Il serait opportum d'esquisser une fresque des péripéties jalonnant le cours de normalisation de l'arabe qui serait à même d'affronter, avec les moyens rationnels appropriés, le processus universel de la traduction.

Il est vrai que la langue arabe a, derrière elle, la profonde lacune des quatre siècles révolus, en plus du vide laissé par un grand nombre de néologismes, dans tous les domaines de la science et de la technique.

L'évolution rapide des sciences et des techniques a fait surgir des problèmes de terminologie que même des pays parmi les plus développés ont du mal à résoudre.

Ce problème linguistique auquel est confronté le monde en général se pose avec d'autant plus d'acuité dans le secteur arabe que celui-ci connaît une multiplicité de dialectes qui aggrave les difficultés et écarte parfois toute possibilité d'adaptation et surtout d'unification linguistiques.

Qu'avons-nous donc fait pour sortir de cette impasse qui devient de plus en plus un labyrinthe commun à tous les peuples, qu'ils soient développés ou en voie de développement ?

Les Arabes se sont, certes, penchés sur ce problème dès le début du siècle et ont essayé d'enrichir leur langue d'une terminologie scientifique adéquate. Mais cet effort très louable et fructueux n'émane souvent que d'initiatives isolées, se contredisant les unes les autres et aboutissant parfois à une multiplicité de termes pour recouvrir un même concept qui, en français ou en anglais, s'exprime par un mot unique. Cette pluralité terminologique est de nature à engendrer la confusion, car le temps n'est plus où la profusion des synonymes était signe de richesse linguistique et reflétait une qualité inhérente à la langue en question. C'est pourquoi les académies et les universités arabes, qui œuvraient jadis individuellement, chacune dans sa tour d'ivoire, visent aujourd'hui — dans une mesure encore restreinte et avec trop de lenteur cependant — à coordonner leurs efforts au sein d'une fédération académique. Appelée à jouer un rôle capital, celle-ci doit, pour être efficace, s'atteler collectivement à son travail lexicographique, en cherchant à combler les lacunes, tout en éliminant les doubles emplois et les contradictions, car la langue technique ne peut souffrir la présence de termes vagues et imprécis.

Aussi la tendance actuelle est-elle de coordonner, de manière appropriée, le travail des linguistes et des lexicographes, sous l'égide de la Ligue des Etats arabes ou de l'Organisation de la Ligue Arabe pour l'éducation, la culture et la science (ALECSO). Une première initiative, lancée dès 1960 à partir de l'Afrique du Nord, visait à renforcer la tendance à l'unification et à la mise à jour des néologismes arabes, dans dans la langue technique.

Un congrès d'arabisation a été convoqué à Rabat, en 1961 avec la participation de tous les Etats Arabes et de leur Ligue. Ce congrès avait pour but de coordonner les efforts déployés par les pays arabes, en vue d'unifier la terminologie scientifique de leur langue, tout en lui assurant une mise à jour constante.

Ce travail considérable qui suppose la mise sur pied d'une infrastructure bien adaptée, a été confié au Bureau Permanent d'Arabisation (BPA), organisme interarabe siégeant à Rabat, sous l'égide de la Ligue des Etats Arabes.

Le BPA, malgré le peu de moyens dont il disposait et le peu d'empressement et d'encouragement dont il fut entouré, s'attacha pieusement à l'accomplissement de sa mission, suivant un plan précis et rationnel. Après dix ans de labeur persévérant, ses efforts ont abouti à la publication d'une série de lexiques techniques trilingues (arabe, français, anglais), élaborés à partir d'un répertoire linguistique occidental et d'un dépouillement minutieux des richesses lexicographiques de la langue arabe, notamment dans le domaine scientifique.

Le Bureau d'Arabisation a-t-il réellement décelé l'origine de toutes les lacunes, de tous

L'Arabisation, problème préjudicial

Professeur Abdelaziz Benabdellah

Le problème de la traduction constitue, pour la langue arabe, un problème essentiel, mais précédé préjudiciellement par un point capital : l'arabisation dont le but principal est la normalisation d'un terme unifié devant exprimer, à l'exclusion de tout autre, une notion donnée. Depuis une vingtaine d'années, le Monde Arabe s'est rendu compte du Chaos endémique qui caractérisait le parler arabe moderne dont la multiplicité synonymique outrancière reflète une certaine confusion linguistique d'ordre tribal appartenant à une époque révolue. L'arabe a eu, au cours du Moyen-Age, l'occasion d'administrer des preuves tangibles de son efficience et de sa portée universelle, notamment sur le plan scientifique et technique. L'éminent orientaliste arabisant Massignon a pu mettre la main sur les mobiles du rayonnement de la pensée arabe, en précisant que " c'est en arabe et à travers l'arabe; dans la civilisation occidentale, que la méthode scientifique a démarré".

"L'arabe — dit-it encore — est un pur et désintéressé instrument linguistique de transmission internationale des découvertes de la pensée... la survie internationale de la langue arabe est un élément essentiel de la paix future entre les " nations ". L'arabe — confirme Robert Montagne (1) — présente l'avantage d'être le véhicule d'une civilisation universelle et de se prêter à l'expression d'une pensée religieuse et politique".

Mais, pour mettre fin, à cette nébulosité grandissante qui a commencé à marquer notre langue, depuis le début du 17 siècle, la Ligue arabe s'est ingénié à poser, dès 1961, le double problème de l'arabisation et de la traduction, dans leur contexte réel. Néanmoins, pour plus d'efficacité, la solution de la question a été scindée en deux étapes ; Le Bureau de Coordination de l'Arabisation s'est penché, tout d'abord, sur la prémisse principale, celle de l'arabisation dans une première étape, dont l'œuvre gigantesque d'homogénéisation sera couronnée par l'unification intégrale de toute la terminologie scientifique et technique arabe, à la fin d'un planning décennal, en 1990. Quand le terme arabe aura été normalisé, le stade de la traduction consistera pour le Monde Arabe, dans un simple fait scientifique à caractère universel ; c'est effectivement un problème sur lequel se répercuteront tous les tests qui ont permis, jusqu'ici, de déceler et apprécier, à l'échelle mondiale, les aptitudes et les acquis de cette épreuve. La Ligue Arabe du fait même que la langue du Coran a été choisie, comme instrument de travail à l'O.N.U., se penche déjà sérieusement depuis deux ans, sur la deuxième prémisse du problème, compte tenu des résultats réalisés, au niveau de la standardisation du vocabulaire unifié.

(1) Les Berbères et le Makhzen, p. 52.

The transformation labelled (a) produces a hemistich which lacks Level I and Level II patterning; furthermore, syllabic symmetry is not sufficient to endow the hemistich in question with "meter". The transformations labelled (b), on the other hand, produce a hemistich which (although devoid of Level I and Level II patterning) manifests "meter" because both feet are symmetrical. Therefore, (a) is less likely to occur than (b). A maṭla^{c} [31] whose meter is almujtaθθ and whose first hemistich ends in – ⏑ – provides a case in point (– – – is a symmetrical variant of the foot – ∪ – –): it is desirable to end such a maṭla^{c} with – – –;[32] if the termination – – – is chosen, the second hemistich of the maṭla^{c} is more likely to be ∪ – ∪ – – – – than – – ∪ – – – – (notice that ∪ – ∪ – is a symmetrical variant of – – ∪ –).[33] Here, then, is a situation where changing one foot of the standard hemistich entails a change in another foot.

In summary, a change in one foot is not likely to impose a change on another foot unless the hemistich--but for the latter change--would violate a restriction or would be robbed of "meter".

3.3.2 Compensation

Besides the ones discussed above, there is an important rule which operates on Level III: namely, compensation. The rule states that the total duration of a standard meter tends to be unalterable. Thus when a long syllable is reduced, the durational balance is added to an adjacent long syllable in the same foot.[34] Such addition is possible when there is a neighboring syllable whose vowel is long or one whose final consonant is a continuant; otherwise compensation takes the form of a rest.

The fact that compensation tends to preserve the total durational value of a standard meter suggests that Level II has intuitive, as well as descriptive, priority over Level III.

'to be continued'

The rules which produce Level III patterning apply to the individual foot; this means that feet are transformed consecutively not simultaneously, and that the foot being transformed should reach its ultimate form before another foot undergoes any change.

Transforming one foot does not usually become a compelling reason for transforming another foot. There are, however, rare cases where such entailment does occur:

(1) Consider the following hemistich (the standard form of aṭṭawiil):

υ – – υ – – – υ – – υ – – –

Changing the last foot to υ – – would, in the absence of any other change, make the hemistich minimally rather than clearly distinct from almutaqaarib; for this reason, the change in question entails another change: the penultimate foot becomes υ – υ . Significantly, the penultimate foot of almutaqaarib is almost never changed to υ – υ [30]

(2) Consider the following hemistich (the standard form of almujtaθθ):

– – υ – – υ – –

The string manifests Level I patterning (since it may be represented by BB, where B stands for a quadripartite foot) as well as Level II patterning (since its two feet are similar in regard to the positioning of υ); both types of patterning can be obliterated by Level III changes:

(a) – – υ – – υ – – → – – υ – – – –

(b) – – υ – – υ – – → υ – υ – – υ – – →

υ – υ – – – –

lowing transformation is blocked:

– – ∪ – – ∪ – – – – ∪ – → – – ∪ – – – – – – ∪ –

It is possible that almunsarih (– – ∪ – – – – ∪ – – ∪ –) represents an attempt to carry out the transformation without violating the restriction.

