

The role of discourse and lexical meaning in the grammaticalisation of temporal particles in Latin

By JOHN HILTON, Durban

The term particle was used loosely in ancient rhetorical and grammatical theory to denote a variety of different linguistic elements: morphemes, words, parts of speech and *cola*¹. The ancient grammarians, however, were also aware of the distinction between lexical and grammatical elements in the language, and discussed instances of grammaticalisation, a process whereby lexical elements change into grammatical ones (e.g., *mane* which derives from the neuter of the adjective form *manis*, and is used as a noun by Plautus *a mani* (*Amph* 253) and Vergil *mane novum* (Verg. *G.* 3,325), and is found in the proper name *Manius* according to Ernout and Meillet)².

¹ In ancient rhetorical terminology a "particle" was a clause segment or any small part of a sentence (Cic. *Orat.* 206; 226; Quint. *Inst.*, 9,4,69). Varro uses the term "particle" to refer to interjections (*Gram* 40, *Grammaticae Romanae Fragmenta* ed. G. Funaioli 1907: *irascens et haec oratio est, licet nulla sit interiecta particula*). Gellius uses the term to refer to the length of the prefix *con-*, the meaning of the prefix *re-*, and the accentuation of the prefix *ad-*. He also uses the term of the enclitic *-ve*, the coordinating conjunction *atque*, and *pro*. Finally he uses the term for the adverb *saltem*, when enquiring into the primary meaning and etymology of the word (2,17,6; 2,19,3; 7,7,6; 5,12,9 & 11,15,8; 10,29,1; 11,3,2). The Roman grammarians use the term to mean exclamations (*particula interposita exprimit nobis animi affectus* Pompeius *G.L.* 5,98); pronouns (*ut hoc fastidium vitemus inventae sunt particulae quae ipsam repetitionem exlucerent: Sergii explanat. in Donatum G.L.* 4,488); parts of speech in general (*decursis igitur octo particulis, quibus efficitur humana locutio, superest accidentium species expromere: Sergii Explanat. in Donatum Lib. I, G.L.* 4,489); and something corresponding to linguistic "forms" (*inchoat a litteris ista particula quae uberius est et habet tractatum: Pompeius, G.L.* 5,98 ff.).

² Ernout, A. & Meillet, A., *Dictionnaire Étymologique de la Langue Latine*. Paris 1932. Priscian (*G.L.* 2,53) tells us that the "*dialectici*" taught that there were two parts of speech (*nomen* and *verbum*), the rest were "*consignificantia*" (foreshadowing the modern distinction between form and content words). The Stoics held that there were five (*nomen, pronomen / articulus, verbum, coniunctio, appellatio*). Others held that there were any number between 8 and 11. Priscian attempts to define the parts of speech semantically (*proprietas significationum attendamus*) but, of course, used syntactic criteria also in his discussion. Priscian's concern for semantic criteria resulted from the confusion

In the nineteenth century Hand recognized the importance of discourse and style in describing particles³. Hand also discusses the semantic interpretation of particles, noting that some lack a specific semantic content, and rejecting the tendency to reduce the semantic range of particles to one signification⁴. Hand includes adverbs, prepo-

he found himself in when applying formal criteria (some pronouns, like the possessives, decline like nouns, others like *unus unius*, resemble pronouns; furthermore participles, notoriously, would have to be classified with the nouns, which would be unreasonable). Also some adverbs fall between adverbs and prepositions because they may or may not govern cases and may follow as well as precede the governed word (*pone currit; currit pone: venit tempore longo post; post longo tempore venit*). There were also homonymous forms (*diei* – genitive or dative? – *G.L.* 3,4). The grammarians (Servius *G.L.* 4,428) were aware also of the ability of words to cross categories – nouns could become adverbs and adverbs nouns. They were prepared to discuss whether the adverb *mane* could be declined (*mane, manis, mani, mane*) because it was used as a noun by Plautus (*a primo mani*) and Vergil (*mane novum*). For Priscian the interchangeability of the categories was an argument against those who would divide the parts of speech into content as opposed to form words (*G.L.* 3,551 – a ship as a metaphor for language – the planks and beams represent nouns and verbs, the rest serve to glue and join the planks to the beams).

