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NEGATION AND DISJUNCTION IN ANATOLIAN–AND ELSEWHERE

By ANNA MORPURGO DAVIES

1. In the article which precedes Mr. Hawkins has proposed the readings NEG_2 and NEG_3 for the signs ⟨ ⟩ of Hieroglyphic Luwian and has argued that these logograms had the phonetic values *na* and *ni* respectively[1]. These readings are supported by internal evidence and do not require any further justification, but it is necessary to see how plausible their consequences are from the linguistic point of view.

    1.1. The discovery of two negative particles, a prohibitive *ni* and a factual *na*, is welcome. Hieroglyphic now joins Cun. Luwian (prohibitive *nis*, factual *nawa*),[2] Lycian (prohibitive *ni, nipe,* factual *ne, nepe*)[3] and Hittite (prohibitive *lē*, factual *natta*).[4] It is not as yet absolutely certain that Palaic does not make any distinction between prohibitive and factual negatives: the particles *ni* and *nit* are relatively frequent, but it is not altogether clear whether they occur or not in prohibitions.[5] On the other hand it is normally assumed that Lydian has generalized one negative (*nid* "not", *nik* "and not") for both types of sentence.[6]

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    [1] See J. D. Hawkins, *The Negatives in Hieroglyphic Luwian, Anatolian Studies,* XXV (1975), 119 ff. In the writing of this note I have been able to work in close collaboration with Mr. Hawkins, to whom I owe a great debt of gratitude. I am also grateful to Professors A. F. L. Beeston and T. Burrow and to Dr. G. L. Lewis who have helped me with the Arabic, the Dravidian and the Turkish evidence.

    [2] Cf. E. Laroche, *Dictionnaire de la langue louvite [DLL]*, Paris 1959, p. 74 s.v. *nauwa* and p. 75 s.v. *niš.* See also A. Kammenhuber, *Handbuch der Orientalistik,* I.2, 2 (*Altkleinasiatische Sprachen*) *[Handbuch]*, Leiden/Köln 1969, 173.

    [3] Cf. G. Neumann in *Handbuch,* op. cit., 394; Ph. H. J. Houwink Ten Cate, *The Luwian population groups of Lycia and Cilicia Aspera during the Hellenistic Period*, Leiden 1965, 82 f. The meaning of Lycian *newe* in which Meriggi, *WZKM* 53 (1957), 203 wants to see a negative is not yet clear. Lycian *ni* could well derive from *nis*, with the usual loss of final *-s*, but in view of the existence of Hier. Luw. *ni*, it is also possible to suggest that it goes back to a simple *ni* without the *-s* extension. *ne* certainly derives from an earlier *na; nipe* and *nepe* are strengthened forms of *ni* and *ne.*

    [4] The origin of Hitt. *lē* is disputed. It could be connected with IE *$*n\bar{e}$* provided an alternation *n/l*, similar to that of Hitt. *lāman* and e.g. Lat. *nōmen*, were established: cf. for the evidence H. Kronasser, *Etymologie der heth. Sprache*, Lief. 1, Wiesbaden 1962, 68, but see the reservations of H. Kronasser, *Vergl. Laut- und Formenlehre des Heth.*, Heidelberg 1956, 161 f., A. Kammenhuber, *Handbuch,* 173. *natta*, the factual negative, is normally taken as derived from the negative *na* or *n-* (from IE *$*ne$*) + one or more enclitic particles (see e.g. H. Kronasser, *Vergl. Laut- und Formenlehre*, op. cit., 161, Friedrich, *Heth. Wb.*, 149 and Holt, *Bibl. Or.* 15 (1958), 156 note 158). In addition to these forms Hittite also has a frequently used negative *nāwi* (spelled *na(-a)-ú-i*) with the meaning "not yet", and two rarer forms *nūwān* and *nūmān* which are phonetic doublets and seem to mean "never, not at all" (cf. Friedrich, *Heth. Wb.*, s. vv.). In spite of the phonetic difficulties it seems likely that here too we are in presence of the negative *na* (or *n-*) joined to various enclitic particles. Finally it is possible that a negative is contained in the even rarer *nik(k)u* or *neku*: cf. for the evidence E. A. Hahn, *Language,* 12 (1936), 110 f. note 14; J. Friedrich, *JCS* 1 (1947), 303 f. Friedrich, *Heth. Wb.*, 151 s.v. *nik(k)u* denies his earlier interpretation of the particle as a negative, but cf. more recently F. Josephson, *RHA* 79 (1967), 149, note 39 and J. Siegelová, *Appu-Märchen und Hedammu-Mythus (Studien zu den Boğazköy-Texten,* 14), Wiesbaden 1971, 8-9.

    [5] Cf. Kammenhuber, *Handbuch*, 173. See for the evidence, O. Carruba, *Das Palaische* (*Studien zu den Boğazköy-Texten,* 10), Wiesbaden 1970, 65, and O. Carruba, *Beiträge zum Palaischen,* Istanbul 1972, 42 and passim.

    [6] Cf. R. Gusmani, *Lydisches Wörterbuch*, Heidelberg 1964, 172-3; A. Heubeck, *Handbuch,* 415.

Whatever the position of Lydian and Palaic is, the presence of the two negatives in Hieroglyphic confirms once more the coherence of the Luwian group. As for the origin of the two particles, it still seems likely that the prohibitive *ni* goes back to an earlier *$*n\bar{e}$* (though*$*nei$* would also be possible)[7] and that the factual *na* continues IE *$*ne$*.[8]

In some passages Hieroglyphic has a form NEG$_3$-*sa* (i.e. *nis*) for the prohibitive negative.[9] Not all passages in which the form occurs are clear, but its very existence provides us with a welcome parallel with Cun. Luwian *nis* and at the same time proves what has always been assumed. Both in Hieroglyphic and in Cuneiform Luwian *nis* must have arisen as a strengthened form of *ni*, although the origin and the exact nature of the particle which ended in a sibilant and which was added to *ni* remains obscure.

