigm illustrates the results of these reductions.

- I. VITAM > vida, vida, vida
VITĀS > vidas, vidas, vides
- II. AMICUM > amigo, amigo, amic
AMICŌS > amigos, amigos, amics
- III. (Masc.) HOMINEM > hombre, homem, home
HOMINĒS > hombres, homens, homes
- III. (Fem.) VIRTUTEM > virtud, virtude, virtut
VIRTUTĒS > virtudes, virtudes, virtuts

Adjectives

The development of the adjectival system from Classical Latin to Ibero-Romance was similar to, but simpler than, that of the nominal system. Adjectives soon lost all of the case endings except the accusative, with no vestiges of the other five cases. With the loss of the neuter gender for nouns, the need for neuter adjectives was also lost, so that adjectives of the first and second declensions developed a masculine and a feminine form and those of the third developed one form for both genders. If the neuter concept was needed, the Ibero-Romance languages adopted the analytic solution of using the neuter article lo or the masculine article with the masculine form of the adjective. Thus, for the general meaning of "the good", Castilian uses lo bueno, Portuguese o bom, and Catalan employs el or lo bon.

Adjectives may be divided into two types in Classical Latin: those with three endings (masculine, feminine, and neuter) and those with two (one for masculine and feminine and one for neuter). Since the case from which the adjectives developed in Romance was the accu-

sative, and the masculine and neuter endings were the same, -UM, these two flexions merged and resulted in the characteristic vowel ending -o in Castilian and Portuguese and -e or -- in Catalan. The masculine plurals, -OS, became -os in all three languages. The feminine counterpart, with the flexions -AM, -AS, developed in the same way as the noun flexions to give -a, -as in Castilian and Portuguese and -a, -es in Catalan. Judging from these endings, it can be deduced that the feminine adjective can be formed by simply changing the masculine vowel, -o, -e, or -os, to the corresponding feminine vowel. This is generally the case in Castilian but not in Portuguese or Catalan. As seen in the previous chapter in the section on vowels, Portuguese brings many final vowels into hiatus with tonic and post-tonic vowels through syncope which can and does often change the vowel completely: final -o changes to -u in hiatus with tonic a: MALU > mau (bad); or it can merge with tonic /õ/ to produce /õ/: BONUM > bom (good); final -a can also lose its identity in hiatus with tonic /e/ or /o/ by merging with that vowel: SOLAM > só (alone). The problem posed by Catalan is not in regard to masculine adjectives ending in -e, which generally do change -e to -a for the feminine, but in the case of masculine adjectives which drop the final masculine vowel. Unlike Portuguese, in which difficulties are encountered in the vocalic development, Catalan, by adding a vowel to the apocopated masculine form, must sometimes convert the previously final consonant to its intervocalic counterpart.

This is accomplished by voicing an unvoiced consonant: mut, muda (silent); reinstating the lost -n or -v: humà, humana (human), nou, nova (new); changing final -s to -ss- /s/: espès, espessa (thick); or changing -ig to -j- or -tj- /tʃ/: mig, mitja (half). An interesting development in Castilian is its tendency to apocopate some of the masculine singular adjectives when they precede a masculine noun: buen(o), mal(o), un(o), primer(o). Some examples of adjectives which developed with masculine and feminine endings in Ibero-Romance are: ALTUM -ŌS -AM -ĀS > alto -os -a -as, alto -os -a -as, alt -os -a -es (high, tall); ALTERUM -ŌS -AM -ĀS > otro -os -a -as, outro -os -a -as, altre -os -a -es (other); NOVUM -ŌS -AM -ĀS > nuevo -os -a -as, novo -os -a -as, nou -s -va -ves (new); BONUM -ŌS -AM -ĀS > bueno -os -a -as, bom -ns, boa -as, bon -s -a -es (good).

Classical Latin adjectives of two endings in the nominative, such as FORTIS -E, and those of three, ALACER -RIS -RE, also took the accusative form in Ibero-Romance which was -EM in the singular and -ĒS in the plural. The adjectives of this type developed only one form for masculine and feminine in Castilian and Portuguese, -e, -es, by analogy with nouns of the third declension. Catalan also adopted these flexions but with some irregularities. If the masculine singular adjective did not need the final -e as a vowel of support, it was dropped: trist (sad) but alegre (happy). There also was a tendency to create a feminine form with endings analogous to the adjective of the first type,

i. e. , with final -a: dolent, dolenta (painful); fort, forta (strong).

Some adjectives which developed in this manner are: TRISTEM -ĒS > triste -s, triste -s, trist -a -es (sad); FORTEM -ĒS > fuerte -s, forte -s, fort -a -es (strong); BREVEM -ĒS > breve -s, breve -s, breu -s (brief); GRANDEM -ĒS > grande -s, grande -s, gran -s (large). Castilian apocopes this form to gran before either a masculine or feminine singular noun while Portuguese uses the apocopated form, grão, only in compound nouns.

In all three languages, some adjectives of the second type dropped the -e ending for the masculine singular. Most of these were adjectives referring to nationality or ending in -or (other than comparatives) which occasioned the development of a feminine form following the adjectives of the first type: *HISPANIONEM > español -a, espanhol -a, espanyol -a (Spanish); FRANCENSEM > francés -a, francês -a, francès -a (French); INCANTATOREM > encantador -a, encantador -a, encantador -a (charming).

In Classical Latin the comparative and superlative degrees were based on synthetic forms, -IOR and -ISSIMUS or -IMUS respectively. In Vulgar Latin an analytic or periphrastic solution was offered by using the adverbs PLUS or MAGIS with the positive degree of the adjective. In Ibero-Romance the form that survived was MAGIS > más, mais, més (more) which is placed before the adjective. The Classical Latin conjunction QUAM (than) became confused in Romance with the relative

pronoun and conjunction QUEM to become que, que, que (than), which is used to connect the two concepts being compared. Therefore, the idea "stronger than" would be expressed in the three languages as: más fuerte que, mais forte que, més fort que. The concept expressed is one of superiority. Analogous to this, there arose a form for the comparison of inferiority using the Latin MINUS > menos, menos, menys (less) in the same way that MAGIS was used above. Therefore, to express the idea of "less strong than" or "weaker than", Ibero-Romance uses: menos fuerte que, menos forte que, menys fort que. A few of the irregular Latin synthetic or organic forms of the comparative have survived in Romance, perhaps due to the fact that they were common words and used a great deal: MELIOREM > mejor, melhor, millor (better); PEJOREM > peor, pior, pitjor (worse);³ MAJOREM > mayor, mór and maior, major (greater); MINOREM > menor, menor, menor (smaller); and, MINUS > menos, menos, menys (less, smaller). A few others, such as SUPERIOREM > superior, superior, superior (superior); INFERIOREM > inferior, inferior, inferior (inferior) and others, are strictly learned forms.

To indicate the superlative degree, Ibero-Romance has again opted for the analytical forms over the synthetic Latin ones, although the latter still exist in the languages as learned forms. The learned flexion -ISSIMUS or -IMUS may have come to Ibero-Romance attached to the learned form of the adjective, such as PAUPER -IMUS > paupérrimo, paupérrimo, -- (very poor) or to the popular form as in pobríssimo,

pobríssimo, pobríssim (very poor). The preferred analytic form consisted of the same construction as that for the comparative, that is, más, mais, més plus the adjective, preceded by the definite article. Taking the examples which were used for the comparative degree, it is possible to make them superlative as follows: el más fuerte, o mais forte, el més fort (the strongest) or el menos fuerte, o menos forte, el menys fort (the least strong or the weakest). One other change is necessary; the conjunction que (than) is replaced by the preposition de (of) as the sense changes from "than another" to "of all". The absolute superlative is conveyed in all three languages by the use of the form MULTUS and the adjective: muy fuerte, multo forte, molt fort (very strong).

Numerals

The first three cardinal numbers in Classical Latin were declined and continued to be declined in Vulgar Latin. Ibero-Romance ceased to decline the number "three" but the number "two" continues to be inflected for gender in both Portuguese and Catalan while the number "one" is inflected in all three languages. In the course of its evolution, the number "one" has acquired the additional function of an indefinite article and in the plural has the meaning of "some". Aside from the above mentioned developments, the first ten cardinal numbers developed etymologically from the Classical Latin with only minor phonetic changes. The evolution of these numerals is as follows: UNUM -AM > un(o) -a, um -a, u(n) -a (one, a, an); UNŌS -ĀS > unos -as, uns, umas, uns -es

(some); DUŌS -ĀS > dos --, dois, duas, dos, dues (two); Portuguese has an alternate masculine form, dous; TRĒS > tres, tres, tres (three); QUATTUOR > QUATTOR > cuatro, quatro, quatre (four); QUINQUE > CINQUE > cinco, cinco, cinc (five); the final -o of Castilian and Portuguese is by analogy with cuatro, quatro; SĒX > seis, seis, sis (six); SĒPTEM > siete, sete, set (seven); OCTO > ocho, oito, vuit (eight); NŌVEM > nueve, nove, nou (nine); DECEM > diez, dez, deu (ten).

The development of the numbers "eleven" to "sixteen" show similar solutions in all three languages although the steps taken to arrive at them may have been different. The Castilian solutions show the loss of the internal post-tonic vowel preceded by a vowel and -d- which first became -dz- and later unvoiced to -c- /θ/. The first step in this development is still evident in the modern Catalan forms although the dental element is unvoiced to -tz-. In the Portuguese development, Williams believes that the intervocalic -d- was lost in the forms TRĒDECIM and SĒDECIM, causing the two vowels to merge, thus creating dissyllabic words and "the remaining numerals of the group shortened in imitation of treze and seze and through the influence of the Spanish forms" (Williams, p. 134). The results of these changes are: ŪNDECIM > *ŪN-DECE > once, onze, onze (eleven); DUODECIM > DŌDECE > doce, doze, dotze (twelve); TRĒDECIM > trece, treze, tretze (thirteen); QUATT(U)OR-DECIM > catorce, catorze, catorze (fourteen); QUINDECIM > quince, quinze, quinze (fifteen); and SĒDECIM > seze, seze, setze (sixteen).

The Castilian and Portuguese forms of the last numeral represent old forms which were replaced by analytical ones discussed in the following paragraph.

The numbers "sixteen" (for Castilian and Portuguese) through "nineteen" were formed periphrastically in Ibero-Romance using the word for "ten", DECEM, and the appropriate unit numeral to form the compound word. In Castilian the conjunction ET was used to join these words while Portuguese opted for the preposition AC. Catalan uses no conjunction but simply agglutinates the two words. The developments of these numbers are as follows: DECEM ET SĒX > dieciséis or diez y seis, DECEM AC SĒX > dezasseis, -- (sixteen); DECEM ET SĚPTEM > diecisiete or diez y siete, DECEM AC SĚPTEM > dezassete, DECEM-SĚPTEM > *dezesset > disset (seventeen); the Catalan word shows dissimilation of the pre-tonic vowel e to i; DECEM ET OCTO > dieciocho or diez y ocho, DECEM AC OCTO > dezóito (with contraction of the a and o), DECEM-OCTO > divuit (eighteen); and DECEM ET NŌVEM > dieci-nueve or diez y nueve, DECEM AC NŌVEM > dezanove, DECEM-NŌVEM > dinou (nineteen).

For the multiples of ten, the most obvious similarity in all three languages is the loss of the intervocalic -G- to create the Vulgar Latin etyma which were the bases for these numerals. There were some divergent developments in the three languages, however, with Catalan evidencing the more obvious differences. The evolution of VĪGINTĪ to

veinte, vinte, vint (twenty) shows dissimilation of the initial i to e in the Castilian word with a shift in stress to this vowel, thus creating a diphthong. The Portuguese and Catalan forms demonstrate the merging of the two i's in hiatus. The Latin TRĪGINTĀ is obviously the etymon for Portuguese trinta, which again shows the merging of the front vowels and the influence of the word vinte. Castilian treinta and Catalan trenta (thirty) presuppose the form *TRĒGINTĀ, perhaps by analogy with TRĒS. This form should have produced *treenta in Castilian, but since the stress was originally on the i, the form was treinta, with a later shift of the accent to the e producing the diphthong. The Catalan word simply merges the two e's which indicates that the shift in stress had already occurred. For the forms for "forty" through "ninety", Castilian and Portuguese show the retention of the stress on the e < Ī to which the a eventually merged to produce the ending -enta. Catalan, on the other hand, shifted the stress to the back vowel a causing the loss of the unstressed i. This phenomenon is characteristic of the Romance of Gaul and Italy. The evolution of these numbers divisible by ten can be shown as: QUADRĀGINTĀ > cuarenta, quarenta, quaranta (forty); QUINQUĀGINTA > cincuenta, cinquenta, cinquanta (fifty); SEXĀGINTA > se-senta, sessenta, seixanta (sixty); SEPTUĀGINTA > setenta, setenta, setanta (seventy); OCTŌGINTĀ > *OCT(U)AGINTA ochenta, oitenta, vuitanta (eighty); NŌNĀGINTĀ > *NOVAGINTA (influence of NOVEM) noventa, noventa, while Catalan is based on the original Latin word

with dissimilation of the second nasal to r to produce noranta (ninety).

The number for "one hundred" developed etymologically in all three languages: CENTUM > ciento, cem, cent, noting that Castilian also uses the apocopated form, cien, directly before a noun. The remaining multiples of a hundred were inflected for gender in Latin, a characteristic that has persisted in Romance. As with the tens, Castilian and Portuguese prove to follow similar courses of evolution, in that they have created analytical forms for some numerals while developing others etymologically; Catalan consistently opts for the analytical solution. As was the norm, all of these forms of multiples of a hundred came into Romance based on the accusative case: DŪCENTŌS > dos-cientos, duzentos, dos-cents (the Castilian and Catalan forms show influence of the numeral dos); TRECENTŌS > trescientos, trezentos, tres-cents (again Castilian came under the influence of the unit number); the Latin QUADRINGENTŌS was replaced in all languages by the analytical form *QUATTRO CENTŌS > cuatrocientos, quatrocentos, quatre-cents; QUĪNGENTŌS > quinientos, quinhentos, cinc-cents; SEXCENTŌS > seiscientos, seiscentos, sis-cents; SEPTINGENTŌS > *SETTE CENTŌS > setecientos, setecentos, set-cents (in Castilian the diphthong of siete fell through dissimilation); OCTINGENTŌS > *OCTO CENTŌS > ochocientos, oitocentos, vuit-cents; NŌNGENTŌS > *NOVE CENTŌS > novecientos, novecentos, nou-cents (the diphthong of Castilian nueve fell due to dissimilation). The Latin MILLE developed to mil, mil, mil.

