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THE APPARENT INTERCHANGE BETWEEN *a* AND *i* IN HEBREW¹

FRANK R. BLAKE

I. INTRODUCTORY REMARKS

AN ORIGINAL short *a* in an unaccented closed syllable sometimes appears in Hebrew as *a* and sometimes as *i*. On the other hand, an accented *i* vowel in a closed syllable sometimes appears as *a*, sometimes as *ē* (for original *i*). The first of these changes (*a* to *i*) is known as "attenuation of the *a* vowel" and the second (*i* to *a*) as "Philippi's law."² In the case of the so-called "attenuation" no attempt has hitherto been made to determine why the change takes place in some cases and not in others and to establish its limits. In the case of Philippi's law, there is considerable confusion among those who have treated it as to the circumstances which produce the change and as to its extent. Moreover, there are a number of forms to be considered which are ordinarily not grouped under this head, and a number of exceptions which need discussion. A thorough treatment of these two linguistic phenomena in all their ramifications would seem to be in order.

In the first place it is important to distinguish those forms in which the unac-

cented *i* represents an original *i* from those in which it is derived from an original *a*, as there is frequent disagreement among authorities on this point.

Cases in which the *i* vowel seems to be original are the following:

a) Stative perfect Qal forms, first and second person, e.g., *š'iltikā* (Ps. 2:7), *š'ilti* (I Sam. 1:20); here perhaps belongs *ū-pištem* (Mal. 3:20).³ Similarly in some forms of these persons in derived conjugations, Hiphil *hiš-iltihū* (I Sam. 1:28), Hithpael *hitqaddištēm* (Lev. 11:44), *q'hitqaddilti* (Ezek. 38:23), where the *i* is extended by analogy from the imperfect, replacing more original *a*.

b) Hiphil forms of verbs med. gem., e.g., types *h'sibbōtā*, *t'sibbēnāh*.

c) Imperative Qal, 2 m. emphat., 2 f. sg. and 3 m. pl. types *qill-āh*, *qill-ī*, *qill-ū* which are based on an imperative type *qitil*.⁴

d) Prepositions *bi-*, *ki-*, *li-*, *yi-* before an initial syllable with Shewa; the *i* is original with *bi-* (cf. Arabic *bī*), and this vocalization has been extended by analogy to the others, replacing original *a*.⁵

e) Masculine nouns of the type *qill* with possessive suffixes, e.g., *sipr-ī*, etc.

f) Feminine nouns of the type *qillat*, e.g., *sitrāh*.

¹ In the transliteration here used the short vowels are unmarked; *ā* represents Qameṣ, *ē* Šere, *e* Seghol, *ō* Holem, *o* Qameṣ Hatuph; originally long vowels or those contracted from a diphthong are marked with circumflex accent; the Shewas are rendered by *e*, *a*, *ō*, *ē*; pathah furtive, by *a*; final mater lect. *h* is indicated; in type forms *qil* is used for convenience instead of *qil*; * is used occasionally to call attention especially to the nonexistence of a form; the spiration of the Begadkefath, which has no bearing on the phonetic laws here discussed, is omitted.

² This phonetic law is known as Philippi's law because, although in a measure recognized before him (cf. Ewald, *Lehrb. d. heb. Spr.*, 6 Aufl. [Leipzig, 1855], §§ 17b, 75a, 137c; 8 Aufl. [1870], § 33b), Philippi first clearly stated it in "Das Zahlwort Zwei im Semit.," *ZDMG*, XXXII (1878), 42 and frequently in later publications argued for its existence (cf. n. 9 below).

³ Cf. Gesenius-Kautzsch, *Heb. Gramm.*, ed. 26-28 Eng. or Germ., 44d and below, III, 1a.

⁴ The old explanation was that *qill* in these forms was derived from the contraction of two syllables with Shewa at the beginning of word, viz. *qetl-* (Gesenius-Kautzsch, *op. cit.* § 28a), but there is no such phonetic law in Hebrew; all other cases of its apparent occurrence are susceptible of other explanations, e.g., *dibrē*, *liqtōl*, etc.

⁵ The forms with *a* vowel, *ka*, *la*, *ya* are the regular forms of these particles in the related languages. In Syriac the *a* of *la-* and *ya-* has changed *bi-* under these circumstances to *ba*; in Arabic *li* appears before nouns, *la* before pronominal suffixes; *yi* in Tiberian Hebrew appears only before *i*°, in Babylonian before any initial syllable with Shewa (cf. Bauer and Leander, *Hist. Gram. d. Heb. Spr.* [Halle a.S., 1918], § 17a).

g) Other noun types, viz., *qittēl*, *qittāl*, *qittālōn*, *miqtāl*, *miqtēl*, *m^eqittāh*, *t^eqittāh* (in some cases *mi*-represents original *ma*; cf. below, II, 1, d).

h) Forms *bin* in *bin-nūn*, *bināmīn*, *bin-kā*; *šim-kā*; *īš-kem*; *ʔōīb-kā*; *g^ebirt-ī*; *mēšillāyim*; *kimrīrīm*; the forms of *bin*, *šim*, and *īš* apparently represent archaic forms.

i) Numerals *hāmīššāh*, *hāmīššīm*; *šūššāh*, *šūššīm*; *tīš-āh*, *tīš-at*, *tīš-īm*; *ribbō*, *ribbōt*.

j) Prepositions *min*, *im*, *ʔēt* + suffixes, e.g., *ʔitt-ī*, conjunction *im*, quasi-verb *hinnēh*, adverb *hinnām* (cf. *hēn*); *min*, *im*, and *im* are proclitic and so without accent.

