

<A> Eat your Words! (1/2)

(15 points)

Arabic is spoken by more than 200 million people as a first language or as a foreign language used in religious practices associated with Islam. As a first language there are over 20 main regional spoken varieties, and within those regions, there are further regional and social varieties. A more formal Modern Standard Arabic is spoken by educated people in the Arabic speaking countries.

These words belong to one variety of everyday spoken Arabic

1	laHm	<i>meat</i>	21	mishmish	<i>apricot</i>
2	fijli	<i>a radish</i>	22	laymūni	<i>a lemon</i>
3	qāqūni	<i>a rockmelon</i>	23	xyār	<i>cucumber</i>
4	xārūf	<i>sheep</i>	24	baqara	<i>a cow</i>
5	kbīr	<i>big</i>	25	baSli	<i>an onion</i>
6	fraiz	<i>strawberry</i>	26	ka [˘] ki	<i>a biscuity cake</i>
7	wazz	<i>goose</i>	27	lawz	<i>almond</i>
8	sukkar	<i>sugar</i>	28	laHəm ghazāl	<i>venison (deer meat)</i>
9	ktīr	<i>much/very</i>	29	baqar	<i>cattle</i>
10	mawz	<i>banana</i>	30	filfil	<i>pepper</i>
11	sukkara	<i>a sugar lump</i>	31	laHmi mafrūmi	<i>ground meat</i>
12	qāqūn	<i>rockmelon</i>	32	mishmishi	<i>an apricot</i>
13	zghīr	<i>little/small</i>	33	laymūn	<i>lemon</i>
14	laHmi	<i>a bit of meat</i>	34	shwayyit əxyār	<i>some cucumber</i>
15	xyāra	<i>a cucumber</i>	35	qāqūn əktīr əktīr	<i>a lot of rockmelon</i>
16	wazzi	<i>a goose</i>	36	finjān əzghīr	<i>a little cup</i>
17	fijil	<i>radish</i>	37	lawzi zghīri	<i>a small almond</i>
18	mawzi	<i>a banana</i>	38	al-baSli l-əkbīri	<i>the big onion</i>
19	baSil	<i>onion</i>	39	l-əxyār əl-bārīda	<i>the cold cucumber</i>
20	fraizāya	<i>a strawberry</i>	40	Halīb əl-baqara	<i>milk of the cow</i>

Pronunciation of unfamiliar letters (not essential knowledge for solving the problem):

j = sound of 'z' in 'azure'; i = vowel sound in 'sit'; ī = vowel sound in 'seed'; u = vowel sound as in 'full'; ū = vowel sound in 'fool'; a = vowel in 'cat'; ā = vowel sound in 'pear'; ə = unstressed vowel as the last vowel in 'horses'; ai = as in 'lie'; D = deeper 'd'; S = a deeper 's'; H: breathy 'h'; x = ch in Scottish 'loch'; ˘ = like a growl in the throat; digraph sh = beginning sound of 'she'; digraph gh = the 'r' sound in French 'rouge'. The other letters are like their English equivalents.

digraph gh = like the 'r' sound in French 'rouge'. The other letters are like their English equivalents.

<A> Eat your Words! (2/2)

A1. Write the Arabic equivalent of these English phrases:

English	Arabic Equivalent
a big strawberry	fraizāya kbīri (1 point = 0.5 correct form, 0.5 correct order)
the big apricot	al-mishmishi l-ək̄bīri (2 points if all correct; remove 0.5 for error) [cf 38]
some biscuity cake	shwayyit ka ^ḥ k (1 point = 0.5 correct form, 0.5 correct order) [cf. 35]
a lot of sugar	sukkar əktīr əktīr (1 point = 0.5 correct form, 0.5 correct order)
a pepper	filəfli [analogy "radish"] (1 point)
beef	laHm baqar → laHəm baqar (2 points if all correct; remove 0.5 for error) [analogy "venison"]

/8

A2. When does the sound written 'ə' appear in words?