The new readings of the Hieroglyphic signs also yield a few examples of a negative particle NEG-*wa/i* / *na-wa/i*.[10] There is no doubt that this form too must count as an extension of the factual negative *na*. If this is so—and if we remember that NEG-*wa/i* / *na-wa/i* exists side by side with the shorter *na*—it seems difficult to attribute the same meaning to both the longer and the shorter form; a priori it seems more likely that NEG-*wa/i* / *na-wa/i* had a stronger value "not at all, never". Formally NEG-*wa/i* / *na-wa/i* offers a perfect parallel to Cun. Luw. *nawa*, which is normally translated with a simple "not". Should we then argue that Hier. Luw. NEG-*wa/i* / *na-wa/i* and Cun. Luw. *nawa* while identical in form differ in meaning? At the present stage of our knowledge this is impossible to maintain: in all its occurrences—which are not many—Cun. Luw. *nawa* can (though it need not) be translated as "not at all, never", but that this is its real meaning remains to be proved. On the other hand some support for a meaning "never, not at all" of Hier. NEG-*wa/i* / *na-wa/i* can come from the comparison with Hitt. *nūwān* / *nūmān*. We have seen above (note 4) that the Hittite adverb must have been derived from a factual negative *na-* ; in a few cases, at least, its meaning "never, not at all" is guaranteed by the context in which the form occurs[11]. It seems difficult to deny that the second element of the form was a particle*$*(u)wan$*, which in some way must have been connected with the second element of NEG-*wa/i* / *na-wa/i* and of Luw. *nawa*. Any further statement about the origin of this particle would be too speculative[12].

1.1.1. It may be useful to add here some comments about the distribution of

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[7] Cf. J. D. Hawkins, A. Morpurgo Davies, G. Neumann, *Hittite Hieroglyphs and Luwian*: *New evidence for the connection* [*HHL*], *Nachr. Ak. Wiss. Göttingen*, 1973 no. 6, 47 f.

[8] If Holt's interpretation of Hitt. *natta* as derived from *n+at+a* (see above note 4) were correct, it could be possible to argue that Hier. *na* too derives from *$*n+at$*, with the normal dropping of final plosives in Luwian—but all this is far too speculative.

[9] Cf. Hawkins, 123 and 128 ff., 142 ff.

[10] Cf. Hawkins, 121 f. and 131 ff.

[11] A clear example is contained in the letter of the widow of the Pharaoh to Ṣuppiluliuma (KBo. V 6 iii 14): ÌR-IA-*ma-wa nu-u-wa-a-an pá-ra-a da-aḫ-ḫi nu-wa-ra-an-za-kán* LU *MU-TI-IA i-ia-mi*, which Güterbock, *JCS* 10 (1956), 94 translates "Never shall I pick out a servant of mine and make him my husband!".

[12] Here it should be pointed out that in theory it would be possible to interpret both Luw. *na-u-wa* and Hier. NEG-*wa/i* / *na-wa/i* as *nawi*. Neither the cuneiform nor the hieroglyphic spelling exclude this transcription. If so, however, we would create a form in all respects identical to Hitt. *nawi* (see above note 4), although this has a meaning "not yet" which is not suitable for either the Cuneiform or the Hieroglyphic texts.

the negatives in Hieroglyphic. In the passages quoted by Mr. Hawkins both the pro-hibitive and the factual negatives have a relatively free distribution in the sentence. In a few cases they may appear initially (cf. Hawkins' citations 15, 16, 19, 20(ii), 23(ii), 26(ii), 20(ii)); this is not unheard of in Hittite[13] and presumably could hap-pen in Cun. Luwian too[14]. The negatives were often combined with a relative or indefinite pronoun to yield the meaning "nobody, nothing" (NEG$_2$ REL-*sa-ha*, NEG$_2$ REL-*à-ha*, NEG$_2$ REL-*ha-na* etc.; the prohibitive negatives can also occur in this collocation); if so the particles tended to precede immediately the pronoun[15]. The parallelism with Hittite *UL kuis, UL kuiski* is striking[16], just as is striking the collocation NEG$_2$ / *ni ma-nu-ha* of Hieroglyphic vs. *UL manqa* of Hittite[17]. Other-wise there is a distinct tendency for the negative to be as close as possible to the verb or the predicate. Hieroglyphic shares this pattern of distribution with Cun. Luwian and with Hittite, but with an important difference. In Hittite the normal position of the negative seems to be immediately before the verb[18]; if there is a preverb this precedes the negative. A typical example is provided by Friedrich *loc. cit.* : *apiịa-ịa-ta-kan anda UL daliịami* (*Staatsvertr.* II, Al. 6 A 77) "auch dann will ich dich nicht im Stiche lassen". The Cun. Luwian evidence is too scanty to be helpful but it is just possible that it shows traces of the same phenomenon. In Hieroglyphic, on the contrary, the combination preverb-verb acts as a unit and the negative precedes it: cf. e.g. CARCHEMISH A 14,4: *wa/i-ma-za-à* DEUS-*ni-zi* "VAS"-*tara/i-na* ⌐NEG$_2$⌐ POST-*ni à-tá* | (BONUS)*wa/i-li-ia-ta*, and with a non-controversial negative) ASSUR e, 3: DOMINUS-*ni-i à-za-ia-ha-à sa-na-wa/i-ia wa/i-za^{-i} ni-i* ARHA MALUS-*sa-tu-^{i}*[19]. This might appear disturbing at first sight, but Lycian provides a welcome parallel. There the normal collocation is negative–preverb–verb; cf. for instance TL 134,2: ... *ebi ñte ni hrppi tàtu tik[e* ... or TL 110,2: ... *se ije ne hrppi tadi tike* [, where the prohibitive negative *ni* and the factual negative *ne* precede the preverb *hrppi* ("above") and the verb.[20] What we observe is, in fact, an interesting example of the move towards univerbation, a phenomenon well known from the history of most Indo-European languages. In Hittite and possibly in Cun. Luwian the preverb and the verb are still separate units which admit

