

Secundum + NP: A cognitive account of the spatio-temporal domains including logical extensions of space

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1. Introduction¹

This article fills a gap in the literature on Latin prepositions,² by presenting a Cognitive Linguistics analysis of the spatio-temporal meanings displayed by the *secundum* + noun phrase (NP) construction. It also includes a discussion of the meanings of ranking and beneficiary, which belong to the domain of abstract logical relations while connecting directly to the space domain.

My corpus-based study relies on 172 instances of *secundum* + NP with meaning associated to space and time in prose (Table 1). These are taken from a sample of 890 occurrences drawn from the 12M word *Latin Library Corpus* and extracted via the CQP web search engine. None of the meanings analysed here appear in the Early Medieval period.

	Classical Latin BC 106 - AD 17		Silver Latin 100-258		Late Latin 330-469		Total Rows #
	#	%	#	%	#	%	
Space	65	26	5	2	1	0.4	71
Time	50	20	2	0.8	1	0.4	53
Ranking	17	7	1	0.4	0	0	18
Beneficiary	24	9.2	3	1.2	2	0.8	29
Distribution	0	0	0	0	1	0.4	1
Total Columns	156	62.2	11	4.4	5	2	172

Table 1: Instances of spatio-temporal meanings of *secundum* + NP and logical extensions of space.

- 1 I am thankful to Willem Hollmann for providing advice on Cognitive Linguistics and to Virginie Theriault for helping with the French abstract. I also thank two anonymous reviewers for their insightful comments.
- 2 Cf. Baldi, 1979; Pinkster, 1990, p. 65-72; Luraghi, 1989; 2010b, among others.

2. The proto-scene: the verb *sequor* ‘follow’

The preposition *secundum* derives from the gerund (or the gerundive) of the verb *sequor* ‘to follow’.³ The available historical data do not show the moment of functional split through which *secundum*, presumably used both as a verb⁴ and a preposition, came to express a non-processual relation (preposition) (Langacker, 2008, p. 99-100). It is likely that this divergence took place in pre-literary Latin.

The semantics of *secundum* is better understood in relation to the proto-scene encoded by the verb *sequor* ‘follow’. A proto-scene is the result of “highly abstract, schematic generalisations established in memory in response to observing or experiencing physical entities in a number of similar spatial relations” (Tyler and Evans, 2007, p. 3). The proto-scene for *sequor* ‘follow’ involves two participants, one of which is construed as in focus (the trajector) and the other as a reference point entity (the landmark) (Langacker, 1987, p. 217). In order to understand the meanings of the verb *sequor* and the spatial preposition *secundum*, the notion of plexity is also relevant. The concept of plexity (Talmy, 2000, p. 58-59) captures the internal structure of an entity: uniplex entities are construed as ‘point-like’ (e.g. ‘apple’), multiplex entities are construed as continuous (e.g. ‘milk’) or discontinuous (e.g. ‘apples’). The Latin verb *sequor* ‘follow’ profiles an asymmetric processual relationship (Langacker, 2008, p. 115), involving two focal participants, the trajector and the landmark, both prototypically construed as uniplex. In the scenario in which the landmark is a uniplex entity, both participants are construed as having a front-back orientation, with the trajector construed as being behind the landmark from the vantage point of the conceptualiser. The movement is initiated by the landmark and both participants move along the same path and in the same direction, as exemplified by (1).

- (1) *Iam sequor te, mater.* (Plaut. *Aul.* 695)
 ‘I am already following you, mother.’

In contrast to (1), (2) indicates motion along a multiplex landmark (the valley), whose salient dimension is length, thus coinciding with path.

- (2) *vallem [sequi]*
 ‘[to follow] the valley’ (Liv. 32, 6, 5)

It is possible to graphically capture the difference between examples (1) and (2), above, by comparing Figures 1 and 2. Figure 1 is the representation of a prototypical motion event with uniplex entities, whereas Figure 2 is a representation of a prototypical motion event with a multiplex landmark.