The ordinal numbers, "first" through "tenth", continued to be used in Ibero-Romance, but only "first" through "fifth" have survived as popular forms in Castilian and Portuguese, with the remaining forms demonstrating learned influence. For the ordinal concept past "tenth" the cardinal numbers are generally employed although Latin forms are also used. In Catalan, the numbers "first" through "fourth" were popularly developed from the Latin etyma. The numbers "fifth" through "tenth" were formed from the cardinal numbers with the distributive suffix *-ĒNU*. There do exist in Catalan the learned counterparts to the popular suffixed form, perhaps due to the influence of neighboring Castilian. All of these numerals were inflected for gender in Ibero-Romance. The following developments will show these trends in the three languages: PRIMU> PRIMARIU> primer(o), primeiro, primer; SECUNDUM> segundo, segundo, segon; TERTIUM> TERTIARIU> tercer(o), terceiro, tercer; QUARTUM> cuarto, quarto, quart; QUINTUM> quinto, quinto, quint, but also in Catalan *CINQUĒNU> cinquè; SEXTUM> sexto, sexto, sext, but also *SEXĒNU> sesè; SEPTIMUM> séptimo, sétimo, sèptim, but also *SETĒNU> setè; OCTAVUM> octavo, oitavo, octau, and *OCTĒNU> vuitè; NONUM> nono, nono, --, but Castilian shows preference, along with Catalan, for *NOVĒNU> noveno, --, novè; DECIMUM> décimo, décimo, décim, along with *DECĒNU> desè. The process of suffixation allows Catalan to develop ordinal numbers past "tenth" in the same manner such as onzè, dotzè, tretzè.

Pronouns

The personal pronouns in Ibero-Romance developed according to their position within the sentence, that is, whether they were stressed or unstressed. The stressed group includes subject pronouns and objects of prepositions, while the unstressed comprises direct and indirect objects of the verb. The cases which included the forms needed in Romance were the nominative, dative and accusative, although the original functions of these cases were often obscured by the new uses in Romance. In Classical Latin pronouns were used only in the first and second persons, but in Vulgar Latin and Romance the desire for a more analytic language brought about the use of the demonstrative *ĪLLE* in pronominal functions for the third person, adding to some forms which developed from the reflexive *SĒ*.

In the stressed position the nominative and dative cases generally supply the forms for the subject pronouns and pronouns used as objects of prepositions. The third person accusative forms of *ĪLLE*, however, also developed as stressed pronouns. The nominative form of the pronoun developed as the subject pronoun in all three languages, except for the third person plural. In the first person singular *ĒGO* became *yo*, *eu*, *jo* (I), showing a shift of stress in Castilian and Catalan, which place the stress on the last vowel, *-o*. Portuguese retains the original accent of Latin on the initial *e-*, creating a characteristic falling diphthong. The first person plural form *NŌS* developed to *nós* in Portuguese,

but in Castilian and Catalan the use of ALTERŌS for emphasis soon caused the agglutination of the two words: NŌS + ALTERŌS > nosotros, nosaltres (we). The nominative singular of the second person offers no difficulties: TŪ > tú, tu, tu (you, familiar form). The plural was developed along lines analogous to those of the first person: VŌS > vós in Portuguese (in Catalan this form, rather than tu, is used with singular meaning for more polite address) and VŌS + ALTERŌS > vosotros, vosaltres (you, familiar form).

The subject pronouns for the third person singular were all taken from the nominative case of the demonstrative ĪLLE. The masculine ĪLLE shows the shift in stress to the first syllable to become él, êle /e/, ell (he) with the same development in the feminine ĪLLA > ella, ela /ɛ/, ella (she). Castilian alone retains the neuter form ĪLLUD > ello (it). A completely created form has arisen in all three languages to be used as a subject pronoun of the third person form of the verb but with second person meanings as a polite form of address. In Castilian the word is formed from vuestra merced > usted; Portuguese creates an analogous form using vossa mercê > você, but its meaning is somewhere between usted of Castilian and the familiar tu; and Catalan employs vostra mercè > vostè.⁴ The plural forms of the third person pronouns were taken from the accusative plural of Latin in Castilian and Catalan: ILLŌS > ellos, --, ells (they); ILLĀS > ellas, --, elles (they). Portuguese formed the plurals by adding the flexion -s to the singular forms: êles, elas.

The other stressed forms which developed in Ibero-Romance proceeded from the dative forms and functioned as objects of prepositions. However, not all objects of prepositions developed from the dative, since many of the forms which evolved into subject pronouns also came to be used with prepositions. In the first person singular the dative MIHI became mī, mim /ī/, mi (me), and, perhaps due to the influence of the stressed i of this form, the Latin MECUM became MĪCUM. The latter form developed a pleonastic preposition to become CUM+MĪCUM> conmigo, comigo, -- (with me); Catalan adopted the preposition APUD> amb for the meaning "with". The plural of the first person resorted to the forms of the subject pronouns, i. e., nosotros, nós, nosaltres. In Old Castilian the form NOBISCUM> noscum also formed the pleonastic connusco which was later dropped. Portuguese, however, retains the construction in conosco (with us). The second person singular TIBI became TĪ by analogy with MIHI and developed to tī, tī, tī (you) although Catalan prefers to use the form from TŪ> tu as the object of the preposition. As with the first person, a pleonastic CUM+TECUM gave rise to contigo, contigo, -- (with you). The second person singular followed the same course as the first plural, utilizing the subject pronouns as objects of prepositions and developing the convusco in Old Castilian, which later fell, and convosco in Portuguese. The reflexive pronoun SIBI> si, si, si by analogy with MIHI, but, unlike the first and second person, this pronoun is both singular and plural. Therefore, the con-

struction CUM+ SĪCUM > consigo, consigo, --, can mean "with him, her, them". Catalan uses the form si followed by mateix (same), a construction which also exists in Castilian and Portuguese, para si mismo, para si mesmo (for him, himself). Due to the ambiguity of the above form, Ibero-Romance has employed the third person subject pronouns as objects of prepositions.

The unstressed personal pronouns derive, for the most part, from the accusative case, although they came into Ibero-Romance with either dative (indirect object) or accusative (direct object) functions. The first person singular MĒ developed into the three languages as me, me, me (me or to, for me) for use as direct or indirect object. The first person plural has the same outcome: NŌS > nos, nos, nos (us or to, for us). Analogous developments in the second person occurred: TĒ > te, te, te (you or to, for you) and VŌS > vos > os, vos, vos (you or to, for you) with the exception of the loss of the bilabial [ɸ] in Castilian due to its frequent enclitic use. The third person pronouns made the distinction between dative and accusative functions using the Latin ILLĪ > le, lhe, li (to him, her, you formal) for the singular and ILLĪS > les, lhes, -- (to them, you) in the plural. In the latter form Catalan prefers to use the accusative plural los. For direct objects the accusative forms were used throughout: ILLUM > lo, o, lo (him, it); ILLAM > la, a, la (her, it); ILLŌS > los, os, los (them, masc.); and ILLĀS > las, as, les (them, fem.). These plural forms show a shift in accent to the last

syllable which distinguished them from the subject pronouns from the same etyma. The third person reflexive pronoun SE developed in all three languages to se, se, se (himself, herself, themselves) for use either as a singular or plural. The unstressed forms for first person, me, nos, and second person, te, vos, os, came to serve a reflexive function in addition to that of object pronouns. These unstressed forms did not appear in isolation but rather were dependent on the verbs which they preceded or followed. These pronouns could also appear in combination. These facts governed the resultant form the pronouns took as they became contracted in Portuguese and Catalan. Castilian, at one time, showed a tendency toward contraction, but with the end of the Golden Age, the language restored the complete pronoun forms. Portuguese and Catalan, on the other hand, offer numerous possibilities for contractions and combinations.⁵

Catalan has an interesting development in the creation of three more pronouns, one as a direct object and the other two as pronominal adverbs. The neuter demonstrative HOC > ho (it) is used as a direct object or as a substitute for an indefinite noun. The adverbs used as pronouns are INDE > en and IBI > hi which substitute for the other pronouns mentioned above.

Possessives

The possessives have developed under the same conditions as the personal pronouns, i. e., stressed and unstressed. This difference

accounts for possessive pronouns (the stressed position) and possessive adjectives (the unstressed position) with different forms in Castilian. Portuguese and Catalan use the same forms for both functions.

In Ibero-Romance the possessive pronoun or adjective agrees in gender and number with the thing that is possessed but the possessor can be singular or plural. The development of the possessives of a single possessor developed from the accusative case of the Latin possessives with some changes brought about by analogy. The first person possessor of masculine objects in the tonic position was MĚUM which developed etymologically to meio > mfo in Castilian and meu, meu in Portuguese and Catalan. The corresponding plural is MĚOS > mfos, meus, meus. The feminine counterparts were MĚA > *MĚA > mfa, minha, meva and MĚAS > *MĚAS > mfas, minhas, meves. The development in Portuguese of the nasal -nh- is explained as representing the nasalizing effect on the vowel of the initial m- which later caused the development of the nasal consonant. The Catalan form is actually formed on the masculine in which the feminine flexion -a was added to meu > meua /mewe/ > /me~~ɸ~~e/ with the bilabial pronunciation being represented orthographically by -v-. In the atonic position or adjectival function, these forms were reduced in Castilian to mi for both feminine and masculine, due to the weakening of the final vowel to e in the feminine form, which then allowed its reduction to mi and the analogical reduction in the masculine. The plural forms were readily assimilated to become

mis for both feminine and masculine. One other difference with regard to possessive adjectives between Castilian on the one hand and Portuguese and Catalan on the other, is the use made by the last two of the definite articles before the adjective. Thus, "my book" would be expressed as mi libro in Castilian but o meu livro in Portuguese and el meu llibre in Catalan.

A second person singular possessor offers no particular problems in Portuguese and Catalan aside from the fact that the Latin TŪUM was replaced by *TĒUM by analogy with MĒUM to give the masculine forms teu, teu and the plurals *TEOS > teus, teus. The feminine TŪA had to have become TŪA to produce Portuguese tua and plural TŪAS > tuas. The Catalan feminine underwent the same changes as the first person, i. e. , teu + a > teva with the plural tevas. Castilian development also indicates the change of the feminine form to TŪA by which the Old Castilian form evolved to tua. The masculine form did not change as it did in Portuguese and Catalan but remained TŪUM which produced the Old Castilian tou. This form soon changed to tuo by analogy with the feminine and both forms "parecen rehechas sobre el posesivo relativo cuyo" (Manual, p. 257). The plural forms simply added the flexion -s to produce tuyos, tuyas. As with the first person, Portuguese and Catalan employ the same forms for the unstressed adjectival position, while Castilian presents the apocopated forms of tu, tus for both masculine and feminine, due to the loss of the weakened final vowel -a > -e > --.

The very same developments occurred for the third person possessor, except that the form taken from Latin, *SŪUM*, could be applied to a singular or plural possessor. These same functions were adopted by Ibero-Romance. Schematically, the development of these forms was *SŪUM* > **SĒUM* > seu, seu; *SUOS* > **SĒOS* > seus, seus in Portuguese and Catalan. The feminine forms in Portuguese came from *SŪA* > **SĪA* > sua and *SŪAS* > **SĪAS* > suas, while Catalan used the masculine seu + a > seva; the plural developed accordingly to sevas. In Castilian, the forms *SŪUM* > sou and *SUOS* > sous soon lost out to the feminine form *SŪA* > *SĪA* > sua; **SĪAS* > suas and they both developed by analogy with cuyo to become suyo, suyos, suya, suyas. The atonic position again caused apocope of the feminine form in Castilian by which su, sus developed for both genders.

It should be mentioned that in Old Catalan another third person possessive existed based on the genitive form of the demonstrative *ILLŌRUM* > **ILLURU* > llur. As this form was taken as a singular, the plural developed by addition of the -s to form llurs. These forms were used for both masculine and feminine and existed concurrently with seu, seva, etc. The demonstrative form soon lost out to the regular possessive but is still used today in some of the northern dialects and in literary Catalan.

The first person possessives of two or more possessors developed etymologically from the Latin form in Castilian and Catalan. The

singular NŌSTRU -A developed to nuestro -a, nostre -a (our) with the plural forms NŌSTRŌS -ĀS becoming nuestros -as, nostres -es (our).

For the Portuguese development a new form *NOSSUM based on analogy with MĒUM must be supposed, whereby NŌS added -UM as MĒ had apparently added -UM, "the s becoming long to preserve the voiceless sound it had in NŌS" (Williams, p. 156). From these forms the Portuguese developed: *NOSSU -A > nosso -a; *NOSSOS -AS > nossos -as.

The second person possessives developed similar patterns to the first person. Instead of the original Latin form, VESTER, Castilian and Catalan adopted the alternate Latin form VŌSTRU based on analogy with NŌSTRU to develop their possessives. Thus, VŌSTRU -A > vuestro -a, vostre -a (your) and VŌSTRŌS -ĀS > vuestros -as, vostres -es (your). Portuguese developed a form analogous to the first person: *VOSSU -A > vosso -a and *VOSSOS -AS > vossos -as. Unlike the possessives of a single possessor, Castilian developed no apocopated form for use in the atonic position but used the same forms, nuestro, nuestras, etc. as both pronouns and adjectives.