Although sequences of three short syllables do occur in variant hemistichs, there is a strong preference for sequences of only two short syllables. The following examples substantiate this statement:

(a) As variants of ∪ – – – ∪ – – –, the first of the following sequences is rare while the second is common:

∪ – ∪ ∪ ∪ – – –

∪ – – ∪ ∪ – – –

(b) ∪ ∪ ∪ – is a relatively uncommon foot.

(6) Because it is followed by a pause, and in order to emphasize the rhyme, the last syllable of each line is always long;[28] therefore, Level III changes must not result in the occurrence of a short syllable at the end of the line. The first hemistich of a divided line is followed by a pause, and for that reason its last syllable is usually long; here, however, the stipulation regarding length is less binding than it is at the end of the line.[29]

Domain of application

In section 3.1 it was shown that the domain of Level I patterning is the hemistich; given the nature of Level I patterning, the domain cannot be a shorter string. Level II and Level III are characterized by syllabic patterning. The domain of syllabic patterning may be the entire hemistich or a portion of the hemistich (whether that portion be one foot or more than one). On Level II, the domain of syllabic patterning is the hemistich; on Level III, the domain may be all or part of the hemistich.

obliterate pre-existing forms of patterning: both before and after the change, the hemistich may be represented by BBB (where B stands for a quadripartite foot); besides, the change does not alter the similarity among the three feet as concerns the positioning of υ relative to the long syllables. The situation is analogous in the second transformation: both before and after the change, the hemistich may be represented by BBA (where B stands for a quadripartite foot and A stands for a tripartite foot); besides, the change does not alter the similarity between the last two feet as concerns the positioning of υ relative to the long syllables. Both transformations are legitimate since they enhance variety without robbing the hemistich of "meter"-producing patterning.

Unless prevented from doing so by some restriction, Level III changes <u>can</u> rob the hemistich of "meter" as demonstrated by the following transformation:

– – υ – – υ – – → – – υ – – – –

The hemistich – – υ – – – – is devoid of Level I and Level II patterning; furthermore, syllabic symmetry is not sufficient to endow the hemistich with "meter".[25] The fact that hemistichs such as – – υ – – – – are rare in Arabic poetry suggests that Level III changes are not usually permitted to apply in a manner that would eliminate all "meter"-producing patterning. Some form of syllabic symmetry is usually substituted for whatever patterning is obliterated by Level III changes.

(5) Level III changes must not cause the hemistich to contain more than three consecutive short syllables,[26] and they must not cause the hemistich to contain more than four consecutive long syllables.[27] Accordingly the fol-

hemistichs of the same ode.

(3) Level III changes must facilitate the pattern of number assonance described below, and must be blocked if they would violate that pattern.

An ancient Arabic ode usually consists of divided lines; in other words, an ancient Arabic ode usually comprises two columns of hemistichs. In each column, the final feet are related to each other by number assonance: i.e., they all have the same number of constituents.[22] The first hemistich-final foot in the first column may violate number assonance since that foot must have the same number of constituents as its counterpart in the second column.[23] The following are examples.[24]

– ∪ – – ∪ ∪ – – – ∪ – –	∪ ∪ – – – ∪ – – ∪ ∪ – –
∪ ∪ – – – ∪ – – – ∪ –	∪ ∪ – – ∪ ∪ – – – ∪ – –
– ∪ – – ∪ ∪ – – ∪ ∪ –	– ∪ – – – ∪ – – – ∪ – –
– ∪ – – ∪ ∪ – – ∪ ∪ –	∪ ∪ – – – ∪ – – – ∪ – –
– ∪ – – – ∪ – – ∪ ∪ –	∪ ∪ – – – ∪ – – ∪ ∪ – –

– ∪ – – – ∪ –	– ∪ – – ∪ ∪ –
∪ ∪ – – – ∪ – –	– ∪ – – ∪ ∪ –
– ∪ – – – ∪ – –	– ∪ – – ∪ ∪ –
– ∪ – – ∪ ∪ – –	– ∪ – – – ∪ –
– ∪ – – – ∪ – –	– ∪ – – ∪ ∪ –

(4) In general, Level III changes do not obliterate all "meter"-producing patterning. Consider the following transformations:

ω – ∪ – ω – ∪ – ω – ∪ – → – – ∪ – ω – ∪ – ω – ∪ –

– ∪ – – – ∪ – – – ∪ – → ∪ ∪ – ∪ – ∪ – – – ∪ –

In the first transformation, the change does not

yields ω – – which in turn yields ω –).

(2) Level III changes are usually blocked when they would result in confusing one meter with another. Two examples are given below.

(a) The following transformation is usually blocked since it would result in confusing alkaamil with arrajaz:

– – ∪ – – – ∪ – ω – ∪ – → – – ∪ – – – ∪ – – – ∪ –

(b) The following transformations are usually blocked since they would convert the standard form of arramal and that of majzuu?u lbasiiṭ to indistinguishable strings:

– ∪ – – – ∪ – – – ∪ – → – – – – ∪ – – – ∪ –

– – ∪ – – ∪ – – – ∪ – → – – – – ∪ – – – ∪ –

Transformations are sometimes blocked to keep different meters clearly--rather than minimally--distinct; for example, the following transformation is usually blocked since the output would be considerably similar to the standard form of almutaqaarib (the input is the standard form of aṭṭawiil):

∪ – – ∪ – – – ∪ – – ∪ – – – →

∪ – – ∪ – – ∪ – – ∪ – – –

Again, the following transformation is usually blocked because the output would be considerably similar to the sequence ∪ – – ∪ – – ∪ – which constitutes a variant of majzuu?u lmutaqaarib (the input is a variant of almutaqaarib):

∪ – – ∪ – – ∪ – – – → ∪ – – ∪ – – ∪ – ∪ –

When obscured in a given hemistich by Level III changes, the identity of the meter can be determined by studying other

(a) As was stated earlier, a given Level II foot is usually transformed by a single rule. A Level II foot is not transformed by two or more rules operating simultaneously if such transformation would produce no type assonance; thus ∪ – – – does not yield – ∪ ∪ .

(b) Some variants display less major type assonance than others; for example, there is less major type assonance between ∪ ∪ – ∪ and the Level II foot – ∪ – – than there is between ∪ ∪ – – and the same Level II foot. The variants which display less major type assonance are relatively few and of relatively infrequent occurrence; in other words, Level III changes are not usually permitted to apply in a manner which would produce a minimum of major type assonance.

(c) In the case of some variants, major type assonance is not readily perceptible; for example, the major type assonance which relates the variant – – ∪ to the source foot ∪ – – – becomes obvious only when the first constituent of the former is lined up with the second constituent of the latter. Level III changes are not usually permitted to apply in a manner which would produce unclear major type assonance.

In this study, "clear" type assonance is opposed to "unclear" type assonance; the former exists when type assonance can be established without the necessity of skipping a syllable.

(d) As was stated earlier, a variant is usually derived from a Level II foot. A variant is derived from another variant only when such derivation does not reduce clear major type assonance; in other words, varaint c is derived from variant b only when the clear type assonance which relates c to the Level II foot a is no less than that which relates b to a (e.g., the Level II foot ω – ∪ –

— — υ — ω — υ — .

ω — υ — — — υ —

ω — υ — ω — —

ω — υ — ω — υ — —

— — υ — ω — υ — —

ω — υ — — — υ — —

Not only do these variants differ one from the other, but they also differ from the standard form of the hemistich (ω — υ — ω — υ —). The availability of such alternatives on Level III gives the poet some freedom in choosing words.

By promoting syllabic symmetry, Level III changes promote variety. Consider, for example, the following strings:

(a) — υ — — — υ — — — υ —

(b) — υ — υ — υ — υ — υ —

String (a) is the standard hemistich of <u>arramal</u>; string (b) is derived from (a) by Level III reduction. Both strings are symmetrical, but each embodies a distinct form of syllabic symmetry. Occurrence in the same ode of both forms contributes to variety.

Variety, then, is the primary purpose of Level III changes. The type of variety involved, however, is one which aspires to and gains from syllabic symmetry; it is, furthermore, one which is moulded by type assonance in the interest of preserving the identity of the standard meter.

Restrictions on application

(1) Level III changes are restricted by type assonance in the following ways:

the variant in question is identifiable only with the first four members of the set. Optimum major type assonance holds between – – – and – ∪ – – because the first constituent of each foot is long, the penultimate constituent is long, and the final constituent is long; optimum major type assonance holds between – – – and – – ∪ – as well as between – – – and ω – ∪ – because in each of the three feet the first constituent is long, the second constituent is long, and the last constituent is long; optimum major type assonance holds between – – – and ∪ – – – when the first constituent of the former is lined up with the second constituent of the latter.