The *i*'s in (a), (d), under (e) cases like *biṭn-i* from *beṭen*, and some under (h) are by some regarded as cases of "attenuation."

The *ē* which so frequently represents an original *i* in a syllable which is now final closed, is changed under the accent to *e* before the loss of the final vowel. This *e* appears as *Šere*, which may apparently represent either a short or a long vowel.⁶

II. SO-CALLED "ATTENUATION"

§ 1. The change from unaccented *a* to *i* takes place in a number of cases when a closed syllable containing the unaccented *a* is followed by another closed syllable also containing an *a* with either primary or secondary accent; in other words, it seems to be a process of dissimilation that takes place in types which may be represented by *qatqāt* or *qatqāt*, changing them to *qitqāt* or *qitqāt*. The chief instances of this change are the following:

a) The *i* of the initial syllable of perfect Niphal, Piel, and Hiphil, apparently originates in this way, the original types *naqtal* (cf. Heb. forms med. gem. and med. inf. like *nāsab*, *nāqōm*), *qattal*, and *haqtal* (cf. Arabic perfects *qattala*, *ʔaqtala*) becoming *niqtal*, *qittal* (cf. Heb. *limmad*) *hiqtal* (cf. Heb. forms med. gem.

like *hēsab*). The vowel of the second syllable is later conformed to the vowel of the imperfect in Piel and Hiphil, yielding forms *qittēl* and *hiqtēl*. The *i* of the initial syllable of verb forms Piel, Tiphel, e.g., *kīlkel*, *tīrgaltē*, is probably based on the *i* of the Piel.

b) The construct singular of feminine nouns of the types *qatalat*, *qatilat*, should appear after syncope of the second vowel as *qallāt*, but as a result of this dissimilation they regularly have the type *qillāt*, e.g. *šidqāt* < *šadaqat*, *nīblāt* < *nabilat*.

c) The construct plural of masculine nouns of the types *qatal* and *qatil* (for a possible example of *qatul*, cf. below, II, 4, d) normally appear as *qillē* < *qatlaṯ* < *qatalaṯ*, *qatilaṯ*, e.g., *dībrē* (*dabar*), *ziqnē* (*zaqin*).

d) Nouns of the type *maqal* in the construct would normally yield a type *miqtal*, and this may be the origin of many forms with preformative *mi*, e.g., *migdāl*, Babylon. *magdāl*, Syr. *magd^elā*; *mizbēqah*, Syr. *madb^ehā*, but the existence of the preformative *mi*, *me* in the other languages makes the derivation of all preformatives *mi* from *ma* in Hebrew doubtful; some probably represent parent Semitic *mi*.⁷

e) The *i* of the preformatives of the imperfect *īi-*, *tī-*, etc., may be due to this same dissimilation originating in imperfects with characteristic *a*, e.g., *īkbad* < *īakbad*, *īšlah* < *īašlah*, and then being extended by analogy to other imperfect forms. It is not impossible, however, that the *i* is due to the influence of the palatal *i* (cf. retention of *i* in short imperfect forms like *īigel*).⁸

f) Isolated forms are *ʔīššāh* < **ʔīššat* < **aššat* (Akk. *aššatu*) *gilgal* (Isa. 28:28) < *galgal*, which also occurs *dībrat*, perhaps for *dabrat*, though the *i* may be original *mīrkēbet* (Gen. 41:43) < *markabt* (cf. pl. *markābōt*, Syr. *markabtā*, Akk. *narkabtu*).

§ 2. The *i* thus originating by dissimilation in types *qatqāt* or *qatqāt* is often extended by analogy to related forms:

⁷ Cf. *Grundr.* I, 156 and §§ 195–201.

⁶ The *ē*, *Šere*, may be long in pause and short in context, long in noun forms which are normally pausal forms, short in verb forms which are usually context forms, e.g., *kābēd*, "be heavy"; *kābēd*, "heavy, liver"; cf. Brockelmann, *Grundr.* I, 106.

