of lower-order units within phrases: here, choice is severely limited by the principle of linearity (serial arrangement). On the other hand, it seems that no law relating to linear ordering can be deduced from our theory.

10. Language universals

Language universals in a wider sense, i.e., the set of imaginable properties of language, fall into three classes: necessary, contingent, and inadmissible (= negative).

Language universals are en ipso universals of language change. In other words, there are the following pairs of convertible statements:

(i) Necessity: (languages have X) → (X is not subject to change);
(ii) Impossibility: (languages lack Y) → (Y is not the result of any language change);
(iii) Contingency: (languages may have Z) → (Z may both originate and disappear through language change).

Analogous considerations hold for frequency or probability of occurrence in different languages: properties that have a high probability of originating as the result of language change also tend to have a high frequency of occurrence among the languages of the world; and vice-versa.

The two kinds of formulas, although convertible, are not equal in status: in a relativistic framework, dynamic statements must have priority.

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SICILIAN ARABIC AND MALTESE:
SOME REMARKS ON THEIR PHONETIC INTERRELATIONS
by B.S.J. Isserlin

The long defunct branch of Arabic which was once spoken in Sicily does not seem to have aroused the same amount of systematic scholarly attention as did the Arabic formerly spoken in Spain (not to mention the living dialects of North African Arabic, or Maltese). Nevertheless, various aspects of Sicilian Arabic have been made the object of inquiry. As early as 1972, M. Amari in the last volume of his great history of the Muslims of Sicily brought together observations on the phonetic equivalents to Arabic sounds both in modern Sicilian dialect words derived from Arabic, and also as recorded in Greek and Latin transcriptions contained in Sicilian medieval documents. The twin sources he employed — documentary references to Arabic names in transcription, and the study of modern dialect vocabulary (including place names) are in fact still basic; of the two it is the dialect research which has developed most, and the main data of interest in this respect can now be consulted as conveniently gathered by G.B. Pellegrini in his *Contributo allo studio dell'elemento Arabo nei dialetti Siciliani.* This book will in fact be used as a handy source of reference in what follows, while observations found in other studies, such as the well known

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*Università degli Studi di Trieste, Facoltà di Lettere e Filosofia, Istituto di Filologia Romana, no. 2, 1962.*
work by Steiger on Hispano-Arabic which bear on our subject will naturally also be taken cognizance of.

That the Arabic of Sicily should have been related to the language spoken in Medieval Malta, and that indeed it still offers close analogies to Maltese as spoken now, is a natural assumption, largely borne out by research, and this view is widely accepted now. However, in detail our source material is imperfect, and we have on both the Sicilian and Maltese sides far less in the line of accurate and comprehensive description than would be desirable. For Maltese, a full record of present day dialectals, as against the literary standard, language is only being gathered now. Going backwards in time we find that before the eighteenth century data are very scanty, though a little may be gathered from such isolated pieces of information as the late sixteenth century word list gathered by Megiser, and recently discussed by W. Cowan. Additional evidence for earlier centuries may become available when the notarial documents of the fifteenth century with their wealth of transcribed personal and place names, now being studied by Wettiner, receive systematic linguistic scrutiny. Such documentation does not as yet however, take us near the time when Malta and Si-

cily were both still largely Muslim. On the Sicilian side the modern dialect and place name vocabulary is centuries removed from the Arab period, while transcriptions in documents such as those gathered by S. Cusa are vitiated, not only by the presumably scant desire for phonetic accuracy found among the scribes responsible for the transcriptions, but also by the fact that the Greek and Latin alphabets do anyhow not lend themselves to represent distinctions which are of vital importance for Arabic, like those between emphatic and non-emphatic consonants (where vowels are concerned, handicaps are somewhat less serious). This makes it, e.g. extremely difficult to determine whether Sicilian Arabic in any part of the island was already exhibiting signs of the tendency towards the fusing of emphatic and non-emphatic consonants, which is such an important feature of modern Maltese. Nor do there appear to be, at present, any clear indications as to the presence or absence of regional dialectal features within Sicilian Arabic — though the presence of such within the far smaller area occupied by present-day Maltese, coupled with the fact that Sicily was colonized by Arab speakers of varied origins, who over part of the country settled in lands which had originally been ruled by Punic speakers but elsewhere by Greeks, makes one suspect there may well have been dialect variants.

A proper study of the relations between Sicilian, Arabic and Maltese would have to be based on substantial preliminary study of the sources. This cannot be attempted here, and only some brief selected observations on certain salient points which may be of interest for the relation between the two languages will be offered.

We will begin by a review of certain features concerning vowels. Here a review of the data contained in Pellegrini's book gives rise to the impression that the type of Arabic from which present-day Sicilian dialect words of Arabic derivation descended was, where pronunciation is concerned, on the whole not too far removed from standard Arabic — that it was less modified than the contemporary Arabic of Spain, where the transcriptions gathered by Steiger show in particular very pronounced tendencies towards the 'imāla of a and a’ towards e and e’ — a tendency not shared to the same degree...