When type assonance makes it possible to identify a variant with more than one Level II foot, the ambiguity can be resolved by studying the hemistich as a whole or by studying other hemistichs of the same ode (remember that, as a rule, the hemistichs of an ancient Arabic ode are monometric). Consider, for example, the following hemistichs (both of which occur in the same ode):

(a) ∪ – ∪ – – – ∪ – – – ∪ –

(b) – – ∪ – ∪ ∪ ∪ – – – ∪ –

The initial foot of (a) must be identified with the Level II foot – – ∪ – although it is related by type assonance to ∪ – – – as well as to – – ∪ – : this conclusion is facilitated by the fact that ∪ – – – – – ∪ – – – ∪ – is not a standard meter; it is also facilitated by the fact that the initial foot of (b) is – – ∪ – .

Purpose of application

Level III changes introduce metric variety; for example, all of the following sequences are variants of majzuu ʔu lkaamil:

identify the standard hemistich from which a given string is derived.

In most instances, major type assonance (as an auditory effect) is not sufficient to identify the Level II foot from which a given variant is derived; in each of the following examples, the variant which precedes the colon is related by major type assonance to both of the Level II feet which follow the colon:

(a) ∪ ∪ ∪ — : — — ∪ — , — ∪ — —
(b) — ∪ ∪ — : — — ∪ — , — ∪ — —
(c) ∪ ∪ ∪ — : — — ∪ — , ∪ — — —
(d) ∪ ∪ — : — ∪ — , ∪ — —

Generally speaking, variants are related to the source (Level II) feet by minor as well as major type assonance. In each of the above examples, the variant is related by major and minor type assonance to the first Level II foot and by major type assonance alone to the second Level II foot; therefore it is with the first Level II foot that the variant must be identified.

A variant which is related by major and minor type assonance to a set of Level II feet is usually identifiable with any member of the set (e.g., ∪ — ∪ — is identifiable with ∪ — — — , ∪ — ω —, or ω — ∪ —).

Occasionally a variant is related by major type assonance to a set of Level II feet, and by minor type assonance to no member of the set; here the variant is usually identifiable with a Level II foot if the pair can be said to display optimum major type assonance. The variant — — —, for example, is related by major type assonance to each foot in the following set: — ∪ — —, — — ∪ — , ω — ∪ — , ∪ — — — , ∪ — — , — ∪ —; nevertheless,

(the medial ∪) is different from the corresponding constituent of the former. Major type assonance also relates the Level II foot – – ∪ – to the variant ∪ ∪ ∪ – since only two constituents (the first and the second) of the latter are different from the corresponding constituents of the former. We shall say that a given variant is related to the Level II foot by "optimum" major type assonance when every constituent of the former is identical to the corresponding constituent of the latter.

Where <u>two</u> constituents of the variant are not identical to the corresponding constituents, the variant is usually quadripartite.

(b) Minor type assonance exists when the sequence ∪ – of the Level II foot corresponds to ∪ – in the variant (for example, minor type assoance relates the Level II foot – ∪ – – to each of the variants ∪ ∪ – – , – ∪ – ∪ , ∪ ∪ – ∪, and – ∪ –). Major type assonance may include or even constitute minor type assonance, but such is not always the case; compare, for example, the forms of type assonance displayed by the following pairs:

– ∪ – – , ∪ ∪ – –

– ∪ – – , ∪ ∪ – ∪

– ∪ – – , – – –

For the purposes of major type assonance, ω patterns as a long syllable;[20] thus the variant – – ∪ – is related to the source (Level II) foot ω – ∪ – by optimum major type assonance.

Type assonance does not necessarily produce "meter";[21] its function is to produce an auditory effect which relates variant feet to the feet of Level II, thereby helping to

characterizes the sequence which follows the slanting line in the output of the second transformation.

In the input of transformation (c) the sequence which precedes the slanting line is not symmetrical, while in the output the sequence which precedes the slanting line is symmetrical. The latter sequence consists of the former plus the syllable added by the transformation; in other words, the syllable added by the transformation serves the purpose of "balancing" the medial syllable of ∪ ∪ — . Significantly, the addition of syllables in hemistich-initial position is a rare phenomenon.

The process illustrated by transformation (c) is known to Arab prosodists as alxazm. Its function obscured by al-Khalīl's theory, alxazm has been considered so pointless and unexplainable a phenomenon that some scholars dismiss it as a fabrication.[19] In the context of our theory, alxazm is altogether plausible, and we therefore need not resort to claims of fabrication.

(2) Level III changes produce type assonance--a relationship which holds between a Level III foot and each variant of that foot. Type assonance is divisible into "major type assonance" and "minor type assonance":

(a) Major type assonance exists when, without exception or with a maximum of two exceptions, every constituent of the variant is identical to the corresponding constituent of the Level II foot (in this context, a constituent is ω , ∪, or —). For example, major type assonance relates the Level II foot ∪ — — — to each of the variants ∪ — — and ∪ — ∪ — : ∪ — — — and ∪ — — are related to each other by major type assonance since every constituent of the latter is identical to the corresponding constituent of the former; ∪ — — — and ∪ — ∪ — are related to each other by major type assonance since only one constituent of the latter

Symmetrizing a foot may cause a longer string to become symmetrical (such would be the case if the first foot of – ∪ – – – ∪ – is changed to – ∪ – ∪); on the other hand, Level III changes may symmetrize a string without producing symmetry in the individual feet which constitute that string (such would be the case if the sequence ∪ – – – ∪ – – , the last two feet of the standard meter ∪ – – – ∪ – – – ∪ – –, is changed to ∪ – – ∪ – –).

Rather than symmetrizing asymmetrical strings, Level III changes often substitute one form of symmetry for another; such is the case in the following transformation:

– ∪ – – – ∪ – → – ∪ – ∪ – ∪ –

So strong is the tendency to achieve syllabic symmetry that one occasionally encounters Level III changes <u>which are not governed by general rules</u> but which result in syllabic symmetry. Consider, for example, the following transformations:

(a) – ∪ – ∪ – – ∪ – – ∪ – ∪ → – ∪ – ∪ – – ∪ ∪ – ∪ – ∪
(b) – ∪ – – – – ∪ – – ∪ – – → – ∪ – – ∪ –/∪ ∪ – ∪ – –
(c) ∪ – ∪ – ∪ ∪/– – – ∪ – – – →
∪ ∪ – ∪ – ∪ ∪/– – – ∪ – – –

Transformation (a) produces a totally symmetrical hemistich, and transformation (b) produces a hemistich consisting of two symmetrical halves (separated by a slanting line). Notice, however, that shortening the final syllable of – – ∪ – violates the general rule of Level III reduction. It might be mentioned in passing that the output of the first transformation displays a rather interesting form of syllabic symmetry: beginning from the ends and moving towards the middle, we find that the corresponding syllables are consistently <u>dissimilar</u>; the same form of symmetry

(2) Consider hemistich (b) below (the standard form of arrajaz):

(b) – – ∪ – – – ∪ – – – ∪ –

The hemistich cannot be symmetrized through deletion (see item 5 under "Restrictions on application"); it can be symmetrized by changing each foot in turn (through Level III reduction) to ∪ – ∪ – :

∪ – ∪ – ∪ – ∪ – ∪ – ∪ –

It is important at this point to discuss four aspects of Level III changes; those aspects are: effect on strings, purpose of application, restrictions on application, and domain of application.

Effect on strings

(1) As explained above, Level III changes can produce syllabic symmetry in the entire hemistich or in a shorter string.

Achieving syllabic symmetry in a given string may require no more than one change or it may require several changes. What must be emphasized is that asymmetrical sequences generated on the path to syllabic symmetry are legitimate strings (thus each output in the following transformation is a legitimate hemistich: – – ∪ – – – ∪ – – – ∪ – → ∪ – ∪ – – – ∪ – – – ∪ – → ∪ – ∪ – ∪ – ∪ – – – ∪ – → ∪ – ∪ – ∪ – ∪ – ∪ –); one may therefore conclude that the principle which characterizes Level III is a tendency to achieve syllabic symmetry in the entire hemistich or in a portion thereof.

Even the most cursory examination confirms the assertion that simple periodicity is not the only form of syllabic symmetry which occurs on Level III: for example, the string ∪ ∪ – – (derived by Level III reduction from the string – ∪ – –) is symmetrical although devoid of simple periodicity; the same is true of the string – – ∪ – – (derived by amalgamation and addition from the string ω – ∪ –).

Syllabic symmetry may be durational but not structural: for example, there is no structural symmetry in ∪ ∪ – (as compared with ∪ – ∪), but there is durational symmetry since the sequence is divisible into two durationally equal halves.

