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Linguistic Reflections on Teaching Hebrew in a Melanesian Context

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For the past 9 years, SIL PNG has regularly offered courses in biblical Hebrew to Papua New Guinean translators and pastors. The courses were both designed and then refined to fit with the Melanesian cultural and linguistic context in which they were offered. This paper looks at the linguistic factors that affect the teaching of Hebrew in this context, examining points of similarity between PNG languages and biblical Hebrew that can be exploited, and differences that need particular attention in the classroom setting. Recommendations are made for effectively teaching Biblical Hebrew in this linguistic environment.

Abbreviations

1/2/3	1st/2nd/3rd person
CAUS	Causative
CNJ	Conjunction
CSTR	Construct
DU	Dual
EX	Exclusive
F	Feminine
IMP	Imperative
IRR	Irrealis
M	Masculine
O	Object
OBJ	Object
PASS	Passive
PRF	Perfect
PL	Plural
POSS	Possessive
PRED	Predicate marker
PST	Past
Q	Question marker
REFL	Reflexive
S	Subject
SG	Singular
TM	Topic marker
V	Verb

1. Introduction

Since 2003, SIL PNG has offered regular courses in Biblical Hebrew to Papua New Guineans, as part of a Biblical Studies training track. The aim of these courses has been to enable Papua New Guinean Bible translators to access the original Hebrew source texts for the Old Testament, rather than having them rely on English translations. When the Hebrew text is translated into English, certain linguistic features need to be neutralised or adapted to fit the linguistic structure of English, such as the necessity for distinct nominals in most clauses in English which are not necessary in Hebrew, nor in many PNG languages. These are then distorted further, as the text is translated from English into a Papua New Guinean vernacular. Their training in Biblical Hebrew enables Papua New Guinean

translators to access the original Hebrew source text, and use that to begin to identify elements that have just been brought into the English translations because of the structure of the English language; these do not need to be mirrored in their translations.

From the start, the teaching team on these courses has recognised the importance of contextualising the teaching to Melanesian learners, matching the teaching environment to Papua New Guinean cultural learning styles and the backgrounds of the participants.[1] This paper looks specifically at the linguistic factors which have an impact on effectively teaching biblical Hebrew to participants with a Papua New Guinean mother tongue.

The learner's mother tongue has an unavoidable impact on their acquisition of a new language, and on the challenges he or she encounters – 'languages that have similar features to your primary language will be much easier to learn. Languages that possess an extremely small similarity to your native language will be more difficult'.[2] This is true with regard to all aspects of the language system. In phonetics, sounds that are not present or not distinguished in the mother tongue are the hardest to learn in the new language. In the area of morphology, categories that are distinguished in the new language, but not in the mother tongue, are particularly hard to grasp. Similar statements hold true in syntax, semantics and even orthography.[3]

Most Hebrew resources that are accessible to Papua New Guineans are written in English and assume English as the mother tongue of the learner (Buth (2006) is a notable exception). As a result, the linguistic features on which these books focus, and the examples they give, are those which are particularly relevant to mother tongue speakers of English. What would such a resource look like if it was designed for speakers of a Papua New Guinean language? Which areas would it focus on as being particularly challenging for such a learner, and thus give extra practice? This paper addresses these questions, by looking at the linguistic resources a Papua New Guinean brings to learning a new language.

First, we need to consider any generalisations that can be made about the languages of Papua New Guinea, to reveal areas that would be particularly challenging (or particularly straightforward) when learning biblical Hebrew with a Melanesian mother tongue. Section 2 will look at the languages of Papua New Guinea, covering the main families of languages and also Tok Pisin (one of the official languages), looking at some of the linguistic features that are especially relevant for the linguistic aspects covered in a basic introduction to biblical Hebrew. These areas are: phonetics, pronouns, possession, noun phrases, verb morphology (including subject and object affixes, causatives and passives), polar questions and vocabulary.

Section 3 will consider in more detail some of the basic topics covered in typical introductory Hebrew grammars (written in English) and investigate how these topics might need to be reworked

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[1] Recognition must especially be given to Gerhard Tauberschmidt, Jim and Anne Henderson, Alan Brown and René van den Berg for emphasising this in the way they have designed and taught the Biblical Studies courses for SILPNG.

[2] From the *Effective Language Learning* website, http://www.effectivelanguagelearning.com/language-guide/differences-in-difficulty.

[3] The NSA report giving a comparative analysis of the difficulty in learning foreign languages highlights the five areas of phonology, morphology, syntax, lexicology, writing system and stylistics, http://www.nsa.gov/public_info/_files/cryptologic_spectrum/foreign_language.pdf.

for learners in a Melanesian context, so that they can capitalise on linguistic structures they are familiar with as they learn a new language. First, however, it will be helpful to briefly characterize the linguistic situation in Papua New Guinea.

2. Linguistic Background in PNG

Over 830 different languages are spoken as a mother tongue in Papua New Guinea. These are broadly categorised into two families, around 230 Austronesian languages (mainly on the islands and coastal areas) and around 600 non-Austronesian languages (almost exclusively on the mainland). The typological features of these two broad groupings will be considered separately, followed by the linguistic features of Tok Pisin. The Austronesian typology is based predominantly on chapter 3 of Lynch, Ross and Crowley (2002), and the non-Austronesian typology mainly on Foley (1986).

2.1. Austronesian Language Typology

2.1.1. Phonetics

Oceanic phonologies are typically not as complex as elsewhere in the world, having fairly small phoneme inventories. As there are no available comparative phoneme charts of all Austronesian languages in Melanesia, the following comments on phonetics are based on the information in the 18 grammar sketches of Western Melanesian languages (spoken in New Guinea, New Britain, New Ireland, Bougainville and western Solomon Islands) found in Lynch, Ross and Crowley (2002). Hopefully, these are suggestive of general patterns among the Oceanic languages in PNG. The comments are based on how the phoneme inventories of these languages might connect with the phoneme inventory of biblical Hebrew.