1A. Steiger, Contribución a la fonética del hispano-arabe y de los arabismos en el ibero-romano y el siciliano (Madrid, 1921).
3G. Wettiner, 'The Distribution of Surnames in Malta in 1419 and the 1490s,' Journal of Maltese Studies, no. 5, 1968, pp. 25-48; id., 'Late Medieval Maltese Nicknames,' Journal of Maltese Studies, no. 6, 1971, pp. 34-46. The well known Cantilenas written by Peter Casares in the 15th century, and published by G. Wettiner and M. Fadani (Peter Casares' Cantilenas, Malta, 1968), is not subjected to systematic study here, since, being poetry, it may well contain linguistic features not shared to the same extent by ordinary contemporary prose. However, it is obvious (especially in the light of the linguistic analysis offered by E. Fenech (The Medieval Maltese 'Song of Misfortune' to be published in The Journal of Semitic Studies)) that the poem gives evidence of a number of features discussed below, such as a very widespread 'imāla of a to e' (while the absence of the tashīth of 'All (a' < oo) is lacking). There are likewise occurrences of emphatic sounds (andīn, line 3; nīlī, line 6, etc) as well as occasional indications of the presence of vowel harmony (as in 'immāki, at the end of line 2; maqāṣīa, line 4). Devoicing of consonants is not apparent (cf. in'am, line 9).
5A. Steiger, op. cit., passim. The juxtaposition of Spanish forms taken from this work, with Sicilian dialect forms, in Pellegrini's tabulations is particularly instructive.
reo in the Sicilian vocabulary. It must be said, however, that place
names, like those gathered by Avolio,1 like beebb and Bibbia for
Ar. baбb or delia for Ar. dazliyab2 show this feature more, and the
onomastic material contained in the documents published by Cusa
indicate the presence of the 'musta'a and 'a in a degree which
may be regarded as analogous to the conditions represented by
Spanish documentary evidence (except in a consensual environment
which prevents this) Cf. examples like ə discredit, ə, ə, ə for 'umman, 'ahmad, 'abd al-rahman.3 This apparent
dichotomy of evidence is hard to explain: where the medieval do-
cuments are concerned the predominance of forms with 'musta'a may
be due to the general application to all texts of a traditional
environment developed in certain urban conditions where the feature was
strong. In Maltese, the transition from a into e, dialectically
maintained in certain cases, precedes the further transition from
acetate to, which is now such a typical feature; so in Maltese as in
Sicilian Arabic a must at one stage have been widespread. As
for the realisation of acetate to, it seems extremely badly attested
in Sicilian Arabic, though perhaps it was found, witness Sic. tic-
chiena for Arabic dukkan(a)4 so perhaps this modification was
just coming in when Sicilian Arabic ceased to develop. In late six-
teenth century Maltese, le for a is fairly well attested in Megisier's
list (cf. nos 26 [mnebher], 32 [sieck], 46 [chtiib], 56 [siemel] 70
(tieh) etc., if the German transcription indicates, not it which
seems unlikely, but a diphthong).5 However, acetate to is not universal,
cf. Megisier's no. 108, Quachmar assimil for modern Maltese
wished u to ukta.

The opposite phenomenon, the 'aftim of 'all' which leads to
the realisation of a: as o, and which is very typical of Maltese

1 C. Avolio, 'Saggio di toponomastica siciliana,' Archivio Glottologico
Italium, Supplemento VI (1898), 71-118.
2 C. Avolio, op. cit., p. 89.
3 C. Avolio, op. cit., p. 91.
4 S. Cusa, op. cit., p. 3 and passim.
5 G. B. Pellegrini, op. cit., p. 66.
6 W. Cowan, op. cit., 218 ff.
7 W. Cowan, ibid., p. 218, no. 8 refers to the present phonetic equivalent
of a: for the spelling in is in German, while this might suit some cases where
the spelling in is employed in Megisier's list, it hardly suits others, like
no. 56 (siemel/siemel) - whereas the diphthong would suit all.
8 W. Cowan, op. cit., p. 224.
hannad. An analogous Maltese form - muumud - occurs in Latin transcription in one of Pettinger's lists so the tendency seems to have been active in Malta early, and it is fairly widely exemplified in the dialectical vocabulary now, and to a somewhat lesser, though still noticeable degree in standard Maltese.

We must now briefly turn to the rather more forbidding problem of consonantal evidence. Here we shall even less attempt to offer a comprehensive treatment, and restrict ourselves to offering observations about certain selected features of special interest for us.

That we are badly placed to pronounce about the question whether there was, in Sicilian Arabic, any tendency towards the fusion of emphatic and non-emphatic consonants which is observable in modern Maltese, was started before. We may however observe that in the case of q, there appears to be at least one word in which there is, in Sicily, the realisation which is now almost universal in Maltese; this is Sic. saia for Ar. saqqa; there are a number of place names of this name in Sicily. Similarly transcriptions do not allow us any genuine insight into the question whether h and h had begun to become fused in Sicilian Arabic, as they gradually did in Malta. On the other hand and g were still distinct in Sicily - the latter is fairly regularly represented by an equivalent in documentary transcriptions and modern dialects - while the former appears to have begun to show signs of the weakening which has progressed so much further in Maltese; Arabic derived Sicilian words often show no equivalent for it.

A last subject we may briefly touch on is the phenomenon of devoicing, which has gained such an important place in modern Maltese. It may have occurred, at least sporadically, in Sicilian Arabic, if forms like Sic. marcatu for Ar. marqad, or Sic. gaitu for Ar. qa'id are taken into account. Caution is however needed, as we are reminded by Cowan's observations on kindred questions in the case of Megiser's transcriptions of early Maltese.

The overall impression received from this somewhat incomplete

equality may be summed up now. Sicilian Arabic (which may not have been uniform all over its area of distribution) showed in fact links with ancestral Maltese; however a number of those features which are distinctive of Maltese as we know it now, were already represented as yet sporadically, or doubtfully, or possibly not at all. While the two sister languages were obviously closely linked they were not necessarily identical twins at the start, and they have diverged further.

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9 S. Cusa, op. cit., p. 68.
11 G. B. Pellegrini, op. cit., p. 94.
12 G. B. Pellegrini, op. cit., p. 149.
14 R. Cowan, op. cit., p. 121.