There are, then, four rules which operate on Level III and which can produce syllabic symmetry. It must be emphasized that a given form of syllabic symmetry may be attainable through the application of one rule but not through the application of another, and that symmetrizing a given string may be facilitated by one rule but not by another. Two examples are given below.

(1) Consider string (a) below (the standard form of majzuu ʔu rramal):

(a) – ∪ – – – ∪ – –

Simple periodicity throughout the hemistich cannot be achieved by deletion alone; it can be achieved by changing each foot (through Level III reduction) to – ∪ – ∪:

– ∪ – ∪ · – ∪ – ∪

On the other hand, the second foot of (a) may be subjected to a deletion transformation which drops the final long syllable; as a result, the hemistich would acquire a form of symmetry which cannot be achieved through Level III reduction alone:

– ∪ – – – ∪ –

line-final foot of majzuu?u lmutadaarak, and the input of the second transformation is the line-final foot of majzuu?u lkaamil):

(a) – ∪ – → ∪ ∪ – –

(b) ω – ∪ – → ω – ∪ – – , – – ∪ – – , ∪ – ∪ – – ,
or – ∪ ∪ – –

The present writer believes that the above rules attest the presence of a basic principle which characterizes Level III; the discussion below is intended to shed light on that principle.

It is interesting to notice that Level III changes can produce syllabic symmetry, including simple periodicity, in the entire hemistich or in a shorter string (such as a foot).[18]

Simple periodicity is achieved when a single syllable of the one type occurs between each two of the other type. The following examples show how a string can acquire simple periodicity through Level III changes:

– – ∪ – – – ∪ – – – ∪ – → ∪ – ∪ – – – ∪ – – – ∪ – →
∪ – ∪ – ∪ – ∪ – – – ∪ – → ∪ – ∪ – ∪ – ∪ – ∪ –

∪ – – → ∪ – ∪

∪ – – – → ∪ – ∪ –

– ∪ – – → – ∪ – ∪

– – ∪ – → ∪ – ∪ –

– ∪ – – → – ∪ –

υ — — — → υ — — υ , υ — — — → υ — υ υ , — — υ — → υ — υ —,
— — υ — → — υ υ — , — — υ — → υ υ υ — , — υ — — → υ υ — —,
— υ — — → — υ — υ , — υ — — → υ υ — υ).

(3) Deletion: A short syllable may be deleted if it occurs (a) initially in the foot before a long syllable or (b) medially in the foot between two long syllables; a long syllable may be deleted if it occurs finally in the foot after another long syllable. The following are examples:

(a) υ — — → — — , υ — — — → — — — , υ — ω — → — ω —
(b) — υ — → — — , — υ — — → — — — , ω — υ — → ω — —
(c) υ — — → υ — , υ — — — → υ — — , — υ — — — υ —
(d) υ — — → —
(e) — υ — — → — —

For the purposes of Level III reduction and deletion, ω patterns as a long syllable, although such patterning results in rare variants (e.g., υ — ω — → υ — υ — , ω — υ — → ω υ υ — , υ — ω — → υ — ω).

(4) Addition: Occasionally a syllable is added to the foot (e.g., ω — υ — → ω — υ — —).

In each of the following transformations, two rules operate simultaneously:

(a) υ — — → — υ
(b) — υ — → υ υ — —
(c) — υ — — → υ υ —

In the following transformation, three rules operate simultaneously:

υ — ω — → — — υ

Of the four rules, the least productive is addition. The common transformations involving addition are the following (the input of the first transformation is the

(c) In string (i) below, there is slightly more syllabic balance than there is in string (ii): syllabic balance pervades all of string (i) but only the portion which follows the slanting line in string (ii). However, this difference is more than counteracted by the difference in periodicity: in string (ii), one syllable must be deleted in order to make the short syllables periodic (each occurring after two long syllables); in string (i), three syllables must be added in order to make the short syllables periodic (each occurring after three long syllables).

(i) – ∪ – – – ∪ – – ∪ – – – ∪ –

(ii) –/– ∪ – – ∪ – – – ∪ – – ∪ –

3.3. Level III. Variants

3.3.1. Major rules governing variation

There are four major rules which operate on Level III to produce variants. The application of those rules is subject to the following stipulations:

(1) In most cases, variants are derived directly from Level II feet; the variants derived from other variants are relatively few. Generally speaking, then, the four rules operate with Level II feet as the domain (or input).

(2) A given foot is usually tranformed by a single rule; occasionally, however, a foot is transformed by two or more rules operating simultaneously.

The four rules in question are stated and discussed below.

(1) Amalgamation: The constituent ω may be replaced by a long syllable (e.g., ω – ∪ – → – – ∪ – , ∪ – ω – → ∪ – – –).

(2) Level III reduction: Unless preceded in the same foot by a short syllable, any long syllable may be shortened (e.g., – ∪ – → ∪ ∪ – , ∪ – – → ∪ – ∪ , ∪ – – – → ∪ – ∪ –

Given any of the above pairs, what determines whether a certain member of the pair is likely to be favored? At least in the majority of cases, the degree of syllabic symmetry involved seems to be the answer: the member with more syllabic symmetry is favored (as will be seen on Level III, syllabic symmetry is highly desirable in Arabic poetry). The patterns of syllabic symmetry referred to in the following discussion are periodicity and a type of syllabic balance which may be defined thus: beginning from the extremities of the string and moving towards the middle, we find that the corresponding syllables are identical in regard to the feature of length (the middle may be zero or a syllable).

(a) Syllabic balance pervades all of string (ii) below but only the portion preceding the slanting line in string (i); besides, there is more periodicity in string (ii) than there is in string (i): each two short syllables in string (ii) are separated by the same number of long syllables, but such is not the case in string (i). Hence the latency of string (i).

(i) – ∪ – – ∪ – – – ∪ – – ∪ –/–
(ii) – ∪ – – – ∪ – – – ∪ –

(b) Syllabic balance pervades all of string (i) below, and it pervades all of string (ii) as well; but there is more periodicity in the latter (each two short syllables in the second string are separated by the same number of long syllables, but such is not the case in the first string). Hence the latency of string (i).

(i) – ∪ – – – ∪ – – ∪ – – – ∪ –
(ii) – ∪ – – – ∪ – – – ∪ –

assarii^{c}: – – ∪ – – – ∪ – – ∪ –
(faa^{c}uulatun faa^{c}uulatun faa^{c}ilun)

majzuu^{2}u
lbasiiṭ – – ∪ – – ∪ – – – ∪ –
(faa^{c}uulatun faa^{c}ilun faa^{c}uulatun)

Listed below are four pairs of meters; the first member of each pair is a latent meter all or most of whose feet, by occurring in a different arrangement, constitute the second member.

Latent: – ∪ – – ∪ – – – ∪ – – ∪ – –
(faa^{c}ilun faa^{c}ilaatun faa^{c}ilun faa^{c}ilaatun)

arramal: – ∪ – – – ∪ – – – ∪ –
(faa^{c}ilaatun faa^{c}ilaatun faa^{c}ilun)

Latent: – ∪ – – – ∪ – – – ∪ – – – ∪ –
(faa^{c}ilun faa^{c}uulatun faa^{c}ilun faa^{c}uulatun)

albasiiṭ: – – ∪ – – ∪ – – – ∪ – – ∪ –
(faa^{c}uulatun faa^{c}ilun faa^{c}uulatun faa^{c}ilun)

Latent: ∪ – – – ∪ – – ∪ – – – ∪ – –
(fa^{c}uulaatun fa^{c}uulun fa^{c}uulaatun fa^{c}uulun)

aṭṭawiil: ∪ – – ∪ – – – ∪ – – ∪ – – –
(fa^{c}uulun fa^{c}uulaatun fa^{c}uulun fa^{c}uulaatun)

Latent: – ∪ – – – ∪ – – – ∪ – – – ∪ –
(faa^{c}ilaatun faa^{c}ilun faa^{c}ilaatun faa^{c}ilun)

arramal: – ∪ – – – ∪ – – – ∪ –
(faa^{c}ilaatun faa^{c}ilaatun faa^{c}ilun)

this assertion is supported by the fact that the two variants which commonly alternate with the middle foot of almunsarih (– ∪ – ∪ and ∪ ∪ – ∪[15]) can be generated from – ∪ – – (see section 3.3.1).

(3) For the standard meters almujtaθθ, almadiid, alwaafir, and assarii^{c}, al-Khalīl specifies forms other than the ones given above for the same meters. Significantly, those other forms occurred very rarely--if at all--in ancient Arabic poetry, while the forms listed here occurred commonly in the same corpus.[16] In considering the rare (or nonexistent) form "basic", al-Khalīl was obviously guided by the framework of his theory rather than the frequency of occurrence. It is perfectly legitimate to postulate theoretical strings which can yield the actual meters, but such postulation should not take place on a level where the strings are clearly actual (rather than theoretical) meters.

(4) If it does not consist entirely of identical feet, a standard meter usually has at least one pair of identical feet. This may explain the latency in ancient Arabic poetry of the standard meter faa^{c}uulatun faa^{c}ilaatun faa^{c}ilun.