First, considering the most common sounds, all 18 languages have phonemes corresponding to /t/, /k/, /m/ and /n/. Seventeen of the languages also have a /b/ phoneme. All but two have a /r/ phoneme (usually an alveolar trill), a /p/ phoneme and a /d/ phoneme, and in almost all cases the voiced and voiceless stops are contrasting phonemes.

Seventeen of the eighteen languages have at least one voiceless sibilant in their phonetic inventory, denoted by the phoneme /s/. Sometimes this is alveolar, sometimes post-alveolar, and sometimes alveo-palatal. Some of the descriptions specifically identify a change in the articulation to post-alveolar preceding a high vowel. Voiced sibilants are much less common, only being listed in four of the descriptions, and these are mostly post-alveolar or affricated.

Fifteen of the languages have at least one bilabial or labiodental fricative, and thirteen of the languages have an /l/ phoneme.

Although eight of the eighteen languages have a voiced velar fricative /ɣ/, only two list a voiceless counterpart [x], both of which occur as allophones of a voiceless stop.

Moving to articulations at the back of the mouth, none of the languages have any uvular or pharyngeal sounds. Four list a phonemic glottal stop, /ʔ/, and eight a glottal fricative, /h/ (although two of these are only in borrowed words, and another two have it just as an allophone of another phoneme).

2.1.2. Pronouns

Pronoun systems in Austronesian languages usually have a contrast between first, second, and third person, but no gender distinctions (except on southern New Britain, Trobriand Islands and Santa Ysabel, where there are languages with distinct masculine and feminine third person forms). Further, the first person plural almost always has contrasting exclusive and inclusive forms. Often there are separate forms for duals, and sometimes trials and quadrals.

2.1.3. Possession

Austronesian languages typically have two ways of denoting possession, one with a suffix on the possessed noun (direct possession), the other with a possessive classifier (with a possessive suffix) and unsuffixed noun (indirect possession). Direct possession is usually based on semantic distinctions (generally corresponding with inalienable possession), typically applying to body parts, locative parts ('inside', 'underneath'), and kin terms, while other nouns have indirect possession.

Awad Bing shows these typical contrasts:

1.   *te-w*

        Brother-1SG

2.   *nan-ew*   *ab*

        1SG-POSS   house

Where a noun is possessed by another noun, the possessor noun typically follows the possessed noun (less commonly in Austronesian languages with SOV word order). In some cases, the possessed noun is also marked by a 'linking' morpheme in possessive constructions.

2.1.4. Noun phrases

In the noun phrase, where there are articles or number markers they usually precede the noun, whereas all other modifiers typically follow the noun.

2.1.5. Verb morphology

Verbal morphology in Austronesian languages is generally polysynthetic and agglutinative, with several morphemes occurring together in one word. At least two areas are particularly interesting for the comparison with biblical Hebrew: the marking of subject and object; and causative constructions.

First, in Oceanic Austronesian languages, subject and tense/aspect/mood (TAM) marking is preverbal, and generally in the form of prefixes on the verb (although in some languages these take the form of preposed particles). In some languages, the subject and TAM markers are separately recognisable and ordered, whereas in other languages the subject/TAM markers form complex portmanteau morphemes which are hard to divide.

Objects occur post-verbally, either as suffixes, enclitics or separate clause constituents. Many of the Austronesian languages of Western Melanesia have bound pronominal object markers. For example, in Awad Bing *ma-dang-ad* 'we.EX saw them' has the root *dang* 'see' with the first person exclusive plural subject prefix *ma-*, and a third person plural object suffix *–ad* (Bennett and Bennett 1998:227).

Second, causatives are expressed by a verbal prefix in several Oceanic languages of Western Melanesia, although more common in Polynesia and Micronesia. For example, in Banoni:

3.	*podo*	'become'	*va-pode-*	'create'
4.	*butsu*	'fall'	*va-butsi-*	'cause to fall, drop'

2.1.6. Passives

Passive constructions are extremely rare amongst the 230 Oceanic languages in Melanesia. So far, only two languages with these constructions have been found.[4]

2.1.7. Clauses

The majority of Austronesian languages in PNG have either SVO or SOV basic word order.

In most languages, equational sentences do not need a copula, and are expressed simply as two noun phrases placed next to each other.

2.1.8. Polar questions

Polar questions are either signalled by a change in intonation or by a final interrogative particle.

2.2 Non-Austronesian Language Typology

Non-Austronesian languages are far less unified than Austronesian languages. Whilst the Austronesian languages form a family with a genetic unity, the non-Austronesian languages in Papua New Guinea are only really unified by their not being Austronesian, and it is for this reason the term non-Austronesian has been used in this paper, rather than the term Papuan, which potentially suggests a higher degree of similarity between the languages. There are at least sixty different families of non-Austronesian languages found in New Guinea, and there are very significant differences between them, so it is difficult to make many conclusive typological statements. Nevertheless, this section tries to elucidate some of the trends and commonalities among these languages.

2.2.1. Phonetics

Foley (1986:55) takes the consonant phonemes of Fore to be fairly typical of the non-Austronesian languages in PNG,[5] which include /p/, /t/, /k/, /s/, /m/, /n/, /y/ and a glottal stop, /ʔ/. The glottal

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[4] René van den Berg, personal communication.

stop is common in Highlands languages, but less common elsewhere. Fore is also typical in the way that the voiceless plosive consonants become both voiced and weakened between vowels. Thus, /p/ is pronounced intervocalically as [b] or [β], /t/ as [r] or [l], and /k/ as [g] or [ɣ]. In other languages, there is a distinct liquid phoneme, but usually [l] and [r] are allophones of this one phoneme. /s/ is frequently the only grooved fricative phoneme, although some languages do also have the voiced counterpart, /z/, as in Boazi (Foley 1986:61).

Some languages have a glottal fricative /h/, instead of a glottal plosive phoneme.