⁸ The existence of the imperfect preformatives with *e* < *i* in Syr. *ne-*, etc., Eth. *īe-*, etc., suggests the possibility of some other explanation for a common Semitic preformative *īi-*, etc.; cf. *Grundr.* I, § 42f.

a) The *i* of forms like *šidqat* is extended to plural forms construct and suffixal, e.g., *šidqôt*, *šidqôtai*.

b) *šiptôt* is probably analogical to *šipte* < *šaptai*.

c) The *i* of forms like *gibbôr*, which are apparently a variety of the form *qattâl* denoting occupation, and which appears in Hebrew as *qattâl* c. *qattal*, may be based on the *i* of phonetically correct **qittal*, which though once probably existing has been completely eliminated by the form *qattal*, which has retained the *a* of the first syllable on account of the absolute form *qattâl*.

d) In some words the *i* which originates in the construct is leveled through into the absolute, e.g., *kibšāh* (by-form of *kabšāh*) on analogy of *kibšat*; *šib-āh* (Arab. *sab-un*) on analogy of *šib-at*; the *i* of this last word has also extended to *šib-īm* and *šib-ātājim*.

e) The *i* of the negative *bilti* is probably analogical to the *i* of the negative preposition *bil-ādē*, a combination of negative *bal* and preposition *ad*, whose *i* is probably developed from a form **bal-ad* (cf. Syr. *bel-ād*) which does not happen to occur in Hebrew.

f) The *i* of construct *gilgal* (Isa. 28:28), appears also in the n. loc. *gilgāl*.

g) *ṭipsār* (Jer. 51:27) seems to have been borrowed from Akk. *tupšarru* in the form *ṭapsar* (cf. *ṭaps-erājik* [Nah. 3:17]); the construct **tapsar* would furnish a basis for *i*, which was extended to the absolute form.

h) The forms *middô*, *middîn*, *middā(i)u*, *middôtā(i)u*, "garment," and *middāh*, *middāt*, "extent, measure," contrasted with *maddô* (Ps. 109:18), Aramaic *maddā*, seem to indicate that *a* is the original vowel of these forms, the *i* originating by dissimilation for *a* in such forms as *maddat* > *middat* or *maddai* > *middai*, and then being extended by analogy.

i) In *sap*, *sippim*, the *a* is probably the original vowel, the *i* of *sippim* being based on construct *sippē* < *sippai* < *sappai* (cf. below, III, 3).

j) The *i* of the following is also perhaps based on an original dissimilation in a type *qatqat*:

ṛiggéret < *ṛiggart*; but the *i* may be original, this word and Bib. Aram. *ṛigg-erā* being perhaps loan-words from Akk. *egirtu*.

ṛiyyelet < *ṛiyyalt* < **aṛyalt*(?)

n. loc. *gib-ātāh*, cf. *geba* (< *gab*); c. **gib-at* < **gab-at* would furnish basis for *i*

pirhāh, c. **pirhah* would furnish required basis *tip-éret* < *tip-art* and *tiquāh* c. **tiqat*; the prefix *ti*, however, may contain an original *i*.

§ 3. There are a number of cases in which words of the type *qatqat* do not become *qitqat*, viz.:

a) The construct plural of masculine nouns of the type *qatl*, which make their plurals from the type *qatal*, and should, therefore, presumably have forms like *dibrē*, appear usually as *qatlē*, e.g., *malkē*; here the *a* is analogical, owing to the *a* of singular forms with suffixes, *malki*, etc. Similarly the construct *kanpē* from *kānāp*, apparently owes its *a* to feminine plural construct *kanpôt*.

b) The construct singular *qattal* from *qattâl* (cf. above, 2, c) follows the vocalization of the absolute form.

c) The unaccented *a* of *hitqattal* (cf. pausal type *hitqattāl*) remains *a* through the influence of the imperfect type *ṭitqattēl* which has not only affected the characteristic vowel as in Piel and Hiphil but also the vowel of the penult, resulting in *hitqattēl*.

d) The change is usually prevented by adjacent laryngeals or *r*, e.g., *sēharhar*, *hitmarmar*, *hiḥḥalḥal*, *hadrat* (*hēdārāh*), *admat* (*ādāmāh*), *ra-ānān*, and *ša-ānān* present the basis for the dissimilation in forms like *ša-ānan-kā* or in the construct forms which do not happen to occur. Sometimes, however, when the laryngeal is initial and also in other positions the dissimilation takes place, the *i* appearing in this case with partial assimilation to the laryngeal as *e*, e.g., *herdat*, *behēmat*, *ieḥēzaq*; perhaps in *eglāt-ô* (*āglāh*).

e) The construct *maš-at*, which should become **miš-at* has retained the *a* of the absolute *maš-et* < *maš-it* (for the accented *a* for *i* cf. below III, 4); similarly *massa*.