Demonstratives

In Latin there were three sets of demonstrative adjectives and pronouns to convey the varying degrees of proximity. The forms of HIC, HAEC, HOC were used in the sense of "this, these" pointing out objects close to the speaker. ISTE, ISTA, ISTUD referred to objects close to the person spoken to, and ILLE, ILLA, ILLUD conveyed the meaning

of "that or those over there", that is, distant from both the speaker and the one spoken to. This same sense of differentiation came into Ibero-Romance in the Castilian and Portuguese languages and existed for a time in Old Catalan. An interesting development in Catalan is that the form which was originally used to designate objects close to the person spoken to, have now adopted the meanings of "this, these", thus creating only two degrees in Catalan: proximity and distance.

As stated, the meanings of Latin have been carried over into Romance, but the forms have undergone some changes. The Latin demonstrative HIC, HAEC, HOC was soon lost in the Iberian Peninsula, except in certain words where it has combined with other forms to produce new words: HĀC + HŌRA > ahora, agora, ara (now); HĀC NŌCTE > anoche, ontem, anit (last night); PER HŌC > pero, pero (Old Portuguese), però (but). The Portuguese word ontem has undergone a semantic change and now means "yesterday"; the periphrastic ontem à noite must be used to convey the meaning of "last night". The loss of the demonstrative for "this, these" necessitated the adoption of new forms and "the forms of ISTE moved up one, so to speak, to take over the function of demonstratives corresponding to the first person, and IPSE was brought in to fill the gap, as demonstrative corresponding to the second person" (Elcock, p. 89). These two demonstratives developed from their nominative forms for the singular in all three languages and the accusative for the plural in Castilian and Catalan. Catalan, again showing a difference, com-

bined the hypothetical *ACCU < ECCE to the original forms to produce its demonstratives. The demonstratives that thus developed are: ĪSTE > este, êste, and *ACCU ĪSTE > aquest (this, masc.); ĪSTA > esta, esta, and *ACCU ĪSTA > aquesta (this, fem.). The neuter form ISTUD > esto, isto (this) and in Catalan *ACCU ISTUD > açò (this) also developed. The plurals of these developed from the accusative in Castilian and Catalan, while Portuguese preferred simply to add the -s to the singular forms: ISTŌS > estos, but êstes and Catalan *ACCU ISTŌS > aquests (these, masc.); ISTĀS > estas and estas in Portuguese but *ACCU ISTĀS > aquestes (these, fem.) in Catalan.

The demonstratives for the second person developed along lines analogous to those of the first person, with the exception, already noted, of the change in meaning of these demonstratives in Catalan. The nominative singular forms developed in Castilian and Portuguese as follows: IPSE > ese, êsse (that, masc.); IPSA > esa, essa (that, fem.); IPSUM > eso, isso (that, neut.). The plural forms in Castilian are based on the accusative case while Portuguese simply adds -s to the singular: IPSŌS > esos (those, masc.) but êsses in Portuguese and IPSĀS > esas (those, fem.) but essas in Portuguese. Catalan again makes use of *ACCU plus the appropriate forms of IPSE to form its demonstratives: *ACCU IPSE > aqueix (this, masc.) and *ACCU IPSA > aqueixa (this, fem.). The singular neuter form comes from another compound of *ACCU HŌC > això (this). The plural forms are based on the

accusative: *ACCU IPSŌS > aqueixos (these, masc.) and *ACCU IPSĀS > aqueixes (these, fem.).⁶

The Latin demonstratives meaning "that, those" were originally forms of ILLE, but since these forms were also used in Ibero-Romance for the creation of the personal pronouns and the definite articles, a new solution had to be found. This can be explained by positing the form *ACCU and adding it to the nominative case of ILLE for the singular forms and the accusative case for the plurals in Castilian and Catalan. The Ibero-Romance forms that developed are: *ACCU ILLE > aquel, aquêle, aquell (that, masc.); *ACCU ILLA > aquella, aquela, aquella (that, fem.); *ACCU ILLUD > aquello, aquilo, allò (that, neut.). The plural forms in Castilian and Catalan are: *ACCU ILLŌS > aquellos, aquells (those, masc.) and *ACCU ILLĀS > aquellas, aquelles (those, fem.), while Portuguese adds the plural flexion to the singular forms to result in aquêles and aquelas. All of the above mentioned demonstratives serve dual functions in all three languages. They can be either pronouns or adjectives. Portuguese and Catalan make no distinction in the forms, but Castilian, in order to avoid confusion, places accents on the stressed vowel to designate pronominal functions.

Definite Articles

The definite article did not exist in Latin, but, with the reduction of flexions and cases in Vulgar Latin and the desire of Romance to form analytic means for expression, the need for articles became appa-

rent. In early Ibero-Romance reduced forms of the Latin demonstratives were used, the most commonly employed being *ĪLLE* and *IPSE*. These two forms contended for supremacy much longer in Catalan than in the other two languages and, while *ĪLLE* became the dominant form, *IPSE* still exists in set expressions and in the Mallorcan dialect.⁷

The three languages do agree on the Latin etyma of the articles, but not necessarily the cases from which the Romance forms developed. For the masculine singular article, Castilian and Catalan used the nominative *ILLE* with the stress on the first syllable to become el, el. Portuguese chose the accusative *ILLUM* and placed the stress on the last syllable to become *lo > o losing the l due to its intervocalic position with preceding words. For the remaining articles, all three languages used the accusative forms: *ILLAM* > la, a, la, with these developments showing agreement as to the placement of stress, i. e., on the last syllable. The masculine plural forms also develop from the accusative *ILLŌS* > los, os, els, but Catalan shows the placement of stress on the first syllable, perhaps by analogy with the singular article. The feminine plural forms are based on the accusative also and again show agreement in the placing of stress on the last syllable: *ILLĀS* > las, as, les.

Relatives and Interrogatives

With regard to the relative and interrogative pronouns and adjectives in Latin, there was much confusion, as their forms were not

sufficiently different to warrant distinction. In the course of Vulgar Latin, then, only three forms survived: the nominative singular *QUĪ*, the accusative singular *QUĒM* (both forms used for masculine and feminine), and the neuter *QUĪD*. The relative pronoun *QUĪ* was used during the period of Old Castilian as qui (who) and in Catalan. In Castilian this form dropped completely in favor of the accusative. Catalan ceased to use it as a relative pronoun but retained it as the interrogative qui (who?). For the relative and interrogative functions referring to persons, Castilian and Portuguese have employed *QUĒM* > quien, quem (who); Castilian creating a plural form, quienes, which is a regressive development dating from the sixteenth century. In Catalan the form *QUĒM* merged with *QUĪD* to produce que as a relative pronoun referring to either persons or things. The neuter interrogative *QUĪD* was retained in all three languages as either a relative or an interrogative referring to things: *QUĪD* > que, que, què (what, that). The genitive form of these pronouns, *CŪJUS*, also survived in Castilian and Portuguese as the relative pronoun cuyo, cujo (whose). Since the Latin ending was like a second declension adjective, these two Ibero-Romance languages inflected it for gender and number. The Latin adjective *QUALIS* came into the Romance languages as a relative and interrogative to avoid ambiguity, thus *QUALEM* > cual, qual, qual and *QUALES* > cuales, quais, quals (which). As a relative pronoun it was used with the definite article of the noun it was referring to for either persons or things. As an

interrogative it is used alone. The use of this pronoun has declined in Catalan, which has replaced it with the pronoun QUI(S)NAM > QUINA > quina (which). As this was taken as a feminine form, masculine and plural forms were created by analogy with other inflected pronouns, thus quin, quina, quins, quines. It is used not only as a relative and interrogative pronoun and adjective with the meanings of "which" and "what", but also as an exclamation where Castilian and Portuguese would use que. In Portuguese and Catalan the forms mentioned above are used as relative or interrogative pronouns, with the distinction of the two functions made by their syntactical uses. Castilian distinguishes between the two functions by means of an accent mark on the interrogative forms, in much the same way that it distinguished between demonstrative adjectives and pronouns.

Indefinite Pronouns and Adjectives

Classical Latin possessed a number of indefinite pronouns and adjectives which have been developed in the Romance languages. There were still others that fell into disuse and totally disappeared. Vulgar Latin and Romance were quick to supply new created forms to fill these gaps. Some of the Latin indefinites that developed into Ibero-Romance forms were: UNUM > uno, um, un (one, a certain), and, in the plural UNŌS > unos, uns, uns (certain, some); it was also inflected for feminine; ALTERU -ŌS -A -ĀS > otro -os -a -as, outro -os -a -as, altre -s -a -es (other -s); CERTU -ŌS -A -ĀS > cierto -os -a -as, certo -os -a

-as, cert -s -a -es (certain); from Greek CATA > cada, cada, cada (each) often in combination with UNUM -A. Catalan developed a combined form cadascú (each one) from *CATA+CASCUNA < QUISQUE UNU. From the Latin ALIQUOD, Castilian and Portuguese developed algo, algo (something) but Catalan prefers to use alguna cosa or a compound form *QUALE QUOD HOMO > quelcom. The opposite meaning of "nothing" came into Ibero-Romance from the constant use together of RES NATA which originally meant "no one or nothing born". Castilian and Portuguese adopted the past participle NATA > nada, nada while Catalan chose the first element RES > res (nothing). Other Latin indefinites were: TALEM -ES > tal -es, tal, tais, tal -s (such); PAUCU -ŌS -A -ĀS > poco -os -a -as, pouco -os -a -as, poc -s -a -ques (few); TANTU -ŌS -A -ĀS > tanto -os -a -as, tanto -os -a -as, tant -s -a -es (so much, many); QUANTU -ŌS -A -ĀS > cuanto -os -a -as, quanto -os -a -as, quant -s -a -es (how much, many), which also developed as an interrogative; MULTU -ŌS -A -ĀS > mucho -os -a -as, multo -os -a -as, molt -s -a -es (much, many); TOTUM -ŌS -A -ĀS > todo -os -a -as, todo -os -a -as (all) as an adjective in Castilian and Portuguese but there also developed the pronoun from this form as todo, tudo (all, everything). For the Catalan pronoun and adjectives the form *TOTTU -OS -A -AS must be conjectured to produce tot -s -a -es (all, everything). The Latin HOMO became omne in Old Castilian and ome in Old Portuguese in the sense of "one" but has since lost its function and

has ceased to be used. Catalan still retains hom in this sense but it is also losing ground in the modern spoken language, being preserved in some dialects and the literary language.

Ibero-Romance possesses a number of indefinite pronouns that did not exist as such in Latin. Most of these new pronouns were created as compound forms such as: ALIQUIS+UNU > *ALICUNU -ŌS -A -ĀS > alguno -os -a -as, algun -ns -a -as, algun -s -a -es (some). Catalan also uses this etymon for the development of algú (somebody) which is invariable. The opposite meaning is also obtained through a compound form: NEC+UNU -ŌS -A -ĀS > ninguno -os -a -as, nenhum -ns -a -as (none, not any) in Castilian and Portuguese. Catalan uses the same compound for the development of the opposite meaning of ningú (nobody) which is invariable. For the meaning of "none" or "not any", Catalan uses *CAPU > cap. To convey the meaning of "somebody", Castilian and Portuguese took the accusative form of the Latin word of the same meaning, ALIQUEM. However, this word could not have developed etymologically and must have been influenced by quien and quem respectively (Manual, p. 265 and Williams, p. 160). Therefore, the development was probably: ALIQUEM+quien > alguien; +quem > alguém (somebody). As seen above, Catalan takes its form algú from *ALICUNU. All three languages use a different form to indicate the opposite meaning, but Castilian and Portuguese have again been influenced by the relatives quien and quem. In Castilian the form which de-

veloped was NATUM+QUI which, under the influence of quien, became nadie (nobody). Portuguese chose NEC+QUEM aided by quem to produce ninguém (nobody). Catalan, as stated, used NEC+UNU to result in ningú (nobody). A combination which exists only in Catalan is TOT-TU+HOMO> tothom (everybody); Castilian and Portuguese must rely on the periphrastic constructions of todo el mundo and todo o mundo. In Romance, combinations of a relative pronoun and a verb form came to function as indefinite pronouns and adjectives. In Castilian the Latin form QUALE and the present subjunctive verb form, QUAERAT, became cualquiera, and the plural QUALES plus the verb became cualesquiera, with the meaning of "any" or "whichever". A similar form arose in Portuguese based on the relative and the verb form, but in Portuguese the present indicative, QUAERET, was used, which became qualquer, plural quaisquer. Since Catalan did not develop the verb QUAERERE, but preferred the Vulgar Latin VOLERE, its forms of these indefinites were based on the latter verb. Catalan, like Portuguese, uses the present indicative of the verb, but, unlike both of its sister languages, Catalan incorporates the Latin conjunction SI into its forms, thus *QUALE SI VOLET gives qualsevol (any) with the plural form qualssevol. As pronouns, these forms usually mean "anybody" or "anything" in all three languages. Castilian has gone a step further to create an indefinite pronoun with the single meaning of "anybody" or "whoever", based on QUEM and the verb form QUAERAT, i. e., quienquiera, plural quienesquiera.

Verbs

While the declension system of nouns and adjectives fell almost completely in Ibero-Romance, except for the flexions for gender and number, the verbal system did not experience such drastic reductions. The functions of the nominal flexions were easily and readily assumed by prepositions; the verbal flexions had no such alternatives. This does not mean that conjugations did not feel the effects of simplification in their evolution from Classical Latin to Ibero-Romance or that they did not come under the influence of the analytical tendencies seen in other parts of speech. It does mean that the changes which did take place fell within the overall scope of verbal functions, and any voids created by the loss of tenses or changes in functions were compensated for by new verb forms. The desire for simplification did not, however, affect the flexional quality of Ibero-Romance verbs. Although the flexions have undergone phonological and analogical changes, it is still possible to determine person, number, tense and mood from a verb ending.