(5) A standard meter is not favored if, by occurring in a different order, all or most of its feet constitute another standard meter. Of each pair given below, the first member is rare[17] on account of this restriction:

almadiid: – ∪ – – – ∪ – – ∪ – –
(faa^{c}ilaatun faa^{c}ilun faa^{c}ilaatun)

arramal: – ∪ – – – ∪ – – – ∪ –
(faa^{c}ilaatun faa^{c}ilaatun faa^{c}ilun)

a meter which is used in about 2% of ancient Arabic poetry and about 3% of modern Arabic poetry;[11] it also explains the latency of the meter – – ∪ – – ∪ – – – – ∪ – in ancient Arabic poetry.

(4) In any given standard meter, consecutive short syllables do not exceed two, and consecutive long syllables do not exceed four. The situation could not be otherwise given the type of patterning which exists on Level II (similar placement of reduction in all feet) and given the theoretical meters which exist on Level I: a sequence of two short syllables results from the third rule of standard reduction; a sequence of four long syllables may result when medial reduction is not identically placed in two theoretical feet which are long and adjacent.

Notes on standard meters

(1) In our inventory of standard meters, the strings identified by one asterisk are latent meters,[12] while those identified by two asterisks are meters which occur in ancient Arabic poetry but which count for variants in al-Khalīl's theory (we have called those meters "additional" since they are to be added to al-Khalīl's list of standard meters).

(2) In ancient Arabic poetry, which is the subject of this study, the meters <u>almudaari^c</u> (∪ – – – – ∪ – –) and <u>almuqtaḍab</u> (– – – ∪ – – ∪ –) are almost nonexistent;[13] in fact, it is related that al-Akhfash considered those two meters alien to Arabic poetry.[14] Neither of the two meters is produced by the rules of standard reduction.

The meter <u>almunsariḥ</u> (– – ∪ – – – – ∪ – – ∪ –) is not produced by the rules of standard reduction. As will be seen on Level III, <u>almunsariḥ</u> can be considered a variant of the latent meter – – ∪ – – ∪ – – – – ∪ – (see the fifth of the restrictions listed in section 3.3.1);

assarii^{C} — — ∪ — — — ∪ — — ∪ —
(faa^{C}uulatun faa^{C}uulatun faa^{C}ilun)

**Additional ∪ — — — ∪ — — — ∪ — —
(fa^{C}uulaatun fa^{C}uulaatun fa^{C}uulun)

*Latent ω — ∪ — ω — ∪ — ∪ — —
(fafa^{C}uulatun fafa^{C}uulatun fa^{C}uulun)

**Additional — ∪ — — — — ∪ — — ∪ —
(faa^{C}ilaatun faa^{C}uulatun faa^{C}ilun)

*Latent — — ∪ — — ∪ — — — ∪ —
(faa^{C}uulatun faa^{C}ilaatun faa^{C}ilun)

(d)

(i) attawiil ∪ — — ∪ — — — ∪ — — ∪ — — —
(fa^{C}uulun fa^{C}uulaatun fa^{C}uulun fa^{C}uulaatun)

(ii) albasiit — — ∪ — — ∪ — — — ∪ — — ∪ —
(faa^{C}uulatun faa^{C}ilun faa^{C}uulatun faa^{C}ilun)

*Latent — ∪ — — ∪ — — — ∪ — — ∪ — —
(faa^{C}ilun faa^{C}ilaatun faa^{C}ilun faa^{C}ilaatun)

*Latent — ∪ — — — ∪ — — — ∪ — — — ∪ — —
(faa^{C}ilun faa^{C}uulatun faa^{C}ilun faa^{C}uulatun)

*Latent ∪ — — — ∪ — — ∪ — — — ∪ — —
(fa^{C}uulaatun fa^{C}uulun fa^{C}uulaatun fa^{C}uulun)

*Latent — ∪ — — — ∪ — — — ∪ — — — ∪ —
(faa^{C}ilaatun faa^{C}ilun faa^{C}ilaatun faa^{C}ilun)

(3) In general, standard meters which lack standard congruence are of relatively uncommon occurrence: this explains the infrequency of almujtaθθ (— — ∪ — — ∪ — — —),

majzuu^{ʔ}u
rrajaz — — ʊ — — — ʊ —
(faa^{C}uulatun faa^{C}uulatun)

majzuu^{ʔ}u
lkaamil ω — ʊ — ω — ʊ —
(fafa^{C}uulatun fafa^{C}uulatun)

almujtaθθ — — ʊ — — ʊ — —
(faa^{C}uulatun faa^{C}ilaatun)

majzuu^{ʔ}u
lxafiif — ʊ — — — — ʊ —
(faa^{C}ilaatun faa^{C}uulatun)

majzuu^{ʔ}u
rramal — ʊ — — — ʊ — —
(faa^{C}ilaatun faa^{C}ilaatun)

(b)

almadiid — ʊ — — — ʊ — — ʊ — —
(faa^{C}ilaatun faa^{C}ilun faa^{C}ilaatun)

majzuu^{ʔ}u
lbasiiṭ — — ʊ — — ʊ — — — ʊ —
(faa^{C}uulatun faa^{C}ilun faa^{C}uulatun)

**Additional ʊ — — — ʊ — — ʊ — — —
(fa^{C}uulaatun fa^{C}uulun fa^{C}uulaatun)

(c) alwaafir ʊ — ω — ʊ — ω — ʊ — —
(fa^{C}uulalatun fa^{C}uulalatun fa^{C}uulun)

arramal — ʊ — — — ʊ — — — ʊ —
(faa^{C}ilaatun faa^{C}ilaatun faa^{C}ilun)

(ii)

majzuu$^{?}$u
lmutaqaarib ∪ – – ∪ – – ∪ – –
(fa^{C}uulun fa^{C}uulun fa^{C}uulun)

majzuu$^{?}$u
lmutadaarak – ∪ – – ∪ – – ∪ –
(faa^{C}ilun faa^{C}ilun faa^{C}ilun)

(iii)

arrajaz – – ∪ – – – ∪ – – – ∪ –
(faa^{C}uulatun faa^{C}uulatun faa^{C}uulatun)

alkaamil ω – ∪ – ω – ∪ – ω – ∪ –
(fafa^{C}uulatun fafa^{C}uulatun fafa^{C}uulatun)

alxafiif – ∪ – – – – ∪ – – ∪ – –
(faa^{C}ilaatun faa^{C}uulatun faa^{C}ilaatun)

*Latent – – ∪ – – ∪ – – – – ∪ –
(faa^{C}uulatun faa^{C}ilaatun faa^{C}uulatun)

arramal – ∪ – – – ∪ – – – ∪ – –
(faa^{C}ilaatun faa^{C}ilaatun faa^{C}ilaatun)

*Latent ∪ – ω – ∪ – ω – ∪ – ω –
(fa^{C}uulalatun fa^{C}uulalatun fa^{C}uulalatun)

(iv)

alhazaj ∪ – – – ∪ – – –
(fa^{C}uulaatun fa^{C}uulaatun)

majzuu$^{?}$u
lwaafir ∪ – ω – ∪ – ω –
(fa^{C}uulalatun fa^{C}uulalatun)

long syllable has approximately the same duration as the two short syllables combined; thus initial and medial reduction are still mutually exclusive.

Notes on the rules

(1) It has already been pointed out that Arabic meters favor long rather than short feet; in the light of the above rules, the reason becomes obvious. When the rules of standard reduction are applied, a long foot yields more forms than does a short foot:

$$- - - - \rightarrow \cup - - - \text{ , } - \cup - -, - - \cup -, \ (\cup - \omega -, \omega - \cup -)^{10}$$
$$- - - \rightarrow \cup - - \text{ , } - \cup -$$

Thus an A-based theoretical string yields a small set of standard meters (i.e., a set consisting of relatively few members), while the B-based counterpart yields a large set of standard meters (i.e., a set consisting of relatively numerous members). Because B-based strings are predominant on Level I, the small sets of standard meters are less than they would otherwise be; in other words, the standard meters of Arabic poetry, thanks to such predominance, are structurally disposed to forming a few large sets.

(2) Of the meters produced by the above rules 76% actually occur in Arabic poetry, and 24% are potential. The 76% include all but three of the standard meters listed by al-Khalīl; they include as well the standard meter added by al-Akhfash:

(a)

(i)

<u>almutaqaarib</u> $\cup \underset{c}{-} - \quad \cup - \underset{c}{-} \quad \cup - \underset{c}{-} \quad \cup - -$
(fa^{c}uulun fa^{c}uulun fa^{c}uulun fa^{c}uulun)

<u>almutadaarak</u> $- \cup - \quad - \cup - \quad - \cup - \quad - \cup -$
(faa^{c}ilun faa^{c}ilun faa^{c}ilun faa^{c}ilun)

under (i) below are possible, but those under (ii) are not.[8]

(i) – ∪ – – – ∪ – – – ∪ – –
– – ∪ – – – ∪ – – – ∪ –
– ∪ – – – – ∪ – – ∪ – –
– – ∪ – – ∪ – –
– ∪ – – ∪ – – ∪ – – ∪ –
– – ∪ – – – ∪ – – ∪ –
– – ∪ – – ∪ – – – ∪ –

(ii) – ∪ – – – ∪ – – – – ∪ –
– ∪ – – – – ∪ – – – ∪ –
– – ∪ – – ∪ – – ∪ – –

The ultimate degree of consistency is the situation where syllable reduction is identically placed in all the feet of a given hemistich; we shall call this degree of consistency "standard congruence".