³ Ferdinand Hand, *Tursellinus*, Jena 1829. (I am grateful to C. Kroon for bringing this reference to my notice). In his preface Hand writes of his predecessor Schwartz “*Nam Schwartzius saepius ad singula verba magis quam ad totam orationis formam attenderat*” (Hand, *op. cit.* p. VIII) and further “*orationem non singulis vocabulis, sed continuo eorum nexu constare, et omnia ea, quae cogitatione concepta essent, etiam perspicua repraesentatione sub oculos, ut ait Quintilianus, subicienda esse. In dictione enim non omnia cogitantur notionum ratione, sed magna pars ad sensum et ad eam animi facultatem pertinet, quam nos nunc ab imaginibus appellare solemus*” (Hand, *op. cit.* p. IX). As the reference to Quintilian makes clear, Hand notes that the use of particles lends clarity to the narrative (Quint. *Inst.* 8,6,19; 9,2,40 shows that Quintilian is thinking of Cicero’s expression *sub oculos subiectio*). Stylistic factors are referred to in the words “*neque cum iis pugnabo, qui omnem usum particularum, quas orationis partes non necessarias appellant, non certa ratione regi, sed fortuito scriptorum lusu et ornandae orationis caussa conformari contendunt*” (Hand, *op. cit.* p. X). A comparison is made between particles in a text and tendons in the human body (Hand, *op. cit.* p. XI) and Caligula’s famous remark about Seneca is recorded (*arenam sine calce*: Suet. *Cal.* 53). The work of Denniston, J.D., *The Greek Particles*, Oxford 1934 is stylistic.

⁴ Particles without meaning: “*Errarunt autem viri docti vehementer in eo, quod neque ad vim respiciebant, quae ex ipsa enuntiationum forma et sensu in particulas redundat, neque ea, quae tantum perspicuitati et declarationi inserviunt, ab iis accurate discernebant, quae notionibus continentur*” (Hand, *op. cit.* p. X). Opposition to the minimalist approach: “*Equidem de hac re ita arbitror, neque*

sitions, conjunctions and interjections within the scope of particles, but restricts his discussion of adverbs to those which have a syntactic or semantic cohesive function⁵. In general Hand's approach is diachronic and comparative and considers particles individually rather than attempting to formulate general descriptive rules for particles.

Modern linguists use the term particle in a variety of senses as pointed out by Pinkster, who applied the tests of correlative patterning, occurrence in *cur* questions, sequential co-occurrence, occurrence in relative and adverbial clauses, occurrence in a following coordinated clause, and co-occurrence with other sentence connectors, to distinguish adverbs from what he called "invariables" (thus *itaque*, *igitur*, *ergo* are distinguished from *eo*, *ideo*, *idcirco* etc.)⁶. Sequential co-oc-

eorum opinionem approbare possum, qui nescio quid novum et consueto more melius reperisse sibi visi sunt, quum varias significationes ad unam reducere studerent ..." (Hand, *op. cit.* p. XIII).

⁵ *"Elegi enim et illustravi ea solum adverbia, quibus aliquam proprietatem competere videbam in coniungendis et construendis verbis, et in quibus significatio aut constructione verborum mutatur, aut grammatica ratione constituitur"* (Hand, *op. cit.* p. XI).

⁶ See Bloomfield, L., *Language*. London 1933, pp. 199–201. Pinkster, H., *On Latin Adverbs*. Amsterdam 1972, p. 135 n. 2. Review by Matthews, P.H., *Lingua* 34 (1974), pp. 96–100. Kühner, R. & Stegmann, C., *Ausführliche Grammatik der lateinischen Sprache*. Leverkusen ³1955 discuss particles under the heading "Modal Adverbs" (*ne, profecto, vero, sane, utique, certe, certo, saltem, quidem, equidem, scilicet, videlicet, quippe, nempe, nimirum*) but their discussion is not exhaustive. Householder's short description of Latin (Householder, F.W., Article on Latin in the *Encyclopaedia Americana*. 1965, 773–77) defines particles as "forms lacking inflection and incapable of inflection". Householder talks of (1) adjectival particles, including the cardinal numbers from 4 to 10, the tens from 10 to 100, 1000, *quot, tot, frugi* and *nequam*, on the basis of commutation; (2) particles systematically related to nouns and known as adverbs; (3) substantival particles ("indeclinable nouns"); (4) interjections; (5) proclitics (Hand, *Tursellinus* prepositions and conjunctions) and enclitics (conjunctions). Szantyr, A., *Lateinische Syntax und Stilistik*, Munich 1965, pp. 469ff. subcategorizes particles into copulative (*-que, atque, et, etiam, adhuc, quoque*); adversative (*quidem, sed, at, autem, iterum, porro, ceterum, immo, utique, sane, plane, atqui, vero, verum, tamen, nihilominus*); disjunctive (*aut, vel, -ve, sive*); "begründende" (*nam, enim, etenim, quippe, nempe*); and conclusive (*ergo, igitur, itaque, ita, denique*). Szantyr also comments on the formation of particles from the ablative cases (e.g., *causa, gratia, quare*), and the phenomenon of "*particula pendens*" (the second of a pair of correlative particles is omitted). The modal particles are not discussed. For a discussion of the parts of speech see Matthews, P.H., "Word classes in Latin". *Lingua* 17, 1966, 153–181.