Some of the most obvious changes, often begun in the early Vulgar Latin period, were the regularization of deponent verbs, such as MORI becoming MORIRE and LUCTARI becoming LUCTARE, and the loss of the forms of the passive voice and the future indicative tense. The loss of forms did not cause a simultaneous loss of the need to express the meaning of these deleted forms. Some of these functions were assumed by other verb forms, but often the void occasioned by the dis-

carding of a tense or form provided the opportunity for Romance to create new analytical verb forms. The materials from which these new forms were built were, however, already existent in the verbal system and the "creation" of new forms might be better termed the "reconstruction"⁸ from old forms to meet the new analytical needs.⁹

Classical Latin had four classes of verbs which were characterized by the theme vowel of the infinitive ending: -ARE, -ĒRE, -ĔRE, -IRE. In Latin, there existed confusion between the -ĒRE and -ĔRE verbs; another confusion existed between the -ĔRE verbs whose first person singular ended in -IO and verbs of the -IRE conjugation. These factors contributed to considerable vacillation between conjugations. Many verbs, therefore, came into Romance with a theme vowel different from that of the original Latin verb. Of the four conjugations, -ARE verbs have proven the most stable and abundant in all three languages. It is through this conjugation that most new verbs are introduced into Ibero-Romance. The second and third conjugations, -ĒRE and -ĔRE respectively, have provided an area for difference among the three languages. Castilian simply merges the two with the -ĔRE verbs succumbing to the -ĒRE conjugation, and this union is carried out through all of the conjugation of -er verbs: SAPĒRE > saber (to know); TENĒRE > tener (to have); HABĒRE > haber (to have); DOLĒRE > doler (to hurt). Portuguese does much the same, that is, it possesses one infinitive form, -er, to represent the merging of the two Latin classes: HABĒRE > haver

(to have); VENDĒRE > vender (to sell); *POTĒRE > poder (to be able).

The consistency is not carried out through the conjugations of the verbs, however, for those tenses that are based on the Latin perfect stem (preterite, pluperfect indicative, pluperfect subjunctive and future subjunctive) show a different treatment of the theme vowel and correspond to either the weak -ĒRE or the strong -ĔRE etymon of the verb. Catalan affords further divergence, and in its development of these two Latin infinitive types shows similarities with Gallo-Romance. Latin -ĒRE verbs developed to weak -er verbs in Catalan, although there are very few verbs of this group: HABĒRE > haver (to have); VALĒRE > valer (to be worth). The -ĔRE verbs developed to either a strong -er verb: CRESCĔRE > créixer (to grow); CURRĔRE > córrer (to run); or to an -re verb, also strong, due to syncope: PERDĔRE > perdre (to lose); MITTĔRE > metre (to put into). This last group is also characterized by verbs which vocalize the stem consonant to /w/: BIBĔRE > beure (to drink); VIVĔRE > viure (to live).

The Latin fourth conjugation, -IRE, offers no difficulties in its evolution into Castilian and Portuguese. The verbs of this conjugation comprise the third conjugation of these two languages: DORMIRE > dormir, dormir (to sleep); PARTIRE > partir, partir (to leave). Catalan develops the above mentioned verbs, dormir and partir, regularly but differs in the treatment of the majority of -ir verbs. Catalan, in company with Gallo-Romance, has chosen to make the majority of its -ir verbs

inchoative by adopting the infix -ESC- into the conjugations of the present tense so that the regularly developed -ir verbs are, in essence, the irregular verbs of this conjugation. Thus, verbs such as SERVIRE > servir (to serve); *PATIRE > patir (to suffer), are regular in Castilian and Portuguese but inchoative in Catalan. Therefore, the four classes of infinitives in Classical Latin have simplified in Castilian and Portuguese with the merging of the second and third classes, while Catalan, on the other hand, has retained all four.

Gerund

The gerund of Classical Latin developed into Ibero-Romance as a present participle and is normally used in combination with the auxiliary verb "to be". Since the gerund was a verb form, there existed endings to coincide with the four classes of verbs. The -ARE gerund ending was -ANDU, which developed etymologically into the three Ibero-Romance languages as seen in CANTANDU > cantando, cantando, cantant (singing). Verbs of the second and third conjugations, with gerunds ending in -ĔNDU, became -iendo in Castilian due to the diphthongization of the tonic /ɛ/; -endo in Portuguese with the /ɛ/ becoming /ẽ/ checked by the following nasal consonant; -ent in Catalan, the /ɛ/ > /e/ when followed by a nasal and a consonant. Examples of the present participle of -er verbs in the three languages are: PERDĔNDU > perdiendo, perdendo, perdent (losing); SAPĔNDU > sabiendo, sabendo, sabent (knowing). The gerund of verbs of the third conjugation whose first

person singular of the present indicative ended in -IO and verbs of the fourth conjugation ended in -IENDU. Castilian had no difficulty in combining this form with that for -er verbs so that all present participles of verbs other than -ar, end in -iendo in Castilian. Portuguese and Catalan reduced the diphthong of Classical Latin to the theme vowel of the conjugation, and endings which resulted were -indo and -int respectively. Present participles with these flexions are: DORMIENDU > durmiendo, dormindo, dormint (sleeping); PARTIENDU > partiindo, partindo, partint (leaving). The Castilian durmiendo exhibits the raising of the initial vowel by the following yod. All of the Catalan forms show the unvoicing of the dental stop /d/ > /t/ in the final position.

Present Participle

The takeover of the function of the present participle by forms derived from the Latin gerund led to a subsequent change in function of the Latin present participle. The evolutionized forms in Ibero-Romance began functioning as nouns or adjectives. The development of these forms is closely akin to that of the gerunds. There existed a present participle flexion for -ARE verbs, -ANTE, which developed etymologically to -ante, -ante, -ant in the three languages. Words such as CANTANTE > cantante, cantante, cantant (singer); *FABULANTE > hablante, falante, -- (speaker) have lost their verbal qualities in favor of nominal and adjectival functions. The second and third conjugations had the participial inflexion of -ĒNTE. As with the gerunds, this form

diphthongized in Castilian to -iente, became -ente with the nasal /ẽ/ in Portuguese, and closed the /ɛ/ to /e/ in Catalan. Examples of these participles are: *PONĚNTE > poniente, poente, ponent (west); CURRĚNTE > corriente, corrente, corrent (ordinary, running; current). Verbs of the third conjugation with -IO flexion in the first person present tense and fourth conjugation verbs had present participles ending in -IENTE. As with the gerunds, Castilian simply merged this ending with that of the -er verbs but Portuguese and Catalan show some divergencies from their developments of the gerund. Analogically, the ending -IENTE should have become -inte in Portuguese (the form cited by Williams, p. 187) and -int in Catalan. However, most of these forms have shown a preference for the -ente and -ent forms, perhaps by analogy with the -er endings. A phonological reason could also account for the reduction of -ie- to -e-, since the stress on the latter element of the diphthong could cause the disappearance of the unstressed vowel. The explanation of Williams for the following two examples, that they "are probably survivals of a period before the rise of the ending -inte" (Williams, p. 187), is logical but he cites no examples from the period following the rise of the form. The examples which show this development are: DORMIENTE > durmiente, dormente, dorment (sleeping, adj.); SERVIENTE > sirviente, servente, servent (servant). The two Castilian words again demonstrate the raising ability of the yod on the preceding vowel.

Past Participle

The passive participle of Latin, which developed into the past participle in Ibero-Romance, shows a more complicated evolution than its present counterpart. The function of the past participle did not change, since it is still used with the auxiliary verbs "to be" to express the passive voice. The role of the participle has expanded, however, to include not only the past passive aspect, but also that of the present, future and conditional of the neo-Latin languages. Aside from its normal functions in the passive voice, the Romance languages have brought the participle into service as a part of the new perfect tenses with the auxiliary verb "to have".

The passive participles were of two types: weak participles with the stress on the ending and strong forms with the stress on the stem. The weak participles were usually associated with the weak infinitives of the first, second, and fourth conjugations, i. e. , AMÁRE - AMÁTUS; DELĒRE - DELĒTUS; AUDĪRE - AUDĪTUS, while the strong participles coincided with the strong infinitives of the third conjugation: PERDĒRE - PÉRDITUS; TENDĒRE - TÉNTUS.

In Vulgar Latin the weak forms were preferred, due to their stress on the characteristic vowel, but there were some changes made. The second conjugation participles ending in -ĒTUS and third conjugation verbs ending in -ĪTUS were regularized under a new form -ŪTUS. These forms were later discarded by Castilian and Portuguese, which replaced

them with the -ido flexion. Catalan, again showing its affinities for Gallo-Romance forms, has retained the Vulgar Latin invention for most -er and -re verbs. Graphically, the evolution of these flexions can be represented as follows: -ATU > -ado, -ado, -at as in CANTATU > canta-
do, cantado, cantat (sung); -ĒTU and -ĬTU > -ŪTU > --, --, ut as in
 PERDĬTUS > *PERDŪTU > (perdido), (perdido), perdut (lost); -ĬTU > -ido,
-ido, -it as in DORMITU > dormido, dormido, dormit (slept). While the
 regularizing tendency of Romance brought many of the strong participles
 into the general scheme cited above, such as SENSU > SENTITU > sen-
tido, sentido, sentit (felt), there were still others which remained irreg-
 ular or strong in the modern languages. Among these strong participles
 are: APERTUM > abierto, aberto, obert (opened); DICTUM > dicho, dito,
dit (said); FACTUM > hecho, feito, fet (done); MORTUM > muerto, mor-
to, mort (died); POSTUM > puesto, posto, post (put); SCRIPTUM > es-
crito, escrito, escrit (written); *VISTUM > visto, visto, vist (seen).

The discussion of the verbs has thus far been limited to the parts of the verb which have only one form and which must depend on other conjugated verb forms for meaning. The infinitive usually cannot stand alone, and the participles' function is completed only with the aid of auxiliary verbs. This is not the case with the inflected forms of the tenses which convey the idea of person, number, tense and mood. Before the actual discussion of the evolution of the Latin tenses to those of Ibero-Romance, it is necessary to recall some of the basic

phonological tendencies which will have an effect on the development of the verbs of the three languages.

Phonological Developments

Any part of the verb is composed of two parts, the stem and the flexion. The stem, which is the constant part of the verb and contains the main concept, is not, however, invariable. The variations in the stem may be vocalic or consonantal. Due to shifts of stress, the stem vowel may be tonic or atonic and, as such, falls under the same phonological rules which governed the words given in the previous chapter.¹⁰ The tonic quality of the stem vowel will generally cause open vowels to diphthongize in Castilian, to close in Portuguese and to remain in Catalan. These changes give rise to the "radical changing verbs", which are tonic in the singular and third person plural forms, but atonic in the first and second persons plural. In the atonic position the vowel does not diphthongize in Castilian, and the pronunciation is relaxed in Portuguese and Catalan. The effect of a following nasal consonant is important in Portuguese since it produces nasal vowels, and in Catalan it closes the preceding vowel. The raising action of a following yod is no less apparent in verb forms than in other parts of speech, as already witnessed in the gerund and present participle in Castilian. Peculiar to Portuguese is the constant influence of metaphony.

Perhaps the most active force in the verb conjugations is that of analogy and "continuamente veremos formas que tuercen su desarro-

llo fonético para seguir la analogía con otras del mismo paradigma conjugable" (Manual, p. 269). This is most apparent in the treatment of velar stem endings in the three languages. Verbs whose stem ends in the voiceless velar c /k/ before a back vowel in the present indicative retain this sound when followed by a front vowel in the present subjunctive by changing the orthography from c to qu: SICCEM > seque, seque, assequi (that I dry). The same is true of the voiced velar g /g/, which changes orthographically to gu to retain the original sound by analogy with the infinitive and the present indicative: PACEM > pague, pague, pagui (that I pay). Similar cases of analogy by means of orthographical changes occur with the velar g before a front vowel, pronounced /x/ in Castilian and /ʒ/ in Portuguese, which maintains this pronunciation before a back vowel by changing the spelling to j: present indicative CORRIGIT > corrige, corrige becomes corrija, corrija (that he correct) in the present subjunctive. The letter c before a front vowel, pronounced /θ/ in Castilian and /s/ in Portuguese, retains the pronunciation before a back vowel by the orthographical change to z in Castilian and ç in Portuguese: VINCIT > vence, vence but VINCAT > venza, vença (that he conquer). The forces of analogy are stronger still in Catalan since all present subjunctive forms are the same for all conjugations. Another peculiarity of the influence of analogy in Catalan is the number of first person singular indicative forms which end in c (most -ure verbs). These forms are based on analogy with DICO > dic (I say), with this

final letter being interpreted as a characteristic of the first person singular form. In the present subjunctive forms, since this consonant is followed by a vowel, it becomes intervocalic and is voiced to /g/.

Also, due to the fact that all present subjunctive flexions contain front vowels, the retention of the voiced quality is made possible by the orthographic change to gu: DICAM > digui (that I say). With these basic, but by no means complete, observations of the phonological and analogical forces at work on the verb forms, the development of the tenses into Ibero-Romance can now be studied.

Verbal Desinences

As stated previously, a verb form consists of the stem and the flexion. Each of the six persons had a particular desinence in Latin which distinguished it from the other five persons. These desinences were uniform in all of the tenses except for the perfect of the indicative and the imperative. With some modifications, these characteristic endings have evolved into the Ibero-Romance languages.

The Latin desinence for the first person singular was -M, which fell in all three languages, or there was no distinguishing desinence: SUM > soy, sou, sóc (I am); CANTO > canto, canto, canto (I sing). The second person singular was characterized by -S, which was retained in all three languages: CANTABAS > cantabas, cantavas, cantaves (you were singing). The final -T of the third person singular fell: DORMIT > duerme, dorme, dorm (he sleeps). The plural endings were more resis-

tant as witnessed in the first person -MUS which became -mos in Castilian and Portuguese but reduced to -m in Catalan: PARTIMUS > partimos, partimos, partim (we leave). The second person plural ending, -TIS, shows the voicing of the /t/ to /d/ in the intervocalic position in Castilian and Portuguese, i. e. , -des. The dental then fell and the e was weakened to i in the post-tonic position. This ending shows a different development in Catalan with the fall of the post-tonic vowel first: -T'S > -ds which then vocalized to u. This is an unusual development, since in forms other than verbs, the group -ts remained. A verb form exemplifying these changes is CANTATIS > cantáis, cantais, canteu (you sing). The third person plural desinence was -NT, which simplified to -n in Castilian and Catalan. In Portuguese the consonantal quality was lost, since it nasalized the preceding vowel, which is represented by the final -m: TEMENT > temen, temem /ẽ/, temen (they fear).