(3) Applying initial reduction to faa^{C}uulaatun produces fa^{C}uulaatun. Because fa^{C}uulaatun (which constitutes a single perceptual group) ends in three long syllables, the sequence fa^{C}uulaatun fa^{C}uulaatun is monotonous, and the sequence fa^{C}uulaatun fa^{C}uulaatun fa^{C}uulaatun is even more monotonous. Therefore fa^{C}uulaatun fa^{C}uulaatun is avoided optionally, while fa^{C}uulaatun fa^{C}uulaatun fa^{C}uulaatun is avoided obligatorily; this is done by changing both the first and the third syllables (rather than only the first) of faa^{C}uulaatun in one of the following ways:[9]

(a) – – – – → ω – ∪ – (faa^{C}uulaatun → fafa^{C}uulatun)
(b) – – – – → ∪ – ω – (faa^{C}uulaatun → fa^{C}uulalatun)

It must be emphasized that the replacement of a long syllable by two short ones is not reduction since the

> short syllables and their positions were the fixed elements; in Chinese poetry the principle is that of variation in pitch together with a fixed count of syllables. Thus, for a definition that will cover all instances, we have to describe METER as the distribution of syllables according to stress, quantity, pitch, or mere number, in some regular pattern either within the line or among successive lines."

The rules on this level are discussed below; they will be called "the rules of standard reduction".

(1) Each foot in a given theoretical meter undergoes syllable reduction. Syllable reduction is either foot-initial or foot-medial[6] (in a quadri-syllabic foot, medial reduction may affect either of the two medial syllables). No foot-final reduction occurs on this level since a short syllable has its clearest rhythmic effect when followed in the same perceptual group by a long syllable (in this context the short syllable lends prominence to the long syllable).

(2) Foot-initial and foot-medial reduction are mutually exclusive: they co-occur neither in the same foot nor in different feet of the same standard meter. Thus reduction is similarly positioned in all the feet of a given hemistich.

(a) Initial reduction is, by definition, identically placed in all the feet of a given hemistich.

(b) In most cases, medial reduction is identically placed in all the feet of a given hemistich.[7] In a hemistich where such is not the case, the feet differing in the placement of medial reduction are adjacent; in non-contiguous feet, reduction is identically placed. Thus the sequences

(b) Interrupted repetition
faa^{C}uulaatun faa^{C}uulun faa^{C}uulaatun

(c) Supplemented repetition
faa^{C}uulaatun faa^{C}uulaatun faa^{C}uulun

(d) Alternation
(i) faa^{C}uulun faa^{C}uulaatun faa^{C}uulun faa^{C}uulaatun
(ii) faa^{C}uulaatun faa^{C}uulun faa^{C}uulaatun faa^{C}uulun

3.2. Level II. Standard Meters

The principle which operates on this level is that patterned recurrence of long and short syllables in the hemistich gives rise to "meter";[4] consequently, theoretical meters are modified on Level II by reduction of certain syllables.

That patterned recurrence is a general principle can be seen from the following passage:[5]

> "Meter should be defined as the theoretically regular, although in practice sometimes much varied, recurring pattern of acoustic detail within the line. In modern English verse the pattern consists of a fixed number of stresses and of fixed positions for them in relation to the unstressed, or more lightly stressed, syllables. The mere ordered physical placement of stresses and nonstresses tends to create a determinate acoustic structure--that is, to convey a sense of regularity.....--and this structure is enhanced by the ISOCHRONIC principle, the fact that the intervals between primary stresses tend to seem equal. In Old English poetry, only the number of syllables and the end rhymes are the determinants; in Greek and Latin poetry the number of long and

repetition, interrupted repetition, supplemented repetition, and alternation.

Thus the following types of meters exist on this level (only one hemistich is represented; the two hemistichs are identical in each case[3]):

(a) Mere repetition
  (i) AAAA (ii) AAA (iii) BBB (iv) BB
(b) Interrupted repetition: BAB
(c) Supplemented repetition: BBA
(d) Alternation:
  (i) ABAB (ii) BABA

Notes:

(1) The first three types lack the following possible meters: AA, BBBB; ABA; AAB. Three of the four missing meters are A-based (an A-based meter is one which consists entirely of A's or which employs more A's than B's). In other words, Arabic poetry favors B-based meters--a fact which will be explained later. Exclusion of BBBB may be for the purpose of avoiding excessive length: four feet constitute the maximum length for a meter, and B is the long foot.

(2) Rule (1) above results from the fact that mere repetition requires a minimum of two feet, alternation requires a minimum of four feet, and each of the other two types requires a minimum of three feet.

If faa^{C}uulun is substituted for A and faa^{C}uulaatun is substituted for B, the meters on this level assume the following forms:

(a) Mere repetition
  (i) faa^{C}uulun faa^{C}uulun faa^{C}uulun faa^{C}uulun
  (ii) faa^{C}uulun faa^{C}uulun faa^{C}uulun
  (iii) faa^{C}uulaatun faa^{C}uulaatun faa^{C}uulaatun
  (iv) faa^{C}uulaatun faa^{C}uulaatun

CHAPTER III

A NEW PROPOSAL

The theory proposed by the present author places equal emphasis on generality (explanatory power), adequacy, and simplicity. Our goal is to account for the meters reported by al-Khalīl and al-Akhfash; we make no attempt to account for the innovations which occur in modern Arabic poetry, but it is quite possible that our theory provides a general framework which can easily accommodate those innovations.

We propose three levels of analysis; those levels are discussed below.

3.1. Level I. Theoretical Meters

On this level, there are only two feet: the short (faa^{c}uulun) and the long (faa^{c}uulaatun); the former will be represented by A, and the latter will be represented by B.

The principle characterizing this level is that patterned recurrence, in the hemistich,[1] of at least one foot gives rise to "meter".[2]

The rules on this level are the following:

(1) A hemistich consists of two, three, or four feet.

(2) Each hemistich is characterized by the patterned recurrence of A, B, or both; the patterns utilized are: mere

unstressed syllable; the theory being discussed employs a representation of Arabic feet where – stands for a long syllable and ∪ stands for a short syllable.

[22]The first and the third of the defects listed here are pointed out in ᶜAyyād's Mūsīqā al-Shiᶜr al-ᶜArabīy, pp. 62-67.

[23]The summary is based on pages 68-87 of ᶜAyyād's Mūsīqā al-Shiᶜr al-ᶜArabīy.

[24]Each symbol stands for the durational value of a syllable: – stands for a full beat; ∪ , for half a beat; –∪ , for a beat and a half.

[25]For example, the string ⏊ –∪ ∪ | –∪ ∪ ∪ (the first portion of sequence (a) which begins with a primary stress and which is followed by a primary stress) yields a measure in the following manner:

⏊ –∪ ∪ | –∪ ∪ ∪ → ⏊ –∪ ∪ | – ∪ ∪

This change results from rule (6). The transformation ⏊ –∪ ∪ | –∪ ∪ ∪ → ⏊ –∪ ∪ | –∪ ∪ seems to satisfy rule (6), but it would be incorrect since it reduces the number of symbols (each symbol stands for a syllable; thus the number of symbols cannot be reduced as long as the number of syllables remains the same).

[26]Unlike other symbols, Ω does not represent the duration of a syllable.

[27]Pages 75-87.

[28]See ᶜAyyād's Mūsīqā al-Shiᶜr al-ᶜArabīy, pp. 81, 82.

[29]See ᶜAyyād's Mūsīqā al-Shiᶜr al-ᶜArabīy, pp. 77,78.

(a) Modern Arabic poetry contains instances where commutable feet have different stress patterns; for example, Egyptian poets substitute – – – – · for – · – · – – · although Egyptians pronounce the form – – – – · with primary stress on the first constituent and the form – · – · – – · with primary stress on the fifth constituent.

(b) Ancient Arabic poetry contains instances where a single form is commutable with at least two feet of different stress patterns. For example, ancient Arab poets frequently substituted – – · – – · for – – ·· – · – · and for – · – · – – · although, according to Guyard, the last two forms were probably pronounced in Classical Arabic with different stress patterns (see section 2.3.2 of this study).

[17]See Abū Dīb's Fī al-Bunyah al-Īqā^{c}iyyah, pp. 46, 47, 93-98.