§ 4. There are a number of forms in which *i* represents an unaccented *a*, where the *i* is due to causes independent of this common dissimilation, viz.:

a) *gišt-i* suffixal form of *gēšet* < *gašt*; the *i* is perhaps analogical to the *i* in similar infinitives with suffix from verbs prim. waw, where the *i* is organic, e.g., *šebet* < *šabt* (Philippi's law) < *šibt*.

b) *dim-kem* (cf. Syr. *dem*); apparently we have here the same metaplasm of an *a* and *i* stem (cf. *dām*) as we have in *bēn* < *bīn*, pl. *bān-īm*, *šēt*, *šātōt*.

c) *kin-ānēhā* (Isa. 23:8); probably based on a form of *kēnā'an* with *i* in the first syllable, cf. Akk. *kinahī*, Amarna *kinah(h)i*, *kinahni*, *kinahna*.

d) *imqē* (Isa. 33:19, Ezek. 3:5, 6) is an adjective "deep" in apposition with *am* or *ammīm*; in Prov. 9:18 it is a noun, "depths"; the first *imqē* is perhaps a form of *āmōq*, "deep" < *amuq*, and represents the dissimilation of *amqai* < *amuqai*; there is no good reason for deriving it from an adjective **cāmēq* (so Ges.-Buhl); the second *imqē* is perhaps a form of *cōmeq*, "depth," which in its suffixal form *cōmqō* developed by dissimilation a form *imqō* (cf. *rīšōn* for *rōšōn*, *tīkōn* for *tōkōn*, etc.), the *i* of which was extended to other forms by analogy.

e) In parent-Semitic the numeral "ten" seems to have possessed both forms with an *a* vowel in the first syllable, cf. Heb. *cēser* (< *cāsr*) — *cāšār*, Arab. *cāsrūn*, etc., Eth. *cāšartā*, as well as forms with an *i* vowel, Heb. *cēsrēh*, *cēsrīm* (*e* < *i* after initial guttural), Syr. *cēsrē*, *cēsrīn*, Arab. *cīsrāna*, Eth. *cēsrā*; what the relationship between the two series was in parent-Semitic is not clear.

f) *piṭōm* contrasted with *peta* (< *pat*); if the two forms are connected, no reason for the *i* appears.

g) *šilšōm* apparently a contraction of **šalōš-iōm* which should yield rather **šalšōm*; no good reason for the *i* is apparent, but cf. nn. pr. *šēlēš*, *šilšāh* and noun *šillēšim*.

h) for prefixes *ki-*, *li-*, *yi-* for original *ka-*, *la-*, *ya-* cf. I, d).

§ 5. In a number of cases forms with both *i* and *a* occur; where *i* according to this law of dissimilation is the proper vowel, *a* is due to analogy with forms where *a* is the proper vowel, e.g.,

zal-āpāh and *zil-āpōt*
īaldē (Hos. 1:2) and *īildē* (Isa. 57:4)
kabšāh and *kibšāh*
šēba (< *šab*) and *šibcāh*

These pairs possibly led to a feeling that unaccented *i* and *a* were generally interchangeable so that some forms which had original *i* in the first syllable occasionally appear also with *a*, e.g., *bikkūrāh* (obviously a type *qittāl*) has *bakkūrōt* (Jer. 24:2); *cēbrāh* (< *ībrāh*) has *cābrōt* (Ps. 7:7; Job 40:11, a variant reading of *cēbrōt*).

III. "PHILIPPI'S LAW"⁹

§ 1. The chief cases in which accented *i* in closed accented syllables becomes *a* are the following.

a) The *i* of the Qal pf. 1 and 2 sg. and pl. of stative verbs of type *qatil*, e.g., *kabādtā*, *kabādti* < *kabīdtā*, *kabīdti*; in 2 pl., where this *i* is unaccented, it should appear as *i* but *a* is extended through analogically from the other forms, e.g., *kabadtem*.

b) In the pf. 1 and 2 of Piel, Hiphil, and Hithpael, the accented *a* which appears in these forms is apparently not original *a* but represents original *i*. This seems to be shown by the existence of forms in which this vowel when for any reason it loses the accent appears as *i*, e.g., *yē-hitgaddilī*, *yē-hitgaddilīti* (Ezek. 38:23), *hīš-iltihā* (I Sam. 1:28). The vowel *i* of the imperfect has apparently first affected all persons of the perfect in these conjugations,

⁹ For a clear statement of the law, cf. *Grundr. I.*, 147–48. Cf. also Bauer u. Leander, *op. cit.* § 14, *z-c'*; Philippi, "Das Zahlwort Zwei im Semit.," *ZDMG*, XXXII, 42; "Die Semit. Verbal- und Nominalbildung," *BA*, II, 378–79; "Nochmals d. Aussprache d. semit. Konsonanten *y* und *i*," *ZDMG*, LI, 80; Barth, "Ueber biliterale Nomina," *ZDMG*, XLI, 606; "Das *i* Imperfect im Nordsemitischen," *ZDMG*, XLIII, 185. A recent criticism of the law is found in C. Sarauw, "Über Akzent u. Silbenbildung in d. älteren semitischen Sprachen," *Det. Kgl. Danske Videnskabernes Selskab. Hist.-filo. Meddelelser*, XXVI, 8 (København, 1939), 75–104. His attempt, however, to graft on to the usually accepted law his theory of an "unwandelbares Patah" (= Patah occurring both in context and in pause) which "steht vielfach für ursprüngliches *i*," as evidenced by Greek transliterations with *ε*, is inconsistent and unconvincing.