Where there is a sequence of three consonants/to break up a sequence of three consonants

/1

A3. Why is 'meat' pronounced as laHəm in 28 rather than as laHm in 1, while in 34-36 'ə' is the first sound of the second word in the phrase?

Where there is a sequence of three consonants 'ə' is inserted/appears/comes after the first one (CCC > CəCC)

/1

A4. Why is the word for 'the big (one)' in 38 pronounced as l-ək̄bīri, not as al-kbīri following the pattern of al-baSlī 'the onion' or as əl-kbīri like əl-bārīda in 39?

'ə' is added after 'l' to avoid a sequence of 3 consonants/this variant avoids a sequence of 3 consonants, AND al > l OR al- is only allowed on the first word (of a phrase). Need to get both parts of answer to get full mark. (they might use 39 as model)

/1

A5. Explain the variant forms of 'cucumber' listed below.

'cucumber'	Example	Explanation
xyār	23	basic word/ stem/ citation form/generic term
xyāra	15	-a added to mean 'a' / 'a cucumber'/specific/particular cucumber
əxyār	34	'ə' is inserted to avoid 3 consonants (txy > təxy)
l-əxyār	39	'l' marks 'the', 'ə' is inserted to avoid 3 consonants (lxy > ləxy)

4 points: 1 for each correct explanation

/4

General remarks:

Linguistic rules to arrive at

- There are collective and unit versions of a noun (also number but we're ignoring that)
- Partitive takes collective noun /DET takes unit version
- Phrase order: *shwayyit and l-* before noun; attribute follows noun
- Adjs agree with nouns, but they can't really tell that except from e.g.s of phrases (so it doesn't matter if they don't get the "i" at the end of kbīr in Q. 2)
- No CCC or CCCC, so insert schwa before the last two consonants in a consonant cluster across morphemes or across words**
- for definite: phrase **initial** is either al- or lə but not əl, on **non-initial** word in phrase it is either l or l-ə or əl depending on following sounds, but not al-.

 A Large Spoon is Enough (1/3)

(15 points)

Swahili is a Bantu language spoken by various peoples in an extensive area of eastern Africa. While only 5-10 million people speak it as their native language, it is a *lingua franca* for much of the region. It is a national language of Tanzania, Kenya and the Democratic Republic of the Congo, and is the only language of African origin among the official working languages of the African Union.

Study these sentences with their English translations, given in order, and then translate the sentences on the next page. Swahili has no words for 'the' or 'a'.

	Swahili	English
1	<i>Mtu ana watoto wazuri.</i>	The man has good children.
2	<i>Mto mrefu una visiwa vikubwa.</i>	The long river has large islands.
3	<i>Wafalme wana vijiko vidogo.</i>	The kings have small spoons.
4	<i>Watoto wabaya wana miwavuli midogo.</i>	The bad children have small umbrellas.
5	<i>Kijiko kikubwa kinatosha.</i>	A large spoon is enough.
6	<i>Mwavuli una mfuko mdogo.</i>	The umbrella has a small bag.
7	<i>Kisiwa kikubwa kina mfalme mbaya.</i>	The large island has a bad king.
8	<i>Watu wana mifuko mikubwa.</i>	The men have large bags.
9	<i>Viazi vibaya vinatosha.</i>	The bad potatoes are enough.
10	<i>Mtoto ana mwavuli mkubwa.</i>	The child has a large umbrella.
11	<i>Mito mizuri mirefu inatosha.</i>	Good long rivers are enough
12	<i>Mtoto mdogo ana kiasi kizuri.</i>	A small child has a good potato.