2.2.2. Pronouns

The variety of pronoun systems in non-Austronesian languages is considerably greater than for Austronesian languages (see Foley 1986: 65-92). The simplest systems only differentiate two pronouns, first and second person, both undifferentiated for number, as found in Golin (Chimbu subfamily of the Trans-New Guinea family). More typically, pronouns are distinguished for number, often with different forms for singular, dual and plural (some languages have trial and paucal forms as well). Usually, there are separate forms for first, second, and third person, although often the second and third person non-singular pronouns are conflated, as in Wiru (Foley 1986:72):

	SG	DU	PL
1	no	tota	tote
2	ne	kita	kiwi
3	one		

Several non-Austronesian languages do distinguish gender in their pronoun systems, with Yessan-Mayo (for example) distinguishing masculine and feminine forms for third person singular pronouns. Some languages in the Ndu family distinguish further to have distinct second person pronouns for masculine and feminine genders, as in Iatmul (Foley 1986:79).

Often there are fewer distinctions made for subject and object marking on verbs that in the pronoun system.

2.2.3. Possession

As in Austronesian languages, inalienable possession marked by possessive affixes is common, usually applying to body parts and kinship terms. Possession of other objects is shown with a separate possessive pronoun. Karo has possessive suffixes on inalienably possessed nouns, and a separate system of possessive suffixes that attach to the pronoun preceding a possessed noun for cases of alienable possession (Toland and Toland, 1991):

5.   *amu-ne*

         nose-1SG

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[5] However, the diversity across all the families of non-Austronesian languages makes this a very gross generalisation.

6.   *kura-ngge*

   brain-2SG

7.   *no-ro*   *ya*

   1SG-POSS   house

Gadsup is a language which can use possessive prefixes for body parts, but can also add a further possessive prefix to be more specific about the possessor.

8.   *ti-kam*

   1SG.POSS-leg

9.   *sen-ti-kam*

   1SG.POSS -1SG.POSS-leg

10.   *a-kam*

   2SG/3SG.POSS-leg

11.   *en-a-kam*

   2SG.POSS-2SG/3SG.POSS- leg

Where a noun is possessed by another noun, the possessor normally precedes the possessed (in contrast to Austronesian languages), with a possessive suffix attached to the possessor, as in Konai (Bradshaw 2001:3).

12.   *Kevin-ha*   *aweki*

   Kevin's   knife

2.2.4. Noun phrases

Adjectives tend to follow the noun they modify (Bradshaw 2001:3). There are examples of non-Austronesian languages that have gender distinctions in nouns, from a simple two gender (masculine and feminine) system, to languages with a class system having over a dozen different classes.

2.2.5. Verb morphology

Verbs in non-Austronesian languages are generally polysynthetic and agglutinative (rather than fusional) having many morphemes attached one after another in a linear fashion. Thus, it is usually straightforward to identify distinct morphemes. In many languages, a single verb can form a complete sentence. Often the verb will have affixes clarifying the actor and the undergoer of the

verb, so that separate noun phrases are optional. The order of morphemes in the verb is usually V-O-S or O-V-S in Trans-New Guinea languages, V-S-O in Sepik-Ramu languages, and S-V-O or S-O-V in Torricelli languages (Bradshaw 2001:1).

Causatives are expressed in at least two different ways. Some causatives are expressed through a bound affix (as in Kewa, *ma-piraa-ru* 'CAUS-sit-1SG.PST'), others use a verb stem (often the equivalent of 'say') alongside the main verb. Some non-Austronesian languages use only one system, but more commonly both systems are used, for different verbs or in different situations (Foley 1998:153-155).

2.2.6. Passives

According to Foley (1986), 'true voice alternations, such as passive forms, are unknown' amongst the non-Austronesian languages.

2.2.7. Clauses

Where there are explicit noun phrases corresponding to the actor or undergoer in a clause, the unmarked word order is verb final, usually S-O-V, although the order of nominals is fairly free, except in the Torricelli family which is S-V-O (Foley 1986:10-11).

2.2.8. Polar questions

Polar questions typically have a question suffix at the end of the verb, as in Fuyug (Bradshaw 2001):

13.   *Nu*   *ge*   *yalov*   *ongo*   *n-adi-a?*

         2SG   TM   food   some   eat-IRR-Q

         Did / do you eat some food?

2.3. Tok Pisin

Tok Pisin is spoken as a language of wider communication by a very large proportion of Papua New Guineans, so most Melanesians learning Hebrew are able to use linguistic features of Tok Pisin as a basis for comparison with Hebrew. The Ethnologue lists 122,000 speakers as a first language, and 4,000,000 other speakers (Lewis, 2009). The information on Tok Pisin is based on personal observation alongside the grammatical descriptions in Mihalic (1971) and Verhaar (1995).

2.3.1. Phonetics

The pronunciation of Tok Pisin varies somewhat from place to place throughout Papua New Guinea, depending in part on the phonologies of the vernaculars of the area. Nevertheless, the following comments are generally true.

Tok Pisin consonant phonemes include: /p/, /t/, /k/, /b/, /d/, /g/, /m/, /n/, /l/, /r/, /f/, /v/,[6] /h/, /s/ and /y/.

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[6] Although very few words begin with the /v/ phoneme.

There is no glottal stop phoneme. The use of the glottal fricative /h/ varies in different locations. In some dialects it is optional at the start of words beginning with an open vowel (so that there is free variation between *amamas* and *hamamas* 'happy', for example), in others the glottal fricative is completely absent (Foley 1986:38).

There is no voiced grooved fricative /z/, and Tok Pisin speakers trying to produce this sound in borrowed words often use a voiced postalveolar affricate [dʒ] instead.

In some dialects the contrast between /l/ and /r/ is neutralised, presumably because of the influence of a vernacular that has these as allophones of one phoneme (Foley 1986:38).

2.3.2. Pronouns

Tok Pisin has separate pronouns for first, second and third persons, but does not mark gender at all. First person plural forms differ for inclusive and exclusive groupings. First and second person have singular, dual and plural forms, whereas third person only distinguishes singular and plural.