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[13] Friedrich is far too cautious to say anything of the sort, but from *Elementarbuch*, I, 146, one could receive the impression that the negatives can occur initially only in interrogative sentences. This is certainly wrong. To give just two examples, there must have been an initial negative in *KBo* XXII 2 Vs 19 (cf. H. Otten, *Eine altheth. Erzählung um die Stadt Zalpa, Studien zu den Boğazköy-Texten* 17, Wiesbaden 1973, 6) and there certainly is an initial nega-tive in the sentence *na-at-ta-an ú-uk / t[(ar-na-a)] ḫ-ḫu-un* LUGAL-*ša-an* SAL.LUGAL-*ša tar-na-aš* "Nicht ich habe ihn ausgelassen, (sondern) das Königspaar hat ihn losgelassen" (H. Otten u. V. Souček, *Ein althethitisches Ritual für das Königspaar, Studien zu den Boğazköy-Texten* 8, Wiesbaden 1969, 30 f., Rs III 4-5).

[14] It is possible that in the sentences of *KUB* XXXV 24, 5 ff. = 25,7 ff. = 43 III 7 ff. we must recognize an initial *na-a-ú-wa*.

[15] Cf. Hawkins, citations 37-45.

[16] Cf. Friedrich, *Elementarbuch,* I, 69 and 135.

[17] Cf. Hawkins,   f. and çitations 29, 30.

[18] See Friedrich, *Elementarbuch,* I, 145.

[19] Cf. Hawkins, citation 34; for other examples, see ibid. citations 33(iii), 34(i), 46, 49, 51 (iii and iv).

[20] For other clear examples see TL 75,3; 88,3; 91,2; 93,2; 118,2; 134,2 (another sentence in addition to that quoted above), 149 a, 4; 150.

insertion of other elements, such as the negative. In the later period Hieroglyphic and Lycian show clear signs that the preverb has come closer to the verb, even if it does not as yet form an inseparable unit with it.[21]

1.1.2. Both the collocation and the formation of the negatives may explain those examples of double negatives with negative meaning which Hawkins (p. 128 ff.) has noted in EMIRGAZI. In one case we have *na* followed by NEG-*wa/i* + the verb (and this in what appears to be an "if" clause, where we would in fact expect the factual negative); elsewhere we find again a sequence of NEG-*wa/i* + Verb preceded by *ni*. Again in EMIRGAZI *ni* precedes NEG-*sa* (i.e. *nis*) + the verb. None of these sequences need surprise us. Double negation occurs frequently in all languages and Jespersen, among others, has quoted endless instances of it both from Indo-European and non-Indo-European languages.[22] Most frequently the phenomenon occurs when one of the two negatives is either a negatival adverb (as *nawa*) or a stereotyped negatival phrase as *nis* REL-*isha* "nobody" (see above p. 159). It is interesting to see that the examples normally quoted from Hittite[23] show in effect sequences of the type *Ú.UL ... Ú.UL kuwapikki* or *Ú.UL ... Ú.UL kuit*, i.e. sequences which fit within the schema described above. The fact that in Hieroglyphic the double negatives seem limited to the early texts may be due to our lack of evidence, but it is also possible that these constructions were avoided in the later, more formalized language.

2. Very different problems arise, as Mr. Hawkins has pointed out, when we come to consider the disjunctive particle of Hieroglyphic. This used to be read *napa* and translated "or". Gelb's and Mittelberger's reinterpretation of the first sign as *ni* (see Hawkins, note 25), called for a reading *ni-pa / ní-pa* of the particle and of course, for a *ni* value of what we now consider to be the prohibitive negative. Hawkins's new reading of NEG$_2$ now yields two disjunctive particles *ni-pa / ní-pa*, i.e. *nipa* and NEG$_2$-*pa*, i.e. *napa*.

In its earlier reading the supposed †*na-pa* could be etymologized as being composed of a negative particle + a connective (*pa*); yet, in the absence of conclusive evidence, this remained unproven. Friedrich, for instance (*Heth. Wb.*, 335), preferred to think of a dissimilated form of *man* + the connective. A parallel for the "negative" etymology could have been provided by Hitt. *nassu, nassuma* "or", which could be derived from a negative *na-* (cf. *natta*) + a connective *su* (+ an optional *ma*).[24] However this suggestion too could not be proved. Recently Carruba[25] has argued that *nassu* and *nassuma* contain a pronominal stem *na* (attested e.g. in Cun. Luw. *nanun* for which cf. Hitt. *kinun* "now") and an adjectival or adverbial form *assu* "good". The meaning "or", according to Carruba,

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[21] For a survey of the problems which concern the relative position of the verb and the preverb in the Indo-European languages see C. Watkins in *Proceedings of the Ninth International Congress of Linguists*, The Hague 1964, 1035-42.

[22] Otto Jespersen, *Negation in English and other languages*, Copenhagen 1917, 64 ff.

[23] Cf. Friedrich, *Elementarbuch* I, 146, and especially F. Sommer, *Die Aḫḫijavā-Urkunden*, München 1932, 106.

[24] Cf. for instance H. Pedersen, *Hittitisch und die anderen indoeuropäischen Sprachen*, Copenhagen 1938. 200.

[25] *Die satzeinleitenden Partikeln in den idg. Sprachen Anatoliens*, Rome 1969, 67 f.

could have arisen through a process similar to that which has given its present concessive value to German *wohl*.[26]

If the new reading of NEG_2 is correct the formal link between the two disjunctives *nipa* and NEG_2-*pa*, i.e. *napa*, and the two negatives *ni* and NEG_2, i.e. *na*, cannot be ignored. One conclusion seems to be inescapable: Hieroglyphic has two disjunctive particles, *nipa* and *napa*, used more or less indifferently, and they both derive from a negative particle (*ni* or *na*) and a connective particle (*pa*). In other words the Hieroglyphic word for "or" derives from a phrase which originally meant "and not" or "but not". The question which arises is: "Is this linguistically possible?"