The regular affirmative imperative form of the second person singular had no desinence in Latin and developed none in Ibero-Romance. The ending for the second person plural was -TE, which became the voiced dental d in Castilian and lost the final e; the dental simply voiced in Portuguese to -de. If the vowel directly preceding the desinence was a or e, the dental fell and the final vowel was weakened to i, producing the falling diphthongs -ai and -ei so characteristic of Portuguese. If the theme vowel was i, the d dropped and the two vowels

merged to i. Catalan offered a different solution since the ending -TE was developed by analogy with -TIS. As is to be expected, the final result is the vocalization to u. The imperative for the second person singular of cantar is CANTA > canta, canta, canta and for the plural CANTATE > cantad, cantai, canteu. Imperative forms for the formal second person which normally used the third person of the verbs, were taken from the subjunctive as were all of the negative imperatives.

The desinences of the Latin perfects, which were to form the preterite tense in the three languages, were different from the desinences mentioned above. The following are the endings associated with the preterite tense in the Ibero-Romance languages. The first person singular Latin form ended in -I, which became an e or i in Castilian and ei or i in Portuguese. Catalan shows the same ending, i, for all classes of verbs. The preterite first person then develops as follows: CANTAVI > canté, cantei, cantí (I sang). The second person singular developed etymologically from -STI to -ste in Castilian and Portuguese. Old Catalan possessed the ending -st but has since remodeled the flexion to -res by analogy with the third person plural desinence. The Ibero-Romance forms for the second person singular are: DORMIVISTI > dor-miste, dormiste, dormires (you slept). The third person singular Latin form was characterized by the final -T which fell in all three languages: *PERDEDIT > perdió, perdeu, perdé (he lost).

The Latin desinence for the first person plural was the same as

that of the general endings, -MUS, and evolved to the same -mos in Castilian and Portuguese as it had in the other tenses. In Catalan, this form had evolved in the old language, but, by analogy with the third person plural flexion, it was changed to -rem. These developments are seen in CANTAVIMUS > cantamos, cantámos, cantàrem (we sang). In the second person plural the Latin ending was -STIS, which developed etymologically to Old Castilian -stes and Portuguese -stes. Modern Castilian has altered the ending to -steis by analogy with the second person plural endings of the present tense of -er verbs. Catalan has also shown analogical influence, again to the third person plural preterite, to produce -reu. Therefore, the forms of this person are: *PERDEDISTIS > perdisteis, perdestes, perdéreu (you lost). The desinence for the third person plural developed etymologically from the Latin -RUNT to Castilian -ron. Its development into Catalan -ren would have been etymological had it not obtained the e by analogy with the third person plural endings of the present tense. The Old Portuguese ending was -rom, but by analogy with other third person plurals based on VADUNT > vão, the o was replaced by a /ã/, the nasality being indicated by the final -m in the ending -ram.¹¹ An example of a third person plural form shows these developments: CANTAVERUNT > cantaron, cantaram, cantaren (they sang). A further observation of the perfect desinences in regard to Catalan must be made. While it has been stated that the second person singular -res, the first person plural -rem, and

the second person plural -reu, were formed by analogy with the third person plural -ren, it will be noted that they have retained the characteristic final elements for the respective persons, namely, -s, -m and -u, observed in the general desinences discussed earlier. It appears that, for some obscure reason, the -re- was taken to be an identifying infix of the preterite tense in Catalan.

The development of the tenses from Latin to Ibero-Romance will be illustrated by four verbs that have evolved into all three languages with relatively few irregularities. While Catalan possesses four types of infinitives by developing the -ĒRE form to -re, there exists no such division in the conjugation of the tenses. Portuguese creates a division between the endings added to the weak perfects and those added to the strong perfects by opening the e of the flexion of the latter type. These changes will be further illustrated in the appropriate sections.

Present Indicative

The present indicative tense of Latin became the present indicative tense in the three Ibero-Romance languages. The -ARE verbs present very few changes, except in Catalan, where the second person singular and all of the plural forms contain the vowel e in the flexion. Badŕa Margarit has explained the change in the first and second person plural forms by analogy with the same forms in the present subjunctive (p. 128). However, since the flexions of the second and third persons singular and the third person plural are atonic, the vowel e is an ortho-

graphic representation of the relaxed pronunciation of a followed by a consonant. It would then be a matter of analogy with forms of the same conjugation for the first and second persons plural flexions to become -em and -eu respectively. The conjugation of an -ARE verb into the three languages will illustrate the changes mentioned:

CANTO	canto	canto	canto
CANTAS	cantas	cantas	cantes
CANTAT	canta	canta	canta
CANTAMUS	cantamos	cantamos	cantem
CANTATIS	cantáis	cantais	canteu
CANTANT	cantan	cantam	canten

As previously observed, the two conjugations of -ĒRE and -ĔRE merged in the present tense, with preference given to the weak -ĔRE flexions, especially in the plural forms. This causes the shift in stress to the flexion in the first and second persons plural. The first person singular of -ĒRE verbs contained a yod in the flexion -EO which normally fell: TIMEO > temo, temo, temo (I fear). It is present in some Castilian verbs represented by the letter g and in Catalan represented by the letter c: TENEO > tengo, tinc (I have). It is also present in Portuguese but has exercised influence on the preceding consonant creating the palatal /j/: tenho (I have). The following examples of an -ĒRE and an -ĔRE verb will illustrate the merging of these two types:

TĪMEO	temo	temo	temo
TĪMES	temes	temes	tems
TĪMET	teme	teme	tem
TĪMĒMUS	tememos	tememos	temem
TĪMĒTIS	teméis	temeis	temeu
TĪMENT	temen	temem	temen

PERDO	pierdo	perco	perdo
PERDIS	pierdes	perdes	perds
PERDIT	pierde	perde	perd
PERDĪMUS	perdemos	perdemos	perdem
PERDĪTIS	perdéis	perdeis	perdeu
PERDUNT	pierden	perdem	perden

The irregular form for the first person singular, perco, in Portuguese "has been explained as due to the influence of the antonyms venco (old) and merco . . . , as due to the influence of verbs ending in -sco . . . , and as arising in the subjunctive in the curse Que Deus te perca through the influence of the antonym parca" (Williams, pp. 227-28). This verb is also a radical changing verb in Castilian and Portuguese, as evidenced by the diphthongization of the tonic /ɛ/ in the Castilian conjugation. The tonic /ɛ/ remains open in the second and third persons singular and third person plural, but is closed to /e/ in the first person singular, due to the action of metaphony of the final o in the Portuguese verb. The first and second persons plural do not show this change since the stem vowel is not stressed.

The -er verb types in the three languages include those verbs which were formed with the inchoative suffix -ESCĒRE, but which no longer have an inchoative meaning. These verbs developed etymologically to Castilian and Portuguese, after being changed to the weak -ér infinitive, with the flexions analogous to the verb conjugation of the other -er verbs. Castilian offers the one peculiarity of -zco in the first person singular of the indicative and the entire present subjunctive.

Portuguese changes the c to ç before the back vowels by analogy with the majority of the conjugation. The Catalan verb also developed etymologically, except for the first person singular, which adopts the palatal /ʃ/ by analogy with the rest of the conjugation. These verbs fall into the third conjugation of Catalan, which is characterized by the stress on the stem. The infinitives in the three languages are: CRES-
CĒRE > crecer, crescer, créixer (to grow) and the following paradigm will illustrate the different developments:

CRESO	crezco	cresço	creixo
CRESĬS	creces	cresces	creixes
CRESĬT	crece	cresce	creix
CRESĬMUS	crecemos	crescemos	creixem
CRESĬTIS	crecéis	cresceis	creixeu
CRESUNT	crecen	crescem	creixen

Latin -ĪRE verbs developed to the -ir endings in Ibero-Romance, which are distinguishable from the above conjugations by the theme vowel in the flexions of the first and second person plural forms. The second person singular flexion, which was -ĪS in Latin, developed to -es in Castilian and Portuguese by analogy with the third person singular and plural, since the plural had adopted the -ENT flexion of the second conjugation verbs. The first person singular Latin form ended in the yod -IO, which was usually lost in Catalan. The vestiges of this yod are found in some Castilian verbs represented by the letter g:
SALIO > salgo (I leave). In Portuguese, and sometimes in Castilian, the yod exercised a raising effect on verbs with open vowels in the

stem. The verb $\check{S}\check{E}RVIO$ was raised to /e/ by the yod and to /i/ by the action of metaphony in Portuguese. The stem vowel of the Castilian form was also raised to /e/ by the yod, but the resulting /i/ was due to analogy with other forms which had /e/ in the stem and were naturally raised to /i/ by the yod: $M\bar{E}TIO > \underline{mido}$ (I measure). The following paradigm shows the loss of the yod in Castilian and Catalan with no effect on the stem vowel. Portuguese, however, shows the dual effects of the yod and metaphony in the first person singular.

DORMIO	duermo	durmo	dormo
DORMĪS	duermes	dormes	dorms
DORMĪT	duerme	dorme	dorm
DORMĪMUS	dormimos	dormimos	dormim
DORMĪTIS	dormĭs	dormis	dormiu
DORMIUNT	duermen	dormem	dormen

The -ir conjugation in Catalan is the group in which most verbs have been remodeled with the inchoative infix $\check{I}SC > -ESC$. These verbs are conjugated with the regular flexions of -ir verbs but add the infix to the singular forms and the third person plural with stress patterns similar to those of radical changing verbs. The following developments will illustrate the addition of the infix: $*SERVESCO > \underline{serveixo}$; $*SERVESCIS > \underline{serveixes}$; $*SERVESCIT > \underline{serveix}$; $SERVIMUS > \underline{servim}$; $SERVITIS > \underline{serviu}$; $*SERVESCİUNT > \underline{serveixen}$.

Present Subjunctive

The present subjunctive of -ARE Latin verbs developed regularly into Castilian and Portuguese. Catalan has shown some irregularities

in its development. The singular persons and the third person plural, instead of retaining the e in the flexion, have raised it to i "seguramente por fonética sintáctica ante vocal siguiente" (Badía Margarit, p. 309). This change affected the first and third persons singular to which the other persons complied by analogy. According to Moll, "hubo una tendencia a cerrar la e para evitar confusión con la a del presente del indicativo" (Moll, p. 220). The first and second persons plural were not affected by this analogy and developed etymologically:

CANTEM	cante	cante	canti
CANTES	cantes	cantes	cantis
CANTET	cante	cante	canti
CANTEMUS	cantemos	cantemos	canthem
CANTETIS	cantéis	canteis	canteu
CANTENT	canten	canthem	cantin

Latin -ĒRE verbs which lost the yod in the first person singular of the indicative likewise lost it throughout the present subjunctive: TIMEAM > tema, tema, temi (that I fear). Those that retained the yod, either represented by a velar consonant or the palatalized preceding consonant, also retained it in the subjunctive: TENEAM > tenga, tenha, tingui. Other than the retention of the yod, the -ĔRE and -ĒRE verbs merged in the subjunctive, just as they did in the indicative, and developed etymologically in Castilian and Portuguese. Catalan again offers irregularities in the flexions. The forms which developed in Old Catalan were -a, -es, -a in the singular and -em, -ets, -en in the plural. By analogy with the other flexions, the first and third singular

forms became -e and, due to the closing tendency of the first class verbs, these flexions became -i, -is, -i in the singular and -in in the third plural. The first and second persons plural retained their etymologically developed flexions by analogy with the present indicative (Moll, p. 222). The following conjugations bear out these developments:

TIMEAM	tema	tema	temi
TIMEAS	temas	temas	temis
TIMEAT	tema	tema	temi
TIMEAMUS	temamos	temamos	temem
TIMEATIS	temádis	temais	temeu
TIMEANT	teman	temam	temin
PERDAM	pierda	perca	perdi
PERDAS	pierdas	percas	perdis
PERDAT	pierda	perca	perdi
PERDAMUS	perdamos	percamos	perdem
PERDATIS	perdádis	percais	perdeu
PERDANT	pierdan	percam	perdin

The irregular Portuguese form, perca, was treated in the section on the present indicative.