[18]At the end of Chapter I (p. 98), Abū Dīb rejects feet in favor of rhythmic nuclei. He argues that the use of feet has resulted in "fossilizing" Arabic meters. The present writer considers the foot a useful entity which should be retained. There is no guarantee that rhythmic nuclei would not have resulted in "fossilization" had they been proposed by al-Khalīl; it is no secret that the tendency to revere and therefore to imitate ancient models has flourished among Arab poets of the modern age.

[19]Vol. II, pp. 358-368.

[20]See Shapiro's Handbook.

[21]See Wright's Grammar, Vol. II, p. 363. A single bar separates two consecutive feet; a double bar marks the break between the two hemistichs of a meter. In the scansion of metrical verse, – stands for a long or stressed syllable, while ∪ stands for a short or

[10]The sequence — • • , which occurs exclusively in hemistich-final position, should be considered a variant of — • ; only occasionally is the sequence — • • encountered in Arabic poetry.

[11]See Abū Dīb's Fī al-Bunyah al-Īqā^{c}iyyah, pp. 85-87.

[12]See Abū Dīb's Fī al-Bunyah al-Īqā^{c}iyyah, pp. 106, 107.

[13]The present writer disagrees with Abū Dīb's argument: the inability of a descriptive device to account for performance does not constitute sufficient grounds for rejecting that device (see Chomsky's Aspects, pp. 3-15).

[14]See section 2.3.2 of this study.

[15]In some modern varieties of Arabic, stress is entirely predictable from the phonological environment; in other modern varieties, stress is almost entirely predictable from the phonological environment (see Nasr's The Teaching of Arabic as a Foreign Language, pp. 27, 28). The present writer believes that stress was phonologically conditioned in Classical Arabic and the contemporaneous dialects; it is difficult to see an accident in the fact that ancient Arab grammarians, meticulous as they were, have left us no systematic description of stress.

Unless trained in structural linguistics, native speakers are usually unaware of phonologically conditioned entities (i.e., allophones); e.g., in Colloquial Egyptian Arabic the sound [p] occurs before voiceless obstruents as an allophone of /b/, and yet the average Egyptian does not recognize [p] as an entity which differs phonetically from [b].

[16]As the following examples indicate, stress patterns cannot be considered the main determinant of variation either in modern or in ancient Arabic poetry (a dash stands for a mutaḥarrik and a dot stands for a saakin):

TOWARDS A NEW THEORY OF ARABIC PROSODY

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FOOTNOTES

[1]See al-Sayyid's al-ᶜArūḍ wa al-Qāfiyah, pp. 38, 49, 63, 80, 88. See also al-Rāḍī's Sharḥ Tuḥfat al-Khalīl, pp. 15-41.

[2]For each meter, only one hemistich is generated; the two hemistichs are identical.

[3]See al-Zahāwī's "Tawallud al-Ghinā' wa al-Shiᶜr".

[4]The occurrence of such alterations after, not before, the MC's have been grouped into feet sometimes forces al-Zahāwī to change the foot boundaries established by al-Khalīl; for example, each hemistich of almunsariḥ is mustafᶜilun mafᶜuulaatu mustafᶜilun according to al-Khalīl, but mustafᶜilun faᶜlun faaᶜilun faaᶜilun according to al-Zahāwī.

[5]See Anīs' Mūsīqā al-Shiᶜr, pp. 139-161.

[6]See Anīs' Mūsīqā al-Shiᶜr, pp. 147, 148. See also al-Nuwayhīy's Qaḍiyyat al-Shiᶜr al-Jadīd, pp. 240, 241.

[7]Anīs prefers to say that the syllables which occur in ancient Arabic poetry are either short (CV) or medium (CVV, CVC), long syllables being of very rare occurrence (see pp. 146-149 of his Mūsīqā al-Shiᶜr).

[8]faᶜuulaatun corresponds to al-Khalīl's mafaaᶜiilun; mustafᶜilaatun occurs only as the first foot in each hemistich of almunsariḥ (according to Anīs, each hemistich of almunsariḥ is mustafᶜilaatun mustafᶜilun faaᶜilun).

[9]See pp. 156-159 of his Mūsīqā al-Shiᶜr. In stating these rules, Anīs uses the expression "medium syllable" where the present writer uses "long syllable".

(35) ٣٥ - مزايا التعليم الديني القديم للاستاذ ابى الحسن علي الندوى فى صحيفة **الرائد** (عدد خاص) 10 ، 16 شوال 1395 ، ص 6

(36) **Ibid,** p. 7.

(37) An idea of the vastness of Arabic and Islamic literature produced in India can be had from the fact that Sayyid 'Abdul-Hayy al- Hasani has written biographies of more than four thousand five hundred Muslim scholars, sufis, rulers and other eminent Muslim personages of India in his encyclopaedic work Nuzhat-ul-Khawatir in eight volumes.

(38) ٣٨ - السيد ابو الحسن على الندوي : **المسلمون فى الهند** ، ص (36 — 40 ،

(39) **Ibid,** p. 44.

(40) **Baghdad Observer,** Baghdad, October 15, 1979

(41) E. G. Browne, op. cit., vol. I, p. 90.

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(1) P. K. Hitti : **History of the Arabs**, pp. 3-4.

(2) See The Inspiration Islam gave to Cultiv ation of Knowledge and Learning in **Islamic Culture**, July, 1979, pp. 163-177.

(3) R.A. Nicholson : A Literary of the Arabs, p.p. 4-5.

(4) 4 - المعلّقة لطرفة بن العبـــد

(5) 5 - **ثقافة الهند** ، يونيو، سنة، 1960 ، ص (114 — 126)

(6) Abdul Ghani : The Advent of the Arabs in Hindustan, published in the **Proceedings of the All-India Oriental Conference**, Tirupati 1940, p. 406.

(7) **Ibid**, p. 405.

(8) 8 - السيد غلام علي آزاد : **سبحة المرجان فى آثار هنـــد ستـــان** ، ص 26

(9) Dr. Tara Chand : **Influence of Islam on Indian Culture**, p. 46.

(10) **Ibid.**

(11) 11 - الفردوس الاسـلامى فى قارة آسيا للاستاذ علي الطنطاوي فى مختارات من أدب العرب ، الجزء الاول : ص(153 — 154)

(12) R. A. Nicholson, op. cit. Introduction xxiv.

(13) E. G. Browne : **A Literary History of Persia**, vol. II, p. 5.

(14) Humayun Kabir : **Islam in India in the Cultural History of India**, Culcutta, vol. iv, p. 584.

(15) P. K. Hitti, op. cit. p. 363.

(16) **Ibid**, p. 307.

(17) Will Durant : **The Story of Civilization**, vol. IV, p. 241.

(18) 18 - بين اللغتين : العربية والسنسكريتية للاستاذ مهيش برشاد فى **ثقافة الهند** : مارس 1950 : ص 93

(19) A. A. Macdonell : **A History of Sanskrit Literature**, p. 435.

(20) Albrecht Webber : **The History of Indian Literature**, p. 263.

(21) Mahesh Prasad, op. cit., p. 94.

(22) **Ibid.**

(23) P. K. Hitti, op. cit., p. 308.

(24) Mahesh Prasad, op. cit., p. 99.

(25) Will Durant, op. cit., p. 244.

(26) R. A. Nicholson, op. cit., p. 361.

(27) Will Durant, op. cit., p. 243.

(28) 28 - الاستاذ صبيح صادق : البيروني — العالم العربى الاسـلامي الخالد — «فى اللسان العربى» ، المجلـد الحادى عشر 1974 ص 148

(29) See **The Legacy of Islam** ed. by Sir T. Arnold and A. Gillaume.

(30) **Studies in the Cultural History of India** ed. by Guy S. Metraux and Francois Crouzet, pp. 286-287.

(31) **Proceedings of the All-India Oriental Conference**, Baroda, 1935, p. 507.

(32) **Studies in the Cultural History of India**, op. cit., p. 287.

(33) Sayyid Ghulam 'Ali Azad, op. cit., p. 24.

(34) **Studies in the Cultural Heritage of India**, op. cit., p. 287.

Of them mention may be made of the following writers :

Imam Hassan bin Muhammad (d. 650 A.H.), author of al-'Ubab-ul-Zakhir, Majma-'ul-Bahrayn and Kitab-ul-Ad dad on philology and Mashariq-ul-Anwar on Hadith ; Shaikh 'Ali bin Hishamuddin of Burhanpur, author of Kanz-ul-'Ummal ; Allamah Mahmud al-Jawnpuri (d. 1062 A. H.), author of al-Fara'id fi 'Ulum-il-Balaghah ; Muhibbullah al-Bihari (1119 A.H.), author of Musallam-ul-Thabut on Principles of Jurisprudence ; Shah Waliullah of Delhi (d. 11176 A.H.), author of Hujjatullah-il-Balighah ; Sayyid Murtada al-Bilgrami (d. 1205 A.H.), author of Taju-'Arus fi Sharh-il-Qamus ; Nawab Siddiq Hassan Khan, author of 222 books, out of which 56 books are in Arabic ; and Shaikh 'Abdul-Hayy of Luchnow, author of 110 books including 86 books in Arabic on various subjects of Islamic learning (38).