3. Anatolian languages differ in the formation of their disjunctive particles. We have seen that Hittite has *nassu* and *nassuma*. In the older texts there is an enclitic particle -(*a*)*ku* ... -(*a*)*ku* which can be translated "or", but soon disappears. The origin is uncertain although it has been compared with the IE *-k^we "and".[27] We do not know as yet whether Palaic had a word for "or". Similarly, given the nature of the Cun.. Luw. texts it is not possible to state whether they contain an "or" particle. Lycian has a relatively clear form *tibe* (cf. the Lycian B *kibe*?), which in all likelihood is formed from a pronominal element *ti* (see the Lycian relative *ti* < *k^wi-) and a connective -*be*, which is probably the same element as the Luwian *pa*.[28] Lydian has a form *buk* "or" which can be shown to derive from *bu*- + the connective -*k* "and". The origin of *bu*- is obscure, but it has been suggested that it is related to the IE root *$bh\bar{u}$- "to generate, to become, to be".[29] Other suggestions derive it from *pa-wa* or from *a-pa-wa*.[30] One thing is clear: however it is read, the disjunctive particle of Hieroglyphic cannot have any etymological link with the forms of Lycian and Lydian. In other words, each language calls for a different explanation of its "or" words.[31]

3.1. The only "or" particle which could be attributed to Indo-European with some degree of probability is the enclitic *-$u\acute{e}$ (cf. Lat. -*ue* "or", Skt. -*vā* "or", Gr. ἤ 'or" < *$\bar{e}$-ue).[32] Clearly this has not survived (at least with that meaning)

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[26] Carruba, loc. cit., denies altogether the existence of a particle *šu* in Hittite (hence the need to explain *nassu* as derived from *na* + *assu*) but his views have not been generally accepted: cf. e.g. H. Otten, *Ein altheth. Erzählung,* op. cit. (note 13), 44 note 8; A. Kammenhuber, *Materialien zu einem heth. Thesaurus,* Lf. 1, no. 1 (Heidelberg 1973), 2.

[27] Cf. e.g. E. A. Hahn, *Language* 12 (1936), 110 f. and Carruba, op. cit. (note 25), 69 ff. It is difficult to separate this particle from the strengthening element which appears e.g. in *immakku, apiiakku, Ú.UL-akku* etc.: cf. Friedrich, *JCS* 1 (1947), 302 ff. For *nikku* see above note 4. The connection with Palaic -*ku* (for the references see Carruba, loc. cit. and cf. Kammenhuber, *Handbuch,* 353) is clear, but does not help to explain the origin of the disjunctive (for a possible suggestion see below 4.5). It may be useful to point out here that the meaning of -(*a*)*ku* ... -(*a*)*ku* is sometimes ambiguous: it could be expressed by "both ... and ..." or by "either ... or ..." (see also Hahn, loc. cit. note 15).

[28] Cf. Houwink Ten Cate, op. cit. (note 3), 76; Neumann, *Handbuch,* 393.

[29] Cf. Gusmani, *Lyd. Wb.,* 86 f. s.v. *buk*(-) and for the comparison with IE *bhu-* see E. Vetter in *Sitzber. Oesterr. Ak. Wiss (Phil. Hist. Kl.),* 232 (1959), 3, p. 40 note 18.

[30] See Carruba, *Athenaeum,* 38 (1960), 52 f. note 34.

[31] This is not altogether surprising; in a linguistic group as closely knit as that formed by the Slavonic languages we find that the words for "or" are respectively *ili* in Russian, *lub* or *albo* in Polish and *nebo* in Czech.

[32] See Pokorny, *Idg. Et. Wb.,* 75, but the connection which Pokorny postulates between IE *ue* and the pronominal stem *au-*, *u*- is far from certain.

in Anatolian.[33] Anatolian joins the majority of the Indo-European languages which have formed new "or" particles through various semantic shifts or different combinations of elements. No doubt *nipa* and *napa* belong to this category: they are new formations which there is no reason to attribute to Proto-Luwian, let alone Proto-Anatolian or Indo-European. We have seen that Mr. Hawkins' readings, if accepted, clarify the etymology of the particles but give rise to a semantic problem. Since the Indo-European evidence is not helpful we may consider the question from a typological point of view. Do languages ever form "or" words which include a negative element, but are used in positive statements?

4. This is not the place, nor do we have the competence to attempt a full-scale typological investigation of the origin of "or" words, but a cursory glance at a few unrelated languages may be useful.[34] We shall ignore here those disjunctive words which arise from clear adverbs of the type Engl. *otherwise,* Germ. *andernfalls* or *beziehungsweise,* Old Norse *ellegar,* etc. We shall also leave aside the problems posed by those interrogative sentences (either direct or indirect) which contain a disjunction, although in some cases these may be very relevant to the exploration of some problems which concern the origin of "or" words.[35] However, even when allowance is made for these omissions, the classification which follows is not exhaustive and is not aimed at being so.[36]

4.1. In languages which do not have many (or any) subordinating or coordinating particles "or" words may be borrowed from another language. It is often stated that Finnish *eli* "or" is borrowed from a Germanic language.[37] The particle

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[33] Holt, *Bibl. Or.* 15 (1958), 156 has suggested that IE *μe survived in the Luwian negative *nawa* (cf. Lat. *neue*).

[34] Obviously not all languages have coordinating elements in their surface structure and not all languages make a distinction between "and" and "or" conjunctions: cf. K. Bergsland, *Norsk Tidsskrift for Sprogvidenskap,* 15 (1949) 374 f. and the acute follow-up of Roman Jacobson, *Selected Writings,* vol. II (The Hague-Paris, 1971), 263 (a propos of the Samoyed particle for and/or); cf. also Hahn, *Language* 12 (1936), 111 note 15. It may be worthwhile to point out that even in languages which knew the distinction this may tend to be obliterated or at least neutralized in some contexts: in late Latin *uel* could be used with the meaning of *et* and vice-versa (see E. Löfstedt, *Phil. Kommentar zur Peregrinatio Aetheriae,* Oxford, Uppsala, Leipzig 1936, 197 ff.); for the ambiguous use of Old French *ne* (from Latin *nec*) see below 4.7.2.