2.3.3. Possession

Possession in Tok Pisin is marked indirectly, through the use of the preposition *bilong*. There are no possessive pronouns, nor changes in morphology. The possessor follows the possessed noun.

2.3.4. Noun Phrases

Several modifiers occur before the head noun in Tok Pisin, including all regular monosyllabic attributive adjectives (*naispela haus)*. However, there are also many modifiers that occur after the head noun, including nominal modifiers (*haus man)* and verbal modifiers (*haus kuk*).

2.3.5. Verb Morphology

Subject and object are marked by separate nouns or pronouns in Tok Pisin rather than by affixes. The morphology is generally isolating, rather than polysynthetic, with separate morphemes for tense, aspect, and person occurring as distinct words.

The suffix *–im* changes an intransitive verb to transitive, and in some cases entails a causative relationship.

14.	*slip*	'lie down'	*slip-im*	'cause to lie, lay down'
15.	*pulap*	'be full'	*pulap-im*	'cause to be full, fill'

2.3.6. Passives

There is no passive construction in Tok Pisin.

2.3.7. Clauses

The basic clause order in Tok Pisin is SVO, as in English.

Equational sentences do not need a copula, consisting of two noun phrases juxtaposed next to each other, as in *mi tisa* 'I (am) a teacher'.

2.3.8. Polar questions

Polar questions can be formed from a statement in Tok Pisin by adding the interrogative *a* at the end of a sentence, as well as by a change in intonation. For example:

16.	*ol*	*i*	*go*	*long*	*taun*	
	3PL	PRED	go	to	town	

'They went to town'

17.	*ol*	*i*	*go*	*long*	*taun,*	*a?*
	3PL	PRED	go	to	town,	Q

'Did they go to town?'

3. Application to Teaching Hebrew in PNG

The survey of typological linguistic features of Austronesian languages and non-Austronesian languages in Papua New Guinea, and of Tok Pisin, has shown some significant areas for Papua New Guineans learning biblical Hebrew. This section looks at the topics usually covered in an introductory course in biblical Hebrew and considers how the linguistic features covered in Section 2 affect the best teaching practice for these subjects. The pattern of topics broadly follows those given in Section 2, with some differences to fit the particular challenges of teaching Hebrew.

3.1. Phonetics

The following table shows the consonant phonemes in biblical Hebrew, using the pronunciation followed by Buth (2006: 128-136).

Phoneme	Orthography	Allophones
/ʔ/	א	[ʔ]
/b/	ב	[b] [v]
/g/	ג	[g]
/d/	ד	[d]
/h/	ה	[h]

/v/	ו	[v]
/z/	ז	[z]
/ħ/	ח	[ħ]
/t/	ט	[t]
/y/	י	[j]
/k/	כ ך	[k] [x]
/l/	ל	[l]
/m/	מ ם	[m]
/n/	נ ן	[n]
/s/	ס	[s]
/ʕ/	ע	[ʕ]
/p/	פ ף	[p] [f]
/ts/	צ ץ	[t͡s]
/q/	ק	[k]
/r/	ר	[ʀ],
/s/	שׂ	[s]
/ʃ/	שׁ	[ʃ]
/t/	ת	[t]

The orthography is very different to anything in a Melanesian context. The letters themselves are totally new forms, but even more significantly, words are written from right to left and vowels are shown as markings around the consonants. This requires a thorough reconceptualization of how language is written, and has proved particularly difficult for students to grasp when they have a background as primary school teachers. Thus, any proposals for teaching the Hebrew orthography and sound system need to balance the simplicity of recognising the letter in the orthography with the ease with which the sound may be recognised or created. That is, there may be a relatively straightforward sound for a Papua New Guinean to recognise, but if its orthographic representation is very complicated, it may be worth delaying the teaching of this sound.

When teaching the Hebrew phonemic system to Papua New Guineans, there are two main problems. First, there are some sounds which are totally new, so that a lot of time needs to be spent listening to the sound, mimicking it, and drilling the correct pronunciation. Second, there are sounds in Hebrew which are found in Papua New Guinean phonologies, but they have a different place in the phonological system. It is particularly difficult to learn a new sound which is a phoneme in its own right in biblical Hebrew, but in the Papua New Guinean mother tongue it is just an allophone of another phoneme. For example, speakers of a language that has both [r] and [l] as allophones of one phoneme find it difficult to pronounce the separate /r/ and /l/ phonemes in biblical Hebrew. The discussion below looks at difficulties in teaching Hebrew phonology based on both these factors.

The sounds that have least overlap with Papua New Guinean languages are the pharyngeal fricatives, *ħet* (ח) and *ʕayin* (ע). The former is voiceless and the latter voiced. Since it is very unlikely a Papua New Guinean speaker will have any experience of trying to make sounds like this in their language, these should be left until the later stages of learning the Hebrew sounds.

The letters *sin* (שׂ) and *shin* (שׁ) distinguish between two voiceless sibilants, the first being alveolar and the second postalveolar. I have not found any Papua New Guinean languages which phonemically distinguish these two sounds, although both of the phones are present in many languages, as allophones of one phoneme. This makes it very difficult for most Papua New Guineans to learn to distinguish these sounds. Some languages use the postalveolar allophone before high vowels, and the alveolar allophone before other vowels. For this reason, it is important to practice the Hebrew letters *sin* and *shin* occurring before several different vowels, until they can be recognised and produced accurately.

The glottal sounds, being the stop, *ʔaleph* (א), and the fricative, *he* (ה), are familiar to some speakers of Papua New Guinean languages but not to others. Some languages (such as Amele) contrast words with an initial glottal stop and those without, as in [ul] 'axe handle' in contrast with [ʔul] 'his heart' (Roberts, 2010:13). However, for most people these sounds are difficult to hear. In fact, in several languages these two phones are in free variation at the start of words that begin with a vowel phonemically so considerable practice is needed to distinguish these sounds. In the Hebrew courses at Ukarumpa, even people who have a glottal stop in their languages have found it difficult to make this sound in certain environments. For example, the Hebrew name pronounced phonetically as [ʔaħʔav] has proved very difficult for many Papua New Guinean learners, who either miss out the second glottal stop altogether or replace it with a glottal fricative. This suggests that glottal stops occurring after a consonant may be unknown in some languages, even if they occur elsewhere in the language.