(B) A Large Spoon is Enough (2/3)

B1. Translate the following phrases into Swahili writing one letter in each cell:
Marking: 2 points for each correct sentence (1 for correct agreement, 0.5 for correct stems and 0.5 for correct word order)

a. *The small children have good spoons.*

W a t o t o w a d o g o w a n a v i j i k o v i z u r i

b. *A long umbrella is enough.*

M w a v u l i m r e f u u n a t o s h a

c. *A bad potato has a good bag.*

K i a z i k i b a y a k i n a m f u k o m z u r i

d. *Good kings are enough.*

W a f a l m e w a z u r i w a n a t o s h a

e. *The long island has bad rivers.*

K i s i w a k i r e f u k i n a m i t o m i b a y a

f. *The spoons have long bags.*

V i j i k o v i n a m i f u k o m i r e f u

/12

B2. If the Swahili word for 'the prince' is *mkuu*, what do you think the word for 'the princes' is, and why?

a. Write the Swahili word for 'the princes' in the box below.

Wakuu

/1

b. Explain your answer to (a).

Words referring to more than one person/human being have wa- (to mark plural) (instead of singular *m*) at the beginning of the word (prefixed to stem).

*Also give full marks if explicitly show reasoning by analogy, e.g., like *mtoto* 'child' *watoto* 'children', OR *mtu* 'man' *watu* 'men' etc.*

/2

<C> Swallow the Salt (1/3)

(20 points)

Here are some sentences in another rather different type of African language. Tadaksahak is a Songhay language spoken primarily along the Niger River in the north of the Republic of Mali, a landlocked country in Western Africa. Tadaksahak has borrowed many words from the Tamashek language spoken by the neighbouring Tuareg. Approximately 32,000 people speak Tadaksahak.

Below are several Tadaksahak phrases and their English translations, given in order:

- | | | |
|----|-------------------------------|--|
| 1 | <i>ayagon cidi</i> | I swallowed the salt. |
| 2 | <i>atezelmez hamu</i> | He will have the meat swallowed (by somebody). |
| 3 | <i>atedini a</i> | He will take it. |
| 4 | <i>hamu anetubuz</i> | The meat was not taken. |
| 5 | <i>jifa atetukuš</i> | The corpse will be taken out. |
| 6 | <i>amanokal anešukuš cidi</i> | The chief didn't have the salt taken out. |
| 7 | <i>ayakaw hamu</i> | I took out the meat. |
| 8 | <i>itegzem</i> | They were slaughtered. |
| 9 | <i>ayasezegzem a</i> | I'm not having him slaughtered. |
| 10 | <i>anešišu aryen</i> | He didn't have the water drunk (by anybody). |
| 11 | <i>feji abnin aryen</i> | The sheep is drinking the water. |
| 12 | <i>idumbu feji</i> | They slaughtered the sheep. |
| 13 | <i>cidi atetegmi</i> | The salt will be looked for. |
| 14 | <i>amanokal abtuswud</i> | The chief is being watched. |
| 15 | <i>cidi asetefred</i> | The salt is not being gathered. |
| 16 | <i>amanokal asegni i</i> | The chief had them looked for. |

Note: š is pronounced like sh in shoe; ʒ is like s in casual; ɣ is like a voiced h.

<C> Swallow the Salt (2/3)

C1. Translate the following phrases into English:

- a. aryen anetišu The water was not drunk.
- b. ayasuswud feji I had the sheep watched.
- c. cidi atetelmez The salt will be swallowed.
- d. asedini jifa He is not taking the corpse.

Marking: 1 point for each correct answer (discretion with half marks) /4

C2. Translate the following into Tadaksahak:

a. He is having the water taken.

a	b	z	u	b	u	z		a	r	y	e	n	

b. The chief did not drink the water.

a	m	a	n	o	k	a	l		a	n	e	n	i	n		a	r	y	e	n		

c. The salt was not looked for.

c	i	d	i		a	n	e	t	e	g	m	i	

d. He will have the salt gathered.

a	t	e	s	e	f	r	e	d		c	i	d	i	

Marking: 2 points for each correct sentence (1 point for correct verb, 1 point for other words & correct word order) /8

<C> Swallow the Salt (3/3)

C3. Indicate which part of the various forms of verbs meaning 'swallow' and 'take out' in the sentences below express the elements of meaning listed in the following Table.