which *i* later became *a* when standing in an accented closed syllable.¹⁰

c) Masculine nouns of the type *qill* should appear as *qatl* > *qétel*, and many of them do, the fact that they were originally *qill* forms being indicated by the forms with suffixes, where the *i* appears in unaccented position, e.g., *béten*, *biṭn-i*. Those nouns of type *qill* in which *i* does not become *a*, but is lengthened to *ē* like *sēper* are to be considered pausal forms which are used in context (cf. pausal *hēši* < *hiši*).

d) Feminine forms ending in a type *-qill* regularly suffer the same change, the ending becoming *-qatl* > *qétel*, e.g., *šébet* < *šabt* < *šibt* (cf. *šibtī*), type *qôṭēlet* < *qôṭilt* (cf. masc. *qôṭēl* < *qâṭil*). There are here also a few forms which develop like *sēper*, viz. *ṭkēlet* (Akk. *takiltu*) *šhēlet* (Exod. 30:34), *hāmēšet*, *šēšet*; the first two may be explained like *šēper*; *hāmēšet* and *šēšet*, however, being construct forms, cannot have developed in pause; *hāmēšet* probably represents a modification of *hāmēšet* on the analogy of *hāmēš*, while *šēšet* is modeled after *hāmēšet*.

e) The construct state of the type *qatil* is regularly *q'atāl* < *q'atīl*, e.g., *kābēd* c. *k'bad*; the construct probably lost its final vowel before the absolute state thus closing the final syllable; words in final *n* and *l*, e.g., *zāqēn*, *z'qan*; *hādēl*, *hādal* whose constructs should perhaps end in *-en*, *-el* (cf. below, III, 2, *b* and *n*. 14) may have been conformed by analogy to the usual type; or are the *-en*, *-el* forms to be explained differently?

f) One of the effects of the strong accent of pausal forms is the loss of the final vowel. Words with *i* in the original penult thus come to stand in a closed syllable and are consequently changed to *a*, e.g., *ya-iḥlālāk* (Gen. 24:61), *ya-iḥgāmāl* (Gen. 21:8); *i* imperfects Qal without final vowel would offer a basis for the same sound change.¹¹

¹⁰ The endings of 1 and 2 pf. of verbs tert. ² in Piel, Hiphil, and Hithpael, *-ēlā*, etc., may represent contractions of *i' > e' > ē*, while the same endings in Niphal, Pual, and Hophal are due to leveling analogy; or the *ē* of all the derived conjugations may be analogical to the *ē* < *aī* of verbs tert. *i*.

¹¹ Cf. Ges.-Kautz., *op. cit.*, § 29q. Barth, "Das *i*-Imperfect im Nordsemit.," *ZDMG*, XLIII (1889), 177-91, cites a series of imperfect forms, some in pause,

g) Words in which accented *i* is followed by *n* + final consonant sometimes change the *i* to *a* before the double consonant resulting from the assimilation, e.g., *bat* < *batt* < *bant* < *bint* (cf. *bitt-i* < *bint-i*) *šišaq* (cf. Akk. *susingu*); usually, however, the *i* is retained as is regularly the case before doubled consonant, e.g., *ēb* < *ēnb*, *hēk* < *hink*, *ēz* < *ēnz*, *tēt* < *tint*, *ya-iḥlāl* < *iḥlān* (*nāḥā*), *ya-iḥlāl* < *iḥlāz* (*nāḥā*).¹²

h) In the imperfect Niphal 2 and 3 pl. the usual type is *tiqqatālnā* with *a* for *i* (cf. 3 sg. m. impf. type *iḥqātēl* < *iḥqatīl*); characteristic *ē* occurs only in *tē-agēnāh* (Ru. 1:13) < *ti-aginna*; in Piel, Hithpael, and Hithpoel similar forms with *a* occur, e.g., *t'akkasnāh* (Isa. 3:16), *t'rattasnāh* (Isa. 13:18); *tihallaknāh* (Zech. 6:7), *ti'allapnāh* (Amos 8:13); *hiššōṭānāh* (Jer. 49:3), *tiṭmōgagnāh* (Amos 9:13); the characteristic vowel of these forms also occurs as *ē*, regularly in Hiphil type *taqtēlnāh*, usually in Piel type *t'qattēlnāh*, once in Hithpael, *tištappēknāh* (Lam. 4:1); the *ē* of these forms is due to the analogy of the *ē* of 3 sg. m. types *iḥqātēl*, *i'qattēl*, *iṭqattēl*, in Hiphil of the short type *iḥqātēl*.

i) The 2 and 3 pl. f. impf. Qal of verbs prim. *i* (for *u*) which have imperfects with characteristic *ē* (< *i*), e.g., *iḥšēb*, have characteristic *a*, type *tēšābnah*. Similarly other imperfect forms with characteristic *i*, e.g. *tēlāk-nāh* (*tēlēk* < *hlk*) and perhaps *tiqamnāh* (Ezek. 13:23), "divine."

some in context, in which he claims that the *i*, which in most cases occurs in the Arabic cognate forms, is changed to *a* in imperfect forms (jussive ?) without final vocalic ending. While it is possible that these forms, or at least some of them, belong here, most of them are capable of other explanations.