Very few Papua New Guinean languages have a voiced alveolar grooved fricative, [z], as found in the Hebrew letter *zayin* (ז). Voiced affricates (dʒ or dz) or voiced postalveolar fricatives (ʒ) are more common, and the voiced affricate is found in Tok Pisin, so beginning learners of Hebrew tend to pronounce *zayin* with one of these other sounds. Since the voiceless grooved fricative [s] is very common in PNG languages, the voiced counterpart can be taught by starting with the voiceless version and teaching the participants how to voice it by making the vocal cords vibrate. Since Tok Pisin contrasts voiced and voiceless labiodental fricatives ([f] and [v]) these can be used to learn to

recognise the process of voicing, and then learners can aim for making the same distinction between [s] and [z].

The Hebrew letter *resh* (ר) is pronounced by many Israelis with a uvular trill, and this is held to be the officially correct pronunciation (Buth 2006:135). However, this sound is totally alien for mother tongue speakers of PNG languages, whereas the alveolar trill (which may also be acceptable to contemporary speakers of Hebrew) is common to many Papua New Guinean languages. If each pronunciation is in fact valid, it makes sense to teach the alveolar pronunciation to Papua New Guinean learners, as this will be much easier to recognise and pronounce. If this practice is followed, then care must also be taken with teaching the Hebrew letter *lamed* (ל), an alveolar lateral [l], since many non-Austronesian languages have the alveolar lateral and alveolar trill as allophones of a single phoneme. Again, both these consonants need to be taught in various different environments to make sure that learners can distinguish them word initially, word finally, and intervocalically.

Several of the Hebrew letters have stop and fricative allophones, notably *kaf* (כ), which can be a voiceless velar stop [k] or fricative [x], *pe* (פ), which can be a voiceless bilabial stop [p] or labiodental fricative [f], and *bet* (ב), which can be a voiced bilabial stop [b] or voiced labiodental fricative [v]. The hardest sound here (for speakers of Papua New Guinean languages) is the voiceless velar fricative [x], which is very rare. On the other hand, the voiced velar fricative is fairly common, so for many people they may be able to learn this simply by learning to devoice a sound they are familiar with.

3.2. Pronouns

Biblical Hebrew distinguishes pronouns for 1st person, 2nd person masculine, 2nd person feminine, 3rd person masculine and 3rd person feminine, with separate singular and plural forms for each person. The same distinctions are also usually made for subject and object marking on verbs. Since many Papua New Guinean languages do not distinguish gender in their pronouns at all (except in some non-Austronesian languages, and in a few Austronesian languages that have been in contact with them), and very few distinguish gender in the second person forms, this area needs considerable work to reconceptualise the way in which people are referenced.

None of the introductory Hebrew grammars for mother tongue English speakers (Dobson, Harrison, Ross, Pratico and van Pelt, Weingreen) explain the fact that Hebrew has distinct second person forms for masculine and feminine, even though these are unknown in English. However, in the Introduction to Biblical Hebrew courses taught at SIL PNG over the past eight years, learners have frequently become overwhelmed and confused by the distinctions between masculine and feminine second person forms and masculine and feminine third person forms. This does not seem surprising for those learners whose mother tongue does not distinguish gender at all in the pronoun system. The challenge is working out a way to help learners re-categorise addressees and third person referents into two groups, where in their mother tongue they are just one.

Language learning principles (corroborated by experiences in the Hebrew course at SIL PNG) argue learners are more likely to succeed if they use language (hearing it, speaking it, and responding to it) rather than just reading about it in a text book. That is, our brains acquire language best when they are using language as language, not just reading about language (Thomson 1993). This is particularly

true for Melanesian learners who are used to learning new languages orally, rather than through text books. In the 2012 Introduction to Hebrew Course, the pronominal distinctions were taught by focussing first on the distinction between male and female in the second person, before moving on to the third person, since the second person is more directly involved in any communication situation, and so should be easier to conceptualise.

Participants in the course first watched a teacher take an object, take it to himself and say the Hebrew *li* 'to me', then hand it to another participant, either saying *lᵉka* 'to you(m)' or *lak* 'to you(f)'. After this the students had to repeat back to the teacher with the correct form, depending whether the teacher was male or female. Finally participants practised giving objects to each other, making sure to use the 'to you(f)' or 'to you(m)' forms as appropriate. After a few days repeating this activity, participants moved on to including the third person forms, equivalent to 'to him' and 'to her'. Participants seemed to more successfully grasp the distinction between the masculine and feminine, second person and third person forms using this gradual method than in previous years when all forms were introduced at the same time and participants were overwhelmed by the reconceptualization they needed to perform.

Another way to tackle this problem has been to work on developing a vernacular metalanguage to describe the different pronouns, to provide a bridge from the Hebrew pronoun system to the learner's own mother tongue. Participants in the courses are given Hebrew pronoun charts with the glosses left blank, and encouraged to fill in the glosses with a description in their vernacular. For example, they may fill in the gloss for the Hebrew pronoun אַתָּה (you.M.SG) with the vernacular second person singular pronoun together with a picture or word for 'man'. This aims to make a more direct connection with the learner's existing conceptual framework than through using English grammatical terminology (second person masculine singular), with which the learner may be unfamiliar.

A second challenge when learning biblical Hebrew, specifically for speakers of Austronesian languages, is the lack of distinction between first person inclusive and exclusive plurals, found throughout the Austronesian languages. The lack of distinct dual pronouns in biblical Hebrew is also different from most Papua New Guinean languages. In these cases, the participants need to learn that one Hebrew pronoun covers more than one category that is distinguished in their own vernaculars. This is the opposite problem to the previous one, where Hebrew distinguished more categories than the vernacular, and seems to cause fewer problems for the learners. The main issue arose in discussion of translation, where it was noted that a vernacular translation of a first person plural pronoun in Hebrew might need to be an inclusive or an exclusive pronoun in the vernacular, depending on the context.