currence, particularly when statistically significant, does provide some interesting information on the grammaticalisation of temporal particles (see below).

The use of particles as markers of illocutionary functions has also been discussed by Pinkster⁷. Thus *profecto* is used with declarative sentences, *-ne*, *nonne*, *num* with interrogative sentences and *modo*, *quin*, *age* in imperative sentences. Some temporal particles (such as *tandem* and *prorsus*) appear to have been attracted into illocutive rôles in Latin (see below). More recently Schiffrin has discussed particles such as *oh*, *well*, *now* and *then* as discourse markers. Schiffrin raises, but does not effectively answer, several issues such as whether a minimalist semantic description of the particles is preferable to a maximalist one, the degree of meaning they contain, whether their primary function is propositional or discourse-related, whether there is a primary function, and so on⁸.

In this paper I explore some of these approaches, but in a diachronic framework, concentrating on the problem of grammaticalisation (sometimes referred to as "drift", "syntactic reanalysis" or "cliticisation"), in view of a resurgence of interest in the question⁹. In

⁷ Pinkster, H., *Latijnse Syntaxis en Semantiek*. Amsterdam 1984, 245-46 (revised English edition 1991, 193).

⁸ Schiffrin, D., *Discourse Markers*. Cambridge 1987. Kroon now proposes a stratificational framework in which particles are used on representational, presentational, and interactional levels. See C. Kroon, "Discourse connectives and discourse type: the case of Latin *at*", in *Amsterdam in Budapest: Papers presented at the VIth international colloquium on Latin linguistics in Budapest 1991*, 51-64. Amsterdam 1991. Also Rosen, H., "On the use and function of sentential particles in Classical Latin", in Lavency, M. & Longree, D. (edd.), *Proceedings of the Vth Colloquium on Latin Linguistics*. CILL 15,1-4 (1989), pp. 391-402.

⁹ The question was discussed by Meillet, A., "Le Renouvellement des Conjonctions" in *Linguistique Historique et Linguistique Générale*. Paris 1948; Marouzeau, J., "La construction des particules de liaison", *REL* 26 (1948), pp. 235-267 and now Janson, T., *Mechanisms of Language Change in Latin*. Stockholm 1979, 90-119 (Chapter 5). Lakoff, R., "Another look at drift" in Stockwell, R.P. & Macaulay, R. K. S. (edd.), *Linguistic Change and Generative Theory*. Bloomington 1972. Langacker, R.W., "Syntactic Reanalysis" in Li C.N. (Ed.), *Mechanisms of syntactic change*. Texas 1977. Traugott, E.C., "From propositional to textual and expressive meanings: some semantic-pragmatic aspects of grammaticalisation" in Lehmann, W.P. & Malkiel, Y. (edd.), *Perspectives on historical linguistics*. Amsterdam 1982. Hopper, P.J. & Thompson, S.A., "The discourse basis for lexical categories in universal grammar", *Language* 60,4 (1984), pp. 703-753.

my view, the functions of the particles are the product of the interaction between the demands of the discourse situation and the lexical resources of the language. This interaction is dynamic since the number of discourse functions varies in time and text-type requiring a consequent change in the available lexical resources of the language, which was met through the process of grammaticalisation. I will concentrate specifically on temporal connectors such as *inde* and its derivatives, *nunc*, *iam*, *tum* and particles such as *prorsum* and *tandem*.