<i>ayagon cidi</i>	I swallowed the salt.
<i>atezelmez hamu</i>	He will have the meat swallowed (by somebody).
<i>cidi abtelmez</i>	The salt is being swallowed.
<i>jifa atetukuš</i>	The corpse will be taken out.
<i>amanokal anešukuš cidi</i>	The chief didn't have the salt taken out.
<i>ayakaw hamu</i>	I took out the meat.
<i>abkaw cidi</i>	He takes out the salt.

Write your answers in the Tadaksahak column:

	Meaning in English	Tadaksahak
1	I	<i>aya</i>
2	He	<i>a</i>
3	future	<i>te</i>
4	present	<i>b</i>
5	not (negative)	<i>ne</i>
6	make/have something happen	<i>š or z</i>
7	take out	<i>kaw</i>
8	be taken out	<i>(t)ukuš</i> [allow either]
9	swallow	<i>gon</i>
10	be swallowed	<i>(t)elmez</i> [allow either]

0.5 for 1-4, 1 point for 5-10

/8

<D> Counting in Irish (1/2)

(15 points)

Irish, also known as Erse, Gaeilge, or Irish Gaelic, is spoken by approximately 260,000 people in Ireland. There are about 25,870 speakers in the USA, or about one in every 10,000 Americans. It is a Celtic language, distantly related to English.

Below are some number phrases in Irish and their English equivalents, given in order:¹

Irish	English translation
<i>garra amháin</i>	1 garden
<i>gasúr déag</i>	11 boys
<i>ocht mballa is dhá fichid</i>	48 walls
<i>dhá gharra déag is ceithre fichid</i>	92 gardens
<i>trí bhád</i>	3 boats
<i>seacht ndoras déag</i>	17 doors
<i>seacht mbád déag is dhá fichid</i>	57 boats
<i>naoi nduine déag is fiche</i>	39 people
<i>ceithre fichid doras</i>	80 doors
<i>cúig bhalla</i>	5 walls
<i>sé ghasúr is trí fichid</i>	66 boys
<i>deich mbád</i>	10 boats
<i>sé dhuine</i>	6 people
<i>trí dhoras is dhá fichid</i>	43 doors
<i>garra is ceithre fichid</i>	81 gardens

¹ Original problem by M. O. Revinskij. Translation and adaptation by Tom Payne. English version Copyright © 2007, University of Oregon Department of Linguistics.

<D> Counting in Irish (2/2)

(15 points)

D1. Translate into English:

Irish	English Translation
a. naoi mbád déag is ceithre fichid	99 boats
b. sé dhuine déag	16 people
c. naoi nduine	9 people
d. fiche gasúr	20 boys
e. garra déag is fiche	31 gardens

Marking: 1 point each

/5

(0.5 for correct number, 0.5 for correct noun)

D2. Translate the following phrases into Irish:

English	Irish Translation
a. 38 walls	o c h t m b a l l a d é a g i s f i c h e
b. 14 walls	c e i t h r e b h a l l a d é a g
c. 71 doors	d o r a s d é a g i s t r í f i c h i d
d. 21 boats	b á d i s f i c h e
e. 90 people	d e i c h n d u i n e i s c e i t h r e f i c h i d

Marking: 2 points each

/10

0.5 for correct form of noun: each noun has 'plain' form, e.g., *balla* 'wall', lenited/fricative form, e.g. *bhalla* after numbers 1-6, and prenasalized form, e.g., *mballa* following number greater than 6.

1 for correct form of numeral words (including *is* where relevant)

0.5 for correct order of all words

<E> Flapping around in Warlpiri (1/3)

(15 points)

Warlpiri is an Australian language spoken in the Tanami Desert area of the Northern Territory of Australia. Approximately 2,000 people speak Warlpiri as their first language, and at least another 1,000 speak it as their second or third language. The traditional Warlpiri country is as big as many European countries or American states, so it is not surprising to find that Warlpiri spoken in one part of Warlpiri country differs in various ways from the language spoken in another part.