[35] See below 4.4. and note 46.–It is worth mentioning that in interrogative sentences a disjunction may be marked by elements which are not used in positive statements: in classical Latin *utrum ... an ...* (or the simple *an*) may serve as an example. In Hittite too there are special ways of marking double questions: if the questions are direct *nu -ma* occur in the second question; if the questions are indirect, *man* occurs both in the first and in the second question (cf. Friedrich, *Elementarbuch* I, 147 and 167).

[36] Indeed, it is so superficial that it can hardly be called a classification. Descriptively it is at fault because it does not attempt to distinguish among the various syntactical properties of the disjunctive particles and among the various meanings (e.g. inclusive and exclusive "or" are not separated). Also, each particle has been considered in isolation and all its distributional or semantic connections with other elements of the language have been ignored. From a historical point of view, one of the shortcomings of this classification is that it only includes those "or" words whose origin is immediately apparent; yet, this very fact means that all too often we are dealing with linguistic elements which have not been entirely grammaticalized (see below 4.2 apropos of Italian *vuoi ... vuoi ...*) and therefore are not very representative. Yet, it is the assumption of this paper that the evidence adduced, however defective, is sufficient to answer the question asked in 3.1.

[37] Cf. e.g. H. Fromm, M. Sadeniemi, *Finnish Elementarbuch* I, Heidelberg 1956, 198, who compare Old Norse *ella,* but see also L. Hakkulinen, *The structure and development of the Finnish Language,* Bloomington, The Hague 1961, 55.

yā "or" which occurs in a number of Altaic languages is certainly borrowed from Persian, etc.[38]

4.2. Disjunctive statements may contain a more or less "frozen" verbal form which is functionally similar to our "or" particle. In a number of cases the basic meaning of the verbal root is "to want", "to wish" etc. Lat. *uel* "or" (from **u̯el-si* or **u̯elis* "you (2nd sing.) wish"), Oscan *loufir* "or" (3rd sing. pass. from the same root as Lat. *libet*), Umbrian *heris* "or" (2nd sing. "you wish") are examples of this type.[39] Finnish *ta(h)i* "or" must be connected with the verb *tahtoa* "to wish" just as Hung. *akár . . . akár* "either . . . or" is derived from *akár* "to wish".[40] In Italian the somewhat literary *vuoi . . . vuoi* (literally "you (2nd sing.) wish . . . you wish") is normally used with the meaning "either . . . or", but sometimes is nearer to "both . . . and . . .". However, differently from Lat. *uel*, the Italian expression has not become entirely grammaticalized, i.e. the speaker is still conscious of its original meaning.

It is possible to derive similar expressions from verbs with different meaning; an example may be the demotic Greek πές . . . πές "say . . . say"[41] but more important are the examples listed in the following paragraph.

4.3. In disjunction use may be made of verbal forms which originally meant "it is", "let it be", "it becomes" etc. Cf. in modern German *sei es . . . sei es,* in French *soit . . . soit . . . ,* in Italian *sia . . . sia . . .* etc.[42] In Tamil the disjunctive sequence *. . . āvatu . . . āvatu,* as in *nī iṉraikk'āvatu nāḷaikk'āvatu iṅke varalām* "you may come today or tomorrow", is obtained from forms of the verb *ā-* "to become".[43] Kannada (another Dravidian language) similarly uses the concessive form of *ā-* "to become": *. . . ādaru . . . ādaru* "either . . . or"; it can also exploit for this purpose the imperative of the verb "to be": *. . . -āgali . . . -āgali.*[44] It has been suggested that the Old Irish particle *fa/ba* "or" is also related to IE **bhū-* "to generate, to become, to be".[45] If so, it could provide a parallel for Lydian *buk,* if this were really connected with IE **bhū-* (see above p. 161).

4.4. Often it is possible to establish a parallelism between "or" particles and interrogative particles (though this does not imply that one of these two functions has priority).[46] In Lithuanian the particle *ar̃* introduces questions and, when

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[38] See e.g. C. Brockelmann, *Osttürkische Grammatik der islamischen Litteratursprachen Mittelasiens,* Leiden 1954, 195. For the Turkish conjunctions in general see Ahmet Temir, "Die Konjunctionen und Satzeinleitungen im Alt-Türkischen", *Oriens* 9 (1956), 41-85, 233-80.

[39] Cf. Ernout-Meillet, *Dict. Etym. de la langue latine,* Paris 1954, s.v. *vel.*

[40] Cf. Hakkulinen, loc. cit. (in note 37).

[41] See A. Mirambel, *La langue grecque moderne,* Paris 1959, 179.

[42] In all these cases the meaning may oscillate between "either . . . or . . ." and "both . . . and . . .".

[43] Cf. A. H. Arden, *A progressive grammar of common Tamil,* Madras 1934, 129 (and 286); H. Beythan, *Praktische Grammatik der Tamilsprache,* Leipzig 1943, 156.

[44] See H. Spencer, *A Kanarese Grammar,* Mysore 1914, 162 f.; H. Jensen, *Grammatik der kanaresischen Schriftsprachen,* Leipzig 1969, 142.

[45] Cf. H. Lewis, H. Pedersen, *A concise comparative Celtic grammar,* Göttingen 1937, 73 f.