Many Latin particles develop temporal, metaphorical or abstract meanings from an originally spatial or deictic reference. A clear example is the group *inde*, *deinde* (*dein*, *deinceps*), *exinde*, *proinde*, *subinde*, and *indidem*. The frequency of use of these words is reflected in the table below.

Figure 1: The frequency of use of *inde* and its derivatives.

	Plautus	Cicero	Petronius	Apuleius
<i>inde</i>	37	209	11	29
<i>deinde</i>	10	868	36	5
<i>dein</i>	2	41	2	9
<i>deinceps</i>	0	87	0	1
<i>proinde</i>	24	43	1	2
<i>proin</i>	11	1	0	1
<i>exinde</i>	2	6	0	11
<i>exin</i>	0	0	0	5
<i>subinde</i>	0	0	13	7
<i>perinde</i>	3	24	0	1
<i>indidem</i>	1	4	0	17

This group shows considerable readjustment over time. *Inde* developed temporal, causal and instrumental meanings from its originally spatial sense.

- (Spatial) *in balneas iturust, inde huc veniet postea.* (Pl. *As.* 357).
- (Temporal) *ille tertiis Saturnalibus apud Philippum ad H. VII nec quemquam admisit; rationes, opinor, cum Balbo. inde ambulavit in litore.* (Cic. *Att.* 353,1,8).
- (Causal) *aliqua parte subito decedente percutitur et inde motum capit aer* (Sen. *Nat.* 6,20,7).
- (Instrumental) *si obstetrix medicamentum dederit et inde mulier perierit* (Ulp. *dig.* 9,2,9).

In spite of numerous conversational interchanges present in Plautus, *inde* is always closely related to the spatial/temporal senses in his

plays. However in some instances the spatial or temporal meaning and the expressive of textual function of the word may be neutralised. *Inde* is used redundantly in 6 and in 7 and has some expressive force. In Cicero, *inde* can function as a cohesive device. However *inde* did not play a considerable rôle as a discourse marker.

5. Tra: *quid inde aequom est dari mihi? dimidium volo ut dicas.*
Gri: *immo hercle etiam plus.* (Pl. *Rud.* 961).
6. Bal: *eho, an non priu' salutas? Sim: nulla est mihi salus dataria.*
Bal: *nam pol hinc tantumdem accipies.* Pse: *iam inde a principio probe.* (Pl. *Ps.* 968-9).
7. Nic: *ausculpta porro, dum hoc quod scriptum'st pellego.*
Chr: *inde a principio iam inprudens epistula est.* (Pl. *Bac.* 1005-6).
8. *hoc turpe Gnaeus noster biennio ante cogitavit; ita sullaturit animus eius et proscripturit iam diu. inde, ut opinor, cum tu ad me quaedam γενικώτερον scripsisses et ego mihi a te quaedam significari putassem ut Italia cederem, detestaris hoc diligenter XI Kal. Mart. . .* (Cic. *Att.* 177,6,8).
9. *dicebam ea quae tibi profecto in mentem veniunt cur non esset tuto futurus. Multo inde sermone querebantur atque id quidem Cassius maxime, amissas occasiones Decimumque graviter accusabant.* (Cic. *Att.* 389,2,1).

Inde remained in usage throughout the classical period. However the increased number of different functions of the word had four important consequences. In the first place the metaphorical force of the word was gradually weakened until finally its use as an enclitic (*deinde* etc.) and proclitic (*indidem*) developed. Secondly, *inde* was added to words with strong spatial meaning (*per, pro, sub*) to create new words (lexicalisation)¹⁰. Thirdly the semantic burden of *inde* was repartitioned among the secondary formations. *Subinde*, for example, was severely restricted in its semantic range and came into contact with, and secondarily disrupted, related lexical fields. *Subinde*, in particular, does not occur before Livy. The diachronic development of words with the meaning "immediately", which derive from a spatial meaning, is interesting:

¹⁰ For semantic weakening of metaphors see e.g., Sturtevant E. H., *Linguistic Change*. Chicago 1917, p.90-91 and recently Traugott E.C., "Conventional and dead metaphors revisited" in Paprotte W. & Dirven R. (edd.), *The Ubiquity of Metaphor*. Amsterdam 1985.