3.3. Possession

In biblical Hebrew, possessed nouns frequently occur with a pronominal suffix. This is true for all substantives, including body parts, kinships terms, everyday objects and more abstract concepts such as 'holiness'. Some examples are given below.

18.   יָדִי

yad-i

hand-1SG.POSS (my hand)

19.   בְּנוֹ

b^ən-o

son-3SG.M.POSS (his son)

20.   בֵּיתֵךְ

beyt-ek

house-2SG.F.POSS (your (f) house)

Nouns with pronominal suffixes to show possession are familiar in almost all Papua New Guinean languages, at least for some classes of nouns, so this is conceivably an easier concept for a Melanesian learner to grasp than it is for an English mother tongue speaker who has never encountered such forms before. Using the teaching maxim of progressing from the known to the unknown, it is most helpful to begin with nouns that are possessed with pronominal suffixes in most Papua New Guinean languages. This suggests beginning with body parts and kinship terms (hands, heads, sons, brothers) before moving on to more general objects (such as houses and horses) which are still possessed with pronominal suffixes in biblical Hebrew, whereas in PNG languages these are typically possessed by using separate possessive classifiers.

When a noun is possessed by another noun (rather than a pronoun), biblical Hebrew uses a form called a 'construct' in the introductory grammars (Ross; Pratico and van Pelt; Harrison; Weingreen; Dobson). Here, the possessed noun precedes the possessor, and (depending on the particular possessed noun in question) there are morphological changes to the possessed noun while the possessor remains unchanged. Thus, in the following example it is the possessed noun, 'horses', which has a morphological change in the possession relationship, rather than the possessor, 'Pharaoh'. That is, in this example in the noun phrase, Hebrew is head-marking in contrast to the dependent-marking structure in English.

21.   סוּסִים

sus-im

horse-PL

22.   סוּסֵי   פַּרְעֹה[7]

sus-ey   par'oh

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[7] Hebrew sentences have been written with words placed from left to right rather than in the usual way from right to left, in order to make comparison with Papua New Guinean languages easier.

horse-PL.CSTR   Pharaoh

This pattern is very similar to many Austronesian languages (particularly SVO languages), which also have the possessed noun preceding the possessor, and some even have a similar linking morpheme on the possessed noun, as in the construct forms for Hebrew. There is less similarity with the non-Austronesian languages which tend to have the possessor noun first, and make morphological changes to the possessor rather than the possessed. Speakers of such non-Austronesian languages may need to spend more time to reconceptualise to a system where the possessed noun is marked rather than the possessor. Harrison (1955:71-72) gives an explicit description of this when comparing Hebrew to English, to help learners understand we should not think of 'horses of-Pharaoh', but 'horses-of Pharaoh'. Something similar may be helpful for speakers of non-Austronesian languages.

Tok Pisin provides a more useful comparison than English when learning about possession in biblical Hebrew, because here, as in Hebrew, the possessed noun always precedes the possessor (as in *ol hos bilong Fero* 'the horses of Pharaoh'). Tok Pisin is also helpful for describing nouns possessed by pronominal possessors, as in *han bilong yu* 'hand of you', since the pronoun referring to the possessor comes after the possessed noun, just as the pronominal suffix comes after the possessed noun in Hebrew. This is the opposite of English, where the possessor usually comes first, as in *Pharaoh's horses* or *your hand.* An implication of this is that when teaching Hebrew possession in a Melanesian context, it is normally more helpful to provide any glosses or on-the-spot translations in Tok Pisin, rather than English, if a language of wider communication needs to be used, since Tok Pisin more closely follows the order of morphemes or words in possessive constructions.

3.4. Noun phrases

Noun phrases in biblical Hebrew typically have modifiers following the head noun. Adjectives almost always follow the noun when used attributively, as in אִישׁ גָּדוֹל 'big man' (lit. 'man big'), whereas numbers sometimes follow the noun, as in פָּרִים שְׁלֹשָׁה 'three bulls' (lit. 'bulls three'), and sometimes precede it.

The prevalence of modifiers after the head noun is common to most Austronesian and non-Austronesian languages, and opposite to English, so this should give an advantage to speakers of Papua New Guinean languages as they learn biblical Hebrew.

3.5. Verb morphology

Biblical Hebrew is polysynthetic, so that verbs consist of several morphemes joined together to show subject, object, aspect and other operators. In this respect biblical Hebrew is more like many Papua New Guinean languages than it is like English or Tok Pisin. Biblical Hebrew is also fairly agglutinative, at least in some respects. Object suffixes always come at the end of a verb if they are present, and the root morpheme is usually fairly transparent, typically consisting of three consonants. The patterns of subject and aspect morphemes are less easily separated.

The most significant difference between biblical Hebrew verbal morphology and that of Papua New Guinean languages is that Papua New Guinean languages have linear morphology, with morphemes strung out one after each other, whereas biblical Hebrew has a non-linear verbal morphology in

which the main consonants (usually three of them) give the root meaning of the word, and the pattern of vowels, prefixes and suffixes (called the 'template' in some grammars) give information about the number, gender and person of subject and object, the aspect, the voice and other information.

For example:

23.   זְכַרְתַּנִי

zᵊkarta-ni (root is z-k-r)

remember:2M.SG:PRF[8]-1SG.OBJ

'you remember me'

24.   נִזְכַּרְתֶּם

nizkartem (root is z-k-r)

remember:PASS:PRF:2M.PL

'you are remembered'

25.   הַזְכִּירֵנִי

hazkire-ni (root is z-k-r)

remember:CAUS:IMP:M.SG-1SG.OBJ

'cause me to remember (remind me)'

Grasping the concept of the non-linear morphology in Semitic languages is usually challenging for any speaker of a language which has predominantly linear morphology, whether that is English or a Papua New Guinean language. However, speakers of Papua New Guinean languages have the advantage of being familiar with polysynthetic verbs which include several morphemes in one word. To maximise this advantage, the 2012 Introduction to Biblical Hebrew course began teaching Hebrew verbal morphology by asking participants to write out on the whiteboard translations of several forms based on the same root. The English paradigms 'I am walking, he is walking, we are walking, I walked, he walked, we walked, I will walk, he will walk, we will walk' were given to translate. With examples from all the PNG languages in the room written on the board it was possible for the learners to recognise the stems relating to walking in their own (and each other's) languages. They could also begin to recognise common parts of the words that identified the subject and the aspect or tense.