One of the ways in which Warlpiri dialects differ is in the relationship between a 't'-like sound written using the digraph *rt* and a different 'r'-like sound written as *rd*.

The table below shows how the 'same' words are pronounced in each of three distinct dialects of Warlpiri, which are simply labeled A, B and C. Study the data in the table and then answer the questions which follow.

	A	B	C
1 <i>father</i>	kirda	kirda	kirda
2 <i>for father</i>	kirdaku	kirdaku	kirdaku
3 <i>father & child</i>	kirtarlangu	kirtarlangu	kirdarlangu
4 <i>aunt</i>	pimirdi	pimirdi	pimirdi
5 <i>for aunt</i>	pimirdiki	pimirdiki	pimirdiki
6 <i>by aunt</i>	pimirtirli	pimirtirli	pimirdirli
7 <i>flame</i>	rtili	rdili	rdili
8 <i>hand</i>	rtaka	rdaka	rdaka
9 <i>raw</i>	rtarri	rdarri	rdarri
10 <i>heel</i>	rtari	rtari	rtari
11 <i>walk placing feet on tufts of grass</i>	marnangkartari	marnangkartari	marnangkartari
12 <i>heart</i>	kurturdurru	kurturdurru	kurturdurru
13 <i>tooth</i>	kartirdi	kartirdi	kartirdi
14 <i>with/by teeth</i>	kartirtirli	kartirtirli	kartirdirli
15 <i>on teeth</i>	kartirtirla	kartirtirla	kartirdirla
16 <i>hold it!</i>	mardaka	mardaka	mardaka
17 <i>holding</i>	martarni	martarni	mardarni
18 <i>held</i>	martarnu	martarnu	mardarnu
19 <i>summit</i>	rtaarnpa	rtaarnpa	rtaarnpa
20 <i>accompany</i>	rtanparni	rdanparni	rdanparni
21 <i>smoke</i>	yulyurdu	yulyurdu	yulyurdu
22 <i>by smoke</i>	yulyurturlu	yulyurturlu	yulyurdurlu

<E> Flapping around in Warlpiri (2/3)

The sounds written using the digraphs *rt*, *rd*, *rl*, and *rn*, as well as the monograph *r*, all belong to a class of sounds called 'retroflex', made by curling back the tongue tip so that the underside of the tongue tip touches the hard palate.

Marking: 1 point each correct form in E1-E4

E1. In all three dialects the word for 'again' or 'more' is *yarda*. If we add the suffix *-rni* meaning 'this way' to this word, how would this complex word be pronounced in each of the three dialects? /3

Dialect A	y	a	r	t	a	r	n	i	
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Dialect B	y	a	r	t	a	r	n	i	
-----------	---	---	---	---	---	---	---	---	--

Dialect C	y	a	r	d	a	r	n	i	
-----------	---	---	---	---	---	---	---	---	--

E2. The word for 'red' in dialect A is *rtiri*. How is it pronounced in the other dialects? /2

Dialect B	r	t	i	r	i
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Dialect C	r	t	i	r	i
-----------	---	---	---	---	---

E3. The word for 'shelter' in dialect C is *rdupa*. How is it pronounced in the other dialects?

Dialect A	r	t	u	p	a
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Dialect B	r	d	u	p	a
-----------	---	---	---	---	---

E4. The word for 'big sister' in all three dialects is pronounced *kapirdi*. To say 'big sister and little sister/brother' you add the suffix *-rlangu* to the word for 'big sister'. How is this complex word pronounced in each dialect? /3

Dialect A	k	a	p	i	r	t	i	r	l	a	n	g	u	
-----------	---	---	---	---	---	---	---	---	---	---	---	---	---	--

Dialect B	k	a	p	i	r	t	i	r	l	a	n	g	u	
-----------	---	---	---	---	---	---	---	---	---	---	---	---	---	--

Dialect C	k	a	p	i	r	d	i	r	l	a	n	g	u	
-----------	---	---	---	---	---	---	---	---	---	---	---	---	---	--

<E> Flapping around in Warlpiri (3/3)

E5. Explain how dialect A differs from dialect B in the distribution of the *rt* and *rd* sounds by completing the following sentence. (No slot may contain more than one word.)