	Plautus	Cicero	Petronius	Apuleius
<i>exemplo</i>	39	3	0	1
<i>ilico</i>	36	0	0	29
<i>actutum</i>	35	0	0	0
<i>continuo</i>	27	88	12	6
<i>subito</i>	10	150	12	6
<i>repente</i>	2	136	9	26
<i>statim</i>	2	312	25	81
<i>confestim</i>	1	28	0	24
<i>subinde</i>	0	0	13	7

Other derivatives (*perinde* and *proinde*¹¹) could co-occur only with a very restricted range of grammatical particles (*ac*, *atque* and *ut* etc.). They become much less frequent after the Augustans. Finally the spatial meaning of *inde* was reallocated to some derivative forms. *Deinde* appears in a spatial sense from the time of Cicero¹² and *exinde* from the time of Tertullian¹³. *Indidem* is a variation on *inde* and used often by Apuleius, who uses *inde* idiomatically (*hinc inde* Apul. *Met.* 2,30).

10. (*inde* correlative with *illinc*) *iam inde porro aufugies, deinde item illinc*. (Pl. *Mer.* 651).
11. (*deinde* spatial) *inde cogito in Tusculanum, deinde Arpinum, Romam ad Kal. Iun. te . . . cura ut videamus*. (Cic. *Att.* 2,8,2).
12. (*exin* temporal) *exin candida se radiis dedit icta foras lux*. (Enn. *Ann.* 90).
13. (*exinde* spatial) . . . *ut exinde ad alia templa numina evocarentur*. (Serv. *A.* 9,446).
14. (*proinde ut* grammaticalised) *numquam edepol quemquam mortalem credo ego uxorem suam sic ecflctim amare, proinde ut hic te ecflctim deperit* (Pl. *Am.* 516).
15. (*proinde* correlative) *cultu non proinde speciosus, ut facile appareret eum <ex> hac nota litteratorum esse, quos odisse divites solent* (Petr. 83,7,5).

¹¹ See R. Risselada, "Modo and sane, or what to do with particles in Latin directives" in *Amsterdam in Budapest: Papers presented at the VIth international colloquium on Latin linguistics in Budapest 1991*. Amsterdam 1991, 81–104.

¹² So the *TLL*. The spatial meaning is always close, however. See Pl. *Capt.* 488: *pergo ad alios; venio ad alios, deinde ad alios: una res!*

¹³ But see Pl. *Truc.* 81–82: *eadem postquam alium reperit qui plus daret, / damnosiore meo exinde immovit loco*. Cic. *N.D.* 2,113,7–8: *Deinde Delphinus "exinde Orion obliquo corpore nitens"*. See also Cic. *Arat.* 33,155–159 and 167–169. It should be noted that the Plautus example is debatable and that all the Cicero examples come from his translation of Aratus' *Phaenomena*.

16. (*perinde* inverse correlative) *ut quoique homini res parata 'st, perinde amicis utitur*: (Pl. *St.* 520).
17. (*perinde* grammaticalised) *id esse mihi crede perinde ut existimare tu non potes*. (Cic. *Att.* 284,2,4).
18. (*subinde* restrictive meaning) *subinde ut in locum secretiorem venimus, centonem anus urbana reiecit et "hic" inquit "debes habitare"*. (Petr. 7,2,2).
19. (*indidem* textual) *indidem mihi praedicat, quae forent ad usum teletae necessario praeparanda*. (Apul. *Met.* 11,22,31).

Thus for *inde* at least, the development of discourse functions was restricted by its rapid cliticisation, and the development of secondary formations, which then took on discourse functions of their own.

Deinde and other temporal particles such as *tum*, *iam* and *nunc*, developed quite systematic discourse functions in addition to their semantic rôles. *Deinde* was restricted to providing cohesion in narrative texts, combining with other temporal connectors in various ways (*primum ... deinde; postea ... deinde; tum ... deinde; primum ... deinde ... porro ... denique*; etc.) These texts generally deal with prior events, and are viewed as remote from the speaker.

Tum is used in conversational texts to indicate a change of topic, or turn-taking. In Plautus' *Stichus* Panegyris is talking to her slave, Pinacium. Her second utterance is a clear change of direction, which is marked by *tum*. *Tum* here deals with prior talk, but focusses on the speakers orientation to that talk¹⁴:

20. Pan: *Non ecastor, ut ego opinor, satis erae morem geris.*

Pin: *Immo res omnis relictas habeo prae quod tu velis.*

Pan: *Tum tu igitur, qua causa missus es ad portum, id expedi.*

(Pl. *St.* 361–363).