Latin fourth conjugation -IRE verbs contained a flexional yod which was dropped in the singular and third person plural forms in Castilian. The first and second persons plural stem vowel was raised by the yod, due to the fact that the yod was in a tonic position and could exercise more influence. The Portuguese paradigm shows the raising of the vowel throughout. This was apparently due to analogy with the indicative, since the closing action of metaphony from the final o did not exist in the subjunctive, and, if metaphony was to occur, it would be that of the opening effect of the final a. In other words, the action of

metaphony would cancel the raising effect of the yod. The Catalan flexions of the singular and third person plural offer the same closing tendency explained for the other verb classes with the same results. A different development is evident in the first and second persons plural, which, either by analogy with the present indicative forms or by analogy with the theme vowel of the verb class, have become -im and -iu. A graphic illustration of these changes is the following verb:

DORMIAM	duerma	durma	dormi
DORMIAS	duermas	durmas	dormis
DORMIAT	duerma	durma	dormi
DORMIAMUS	durmamos	durmamos	dormim
DORMIATIS	durmaís	durmais	dormiu
DORMIANT	duerman	durmam	dormin

Imperfect Indicative

The Latin imperfect tense was based on three flexions: -ABA for verbs of the first conjugation, -ĒBA for verbs of the second and third conjugations, and -ĪĒBA for fourth conjugation verbs and some third conjugation verbs (those with -IO in the present indicative). Of these three, the first developed etymologically into Ibero-Romance: -aba for Castilian and -ava for Portuguese and Catalan. The first and second persons plural show a shift in accent from the penult to the antepenult by analogy with the stress of the other forms in the paradigm. In Portuguese the second person plural flexion, -aveis, developed from the "posttonic penultimate a . . . plus a Romance yod [which] became ei" (Williams, p. 171). The development of CANTARE will show these tendencies:

CANTABAM	cantaba	cantava	cantava
CANTABAS	cantabas	cantavas	cantaves
CANTABAT	cantaba	cantava	cantava
CANTABAMUS	cantábamos	cantávamos	cantavem
CANTABATIS	cantabais	cantáveis	cantaveu
CANTABANT	cantaban	cantavam	cantaven

The third conjugation -IO verbs soon merged with the second and third conjugation verbs by adopting the -eba endings. The -IĒBA ending of the fourth conjugation had, by the time of Vulgar Latin, reduced the diphthong to i by analogy with the theme vowel of the conjugation. The Vulgar Latin period possessed the -eba flexions for -er verbs and -iba flexions for -ir verbs. By analogy with imperfect verb forms such as HABEBAM and DEBEBAM, which lost the b of the flexion due to dissimilation, the intervocalic b was lost in the imperfect endings of all -er and -ir verbs producing the endings -ea and -ia. The tonic /e/ of the first ending was raised to /i/ when in hiatus with /a/, which brought about the merging of these two endings. The i is accented throughout the paradigms in Castilian, since these two vowels in combination create a diphthong which must be broken in order to maintain the original tonic vowel. This is not necessary in Portuguese and Catalan since these two vowels in combination do not produce a diphthong. Accent marks are required in the first and second persons plural, however, to indicate the shift in stress to the i by analogy with the other forms of the same conjugation. Since the second and third conjugations had the same Latin endings, only one will be given to show

the development of these verbs into Ibero-Romance:

PERDEBAM	perdġa	perdia	perdia
PERDEBAS	perdġas	perdias	perdies
PERDEBAT	perdġa	perdia	perdia
PERDEBAMUS	perdġamos	perdġamos	perdfem
PERDEBATIS	perdġais	perdfeis	perdfeu
PERDEBANT	perdġan	perdiam	perdien
DORMIEBAM	dormġa	dormia	dormia
DORMIEBAS	dormġas	dormias	dormies
DORMIEBAT	dormġa	dormia	dormia
DORMIEBAMUS	dormġamos	dormġamos	dormfem
DORMIEBATIS	dormġais	dormfeis	dormfeu
DORMIEBANT	dormġan	dormiam	dormien

Imperfect Subjunctive

The Latin imperfect subjunctive did not retain that function in Ibero-Romance, where the forms of the pluperfect subjunctive soon replaced it. The form was retained, but only in Portuguese, where it developed to the personal infinitive. This is one theory of the origin of this tense in Portuguese. This theory, to borrow the phrase of Williams, can be termed the development theory. The other major theory may be called the creative theory and states that the personal infinitive was a purely Portuguese phenomenon developed by agglutinating pronouns to the infinitive. Both of these arguments are studied by Williams (pp. 181-84) and Moffatt,¹² who summarize the works of the major theorists. According to Williams, "with complete usurpation by the pluperfect subjunctive of the finite function of the imperfect subjunctive the latter continued to survive as an infinitive . . . and as a personal infinitive through omission of subordinating conjunctions or through the substitu-

tion of prepositions for subordinating conjunctions" (Williams, p. 182). The opinion of Moffatt is that, since the infinitive of Latin was being used in constructions previously reserved for conjugated forms, the step to its use as a personal infinitive was a logical one. The first function assumed by the infinitive was its use with personal pronouns. This function is also evident in Castilian. Portuguese then went further with "the addition of endings to this personal infinitive to create an inflected infinitive with wider applications" (Moffatt, p. 57). It is interesting to note the similarities in the flexions of the personal infinitive and those of the future subjunctive which Moffatt views as "a coincidence which doubtless influenced their adoption by the infinitive" (Moffatt, p. 58). These arguments do not seem likely to be resolved in the near future, but whatever the origin of the personal infinitive, it remains uniquely Portuguese. For purposes of illustration, the Latin imperfect subjunctive is given with the Portuguese forms:

CANTAREM	cantar
CANTARES	cantares
CANTARET	cantar
CANTAREMUS	cantarmos
CANTARETIS	cantardes
CANTARENT	cantarem
PERDEREM	perder
PERDERES	perderes
PERDERET	perder
PERDEREMUS	perdermos
PERDERETIS	perderdes
PERDERENT	perderem
DORMIREM	dormir

DORMIRES	dormires
DORMIRET	dormir
DORMIREMUS	dormirmos
DORMIRETIS	dormirdes
DORMIRENT	dormirem

Perfect Indicative

The Latin perfect tense was the origin of the preterite tense in Ibero-Romance. Its development is more involved than the tenses previously treated since there existed two types of perfects in Latin, weak and strong, each with its own evolution. The weak perfects corresponded to the first and fourth Latin conjugations with the flexions -AVI and -IVI respectively. There existed a weak perfect, -ĒVI, for the second and third conjugations but this form, analogous to the passive participle form for the same conjugations, was lost. To compensate for the loss of this form, a new weak perfect was created by analogy with DĒDI, and compound forms thereof, with a shift in stress to the ending, i. e., PĒRDIDI > PERDĒDI. These new flexions are the source for the preterite forms of -er verbs in Portuguese and Catalan. Castilian has preferred to adopt the weak -IVI flexions for both -er and -ir verbs. The paradigms for the original weak perfects, -AVI and -IVI, and the recreated perfects on DĒDI, indicate interesting developments in Ibero-Romance.

CANTAVI	canté	cantei	cantí
CANTAVISTI	cantaste	cantaste	cantares
CANTAVIT	cantó	cantou	cantà
CANTAVIMUS	cantamos	cantámos	cantàrem
CANTAVISTIS	cantasteis	cantastes	cantàreu
CANTAVERUNT	cantaron	cantaram	cantaren

PERDEDI	perdĭ	perdi	perdĭ
PERDEDISTI	perdiste	perdeste	perderes
PERDEDIT	perdió	perdeu	perdé
PERDEDIMUS	perdimos	perdemos	perdérem
PERDEDISTIS	perdisteis	perdestes	perdéreu
PERDEDERUNT	perdieron	perderam	perderen
DORMIVI	dormĭ	dormi	dormĭ
DORMIVISTI	dormiste	dormiste	dormires
DORMIVIT	durmió	dormiu	dormĭ
DORMIVIMUS	dormimos	dormimos	dormĭrem
DORMIVISTIS	dormisteis	dormistes	dormĭreu
DORMIVERUNT	durmieron	dormiram	dormiren

The first conjugation lost the intervocalic -V- of the flexion which caused the combination of the two vowels in the first person singular producing the normal results of e in Castilian and ei in Portuguese. The Catalan final i was by analogy with the first person of the other conjugations. The second person singular and the plural forms witness the loss of the -VI-, -VE- while retaining the a as the characteristic vowel of the conjugation. The flexions of these forms in Catalan are all due to analogy with the third person plural. An interesting treatment of the Latin flexion of the third person singular is the loss of the -I- and the retention of the -V- which later vocalizes to -u- becoming -aut. This diphthong then normally developed to /o/ in Castilian and Portuguese. Catalan, however, did drop the -V-, as it had throughout, and retained the characteristic vowel a. The ending of the second person plural form of Castilian was based on analogy with forms of the same person in the present tense.

The fourth conjugation of Latin and the third of Romance show

the most regularity in development. Throughout the paradigm the intervocalic -V- has dropped and the two i's of most forms have merged. The third person plural form of Castilian has caused some speculation, and some explain the development to -ieron as the diphthongization of the stressed e of second conjugation forms. However, since the second conjugation of Castilian verbs developed endings analogous with those of the third conjugation, it seems implausible that one form would reverse the analogical process. Also, by analogy with the other forms of the third conjugation, the third person plural simply dropped the intervocalic -V- thereby creating the diphthong: -I(V)ERUNT > -ieron. The only inconsistency in the third conjugation is found in the third person singular which did not drop the intervocalic -V- in Castilian and Portuguese. As with the first conjugation, the -V- vocalized to -u- creating the ending -fut. Portuguese simply dropped the final -t and maintained -iu as the flexion for -ir verbs. Castilian changed the ending to -io and shifted the accent to the back vowel by analogy with the first conjugation becoming -ió. This development in the third person singular and the above mentioned development in the plural form created yods in Castilian which raised the stem vowel from o to u.

The weak perfects recreated by analogy with DĒDI show no unusual developments in Portuguese and Catalan, except the loss of the unaccented -de- due to haplology. The third person singular in Portuguese develops a -u by analogy with the forms of the same person in

the other conjugations. The other endings were discussed in the section on desinences.

The strong perfects, which carried the stress on the stem, were the source for the irregular preterites in Romance. Just as the weak perfects corresponded to the first and fourth conjugations, the strong perfects usually belonged to the second and third Latin conjugations. Many of these strong perfects had, however, become "regularized" and had taken on the weak endings of the other conjugations, usually merging with -IVI. There were three basic types of strong perfects: those with the -UI ending, those ending in -SI, and those ending in -I, only four of which have developed into Romance. The endings for the strong perfects were the same in Latin as those of the weak perfects of the third and fourth conjugations: -Ī, -ĪSTĪ, -ĪT, etc. The development into Romance was different from that of the weak perfects in Castilian and Portuguese, owing to two important facts: the ending of the weak perfects was dissyllabic, that of the strong perfects monosyllabic, and there was no theme vowel in the strong perfects to attract the stress from the stem, so that the resulting endings of the first and third persons singular are atonic. The strong endings developed into Ibero-Romance as follows: -Ī > e, (e), r; -ĪSTĪ > iste, este /ɛ/, eres; -ĪT > o, (e), é; -ĪMUS > imos, emos /ɛ/, érem; -ĪSTĪS > isteis, estes /ɛ/, éreu; -ĪRUNT > ieron, eram /ɛ/, eren.

The endings in Castilian are analogous with those of the third

conjugation, except for the first person singular, which etymologically develops final i to /e/, and the third person singular, which develops to o by analogy with the same person of the other conjugations. In Portuguese, the third person plural form developed from the Vulgar Latin -ĒRUNT which became /ɛ/ in the tonic position. The rest of the forms developed to /ɛ/ by analogy with this form. These can be contrasted with the regular endings which had /e/ throughout. Except for the -re- infix in the Catalan flexions, the strong perfect endings developed regularly and are identical to those of the weak perfects. It may be inferred that Catalan has preferred to regularize the preterites basing most of them on the weak forms. In order to illustrate the development of strong perfects into Ibero-Romance, one verb representing each of the three endings will be given:

SAPUI	supe	soube	sabr
SAPUISTI	supiste	soubeste	saberes
SAPUIT	supo	soube	sabé
SAPUIMUS	supimos	soubemos	sabérem
SAPUISTIS	supisteis	soubestes	sabéreu
SAPUERUNT	supieron	souberam	saberen
DIXI	dije	disse	diguí
DIXISTI	dijiste	disseste	digueres
DIXIT	dijo	disse	digué
DIXIMUS	dijimos	dissemos	diguérem
DIXISTIS	dijisteis	dissestes	diguéreu
DIXERUNT	dijeron	disseram	digueren
VENI	vine	vim	vinguí
VENISTI	viniste	vieste	vingueres
VENIT	vino	veio	vingué
VENIMUS	vinimos	viemos	vinguérem
VENISTIS	vinisteis	viestes	vinguéreu
VENERUNT	vinieron	vieram	vingueren

Of the three examples, the first shows an attraction of the u to the tonic a, which later reduces to o in Castilian and ou in Portuguese. The u in the Castilian paradigm is due to the raising action of the yod in the third person plural which then influenced the rest of the forms. According to Menéndez-Pidal, the intervocalic /p/ failed to voice due to the preceding diphthong au /aw/ (Manual, p. 141). Portuguese and Catalan show no aversion to voicing the intervocalic /p/ to [b]. The second example of a strong perfect with flexions in -SI (X=cs) does not offer any difficulties since the normal development of -X- was to j in Castilian and -ss- in Portuguese. Badía Margarit explains that, for the Catalan examples, "todos los verbos que adoptaron k en la persona 1 del presente del indicativo, han rehecho el perfecto velarizando su raíz" (Badía Margarit, p. 317). A similar situation occurs for VENI, which also has a velar /k/ in the first person singular. The stem vowel of the Castilian verb was raised by the final -ī of the first person singular and the third person plural yod. Analogy caused the rest of the paradigm to follow. The Portuguese verb is changed considerably due to the nasal consonant. In the first person singular it exerted a nasalizing influence on the preceding tonic vowel which had been raised to i by the final -ī. The n dropped but was later replaced by m to represent the nasal quality of the vowel. The normal tendency of the intervocalic n was to drop, and, as it brought two like vowels together, the pre-tonic dissimilated to i. The third person singular form shows in-

fluence from the Castilian form with the adoption of the final o (Williams, p. 242). While all of these perfects developed phonologically and morphologically into the preterite forms of Catalan, they are used only in the literary language being replaced in everyday speech by the periphrastic perfect which will be discussed in the section on analytical verb forms.

Perfect Subjunctive

The function of the perfect subjunctive in Latin was assumed by the pluperfect subjunctive in Vulgar Latin, which then developed into the imperfect subjunctive in Romance. The forms of the perfect subjunctive were very similar to those of the future perfect indicative, and the two forms merged, blending the mood of the former and the future tense of the latter to create a new Romance tense, the future subjunctive. The perfect aspect of the Latin tenses was taken over in Romance by new analytical forms.