All are explained as stative *a* imperfects in my thesis, "The So-called Intransitive Verbal Forms in Hebrew" *JAOS*, XXIV (1903), 145-204, though this is probably not correct with regard to some. Imperfects from the following roots, I should still consider stative, viz., *hbš*, *ḥrp*, *ngš*, *nzl*, *ntk*, *pšf*, *šdq*, *rbš*, *rpd*, *šbt*. In the following the *a* may be due to *r*, *tr*, *gar*, *ḥrṣ* I *ḥrṣ* II, *ḥrp*, *nḏr*, *ntr*, *pḥr*, *pṣr*, inf. *rad* (< *rud*) from *rdd*.

The following active forms, however, may be very well explained as having originally pausal *a* for *i*, or *a* for *i* in forms without vocalic ending, viz., *ya-tihlālāk*, "go," *iššāq*, "kiss," *iššāl*, "throw off," *iššāk*, "bite"; *tiqamna*, "divine" is to be grouped under III, 1, *i* below.

¹² The *i* of *ya-iḥlāl* is retained by analogy to forms like *ya-iḥlāl*.

j) The pf. Qal 1 and 2 persons of *mēt* < *mīt* (a biconsonantal form), e.g., *māttāh* < *mīt-ta*, *mātti* < *mitti*, *mātnu* < *mītnu*; notice that the double consonant is here not final as in (g) above. In *ū-pīštem* (Mal. 3:20), "spring, leap," stative *i* seems to be preserved in the unaccented syllable (cf. I, a).

k) To what extent the characteristic *a* of the perfect of stative verbs is due to the fact that the *i* of these verbs came to stand in a closed syllable, e.g., *gābar*, *dābaq*, *šā'al*, etc., it is impossible to say, as these *a* forms may just as well be due to the strong tendency to conform the stative verbs to the more common active type. Moreover, the characteristic *a* may in many cases be due to the influence of guttural consonants as in *šāma^c*, *rā^cab*.

§ 2. There are several cases in which the change for *i* to *a* is not made.

a) The most important of these is when the accented *i* stands before a doubled consonant at the end of a word, in which case the *i* appears regularly as *ē*,¹³ e.g., *ēm* < *imm*, *ēt* "with" < *itt*, *heš* < *hišš*, *šēl* < *šill*, *qēn* < *qinn*. Hiphil forms med. gem. like impf. *īāsēb* < *īasibb* (also pf., impr., and infin.) belong here; so also Niphal infin. *hiššēb* and impf. *tēhēl* (Lev. 21:9) < *tihšill* (?); possibly also impf. Niphals like *īissab* (if for **iassab* < **iassabbu* < **iassibu*); but as this would seem to violate the rule for the treatment of *i* before doubled consonant, it is probably better to consider such forms as being conformed to the type of stative imperfect Qal prim. *n* (cf. pf. *nāmēs* [mss] conformed to Qal type *kābēd*). The imperative *hiššab* is probably based on this imperfect and results from the following proportional analogy, viz., *īāsēb*:*hāsēb* :: *īissab*:*hiššab*.

b) An accented *i* before a doubled *n* and also perhaps before a final *n*, *l*, or *m* appears as *e*,¹⁴ e.g., type *īiqtlēn-nī*, *mimmēnnī* (< *mīnmin-nī*), *mēn-nī* pausal form of *mīn-nī*, *ēnēn-nī*; *ābel-*, *lben-* c. of a form **labīn*, suffix *-hen* c. *ben-*, perhaps *garzen*; *karmel* (cf. *karmill-ō*),

¹³ It is to be noted that there are other cases in which a vowel preceding a double consonant is treated differently from one followed by a single consonant, viz.: (a) unaccented *u* with single consonant *o*, with double, *u*, e.g., *hokmāh*, *huqqā*; (b) unaccented *i* following initial laryngeal, with single consonant *e*, with double, *i*, e.g., *herpāh*, *hinnēh*.

barzel (n. pr. *barzilla*), n. loc. *bābel* (Akk. *bāb ilī*); suffixes *-kem*, *-hem*, c. *šem-*.

c) An *i* in an apparently closed final syllable which was originally a penultimate open syllable: here the *i* is changed to *e* before the loss of final vowel, while the syllable is still open, so that Philippi's law does not apply. This *e* appears as *šere*.