In 21 *iam* has a textual function. It is used anaphorically in narrative for graphic description of events. *Iam* is used when events are in progress, or "up-coming", but are presented as remote from the speaker.

¹⁴ This does not prevent *tum* from fulfilling its normal superordinative function, of course. *Tum* normally indicates successive events in narrative (see the discussion in J. Hilton, "Temporal connectors in the narrative discourse of Cicero", in Lavency, M. & Longrée, D., *Proceedings of the Vth Colloquium on Latin Linguistics*. CILL 15,1–4. Louvain-la-Neuve, 1989, p. 179). Schiffrin (1987; above note 8) gives examples in English of then used to indicate the speaker's attitude to what is said. I would class this usage as "interactional" in the scheme proposed by C. Kroon (above note 8), or as "expressive" in the terminology of Traugott (above note 9).

21. *Iam Psyche puellae caput involverat flammeo, iam embasicoetas praeferebat facem, iam ebriae mulieres longum agmen plaudentes fecerant thalamumque incesta exornaverant veste, cum Quartilla quoque iocantium libidine accensa et ipsa surrexit correptumque Gitona in cubiculum traxit.* (Petr. 26,1).

In 22 *iam* expresses a shift in orientation by the speaker. Bacchis had been seducing Pistoclus. He contradicts her bluntly. Her rhetorical question expresses her strong disagreement, focussing on the prior talk, but distancing the speaker from what has been said. *Quid iam?* is used regularly with this discourse function:

22. Bacc: *eadem biberis, eadem dedero tibi, ubi biberis, savium.*

Pist: *vicus merus vostrast blanditia.*

Bacc: *quid iam?*

Pist: *quia enim intellego*

duae unum expetitis palumbem. (Pl. Bac. 49–53).

In 23 Argyrippus and Leonida joke about Leonida's claim to be a divinity. Again *iam* goes back to what has been said, focussing on the respondents talk in the conversation. *Iam* can be said to indicate the speaker's shift into an evaluative rather than a propositional mode:

23. Argy: *quem te autem divom nominem?*

Leon: *Fortunam, atque Obsequentem.*

Argy: *iam istoc es melior.* (Pl. As. 716–18).

In 24 Artemona leads her errant husband, Demaenetus, home. Demaenetus expostulates. In these cases the discourse centres on a dispute. The expression of disagreement is based on an implicit comparison between the two opposing views on the question:

24. Art: *surge, amator, i domum.*

Dem: *iam obsecro, uxor.* (Pl. As. 925–26).

In contrast with *iam*, *nunc* is used for upcoming talk and draws attention to the speaker's attitude to what is to be said. In a letter to his father, Nicobulus, marks his request for money, with *nunc*:

25. Nic: "*nunc si me fas est obsecrare abs te, pater,*

da mihi ducentos nummos Philippos, te obsecro". (Pl. Bac. 1025–26).

In 26 *nunc* focusses attention on the speaker and his explanation of the situation in which he finds himself. In this passage *nunc* marks a shift from a general discussion of the master/servant relationship to the particular instructions given to Strobilus by his master. *Nunc* is therefore ego-centred. The phrases *quid nunc?* and *i nunc!* occur frequently and have the same discourse function:

26. Strob: *qui ea curabit, abstinebit censione bubula,*

nec sua opera rediget unquam in splendorem compedes.

*nunc erus meus amat filiam huius Euclionis pauperis;
eam ero nunc renuntiatum est nuptum huic Megadoro dari.
is speculatum huc misit me, ut quae fierent fieret particeps.
nunc sine omni suspicione in ara hic adsidam sacra.*
(Pl. *Aul.* 601–606).

The discourse functions of these words can be schematically presented as follows:

Figure 2: The discourse functions of *deinde*, *tum*, *iam* and *nunc*.

	Distal	Proximal
Prior	<i>deinde</i>	<i>tum</i>
Upcoming	<i>iam</i>	<i>nunc</i>

As a result of the variety of functions given to these particles, they were under pressure to become grammaticalised¹⁵. Diachronically, the temporal connectors show a propensity to occur in collocation with each other, revealing progressive semantic weakening. *Iam* and to a less extent *nunc*, combined readily with other temporal particles, particularly *pridem* and *dudum* which are more independent in Plautus but have virtually melded with *iam* by the time of Cicero. The collocation also shows that *iam* combined with temporal particles, rather than ordinator: with *nunc* the reverse applied.