The major differences in the two forms which merged was the long $\bar{O}$ of the future perfect and the long $\bar{I}$'s of the flexions of the perfect subjunctive. The subsequent confusion then may be blamed for the fusion of the two forms. This occurred only in Castilian and Portuguese since Catalan has no future subjunctive form, preferring to use the present subjunctive instead. Indeed, the future subjunctive has fallen from everyday use in Castilian, since the functions can be conveyed by the present subjunctive. The development of this tense fol-

lows the general tendencies seen in the evolution of the perfect indicative, i. e. , the dropping of the -VE- in the first conjugation and the -V- in the fourth, the effect of haplology in the recreated forms of the third conjugation, and the development of open vowels in the Portuguese desinences of the forms based on the strong perfects. The following paradigms illustrate these changes:

CANTAVERO	cantare	cantar	--
CANTAVERIS	cantares	cantares	
CANTAVERIT	cantare	cantar	
CANTAVERIMUS	cantáremos	cantarmos	
CANTAVERITIS	cantareis	cantardes	
CANTAVERINT	cantaren	cantarem	
SAPUERO	supiere	souber	--
SAPUERIS	supieres	souberes	
SAPUERIT	supiere	souber	
SAPUERIMUS	supiéremos	soubermos	
SAPUERITIS	supiereis	souberdes	
SAPUERINT	supieren	souberem	
PERDEDERO	perdiere	perder	--
PERDEDERIS	perdieres	perderes	
PERDEDERIT	perdiere	perder	
PERDEDERIMUS	perdiéremos	perdermos	
PERDEDERITIS	perdiereis	perderdes	
PERDEDERINT	perdieren	perderem	
DORMIVERO	durmiere	dormir	--
DORMIVERIS	durmieres	dormires	
DORMIVERIT	durmiere	dormir	
DORMIVERIMUS	durmiéremos	dormirmos	
DORMIVERITIS	durmiereis	dormirdes	
DORMIVERINT	durmieren	dormirem	

One of the obvious differences in the development of the two languages is the loss of the final e of the first and third persons singular in Portuguese which normally occurred after an r. The e of the first person in

Castilian is by analogy with the third person singular. Another point of divergence is the loss of the post-tonic e in the first and second persons plural in Portuguese after the voicing of the /t/ to /d/ in the intervocalic position. Due to the loss of this vowel, the accent naturally fell on the theme vowel of the flexion in Portuguese while Castilian must graphically show this shift by means of an accent mark. It will be observed that the yod which developed in the Latin fourth conjugation by analogy with the perfect, raised the stem vowel through the Castilian paradigm. Portuguese developed the ending based on the theme vowel i.

Pluperfect Indicative

Since most of the perfect verb tenses of Latin lost their functions in Romance to the analytical forms, the Latin forms were used in new functions. Such was the case of the pluperfect indicative. This did not occur until the modern period, however, and then only in Castilian. This tense has disappeared in Modern Catalan, but has been retained in Portuguese with its original function. Castilian, on the other hand, has changed the usage of these forms to that of an imperfect subjunctive, which has been cited as "an unusual instance of grammatical pleonasm" (Elcock, p. 143). The development into Castilian, Portuguese and Old Catalan of these verb forms is as follows:

CANTAVRAM	cantara	cantara	cantara
CANTAVRAS	cantaras	cantaras	cantares
CANTAVRAT	cantara	cantara	cantara
CANTAVRAMUS	cantáramos	cantáramos	cantàrem
CANTAVRATIS	cantaraís	cantáreis	cantàreu
CANTAVRANT	cantaran	cantaram	cantaren

SAPUERAM	supiera	soubera	sabéra
SAPUERAS	supieras	souberas	saberes
SAPUERAT	supiera	soubera	sabera
SAPUERAMUS	supiéramos	soubéramos	sabérem
SAPUERATIS	supierais	soubéreis	sabéreu
SAPUERANT	supieran	souberam	saberen
PERDEDERAM	perdiera	perdera	perdéra
PERDEDERAS	perdieras	perderas	perderes
PERDEDERAT	perdiera	perdera	perdera
PERDEDERAMUS	perdiéramos	perdêramos	perdérem
PERDEDERATIS	perdierais	perdêreis	perdéreu
PERDEDERANT	perdieran	perderam	perderen
DORMIVERAM	durmiera	dormira	dormira
DORMIVERAS	durmieras	dormiras	dormires
DORMIVERAT	durmiera	dormira	dormira
DORMIVERAMUS	durmiéramos	dormíramos	dormírem
DORMIVERATIS	durmierais	dormíreis	dormíreu
DORMIVERANT	durmieran	dormiram	dormiren

Several similarities between the evolution of these forms and those of the future subjunctive are apparent: the raising of the stem vowel of the fourth Latin conjugation in Castilian, the open vowels in the endings based on the strong perfects in Portuguese, and the shift of stress to the ending in the first person plural indicated by an accent mark in Castilian. The latter development also occurs in Portuguese, for, unlike the future subjunctive tense, which has a post-tonic e that falls, the post-tonic a in the imperfect subjunctive is more stable and remains, causing the need for written accent marks in Portuguese. The post-tonic a in hiatus with the Romance yod causes the ei combination in the second person plural flexion. Like Portuguese, Catalan develops flexions based on the theme vowels, e for -er verbs and i for -ir verbs.

Pluperfect Subjunctive

The pluperfect nature of this Latin tense was assumed by analytical forms in Ibero-Romance. The forms were taken and adapted to a new function, that of the imperfect subjunctive. Since this tense was formed in Latin in a manner analogous with the previous tenses, i. e., the flexions added to the perfect stem, the changes from Latin to Ibero-Romance will also be analogous with those of the previous tenses. Still present is the raising of the stem vowel in the fourth conjugation in the Castilian verb, the distinction in vowel quality of the flexions in Portuguese for strong and weak perfects, the shift in stress to the flexion in the first and second persons plural represented by an accent mark, and the use of the theme vowel in the flexions of the -er and -ir verbs in Portuguese and Catalan. In regard to Catalan, an irregularity develops in the flexions of the first conjugation. These have developed etymologically to -ás, -asses, etc. in Old Catalan, but, by analogy with the second and third conjugations, the forms of -és, -essis became common. The post-tonic i of the flexion developed either by analogy with the present subjunctive or due to the relaxed pronunciation of e in the atonic position. These changes are apparent in the following examples:

CANTAVISSEM	cantase	cantasse	cantés
CANTAVISSES	cantases	cantasses	cantessis
CANTAVISSET	cantase	cantasse	cantés
CANTAVISSEMUS	cantásemos	cantássemos	cantéssim
CANTAVISSETIS	cantaseis	cantásseis	cantéssiu
CANTAVISSENT	cantasen	cantassem	cantessin

SAPUISSEM	supiese	soubesse	sabés
SAPUISSES	supieses	soubesses	sabessis
SAPUISSET	supiese	soubesse	sabés
SAPUISSEMUS	supiésemos	soubéssemos	sabéssim
SAPUISSETIS	supieseis	soubésseis	sabéssiu
SAPUISSENT	supiesen	soubessem	sabessin
PERDEDISSEM	perdiere	perdesse	perdés
PERDEDISSES	perdiereis	perdesseis	perdessis
PERDEDISSET	perdiere	perdesse	perdés
PERDEDISSEMUS	perdiésemos	perdêsemos	perdéssim
PERDEDISSETIS	perdiereis	perdêsseis	perdéssiu
PERDEDISSENT	perdiesen	perdessem	perdessin
DORMIVISSEM	durmiese	dormisse	dormís
DORMIVISSES	durmieses	dormisses	dormissis
DORMIVISSET	durmiese	dormisse	dormís
DORMIVISSEMUS	durmiésemos	dormíssemos	dormíssim
DORMIVISSETIS	durmieseis	dormísseis	dormíssiu
DORMIVISSENT	durmiesen	dormissem	dormissin

Analytical Tenses

With the functions of the perfect Latin tense taken over by the preterite in Ibero-Romance, the present perfect concept, which the Latin tense also conveyed, was left wanting. In order to fill the gap, it was necessary to create a new form, a compound tense, using forms already available within the verbal system. The new tense consisted of the past participle and forms of the verb "to have". Since there existed two Latin verbs with this meaning, HABERE and TENERE, there was some hesitation as to which would receive the role of the auxiliary. In Castilian and Catalan, haber and haver assumed this function while tener and tenir have retained the meaning of "to have" in the sense of "to possess". Portuguese differed from its two sister languages and chose

ter to serve both functions, although haver also may serve as an auxiliary. This new compound tense was originally created to convey the present perfect meaning, but, due to the changes in function of the Latin pluperfects, their "perfect" meanings were also expressed by means of compound forms. Therefore, for the Latin perfect tense, the Romance present perfect was used: HABEO or TENEIO CANTATUM > he cantado, tenho cantado, he cantat (I have sung). The Portuguese has a slightly different meaning, which is better expressed by the progressive "I have been singing". The perfect subjunctive also was changed to the compound: HABEAM or TENEAM CANTATUM > haya cantado, tenha cantado, hagi cantat (that I have sung).

The past aspect could also be expressed, and the pluperfect indicative was changed to a compound using the imperfect of the auxiliary: HABEBAM or TENEBAM CANTATUM > habia cantado, tinha (or havia) cantado, havia cantat (I had sung). By analogy, the preterite tense of the auxiliary was also used to form the preterite perfect, which is used very little in the modern languages: HABUI or TENUI CANTATUM > hube cantado, tive (or houve) cantado, haguí cantat (I had sung). The pluperfect subjunctive, like its indicative counterpart, was reconstructed in the compound mold: HABUISSEM or TENUISSEM CANTATUM > hubiese cantado, tivesse (or houvesse) cantado, hagués cantat (that I had sung). By analogy with these new compound tenses, further compounds were created using any tense of the auxiliary verb and the past participle.

Two other new tenses came into Romance through an extended use of HABERE. As has already been noted, the future indicative tense of Latin was not developed into the Romance languages of the Peninsula. The need to express the idea of the future did not disappear, however, and new solutions had to be found to fill the void left by the Latin tense. This was accomplished by the use of verbs of intent or obligation with an infinitive such as DEBEO CANTARE, HABEO CANTARE or CANTARE HABEO. This latter form won acceptance in Iberia, with the result that this verb of obligation was developed etymologically from its present tense, and these forms were frozen to the preceding infinitive. This is an interesting development, since the original synthetic tense of Latin was replaced by the analytic forms, which later became synthetic. Castilian and Catalan agree in always agglutinating the forms of HABERE to the infinitive. Portuguese has two different treatments of the new future flexions consisting of either attaching the endings to the infinitive as in the rest of the Peninsula, or retaining the periphrastic quality by separating the stem from the flexion by means of a pronoun. Thus, forms such as lhe falarei and falar-lhe-ei, both meaning "I will speak to him", exist in Portuguese. The difference in usage of the two forms is a matter for the study of syntax. The development from the present tense of HABERE to the Ibero-Romance future flexions is as follows:

HABEO > ajo	-é	-ei	-é
HABES > as	-ás	-ás	-às
HABET > at	-á	-á	-à

HABEMUS>	emus	-emos	-emos	-em
HABETIS>	etis	-éis	-eis	-eu
HABENT>	aunt	-án	-ão	-an

By analogy with this new synthetic future, another tense arose in Ibero-Romance which was completely new as to form and function. There was only one aspect of time which could not be expressed by the existent tenses, the past aspect of the future or the conditional. It was, therefore, only logical that if the future had been constructed from the present tense of HABERE, then the past aspect should be constructed from the etymologically developed imperfect tense of HABERE.¹³ The Portuguese second person plural flexion evolved the e due to post-tonic a in hiatus with e. As with the future, the following endings were agglutinated to the infinitive in Castilian and Catalan and could be attached or separated in Portuguese:

HABEBAM>	habeam>	eam>	ea	-fa	-ia	-ia
HABEBAS>	habeas>	eás>	éas	-fas	-ias	-ies
HABEBAT>	habeat>	eat>	ea	-fa	-ia	-ia
HABEBAMUS>	habeamus>	eamus		-famos	-famos	-fem
HABEBATIS>	habeatis>	eatis>	eais	-fais	-feis	-feu
HABEBANT>	habeant>	eant		-fan	-iam	-ien

One other analytical tense that developed in Ibero-Romance is the periphrastic perfect, which is peculiar to Catalan. It consists of a special set of present tense forms of anar (to go) and the infinitive. In the normal use of the present tense of anar, the first and second persons plural forms are taken from *AMBITARE with the rest of the conjugation proceeding from VADERE. In its use as an auxiliary in the periphrastic

perfect, all forms come from VADERE. The following is the paradigm for the periphrastic perfect:

VADO CANTARE	vaig cantar
VADES CANTARE	vas cantar
VADET CANTARE	va cantar
VADEMUS CANTARE	vam cantar
VADETIS CANTARE	vau cantar
VADUNT CANTARE	van cantar

The reasons for the origin of this tense and its subsequent ousting of the preterite in Modern Catalan remain a mystery.¹⁴ The most convincing argument is that it was originally used with an historic present connotation from which it later evolved to the preterite meaning.

CONCLUSION

The geographical location of Iberia is of paramount importance in a comparative study of its three major Romance languages. Strategically located at the Mediterranean's western end, the Peninsula was subject to numerous efforts at colonization in order to gain control of that sea. Phoenicians, Greeks, Carthaginians and Romans established ports on its eastern shores. Its position between Africa and the rest of Europe made it the gateway between these two continents and allowed the Celts, the Germanic tribes and the Moors to flow into it. All of the invaders made an imprint on the land and the people, leaving behind them cultural, political and social elements. Their most lasting contributions were linguistic.

Most of the tribes contributed lexical items to the languages with only occasional phonological or morphological features. The two civilizations which had the most enduring impact were, naturally, those which occupied the Peninsula for the longest periods of time. The Romans, who did so for six centuries, imposed the Latin language on the inhabitants. Latin's adoption and spread throughout Iberia must be attributed to Rome's political and cultural dominance. Except for the

Basque Provinces, the entire Peninsula accepted the Latin language as its means of communication, adapting it to fit various regional needs.

The Moorish occupation lasted two centuries longer than the Roman domination but did not have the same impact on the languages, perhaps because the Moors were more tolerant invaders and did not impose Arabic on the conquered peoples. The co-habitation of the same area, however, enriched the languages of the Peninsula with lexical items ranging from cooking and sewing to astronomy and government. While this lexical influence is important, it yields to the overall result of the Moorish occupation, which was the Reconquest.

During the period of the Reconquest, the principal languages of the Peninsula, Castilian, Portuguese and Catalan, were asserting themselves as their respective regions were pushing the Moors ever southward. The Romans, then, were the founders, the builders and molders of the Peninsula's linguistic patterns, while the presence of the Moors was the catalyst which brought about the linguistic dominance and solidarity of the Ibero-Romance language family.