[46] P. Kretschmer in *Scritti in onore di A. Trombetti,* Milano 1938, 27-50, argued that in a number of languages interrogative sentences have arisen from the second part of disjunctive sentences and adduced the similarity of disjunctive and interrogative particles as an argument in favour of his hypothesis (ibid. 37 ff.). The suggestion was rejected by Ed. Hermann in the course of his lengthy analysis of the problems posed by interrogative sentences: cf. Ed. Hermann, "Probleme der Frage", *Nachr. Ak. Wiss. Göttingen,* 1942, 121-408 (especially 369 ff.).

doubled, disjunctive questions, but it also appears with the value "or" in positive statements.[47] In Old Church Slavonic *li* appears after the first word of an interrogative sentence but is used proclitically with the value "or" in normal disjunctions. The frequent *ili* "or" is formed from *i* "and" and *li*.[48] Karok, the language of an Indian tribe of NW California, uses the particle *hum* to form disjunctive sentences, but also to mark a yes-or-no question.[49] In Samoan *pe* (*po*) is used at the beginning of an interrogative sentence and is also the disjunctive particle.[50] It would be very easy, but not particularly profitable, to lengthen this list of examples; here it may be worthwhile to point out that the separation between the type described in this paragraph and that considered in 4.5 is in some cases very artificial.

4.5. "or" may arise, directly or indirectly, from a pronominal particle or a group of particles.[51] This is likely to be the origin, for instance, of Goth. *aíppau* and *pau* and of the parallel forms in other Germanic languages (Old Norse *eda*, etc.). Greek ἤ, which derives from *ἤϝε, is likely to contain a pronominal element as well as the inherited *u̯e. A very well represented class is that of the interrogative pronouns which yield "or" words (and which could equally well have been mentioned under 4.4). Telugu (a Dravidian language) uses with the meaning "either . . . or" a repeated *ēmi . . . ēmi*, which is in fact the pronoun meaning "what?".[52] In the Ostjak dialects three different interrogative pronouns show a semantic shift from "what?" to "or".[53]

In Anatolian this type is certainly represented by Lycian *tibe* which, as we have seen, arises from the relative *ti* and the connective *be*.[54] It is possible, but not certain, that in the KARAHÜYÜK passage quoted by Mr. Hawkins (No.12) the conjunction REL+*ra/i-pa* has an "or" meaning: if so it would show a formation very similar to that of Lycian. Conceivably Hittite -(*a*)*ku* (see para. 3), which was also used enclitically with what seems to be an emphatic value, had this origin too.[55] It is useful to remember, incidentally, that in Proto-Anatolian at least, the relative pronoun *kwis had also an interrogative value.

4.6. There is a certain amount of evidence for a semantic shift from "and if" to "or". In late Latin *siue* (literally "or if") comes to be used as a simple disjunctive in parallel with *aut* and *uel*: it can be translated "either . . . or" (and

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[47] Cf. A. Senn, *Handbuch der lit. Sprache,* I, Heidelberg 1966, 382 and 483; see also E. Fraenkel, *Lit. Et. Wb.* s.v. *ar̃.*

[48] See e.g. G. Nandriș, *Old Church Slavonic Grammar,* London 1965, 209 and cf. also A. Meillet, *Le slave commun,* Paris 1934², 477 and 484.

[49] Cf. W. Bright, *The Karok Language,* Berkeley and Los Angeles 1957, 131 and 136.

[50] See G. B. Milner, *Samoan Dictionary,* London 1966 s.v. *pē*¹ and s.v. *po-,* C. C. Marsack, *Teach yourself Samoan,* London 1962, 60 and 112.

[51] Since in Indo-European languages at least most particles and subordinating or coordinating conjunctions arise from pronominal stems this statement does not exclude that "or" words may have originated in different conjunctions.

[52] Cf. A. H. Arden, *A Progressive Grammar of the Telugu Language,* Madras 1927, 82.

[53] See E. Vertés, *Die Ostjakischen Pronomina,* Bloomington and The Hague 1967, 143 f., 148, 155. Similarly in Acoma, an Indian language of New Mexico, *zii* is the interrogative-indefinite pronoun but also means "or" and (when repeated) "either . . . or . . .": cf. W. R. Miller, *Acoma Grammar and Texts,* Berkeley and Los Angeles 1965, 178 and 183.

[54] See above para. 3 and note 28.

[55] If so, i.e. if *-ku* is related to the interrogative pronoun, there is no need to postulate that it derives directly from IE *kʷe (see above para. 3 and note 27). The connection between the relative-interrogative pronoun of IE (*kʷis) and IE *kʷe has been differently explained (see e.g. O. Szemerényi, *Einführung in die vgl. Sprachwissenschaft,* Darmstadt 1970, 194 f.).

sometimes even "both . . . and").[56] Modern Greek uses εἴτε . . . εἴτε (which is formed from "if" and "and") with the meaning "either . . . or".[57] If the REL+*ra/i-pa* of KARAHÜYÜK really meant "or", it would be opportune to remember that the normal meaning of REL+*ra/i* in Hieroglyphic is "if" (see Hawkins, p. 148). Anyway, since "if" particles are often derived from pronominal stems, it is not always easy to distinguish this type from that described in 4.5.

4.7. Particles or words with the meaning "or" may contain a negative element "no", "not" or the like, even when they are used in positive statements. At the origin there may be a more complex statement of the type "(and) if not" or a simpler expression "it is not", "and not". It is this type which may be adduced to parallel Hier. *nipa, napa* and to it we shall dedicate some more attention.

4.7.1. Modern Colloquial Arabic frequently uses a particle *walla* or *wǝlla* with the meaning "or". In literary Arabic this is found in the form *wa'illā,* which in its turn derives from *wa 'in lā* "and if not".[58] The original value is still felt in some of the literary texts, but in the spoken language *walla* has the value "or" with no distributional restrictions.