In the field of Arabic poetry too our coutry is proud of having produced some famous poets such as Qadi 'Abdul Muqtadir of Delhi (d. 791 A.H.), Shaikh Ahmad bin Muhammad (d. 830 A.H.), Mufti Sadruddin of Delhi (d. 1285 A.H.), Sayyid Ghulam 'Ali Azad al-Bilgrami (d. 1300 A.H.) and others (39), whose poetical compositions earned them fame and reputation not only in India but also abroad. So far as Arabic style of these authors and poets is concerned, it is of a high standard. This clearly shows that they cultivated Arabic studies with scholarly zeal. In this way, they carried on the traditions of Arabic learning in India, which have no doubt left an indelible impress of Arab culture on Indian society.

And last, but not the least, the great contribution of Arabic to the cultural heritage of India is evident in its languages. On account of the long and close association of the Arabs and Muslims with this country as well as rich cultivation of Arabic studies by Indian scholars. Arabic language has greatly influenced all the major Indian language in a varying degree depending on the nature of the contact. While Sindhi and Urdu have adopted the Arabic script, other languages like Malayalam, Teugu, Tamil, Gujrati, Punjabi, Hindi, Bengali and Assamese have been greatly enriched by it. Arabic words and phrases incorporated in these languages can be easily determined by critical philological studies of them. So far as the influence of Arabic on Urdu or Hindustani is concerned, Sayyid Sulayman Nadwi has done a commendable work. The collection of his literary and philological articles entitled Nuqush-e-Sulaymani in Urdu includes two research papers by him on this subject. They clearly show that the influence of Arabic on Urdu is greater than of any of its remaining three source languages i.e. Persian, Sanskrit and Turkish.

Similarly, Dr. Sami' Sa'id Ahmad has recently published a list of about one hundred such Arabic words which are used not only in Arabic but also in Telugu, a major Indian language spoken along the Eastern Coast of South India, exactly in the same sense as are used in Arabic (40).

Another important point to bear in our mind in this connection is that Arabic influenced the Indian languages both directly and indirectly through Persian, for Persian itself became so thoroughly Arabicised in the course of time that, as E. G. Browne has observed, "without a knowledge of the Arabic language and literature and of the Arabian civilization and culture one could never hope to be more than a stammerer in Persian" (41).

From what has been discussed above it is quite clear that contributions of the Arabs, their language and literature to the cultural heritage of India have been so rich and immense that a correct appreciation of the knowledge and literature of this country is not possible without the aid of Arabic language and literature.

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age. Indian writers imitated their style and thus was introduced, as Sir Jadunath Sarkar has observed, "a new and very useful element into Indian literature." (32).

Besides, for the history of the Middle Ages India is largely dependent on Arabic literature which contains a vast amount of historical and cultural information about it. Here it is remarkable to note that the Arab historians are full of praise for this country. The Arab travellers right from Sulayman, the merchant of the ninth century, to Ibn Batutah of the fourteenth century display the love and sympathy of the Arabs for this country.

While emphasizing the importance of Arabic literature as a source of historical information for India, it may be mentioned that even Hadith literature, which, after the Quran, is the most authentic source of information, contains a number of interesting stories about this country. For instance, the Apostolic Traditions which Sayyid Ghulam 'Ali Azad has compiled in his book, Subhat-ul-Marjan fi Athar-i-Hindustan, throw much light on the antiquity of Indo-Arab relations as well as on the ancient glory of the country. On the basis of these traditions the author has concluded that Adam, the father of mankind, being driven out of the Paradise, alighted on the peak of a mountain called Adam's peak in Ceylon. According to this story, India and Arabia have had intercourse with each other from the very beginning of creation on earth. Besides, the author has narrated a number of special blessings which God showered upon India along with the 'fall' of Adam on earth. And lastly, he has maintained that all the dependants of mankind are of Indian origin, because Adam himself was an Indian.

Another important role played by the Arab and Muslim scholars in enriching the Indian culture was in the domain of education. Contrary to the Hindu practice of confining education to the privileged few, the Muslims made it open to all by circulating their works on a large scale. This led to diffusion of knowledge and learning (34). And as stated above, the study of Arabic and Islamic studies along with that of Persian naturally occupied an important position in the educational curriculum of the Muslims. As a result, a large number of eminent Arabic scholars flourished, who enriched the Indo-Arab literature with valuable contributions to almost all the branches of Arabic literature which cannot be ignored while making an assessment of the impact of Arab culture on India.

It would not be out of place to mention here that the rich cultivation of Arabic studies in the country owes a great deal to the sacrifices made by the learned Arabic scholars and teachers who looked upon teaching not as a means of earning livelihood but as an act of piety and worship to Allah. They were full of affection and sympathy for their students, and encouraged them in every possible way. In short, the scholars were wholly devoted to the cause of knowledge and learning (35). Similarly, the students on their part were sincerely devoted to their teachers. They loved, respected and honoured them beyond expression. Even the ruling class had a great regard for them. For example, Shahjahan, the Mughal Emperor, weighed Mulla 'Abdul Hakim of Sialkot twice against silver and Qadi Muhammad Aslam, son of the renowned scholar Mirzahid, once against gold. And such was the custom among the early Mughal rulers to respect and honour the scholars (36).

Although a great deal of Arabic literature produced in India could not come down to us, yet the remnants of it, which are preserved in published and unpublished forms, are sufficient enough to prove their spectacular literary achievements (37). They wrote volumes of books on religious as well as secular subjects i.e. Hadith, Tafsir, Jurisprudence and poetry. At the same time purely philological subjects such as Rhetorics, Grammar and Philology did not escape their attention, and they produced some valuable books on these subjects also.

system of medical diagnosis and treatment. It is practised here even today as one of the main branches of indigenous medicine.

Another great debt which India owes to Arabic is the fact that it was mainly through this language that the ancient wisdom literature of this country was preserved and made known to the West. For example, the animal fables of Sanskrit origin, known as the fables of Bidpai were translated into Arabic by Ibn-ul-Muqffa' under the title of كَلِيلَةٌ وَدِمْنَةٌ (Kalilah wa Dimnah) from Pahlawi. And as Hitti writes, "The original work was brought to Persia from India in the reign of Anushirwan (531-78 A. D.). What gives the Arabic version special significance is the fact that the Persian (translation) was lost, as was the Sanskrit original, though the material in an expanded form can still be found in the Pichtantra. The Arabic version, therefore, became the basis of all existing translations into some forty languages, including, besides European tongues, Hebrew, Turkish, Ethiopic, Icelandic and Malay.» (23).

While discussing the cultural give and take between India and the Arab world, we must not fail to pay our special attention to Abu Rayhan Muhammad ibn Ahmad al-Biruni (973-1048 A. D.) who stayed in India for several years and acquainted himself with the language, philosophy and sciences of this country. He is credited with having translated several Sanskrit works of science into Arabic, of which only the following four books are known to us so far :

(1) Patanjal Sutra ; (2) Laghu Jatkam ; (3) A Book on Solar and Lunar Eclipses ; (4) Rashkat Hind (24).

Similarly, he enriched Indian literature by translating Euclid's Elements and Ptolemy's Almagest into Sanskrit (25). Besides, he has given a very authentic account of the sciences, antiquities and customs of India in his famous book entitled Tarikh-ul-Hind (History of India) (26). In it he has devoted forty-two chapters on Hindu astronomy, and eleven to Hindu religion (27). The celebrated German Orientalist, E. Sachau, has highly spoken of the importance of the book by commenting that all the books written about India before al-Biruni are nothing but babies' toys in comparison with his scientific researches contained in it (28).

In the light of the facts discussed above it is quite clear that the contribution which Arabic has made to the cultural revival of India can hardly be overestimated.

In more tangible aspects of culture, Arab influences may be traced in Indian architecture, calligraphy and other fine arts. In paper-making book-binding, glass-work, pharmacy and several chemical industries not only India, but also the whole world owes a great deal to the Arabs (29).

But by far the most lasting influence which the Arabs and their literature have made on the culture of India is to be seen in the literature and languages of the country as well as in the cultivation of Arabic and Islamic studies by Indian scholars.

One of the most significant contribution of Arabic literature to India is the introduction of the science of historiography into Indian literature. In the pre-Islamic days the Indians lacked chronological sense in writing history. Only a few biographies were written in Sanskrit and in all of them "facts lie buried under a mass of flowers of rhetoric, tricks of style and round-about expressions." (30). Al-Biruni has pointed out this fact as mentioned below :

'Unfortunately, the Hindus do not pay much attention to the historical order of things. They are very careless in relating the chronological succession of their kings, and when they are pressed for information and are at a loss, not knowing what to say, they invariably take to tale-telling." (31).

But the scientific and fact-finding Arabs kept a regular record of their campaigns and activities. They wrote a number of chronicles and biographies which may be described as models of standard historical writings of that