A cursory examination of the three Ibero-Romance languages will indicate the basic linguistic peculiarities and characteristics of each. Portuguese may be characterized as a vocalic language due to the loss of intervocalic consonants and the creation of five nasal vowels and four nasal diphthongs. Conversely, Catalan retains consonants at the expense of atonic vowels and is, therefore, more consonantal. Castil-

ian, both literally and figuratively, occupies the middle ground through the retention of more intervocalic consonants than Portuguese and more atonic vowels than Catalan. A closer examination shows that, despite the overt differences mentioned above, the languages offer similarities in their phonological developments.

The seven vowel phonemes of Vulgar Latin were the basis for the vocalic systems of Ibero-Romance which developed according to their tonic or atonic positions. Portuguese and Catalan agree in generally retaining the seven phonemes in the tonic position. In the atonic position these phonemes may be reduced to either the five closed vowels or to the two high vowels and the relaxed /ɐ/. Castilian retains the five closed vowels in both the tonic and atonic positions but develops rising diphthongs from the stressed /ɛ/ and /ɔ/.

While all three languages agree on the voicing of intervocalic stops and the subsequent weakening of the voiced stops to fricatives, differences in consonantal developments are again apparent between Portuguese and Catalan on the one hand, and Castilian on the other. Of the thirty-one phonemes given in the table on page 67, twenty-two are common to all three languages. While Castilian appears to be the most conservative of the three, possessing only three phonemes other than the twenty-two in common, it has, in fact, been the most progressive. Two of the Castilian phonemes, the /θ/ and the /x/, are unique in Romance, and represent the final steps of development of the Latin

velar stops. Portuguese and Catalan possess more alveo-palatal fricatives and these phonemes represent the stages preceding the final development to the Castilian interdental and glottal fricative phonemes. Because of the progressive nature of Castilian, its development has produced the fewest number of consonant phonemes, twenty-five. Portuguese counts twenty-seven, while Catalan, adding to its image as a consonantal language, contains twenty-nine. Aside from the twenty-two phonemes possessed by the three languages, the five additional phonemes of Portuguese are shared by Catalan. Of the two remaining phonemes of Catalan, /tʃ/ is shared by Castilian while /dʒ/ is unique to Catalan in the Ibero-Romance family. Therefore, all of the Portuguese phonemes are shared by one or both of the sister languages, whereas both Castilian and Catalan contain phonemes peculiar to each.

The general morphological developments of Ibero-Romance were analogous with those of the other Romance languages; the synthetic quality of Latin gave way to the analytic quality of Romance. This is most apparent in the nominal and adjectival systems, which were greatly simplified. The reduction of the declensional system is characterized in Ibero-Romance by the adoption of the accusative case for the etyma of most nouns and adjectives. The development of the pronominal system depended on the stressed or unstressed position. Generally, in the stressed position, the forms for Ibero-Romance were taken from the nominative and dative cases, while the unstressed forms were products of accusative etyma.

The verbal system, although less drastically reduced than the nominal and adjectival, is the area of greatest divergence among the three languages. Castilian presents a rather conservative treatment of the Latin tenses. Portuguese has more peculiarities, namely, a distinction made between forms based on the strong perfects and those based on the weak perfects, and the creation of the personal infinitive. It is in the verbal system that Catalan most clearly demonstrates differences from Ibero-Romance and similarities with Gallo-Romance. Unlike Castilian and Portuguese, Catalan retains the four types of Latin infinitives, forms verbs with the inchoative suffix, and forms past participles on the Vulgar Latin -UTU invention. Also distinct from Ibero-Romance, and the other Romance languages as well, is the Catalan creation of the periphrastic perfect.

According to Entwistle, "There is a high common measure of agreement between the Peninsular languages . . . [noting that] . . . the Castilian point of view is central, and others peripheral and divergent" (Entwistle, p. 9). This statement is borne out in the historical, phonological and morphological developments of the three major languages. They are linked to each other by virtue of their location within the same geographical region, a location that has imposed on them similar historical forces. All three languages were closely related until the time of the Reconquest, when Castilian became the central wedge between the west and the east. The similar developments in Portuguese

and Catalan attest to this early relationship. The three languages have changed in different ways to attain distinct linguistic personalities. They are all sufficiently similar, however, to belong to the same linguistic family of Ibero-Romance.

NOTES

Introduction

¹ The following is a list of major source material for this work which will hereafter be referred to parenthetically throughout the text. Ramón Menéndez-Pidal, Manual de gramática histórica española (Madrid: Espasa-Calpe, S.A., 1968); Rafael Lapesa, Historia de la lengua española (Madrid: Escelicer, S.A., 1965); Antonio Badra Margarit, Gramática histórica catalana (Barcelona: Editorial Noguer, S.A., 1951); Edwin B. Williams, From Latin to Portuguese (Philadelphia: University of Pennsylvania Press, 1962); and William J. Entwistle, The Spanish Language Together With Portuguese, Catalan and Basque (London: Faber & Faber, Ltd., 1962). The majority of the examples cited throughout this study were taken from or based on those given in the above mentioned works. Other examples were taken from the other works cited.

² The languages referred to are the Castilian dialect of central Spain, the Portuguese dialect in the central territory between and including Coimbra and Lisbon, and the eastern Catalan dialect of Barcelona.

³ W. Meyer-Lubke, Das Katalanische (Heidelberg: Carl Winter, 1925).

⁴ Antonio Griera y Gaya, "Castellà - Català - Provençal," Zeitschrift für Romanische Philologie, 45 (1925), 198-254.

⁵ Amado Alonso, "La subagrupación románica del catalán," Estudios lingüísticos: Temas españoles (Madrid: Editorial Gredos, 1951), p. 15.

⁶ Ramón Menéndez-Pidal, Orígenes del español (Madrid: Revista de Filología Española, Anejo I, 1929), pp. 517-29.

⁷ P. Fouché, "A propos du livre de M. Meyer-Lubke: Das Katalanische," Revue Hispanique, LXXVII (1929), 105.

⁸ For a chart of the representative phonemes and allophones in the Ibero-Romance languages, please see the table on page 67.

Chapter I

¹ Kurt Baldinger, La formación de los dominios lingüísticos en la península ibérica (Madrid: Editorial Gredos, S.A., 1963), p. 14.

² J. Vicens Vives, Atlas de historia de España (Barcelona: Editorial Teide, S.A., 1969), p. 2.

³ Entwistle devotes an entire chapter (pp. 14-37) to the Basque language and its history.

⁴ J. D. M. Ford, Old Spanish Readings (Boston: Ginn & Co., 1911), p. viii.

⁵ Rafael Altamira, A History of Spain, trans. Muna Lee (New York: D. Van Nostrand, Co. Inc., 1949), pp. 22-23. The original was not available.

⁶ W. D. Elcock, The Romance Languages (London: Faber & Faber, Ltd., 1960), p. 179. Further references to this work will appear parenthetically within the text.

⁷ Robert K. Spaulding, How Spanish Grew (Berkeley: University of California Press, 1943), p. 12. Further references to this work will appear parenthetically within the text.

⁸ Antonio Tovar, "La sonorización y caída de las intervocálicas, y los estratos indoeuropeos en Hispania," Boletín de la Real Academia Española, 28 (1948), 279.

⁹ Altamira, p. 29.

¹⁰ Vicens Vives, p. 7.

¹¹ William Reinhart, "El elemento germánico en la lengua española," Revista de Filología Española, 30 (1946), 297.

¹² Ernest Gamillscheg, "Historia lingüística de los visigodos," Revista de Filología Española, 19 (1932), 117-50; 229-60. The author is only able to cite twenty-seven words of Visigothic origin.

¹³ Reinhart, p. 306.

¹⁴ William T. Patterson and Héctor Urrutibéheity, The Lexical Structure of Spanish (The Hague: Mouton & Co., 1975), p. 13.

¹⁵ For more extensive lists of Germanic word borrowings see Patterson and Urrutibéheity, p. 13; Spaulding, pp. 49-51; Elcock, pp. 216-23; and, Entwistle, pp. 77-81.

¹⁶ Reinhart, p. 302.

¹⁷ Baldinger, p. 93 and Lapesa, p. 92.

¹⁸ J. B. Trend, The Language and History of Spain (New York: Hutchinson House, 1953), p. 51.

¹⁹ J. M. Solá-Solé, "El artículo al- en los arabismos iberorrománicos," Romance Philology, 21 (1967/68), 284.

²⁰ Other, more extensive lists of Arabic borrowings are to be found in: Entwistle, pp. 127-34; Elcock, pp. 279-93; Spaulding, pp. 56-61; and, Lapesa, pp. 97-103.

²¹ Robert A. Hall, Jr. , External History of the Romance Languages (New York: America Elsevier, 1974), p. 97.

²² Baldinger, p. 62.

²³ Francisco de B. Moll, Gramática histórica catalana (Madrid: Editorial Gredos, S.A. , 1952), p. 46. Further references to this work will appear parenthetically within the text.

Chapter II

¹ Henry Mendeloff, A Manual of Comparative Romance Linguistics (Washington, D.C.: The Catholic University of America Press, Inc. , 1969), p. 6.

² In Portuguese, all vowels occurring in a syllable checked by a nasal /m/ or /n/ are nasalized: tanto /ã/, vento /ẽ/, vingo /ĩ/, tonto /õ/, difunto /ũ/.

³ Orígenes, p. 139.

⁴ D. Lincoln Canfield and J. Cary Davis, An Introduction to Romance Linguistics (Carbondale and Edwardsville: Southern Illinois University Press, 1975), p. 35.

⁵ Edouard Bourciez, Précis Historique de Phonétique Française (Paris: Librairie C. Klincksieck, 1958), p. 51.

⁶ Orígenes, p. 141.

⁷ The table on consonant phonemes was based on the charts of Menéndez-Pidal, Manual, pp. 92, 96, and Robert L. Politzer and Charles N. Staubach, Teaching Spanish: A Linguistic Orientation (Boston: Ginn & Co., 1961), pp. 46-47.

⁸ For a complete analysis of the f->h- phenomenon, see Menéndez-Pidal, Orígenes, pp. 219-40.

⁹ While there are not many instances of the /m/ nasalizing the following vowel, it is interesting that muíto is the only word in Portuguese with the nasal diphthong /ũi/.

¹⁰ A. Martinet, "The Unvoicing of the Old Spanish Sibilants," Romance Philology, V (1951), 133-56. Martinet treats this phenomenon quite completely.

¹¹ For a complete analysis of these changes of the nasal /n/, please refer to Williams, pp. 70-74.

¹² Américo Castro, "Sobre -TR- y -DR- en español," Revista de Filología Española, VII (1920), 57-60.

¹³ For the discussion of the dropping in Catalan of the Latin perfects in -UI, see the section on verb morphology in the following chapter.

¹⁴ The u in the Castilian forms of the preterite of haber comes from the raising of the /o/ by the yod created in the third person plural ending -ieron which influenced the rest of the conjugation.

Chapter III

¹ There were a few nouns such as NAUTA, POETA and AGRICOLA, which referred to males and are masculine.

² For a discussion of the noun forms ending in -ão and the development of different plural flexions, refer to J. Mattoso Camara, Jr., "A Note on Portuguese Noun Morphology," To Honor Roman Jakobson: Essays on the Occasion of His Seventieth Birthday, Janua Linguarum, Ser. maior 31 (The Hague: Mouton & Co., 1967), II, 1311-14.

³ According to Elcock, p. 69 n., the Latin PĒJOR became PĚJOR due to the fact that the Latin pronunciation was PĚJJOR with the double consonant causing the lengthening of the vowel. This form, PĚJOR, must be adopted for an etymological development into Romance.

⁴ For the formal meaning of the second person, Portuguese generally uses the nouns, o senhor and a senhora and the corresponding plurals with the third person forms of the verb.

⁵ For a complete discussion of these changes in Portuguese, see Williams, pp. 146-55. The changes in Catalan are fully treated by Badŕa Margarit, pp. 266-75.

⁶ IPSE retains its former function as an intensive adjective in the forms *METIPSU > mismo, mesmo in Castilian and Portuguese and METTIPSU > mateix in Catalan meaning "same" and used to intensify a noun or pronoun in all three languages.

⁷ Mallorcan uses forms derived from IPSE for the definite articles: ÍPSE > es, IPSŌS > es (with a shift in stress) for the masculine and ÍPSA > sa (with a shift in stress), IPSĀS > ses for the feminine.

⁸ Quotation marks are those of the present writer.

⁹ Although some irregular verb forms are used as illustrations in this study, the irregular verbs will not be treated as a separate class.

¹⁰ Ralph J. Penny, "Verb-class as a Determiner of Stem-vowel in the Historical Morphology of Spanish Verbs," Revue de Linguistique Romane, 36 (1972), 343-59. Penny posits five main forces in the development of stem-vowels: 1) raising the vowel in anticipation of the yod, 2) paradigmatic analogy, 3) dissimilation, 4) replacement of the sequence /o/ . . . /r/ by /u/ . . . /r/, and 5) preference for certain stem vowels. He analyzes their effects in six verb forms: the infinitive, the first person singular of the present indicative and the present subjunctive, the first and third persons singular of the preterite, and the first person singular of the future.

¹¹ The development of the final -ão is treated very completely by Williams, pp. 177-80, who contends that the verbal form *VADUNT is the source of the nasal flexion of nouns as well as verbs. John M. Lipski, "On the Evolution of Portuguese -ão," Vox Romanica, 32 (1973), 95-107, summarizes the theories regarding the origin and evolution of the ending, raises some interesting questions, but finds no definitive solution.

¹² Lucius G. Moffatt, "Origin and Development of the Personal Infinitive in Portuguese," Revista de Estudios Hispánicos, 1 (1967), 35-60. Further references to this article will appear parenthetically within the text.

¹³ Rebecca Posner, "Romance Imperfect and Conditional Endings--a Further Contribution," Studia Neophilologica, XXXVII (1965), 3-10.

¹⁴ Henry Mendeloff, "The Catalan Periphrastic Perfect Reconsidered," Romanistisches Jahrbuch, 19 (1968), 319-26.

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To Honor Roman Jakobson: Essays on the Occasion of His Seventieth Birthday. Janua Linguarum, Ser. maior 31. The Hague: Mouton & Co., 1967, II, 1311-14.

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