Turkish has formed one of its "or" particles in a similar manner, starting from *yok* "no" to which a conditional element is added to form *yoksa.* Although it is sometimes possible to render *yoksa* with "or" often a more adequate translation is "if not".[59] Similarly in the eastern literary language, Chagatay, we find both *yoqsa* and *yoq ki* with a value which oscillates between "or" and "if not". The particle *ki,* which is probably borrowed from Persian, can inter alia have a value "but".[60]

In Tamil the third person sing. of the negative verb *al-, allatu* (literally "it is not"), has taken an "or" value and can be used indifferently in negative and positive sentences as in the following examples: *ī allatu tēṇī allatu kuḷavi auvit̲attil illai* "there was (is) no fly or bee or wasp in that place"; *pāl allatu taṇṇīr koṇt̲uvā* "bring milk or water!"; *ennōt̲u allatu unnōt̲u pōvāḷ* "she will go with me or with you".[61]

The language of Tahiti uses *'aore ra* with the meaning "or". Examples quoted are *'i te mahāna mā'a 'aore ra 'i te tapati* "on Saturday or Sunday"; *te pua'atoro*

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[56] For the use of Latin *siue* cf. J. B. Hofmann and A. Szantyr, *Lateinische Syntax und Stylistik,* München 1965, 503 f. For late Latin see D. Norberg, *Beiträge zur spätlateinischen Syntax,* Uppsala 1964, 96 ff.

[57] See A. Mirambel, loc. cit. (in note 41).

[58] For classical Arabic see e.g. W. Fischer, *Grammatik des klassischen Arabisch,* Wiesbaden 1972, 148 (*'illā* < *'in-lā*) and 204 (*wa'illā*). For the colloquial language cf., for instance, M. W. Cowell, *A reference grammar of Syrian Arabic,* Washington 1964, 395: *s-sǝne fı̄ha . . . šahǝr waḥed ʔǝlo bass tmāna w-ʕǝšrīn walla tǝsʕa w-ʕǝšrīn yōm* "There is one month in the year which has only twenty-eight or else twenty-nine days". For Egyptian Arabic see also T. F. Mitchell, *An Introduction to Egyptian Colloquial Arabic,* London 1956, 49 ff. from where I quote the following sentence: *húwwa-lli šuftu-mbāriḥ walla lá?* "Is he the one I/you saw yesterday or not?"

[59] See e.g. G. Weil, *Grammatik der osmanisch-türkischen Sprache,* Berlin 1917, 207 and cf. the examples (here quoted in modernized spelling): *vaktinde gel yoksa yalnız giderim* "komm pünktlich, wenn nicht, gehe ich allein", and *ben yoksa biraderim* "ich oder mein Bruder". Cf. also H. J. Kissling, *Osmanisch-türkische Grammatik,* Berlin 1960, 203.

[60] Cf. János Eckmann, *Chagatay Manual,* The Hague 1966, 185 and 201. For a similar form in Uzbek see A. von Gabain, *Oezbekische Grammatik,* Leipzig und Wien 1945, 137.

[61] Cf. A. H. Arden, op. cit. (in note 43), 130 (and 295); H. Beythan, op. cit. (ibid.), 156.

'aore ra te pua 'ahoroferma "the bull or the horse".[62] *ra* is a directional particle used as tense formative, and *'aore* is used to indicate negation with present or past tense, so that once more we have an original meaning "it is not".[63]

4.7.2. A development which at first sight may seem parallel to those just discussed but of which we see both the point of departure and the point of arrival, and which may have to be differently explained, is that of Latin *nec, neque* "and not" in Romance. In Old French *ne* appears as a conjunction which may have either an "and" or an "or" value; a few examples from different texts may explain it. Cf. *Avez vos ceanz hauberc ne autre armeüre dont ge poïsse mon cors armer?* (*Mort Artu* 90,25); *C'est la plus bele que l'en puisse trover en paienie n'en la crestïenté* (*Char.Nîmes*, 524);[64] *Se vos le porroiz faire ne souffrir* (*Conqueste de Constantinople*, 20); *Mult se mervoille por quoi ne a quoi vos iestes venu ne en sa terre ne en son regne* (ibid., 143).[65] Similarly in Old Spanish *nin* may alternate both with *et* and with *o*, i.e. it may be used as a simple conjunction or as a disjunctive particle.[66] Norberg has explained the phenomenon as due to the regular use of double negatives in late Latin which has deprived *nec*, the first negative of the sentence, of its logical value;[67] the fact remains that Old French *ne* appears with the value "or" both in negative and in positive statements.[68]

4.7.3. At this stage the evidence seems to warrant the statement that negative elements can enter in disjunctive statements even when these are positive. Traditionally Hittite *nassu* and *nassuma* have been compared with Old Irish *no*, Old Welsh *neu* which can be derived from **ne-ue* "or not",[69] but so far we have refrained from quoting this form because the Celtic phonological developments

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[62] See for the examples quoted D. T. Tryon, *Conversational Tahitian. An Introduction to the Tahitian Language of French Polynesia*, Canberra 1970, 107. See also Tepano Jaussen, *Grammaire et dictionnaire de la langue tahitienne*, Paris 1969⁵, p. 33 s.v. *ou* and p. 74 s.v. *aore*.

[63] Cf. Tryon, op. cit., 64 (*ra*) and 46 (*'aore*). For a general account of the Tahitian language see A. Sauvageot, *Structure d'une langue polynésienne: le tahitien*, in *Conférences de l'Inst. de ling. de l'Univ. de Paris*, 10 (1950-1), 83-99.

[64] These two examples are taken from G. Moignet, *Grammaire de l'ancien français*, Paris 1973, 332 ff., who offers a purely descriptive (i.e. non historical) analysis of the language in general and of this phenomenon in particular. See also E. Gamillscheg, *Hist. französische Syntax*, Tübingen 1957, 577 and especially G. Antoine, *La coordination en français*, vol. II, Paris 1962, 1041 ff. and especially 1077 ff. and 1094 ff.

[65] The two examples are taken from H. Yvon, *Les expressions négatives dans la Conqueste de Constantinople de Villehardouin*, in *Romania* 81 (1960), 296-307 (at p. 299). Cf. also the other two articles by the same author on the negative expressions in the *Queste del Saint Gral* and in the *Vie de Saint Louis*, ibid., 80 (1959), 63-78 and 81 (1960), 99-111.