The sound *rd* never occurs in Dialect A at the start/beginning of a word.

Marking: either right or wrong

/2

E6. If you were a Warlpiri speaker and heard someone you didn't know speaking Warlpiri, you could conclude that person was a dialect A speaker if they said certain words from the list given above (1-22). List all relevant words:

rtili (7)
rtaka (8)
rtarri (9)
rtanparni (20)

Marking: 1 point if all four correctly listed (either by word or number)

/1

0.5 if not all words listed; no marks if another word is listed.

E7. You could detect Warlpiri Dialect C speakers if you heard them do which of the following? (Tick the appropriate box or boxes.)

- They never pronounce the *rd* sound if the following consonant is a retroflex sound.
- They never pronounce the last consonant of a word as *rt*.
- They never pronounce the sound *rd* at the beginning of a word.
- They never vary the pronunciation of a word (or part of word) between *rd* and *rt*.

Marking: 2 points for correct answer (Note that the ticked option is the only distinguishing property. While the second option is true of C, it is also true of A and B, so not diagnostic.)

/2

<F> Axolotl in the Water (1/2)

(20 points)

Nahuatl was the language of the Aztec empire, which dominated central Mexico in the fifteenth century. Nahuatl has over a million and a half speakers, more than any other family of indigenous languages spoken in Mexico today.

Some Nahuatl sentences have been translated into English below (translations are given in order):

Nahuatl	English Translation
1. Nacatl itlacual in itzcuintli.	<i>The dog eats the meat.</i>
2. Xocolatl notlacual.	<i>I eat the chocolate.</i>
3. Niquitta in itzcuintli.	<i>I see the dog.</i>
4. Quitta in itzcuintli in calli.	<i>The dog sees the house.</i>
5. Nechixcuepa in axolotl ipan in atl.	<i>The axolotl in the water confuses me.²</i>
6. Ical in oquichtli ipan in tepetl.	<i>The man's house is on top of the hill.</i>
7. Quixcuepa in itzcuintli in cihuatl.	<i>The dog confuses the woman.</i>
8. Nipantlalia ipan in milli.	<i>I ride (horseback) on the field.</i>
9. Nechitta notah.	<i>My father sees me.</i>

² The axolotl is a freshwater salamander native to Lakes Xochimilco and Chalco near Mexico City.

<F> Axolotl in the Water (2/2)

F1. Translate the following Nahuatl sentences into English.

a. Axolotl tlacualli ipan nocal.	In my house, (the) axolotl is food/eaten. / (The) axolotl is food/eaten in my house.
	Marking: 5 points

b. Itzcuintli nopan.	The dog is on top of me.
	Marking: 3 points

/8

F2. Translate the following English sentences into Nahuatl.

My father's father sees the axolotl.

Q	u	i	t	t	a		i	t	a	h		n	o	t	a	h		i	n	
a	x	o	l	o	t	l														

1 point for correct word order (V his father (of) my father the axolotl) /6

1 point for each correct word form

F3. How does Nahuatl differ from English in the way that words are ordered in sentences such as 3-5 and 7-9 above?

These N sentences in begin with a verb. /2

(Only need this to get full marks; if this is missing, but they observe that there are no separate pronoun words in N (since they are part of verb) or if they make some other valid observation re word order, give 1 mark)

F4. What is the word-for-word translation of sentences 1 and 2, repeated below?
(Write your answer to right of Nahuatl sentence)

Nahuatl	Word-for-word English translation
1. Nacatl itlacual in itzcuintli.	meat its-food the dog / meat its-food of dog [allow either]
2. Xocolatl notlacual.	chocolate my-food

Marking: 2 points for each correct translation

/4