Furthermore, while making allowances for differences in text type and corpus size it appears justifiable to say that *iam* and *nunc* show a greater tendency in Cicero than in Plautus to collocate with other deictic temporal particles. These words also underwent full cliticisation (*etiam*, *nunciam*, *numquid* etc.) and were increasingly drawn into hypotactic syntactic structures (e. g., *si iam*, *cum iam*, *ut iam*; *nunc*, *quom* . . .). It is noticeable that the secondary formation *deinde*, which does not participate extensively in discourse functions, avoids collocation.

Tandem occurs often with an interrogative illocutionary force (*ain tandem*, *Attice?* Cic. *Att.* 116,8,4 where it occurs at the beginning of a new topic), and has a tangible expressive value (*Tandem a Cicerone tabellarius!* Cic. *Att.* 391,1,1).

¹⁵ I would like to emphasise the sequence of this. The increased range of uses of these words, was a consequence of a deminution of their metaphorical force (see e. g., Sturtevant 1917, above note 11). Cliticisation followed.

Figure 3: Frequency of occurrence of collocations of *iam* and *nunc* with (a) *pridem*, *dudum*, *diu*, and (b) *demum*, *denique* and *primum*.

(a) With temporal adverbs

	<i>pridem</i>		<i>dudum</i>		<i>diu</i>	
	Plaut.	Cic.	Plaut.	Cic.	Plaut.	Cic.
<i>iam</i>	13	95	63	36	114	1774
<i>nunc</i>	8	89	20	28	5	77
	—	—	—	—	—	1

(b) With ordinator

	<i>demum</i>		<i>denique</i>		<i>primum</i>	
	Plaut.	Cic.	Plaut.	Cic.	Plaut.	Cic.
<i>iam</i>	15	19	8	666	51	1187
<i>nunc</i>	—	—	—	4	—	—
	4	6	—	13	5	17

Figure 4: Frequency of occurrence of collocations of *iam* and *nunc* with *iam*, *nunc*, *tum*, *deinde* and *ante(a)*.

	<i>iam</i>		<i>nunc</i>		<i>tum</i>		<i>deinde</i>		<i>ante(a)</i>	
	Plaut.	Cic.	Plaut.	Cic.	Plaut.	Cic.	Plaut.	Cic.	Plaut.	Cic.
<i>iam</i>	5	17	1	7	—	30	—	—	—	73
<i>nunc</i>	2	12	1	1	—	—	—	—	—	—

Rolfe has already noticed the “inadequacy of our lexicons and indexes” to deal with the sub-categorisation of meanings of *prorsus*, and he notes some “puzzling” examples¹⁶.

27. *Risu prorsus atque ludo res digna est, cum plerique grammaticorum adseverant, “necessitudinem” et “necessitatem” mutare differreque.* (Gel. 13,3,1)

In this example *prorsus* occurs as the second word in the chapter and has an expressive function. It is found frequently with negatives and commonly has illocutionary force of expressing agreement or disagreement, sometimes verging on being directive (*prorsus adsentior* Cic. *Att.* 207,2,3; *nihil prorsus aliud curant* Cic. *Att.* 163,2,3; *prorsus id facies* Cic. *Att.* 81,1,6; *prorsus ille ne attingat* Cic. *Att.* 125,2,2; *prorsus te commoveri nolo* Cic. *Att.* 130,3,6).

The statistics for *prorsus*¹⁷ are interesting.

¹⁶ Rolfe J.C., “*Prorsus* in Gellius”, *CP* 17 (1922), p. 144–146.

¹⁷ These figures are derived from the corpus of texts in the PHI CDROM disk. Ten plays of Plautus only are given.

Figure 5: The frequency of occurrence of *prorsus*, *prosus*, *prosum* and *prorsum*.