When biblical Hebrew was then added to the board, participants could identify that Hebrew also had a similar pattern, with parts of each word that corresponded to the stem and the idea of 'walking',

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[8] The colon (:) is used here to show that these meaning components correspond to separate morphemes, but since they are not linear, they cannot easily be segmented in the Hebrew text.

and parts which gave information about who was doing it and when it was taking place. They were also able to grasp the difference that for Hebrew the root was not a consecutive sequence of sounds as in PNG languages, but just the three root consonants.

Object suffixes on a verb are also very common throughout Papua New Guinean languages (both Austronesian and non-Austronesian) so they should be easier for Papua New Guineans to grasp than for mother tongue English speakers.

3.6. Hebrew stems

Introductory Hebrew grammars normally introduce seven different verb stems, all derived from the same three root consonants, to which the templates for person and aspect are then applied. These are the *qal, niphal, piel, pual, hiphil, hophal* and *hithpael* stems. The *qal* stem is the simplest stem, without any extra morphology. The *niphal* stem gives the passive of the *qal* stem.

For example:

26.   מָצָא   (qal stem)

               matsa'

               find:PRF:3M.SG

               'he found'

27.   נִמְצָא   (niphal stem)

               nimtsa'

               find:PASS:PRF:3M.SG

               'he was found'

The *hiphil* stem usually has a causative meaning with respect to the meaning of the *qal* stem, and the *hophal* is its passive counterpart. For example:

28.   וַיִּשְׁכַּב   (qal stem)

               va-yishkav

               CNJ-lay.down:3M.SG

               'and he lay down'

29.   וַיַּשְׁכִּיבֵהוּ   (hiphil stem)

               va-yashkive-hu

CNJ-lay.down:CAUS:3M.SG-3M.SG.OBJ

'and he made him lie down'

30.   וַיֻּשְׁכַּב   (hophal stem)

va-yoshkav

CNJ-lay.down:CAUS:PASS:3M.SG

'and he was made to lie down'

The *piel* stem has a broader set of meanings with respect to the *qal* stem, sometimes signalling a more intensive meaning or a factitive meaning, or an iterative meaning. Once again, the *pual* stem is the passive counterpart of the *piel* stem.

Finally, the *hithpael* stem usually has a reflexive meaning with respect to the meaning of the *qal* stem. For example:

31.   וַיָּמָד   (qal stem)

va-yamad

CNJ-measure:3M.SG

'and he measured'

32.   וַיִּתְמֹדֵד   (hithpael stem)

va-yitmoded

CNJ-measure:REFL:3M.SG

'and he measured himself'

Thus, three of the main seven Hebrew stems are passives, which are almost universally unknown in Papua New Guinean languages, except for a very few Austronesian languages. There are also separate passive participles for the non-passive stems. Teaching these stems and other passive forms to mother tongue speakers of Papua New Guinean languages is much more difficult than teaching them to mother tongue speakers of English, who are familiar with passive constructions. Often, a completely new concept has to be formed, the concept of a passive, before learning the particular ways that the passive is realised in Hebrew. Explaining the passive concept in English, with which many Papua New Guineans will be at least partially familiar, is the best route found so far.

Whilst the three passive stems (*niphal, pual* and *hophal*) are very hard to conceptualise for Papua New Guinean learners, the *hiphil* stem is potentially much easier, and may be more straightforward

for Papua New Guinean learners than for English mother tongue speakers. Just as the hiphil stem is morphologically derived from the qal stem in Hebrew, several Austronesian and non-Austronesian languages also have a morphologically derived causative, as in Moni (non-Austronesian) and Banoni (Austronesian), described above. Even the transitivising suffix –im in Tok Pisin has some similarity to the derivational process in Hebrew. These linguistic features give learners who speak these languages some conceptual resources to begin to understand the form and meaning of the hiphil stem in Hebrew.

3.7. Clauses

The most common order of constituents in Hebrew narrative clauses is Verb-Subject-Object. This word order is not typically found in any PNG languages, whether Austronesian or non-Austronesian, so connecting with this word order is as difficult for Papua New Guinean learners as it is for learners with an English mother tongue.

On the other hand, Hebrew does have verbless clauses, in which equational sentences are presented with juxtaposed noun phrases and no copula verb, as in many Papua New Guinean languages. For example, אַתָּה הָאִישׁ ('attah ha'ish) 'you (are) the man' has no copula in Hebrew, although one is needed in English. This kind of sentence should need less explaining for learners with a Papua New Guinean mother tongue than for those coming from an English only background.

3.8. Polar Questions

Many Austronesian languages can change a declarative sentence into an interrogative sentence by adding a final question particle, and non-Austronesian languages can often do this by affixing an interrogative particle to a final verb. In Tok Pisin, the addition of *a* at the end of a sentence has the same function.

In biblical Hebrew, the addition of *ha-* as an interrogative particle at the start of a sentence changes the illocutionary force from declarative to interrogative. For example, the sentence שֹׁמֵר אָחִי אָנֹכִי (*shomer 'achi 'anoki)* 'I (am) my brother's keeper' becomes הֲשֹׁמֵר אָחִי אָנֹכִי (*ha-shomer 'achi 'anoki)* 'Am I my brother's keeper?' The parallelism with Tok Pisin (*a* at the end of a sentence versus *ha-* at the beginning of the sentence) is particularly helpful for explaining the formation of polar questions in Hebrew to Papua New Guinean learners.