§ 3. Anomalous cases are:

ēšet c. of *īššāh*; this form is based on *īšt* < *īššt*, and as a construct the theory that it is a pausal form is inadmissible; it is possible, though such an explanation seems dubious, that two absolute forms of this word existed at one time, viz., *īšš-at* > *īššāh*, c. *īššat*, and *īšš-t* > *īšt* which should yield context **ēšet* and pausal *ēšet*, and in the final simplification of these numerous forms *ēšet* was paired as construct with absolute *īššāh*.

sap, i. p. *sāp*, *sap*, pl. *sippīm*; it is unlikely though not impossible that the *i* of *sippīm* is the original vowel, the *a* being due to Philippi's law; from *sipp* a form *sēp* would normally develop. It seems more likely that the original vowel is *a*, cf. II, 2, *i*.

qan c. of *qēn*, *qinn-ō*; the construct of *qēn* should appear as *qen* (cf. *bēn*, *ben*); perhaps the form is analogical, based on such pairs as *zāqēn*, *z^cqan*, *kābēd*, *k^cbad*.

It is not impossible that these last two cases are the result of the feeling that *a* and *i* were in general interchangeable; cf. above, II, 5.

¹⁴ The *e* of types *īiqtlēn-nī*, *īiqtlēn-nū*, etc., *ēnen-nī*, etc., as in *mimmen-nī* < **mīnmin-nī* is to be derived from *i* (cf. Bib. Arm. forms like *ī^cdaḥālinna-nī*, Strack, *Gram. d. Biblisch. Aram.* [Leipzig, 1897], p. 38) and not from *a* corresponding to the *a* of the Arabic energetic forms *īaqtulan*, *īaqtulanna*.

Whether the final *n*, *l*, *m* actually changes *i* to *e* as here suggested is subject to some doubt. It is to be noted that before final *n* and *l* accented *i* sometimes appears as *a*, e.g., *z^cqan*, *h^cdal* (cf. above, III, 1, *e*); and final *-il* appears as *-āl* in *tēbēl*. A number of the cases cited are capable of different explanations; construct forms like *ben-*, *sem-*, *ābel-*, *lben-* may simply be examples of the change of *i* to *e* when it loses the accent (cf. *yaibārek*); moreover, it is possible that *i* adjacent to a labial is assimilated to *e* (cf. Piel *dibber*, *kipper*, *kibbes* and nouns with prefix *me-*, e.g., *merkābāh*); if the *e* of suffix *-hem* is due to this cause, *e* is analogically extended into the fem. *-hen*.

§ 4. The opposition of type *maqtēl* absolute and *miqtal* construct as in *marbēs*, *mirbaš*; *marzēh*, *mirzah*; *mašbēr*, *mišbar*; *maš'en*, *miš'an* involves both the operation of Philippi's law and the dissimilation of the type *qatqat* to *qitqat*. The original type of all these pairs is *maqtīl*; *maqtīlu* absolute changes *i* to *ē* before the loss of final vowel, becoming *maqtēl*; *maqtīl* construct with early loss of final vowel becomes by Philippi's law *maqtal*, and this type by dissimilation becomes *miqtal*. Forms ending in *-n*, which should yield construct in *-en*, follow the model of other pairs. In the pairs *maš'ēl*, *maš'at* (< *maš's'et* < *manš-*) *maqqēl*, c. *maqqal*, the constructs **maš'it*, **maqqil* have become in accordance to Philippi's law *maš'at*, *maqqal*, but the influence of the first syllable of the absolute forms prevents the dissimilation. In the pair *miz-bēqāh* c. *mizbah*, the latter apparently corresponds to regular construct type, while the first syllable of original absolute *maz-bēqāh* (cf. Syr. *madbēhā*) has been changed to *mi* on the analogy of its construct. It is also possible to explain *a* of the final syllable of the construct as due to the laryngeal instead of to Philippi's law; this, however, would not alter the rest of the explanation.

IV. CONCLUSION

§ 1. It seems, therefore, that the so-called "attenuation" is regularly either the result of the dissimilation of an unaccented *a* vowel to *i* in the types *qatqāt* or *qatqāt* which become *qitqāt* or *qitqāt*, or it occurs in forms in which the *i* has been extended by analogy from such types. In those cases in which the types *qatqāt*, *qatqāt* do not yield *qitqāt*, *qitqāt*, the reason for the analogical preservation of the unaccented *a* is usually apparent. The remaining cases in which originally unaccented *a*, or what may have been such an *a*, appears as *i* independently of this dis-

simulatory process are few, and in nearly all instances capable of a ready explanation.

§ 2. The so-called "Philippi's law," the change of original *i* with either a primary or a secondary accent in a closed syllable to *a*, takes place regularly with certain regular exceptions. These exceptions are:

a) An *i* + double consonant at the end of a word is usually preserved, being represented by *ē*; where the double consonant results from *n* + consonant, the change to *a* appears in a few words. This probably represents a vacillation between the two possible ways of treating such an *i*.

b) An *i* before a doubled *n* or before final *n*, *l*, and perhaps *m* appears as *e* (Seghol).

c) An *i* in a final closed syllable originally open appears as *ē* (Sere).

There are only a few forms not falling under these heads which present difficulties of explanation.