	Plaut.	Cic.	Apul.
<i>prorsus</i>	—	114	80
<i>prosus</i>	4	—	—
<i>prorsum</i>	—	1	5
<i>prosum</i>	2	1	—
TOTAL	6	116	85

The form of the word is highly unstable (*proversus* and *provorsus* etc. are also attested). The word is found mostly as an adverb (*prorsus rursus*), rarely as an adjective (*limites prorsos* vs. *limites transversos* Front. *Agrim.* p. 12), later as a noun (*prosa oratio* Quint. *Inst.* 10,1,84) and as a proper noun (*Prorsa* by Varro in Gel. 16,16,4). The verb is not found except as a participle in the Varro passage (see 28) and in Festus p. 229 *provorsum fulgur*. There are a number of points to notice about this. In the first place the grammaticalisation of the word appears to have been predetermined by the lexical meaning of the verb form. Secondly the later appearance of the adjective in the technical expression *prosa oratio*, and its nominalisation as *prosa* is a clear case of syntactic reanalysis. Since the use of *prorsus* as an adverb and discourse marker preceded the formation of *prosa*, the formation of the word is a case of lexicalisation. The form of the word, *prosa*, as opposed to the proper noun, *Prorsa*, differentiated the word form the adjective and adverb forms, and assisted in the process of lexicalisation. Plautus uses, depending on the editor of the text, the forms *prosus* and *prosum*, but *prorsus* became the classical standard. The word was extensively reanalysed from verbal adjective, to adverb, to discourse marker, to adjective and then, finally, to noun¹⁸. Lastly *prorsum* as opposed to *prorsus* occurs in Plautus, but in a very restricted way. It is used only once by Cicero, but returns to favour with Apuleius. *Prorsum* appears to have a more restricted, adverbial meaning, while *prorsus* has a wider textual and discourse function. In 33 Gellius begins by speaking coolly of Latin comedies, he adds to his initial assessment with *quin* and *quoque* and, changing his orientation to his subject with *prorsus*, concludes with a much warmer evaluation.

Some examples may serve to illustrate these points:

¹⁸ Another example of lexicalization is *nuntii venerunt ex ante diem Non. Jun. usque ad prid. Kal. Sept. Cic. Att. 3,17,1*.

28. (Spatial) *Nunc de his rebus quae assignificant aliquod tempus, cum dicuntur aut fiunt, dicam . . . Apud Plautum (Pseud. 955) "Ut transversus, non pro-versus cedit quasi cancer solet."* < Proversus > dicitur ab eo qui in id quod est < ante, est > versus, et ideo qui exit in vestibulum, quod est ante domum, prodire et procedere; quod cum leno non faceret, sed secundum parietem transversus iret, dixit "ut transversus cedit quasi cancer, non **proversus** ut homo". (Var. L.L. 7,80–81).
29. (Spatial) *rursus prorsus* = "to and fro" (Enn. scen. Trag. 116).
30. (Temporal: "from that time on") et postea **prorsus** ab instituta nostra paucorum dierum consuetudine longe refugit. (Cic. Att. 10,4,10).
31. (Expressive) *adulescens loqui prorsum deinceps inceptit*. (Gel. 5,9,3).
32. (Expressive) **prorsus perii!** (Pl. Aul. 397).
33. (Discourse) *neque, cum legimus eas (comoedias), nimium sane displicent, quin lepide quoque et venuste scriptae videntur, prorsus ut melius posse fieri nihil censeas*. (Gel. 2,23,2).

The extent to which some temporal particles underwent grammaticalisation and the extent to which they were used as discourse markers depended on their original semantic range¹⁹. *Iam* (and to a lesser extent *nunc* and *tum*) never had a strong spatial meaning and soon lost their metaphorical force, thus allowing themselves to become grammaticalised and to be used as markers of discourse. *Inde* on the other hand did not lose its spatial and metaphorical meaning, and through cliticization, underwent extensive relexicalisation to produce forms which could fulfil the grammatical and discourse requirements of the language (e.g., *deinde*, *proinde*, *subinde*, *exinde*). *Prorsus* (and to a lesser extent *tandem*) had an original semantic range, which enabled it to be used as a discourse marker, but also underwent lexicalisation to produce forms with more restricted rôles such as *prorsum* and *prosa*).

¹⁹ Traugott "Grammaticalisation" writes: "While the post-Whorfian view that a thought is impossible unless it is expressed in a morpheme is hopelessly extreme, I would suggest that the opposite view, that all semantics is there, whether expressed or not, may be equally exaggerated." I have tried to show that, provided suitable lexical material was available, expressive pragmatic functions could be fulfilled in Latin, and that this in turn could lead to grammatical redistribution of the word.