[66] Cf. K. Wagenaar, *Étude sur la négation en ancien espagnol jusqu'au XVᵉ siècle*, Groningen-The Hague 1930, 115.

[67] Cf. D. Norberg, op. cit. (in note 56), 105 f., but it is important to point out that in Old French *ne* in most cases still has its full negative value: neither a second negative nor a strengthening particle (*pas* etc.) are necessary.

[68] Obviously the problem is extremely complicated; of the authors quoted perhaps only Antoine (see note 64) makes it clear how complicated. However, in most cases he tries to operate with the suggestion that *ne* tends to join negative sentences; in a number of cases in which this is not so he speaks of an *idée négative implicite* (ibid., 1041 ff.), but even this assumption is not easy to uphold (cf. ibid., 1094 ff.). Very much worth reading are Antoine's observations about the alternation between *et* and *ou* or rather about the frequent absence of semantic distinction between these two particles (cf. ibid., pp. 1059 ff.).

[69] See Pedersen, loc. cit. (in note 24).

are not altogether certain and, above all, because it is impossible to prove that the supposed *ne* in **neu̯e* was in fact the negative. Yet the evidence adduced now shows that a similar development might fit into a well established pattern.[70]

5. We can now come back to Anatolian and to Hieroglyphic in particular. If "or" particles *can* contain negatives, *nipa* and *napa* cease to be unusual formations. Moreover, since it can be proved on morphological grounds (the parallelism with *na* and *ni*) that *napa* and *nipa* contained a negative, and since it can be shown on typological grounds that the pattern is not unusual, it seems to follow that the correct interpretation is the simplest and most traditional. *nassu* is likely to include the same negative which appears in *natta*, and there is no need to find in it a pronominal particle.

5.1. Clearly not all problems are now solved. There is a more general question: what warrants this semantic shift from "if not", "it is not", "and not" to "or"? Intuitively it is possible to see—and Turkish and Arabic show the development in progress—how "if not" can yield "or". Should we then argue that the other cases too may be explained in these terms? It would be conceivable, for instance, that a language which does not have a conditional particle, could give to a phrase "and not", "it is not" the value "and if not", which would then be equivalent to "or". However this remains mere speculation; an answer to this question would require a much deeper investigation than we can offer.[71]

A more limited problem concerns Hieroglyphic: why should both the pro-

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[70] I have also not mentioned, since it could have seemed irrelevant, the connection which exists in a number of languages between negatives and "or" particles in comparative clauses. In a construction of the type "better than . . ." Ancient Greek uses ἤ "or", where English has "than". Similarly in Old Church Slavonic we find *li* "or" and in Gothic *þau* "or" after the comparative. Yet, in OCS "than" can also be expressed by *niže* "and not"; in early Welsh the comparative is followed by a particle *no* which must include a negative, in English dialects *nor* may be used instead of *than,* and in a number of Finno-Ugric languages a negative is an integral part of the particles used after the comparative (cf. A. Raun, in *American Studies in Uralic Linguistics,* The Hague 1960, 219 ff.). In Sanskrit "than" is expressed by *na,* which is identical with the negative; this etymology has been disputed, but see for the evidence J. Vendryes, *BSL* 46 (1950) 9 ff. (with references to the earlier literature). Once more we gain the impression that there is some sort of overlap between "or" and the negatives. Manu Leumann (*Kleine Schriften,* Zürich 1959, 202 ff.) has wondered whether the Greek use of ἤ after the comparative may be due to the use of ἤ in disjunctive questions such as ἆρα ὁ θεὸς κρείττων ἤ ὁ ἄνθρωπος; This is a convincing hypothesis and one which gains in plausibility because of the connections between "or" particles and interrogative particles or pronouns mentioned above (see 4.4. and 4.5.). However—and in a more speculative mood—we may suggest that, if there is a sense in which the disjunctive particle may include a negative (or may conceal an underlying negative), Leumann's hypothesis is no longer necessary: both surface evidence, such as that just quoted, and deeper syntactical analysis induce us to recognize in the second part of a comparative statement a hidden negative (cf. P. A. M. Seuren, *The Comparative,* in Kiefer and Ruwet [eds.], *Generative Grammar in Europe,* Dordrecht 1973, 528 ff.).

[71] In formal logic P v Q is equivalent to —Q→P, so that, provided we assume that the connectives of natural language behave in a similar manner to those of logic, there is no difficulty in recognizing the connection between "P or Q" and "P if not Q". From this point of view the development of Turkish and Arabic is clear. The problems posed by the other languages remain. If we do not want to postulate that "not" can be treated in a similar way to "if not", as indicated above, we can still point out that in formal logic P v Q is equivalent to—(—P & —Q). Provided we can accept the same assumption as before, it seems plausible to conclude that whatever can be expressed in terms of "or" can also be expressed in terms of "and" and "not". However, can we then argue that "P and not Q" and "P not Q" in some way owe their origin to an alteration or a mispresentation or a "rewriting" of "not (not P and not Q)"?

hibitive and the factual negative have yielded "or" words? Here we are hampered by our lack of evidence. It is possible, for instance, that originally *napa* and *nipa* had different meanings and were used in different collocations, but that, when the two forms were "frozen" in their newly acquired "or" value, the difference disappeared. If we had a much larger number of early texts it is possible that we could find traces of the original contrast.

5.2. To sum up: it now seems possible to say that of the Anatolian languages for which we have evidence two (Hittite and Hier. Luwian) created or recreated a disjunctive particle according to the pattern described in 4.7. They did so with hesitations; for Hittite at least the presence of -(*a*)*ku* indicates that competing formations (possibly built according to the pattern of 4.5) were also available. It is possible that Hier. REL+*ra/i-pa* points towards the same conclusion (see above 4.5). Lycian consistently exploited the pattern described in 4.5. and it is conceivable that Lydian exploited the pattern described in 4.4. The position of Palaic and Cun. Luwian is not yet established, but Hieroglyphic seems to have clarified a small, but interesting problem in the comparative grammar of Anatolian.