§ 3. The extensive interchange between *a* and *i* produced by these two phonetic laws has apparently led to some cases of interchange which have no phonetic basis other than the very common equivalence of the two vowels. It is rather remarkable that cases due merely to this general equivalence are so few.

§ 4. In the case of the group of forms, like *marbēs* c. *mirbaš* we have in epitome a representation of the operation of these phonetic laws, viz., treatment of accented *i* in an originally open syllable now closed; change of accented *i* in a closed syllable to *a* and consequent dissimilation of preceding unaccented *a* in closed syllable to *i*.

§ 5. The dissimulatory change of type *qatqat* to *qitqat* seems to have been a general north-west Semitic phonetic law. In Syriac this change is represented most clearly in the 3 sg. f. pf. Peal type *qellat* <

qatlat < *qatalat*. The confusion of forms, however, resulting from the falling-together in the emphatic state of nouns from monosyllabic and dissyllabic bases and the confusion of dissyllabic types in the absolute and construct states gave rise to other unaccented *e*'s not due to this dissimilation; for example, type *qill*, *qital*, *qitil* all have the emphatic form *qillâ*; types *qatal*, *qital*, *qatal* all have the absolute-construct form *q^etal*. Hence the pairing of *q^etal* (original *qatal*) with *qillâ* (< original *qital*, which also had an absolute construct *q^etal*) becomes a natural and normal analogical process; cf. *b^esar* (< *basar*), *besrâ* (normally the emphatic of type *qital*). On the other hand, the feminine construct of types *qatil*, *qatal*, *qatil*, *qatul*, viz., the single type *qatlat*, would conceivably furnish the basis for a type *qellat*; cf. c. *eglat*, *nešb^etâ*, *dehl^etâ*; but the analogical preservation of the *a* in forms like *malkat* is common. Therefore it is practically impossible in most cases to determine the origin of the unaccented *e*. The mixing of forms just exemplified in Syriac is general Aramaic, and this confusion between *i* (*e*) and *a* has led to a wide extension of the *i*(*e*) forms in some of the dialects.¹⁵

§ 6. It has been argued that "Philippi's law" was a parent-Semitic law,¹⁶ but there is no trace of it in Arabic or Akkadian, and the only apparent occurrence in Ethiopic is in the 1 and 2 persons of the stative perfect, e.g., *labsa* (< *labesa* < *labisa*), *labaska*, etc., where the characteristic *a* is best explained as analogical to the regular active type *qatalka*. This explanation seems all the more likely as the characteristic *e* (< *i*) of the stative forms

¹⁵ Cf. *Grundr.*, I, 147e.

¹⁶ So Philippi, "Das Zahlwort Zwei im Semit.," *ZDMG*, XXXII, 42; "Die semit. Verbal u. Nominalbild.," *BA*, II, 378-79; Barth "Das *i*-Imperfect," *ZDMG*, XLIII, 185-86; cf. criticisms of this view in *Grundr.* I, 148; Sarauw, *op. cit.* p. 76.

has disappeared entirely from the third personal forms of the strong verb. The characteristic stative *e* is found only in verbs med. gutt., e.g., *kehda*, *kehedka*.¹⁷

§ 7. It is possible, however, that the law, though not a general Semitic phonetic law, is general North Semitic. Absolute-construct forms like *š^epal*, *s^ekal*, *c^etal*, presumably for **š^epel*, etc., may reflect this law,¹⁸ and feminine forms like *k^epantâ* (m. *k^epen*) *c^esagtâ* (m. *c^eseq*) are perhaps also evidence of this change, though the unaccented *a* in such forms would have to be explained as extended analogically from masculine forms in which the original *i* was accented, as presumably in *š^epal*, etc., above, and no such masculine forms occur. With regard to the stative perfects with characteristic *a*, these, as in Hebrew may be simply analogical to the more common active type or the result of laryngeal influence. Whether the law applied originally to Syriac or not, it is certain that, if it did, it was largely nullified by uniforming analogy. Thus the characteristic *e* of the 3 m. sg. pf. does not become *a* in the second persons but remains *e*; e.g., *d^ehel*, *d^ehelt*; *qattel*, *qattelt*; etc.

§ 8. In view of the evidence here adduced it seems most likely that both the phonetic laws discussed were features of North Semitic (Northwest Semitic), but not of parent-Semitic, the case for the dissimilation of unaccented *a* being somewhat stronger than that for "Philippi's law."

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¹⁷ Brockelmann's explanation (*Grundr.* I, § 52e8) of the characteristic *a* in forms like *labaska* as due to the accent is entirely unsatisfactory. There are many cases of accented *e* in Ethiopic, e.g., impr. pl. *qetêlâ*, *negûšê-ka*, "thy king," etc.; cf. Praetorius, *Äthiopische Gram.* (Karlsruhe u. Leipzig, 1886), pp. 59, 117.

¹⁸ Nöldeke, *Syr. Gram.*² (Leipzig, 1898), § 94D, explains the characteristic *a* as a phonetic modification of *e* due to *l*.