3.8. Vocabulary

A significant part of learning any new language is to learn the vocabulary of the language, including the basic nouns and verbs, as well as the grammatical and phonological structure. Biblical Hebrew is no different, and basic introductions to Hebrew usually include vocabulary building as one of their aims. Usually, this is structured by introducing a list of a few new vocabulary items in each lesson together with an English gloss (Dobson 2005; Pratico and van Pelt 2007; Ross 2001; Weingreen 1959). Buth (2006) is a notable exception, choosing instead to build vocabulary by listening to Hebrew audio files and looking at pictures that correspond with the spoken words. What effect does the linguistic situation in Papua New Guinea have on the teaching of biblical Hebrew vocabulary?

The premise of the Hebrew courses offered at SIL PNG has been that if the aim is to truly connect from biblical Hebrew to Papua New Guinean vernaculars, it is better to have glosses in the vernacular rather than in English. This has been the method used in the Introduction to Biblical Hebrew course offered at SIL PNG since 2010. When new vocabulary items are introduced, participants enter them into their own Hebrew-vernacular dictionaries (King 2010), which can then be used to learn from.

This has mixed benefits and challenges. First, as a benefit, there are times when the Hebrew words can be glossed much more easily in a Papua New Guinean vernacular than they can in English. For example, the Hebrew root יָשַׁב (*yashav*) has to be glossed in English as 'sit, stay' (as in Dobson 2005: 69) whereas in Kamano-Kafe there is one verb root *mani* that has the same range of meaning as the Hebrew, covering both 'sitting' and 'staying'. This situation is mirrored in several other languages, and for other words. On the other hand, there are words in Hebrew which are easily glossed in English, but are unlikely to have simple glosses in Papua New Guinean vernaculars. These include many culturally specific terms like the Hebrew words for *vineyard, shepherd, king* and *wilderness*. However, even though these terms are not already present in the vernacular, the process of trying to find a phrase or loanword that can be used to explain the meaning can really help to apprehend the Hebrew meaning more closely, as opposed to just being given an English gloss.

Second, there are challenges that arise from the existence of inalienable possession in many Papua New Guinean languages (both in Austronesian and non-Austronesian languages). In biblical Hebrew, body parts and kinship terms can be used in a non-possessed form, or with a possessive suffix. The non-possessed form is the usual citation form for vocabulary learning purposes. Thus, the Hebrew word יָד (*yad*) is glossed in English as *hand*, and the word יָדִי (*yadi*) as *my hand*, but it is the former that appears in dictionaries or vocabulary lists. In Papua New Guinean languages where body parts and kinship terms are inalienably possessed, it is difficult to write a gloss for the citation form, as every use of the word has a possessive affix attached. For example, in Awad Bing it is possible to say *dimahaw* 'my hand', *dimam* 'your hand' or *dimey* 'his /her hand', but there is no form for a hand on its own. The possibilities suggested in the Hebrew course at SIL PNG are either to use the stem of the vernacular word as the gloss, with a hyphen to show it is a bound morpheme (*dima-* in Awad Bing), or to use the third person singular form (*dimey* in Awad Bing), perhaps with a note (in the vernacular) to explain that this is in fact a non-possessed noun. Another option (that has not yet been tried) would be to use a third person possessed form in the Hebrew-vernacular dictionary, rather than the usual citation form.

Third, there are other problems that arise when glossing Hebrew kinship terms, which are symptomatic of wider issues when creating vernacular glosses. For example, in Hebrew, the word אָח has a very similar domain of meaning to the English word brother, referring to a male sibling of any age. In the vast majority of Papua New Guinean languages, however, there are distinct words used for older siblings and younger siblings, as in Awad Bing where there is a contrast between *tey* 'younger brother.3SG' and *tawey* 'older brother.3SG'.

Further, in many Papua New Guinean languages there are distinct words for same sex sibling and opposite sex sibling, rather than for male sibling and female sibling. For example, in Imbongu (Southern Highlands), *ango* refers to either 'his older brother' or 'her older sister'. Thus, when trying

to gloss the Hebrew word אָח (as for the English word *brother*), the vernacular will need to have further explanation. In Awad Bing it would be satisfactory to gloss as *te-/tawa-*, but in Imbongu there would need to be some further explanation in the vernacular that this term can only ever refer to a male.

Similar, but somewhat less complicated, issues arise when glossing Hebrew words which have many more distinctions of meaning in Papua New Guinean vernaculars. For example, there is one fairly general word in Hebrew for lifting or carrying, נשׂא (nasa'), but in many Papua New Guinean languages there are a wide variety of possible words for carrying. Using a Hebrew lexicon which lists every occurrence of a particular word in the Hebrew Bible has helped to work out which words in the vernacular fit with the more general Hebrew root in question, and these can all be put in the gloss, separated by slashes or commas.

Conclusion

There are several linguistic features common throughout Papua New Guinean languages that have similarities to Hebrew, but are not shared with English. Teachers of biblical Hebrew in a Melanesian context would benefit from using these linguistic resources among their learners to help them grasp the linguistic structure of Hebrew more quickly than just by comparing with English. These features include:

- polysynthetic verbs incorporating subject and object morphemes,

- nouns with possessive suffixes,

- derivational verbal morphology for causatives,

- verbless clauses for equational constructions, and

- interrogative particles to create polar questions.

On the other hand, there are several linguistic features of biblical Hebrew that speakers of Papua New Guinean languages would likely find particularly difficult to grasp based on the linguistic features of their languages, including:

- phonemic distinctions between /s/ and /ʃ/ and /z/, and between /l/ and /r/

- uvular and pharyngeal consonants

- a pronominal system that distinguishes gender in both second and third person

- passives

Where these features are found in English, the learner's familiarity with English can be exploited to help understand the structure in Hebrew. The best practice in teaching will be to try to effectively use all the linguistic resources that the learner brings to the teaching environment, including their knowledge of Melanesian vernaculars and languages of wider communication.

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