3 Ernout and Meillet; Vieira Ferrari, 1998; Heine and Kuteva, 2002, p. 139; de Vaan, 2008.

4 *Secundum* as a verb probably appeared in the purposive construction *ad secundum* ‘to follow’ and the impersonal passive periphrastic constructions *secundum est* ‘one has to follow, it is necessary that one follows.’

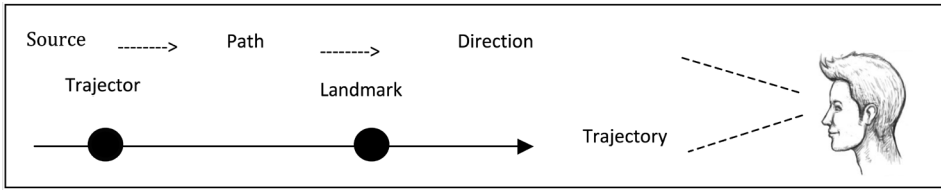


Figure 1: A prototypical motion event for *sequor* ‘to follow’ with uniplex landmark (taken from Luraghi, 2014, p. 103)

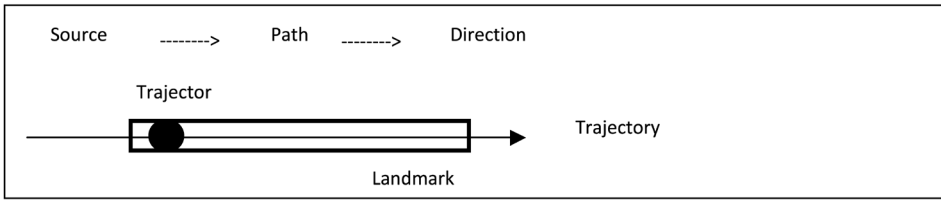


Figure 2: A prototypical motion event for *sequor* ‘follow’ with multiplex landmark (*ibid.*)

3. The space and time domains

Because of its clear experiential basis, space has been regarded as a basic domain of cognition.

Also time is considered basic, even if it is debated whether it is as basic as space.⁵ Whatever the status of time and space is in terms of their relative basicness, there is a tight relation between them, resulting in them being construed in parallel. Sections 3.1 and 3.2, below, are an illustration of this.

3.1. Space

The spatial meaning of *secundum* + NP, which is the closest to the etymology of the verb *sequor* ‘to follow’, is available if the landmark is a physical object. Different readings of *secundum* + NP depend on (a) whether the trajector and the landmark are uniplex or multiplex and (b) whether the context is dynamic or static.

In a context of motion: if the trajector and the landmark encode uniplex entities, the interpretation of *secundum* is ‘following behind, going behind’ (3). On the other hand, if the trajector is uniplex but the landmark is multiplex (elongated), the meaning is ‘along’ (4).

(3) *Nam praetervectas Apolloniam Dyrrachiumque naves viderant ipsi, ut iter secundum eas [...] direxerant...* (Caes. Civ. 3, 30, 1)

‘In fact they had seen the ships pass by beyond Apollonia and Dyrrachium as they had directed their itinerary following (behind) those ships...’

(4) *Sex legions ad oppidum Gergoviam secundum flumen Elaver duxit.* (Caes. Gall. 7, 34, 1)

‘(He) led six legions to the city of Gergovia along the Elaver river.’

Examples (3) and (4), above, are schematically represented in Figures 1 and 2, also above.

In my sample from the *Latin Library* corpus there is only one instance of *secundum* + NP expressing direction (5). This indicates a shift in the conceptualisation of the landmark from

⁵ See Lakoff and Johnson, 1980, p. 56-61; Langacker, 1987, p. 14; Luraghi, 2014, p. 106, n. 7.

path to the endpoint of path (Johnson, 1987). Yet this usage is isolated and thus probably fails to get entrenched or conventionalised.

- (5) *Revoluta [...] secundum deos.* (Sen. *Contr.* 1, 3, 4)
‘Rolled down [...] towards the Gods (= the temple).’

Moving on to the static context, there are three possible interpretations of *secundum* + NP. First, if the trajector and the landmark are uniplex, the interpretation is either ‘near’ or ‘behind’, as exemplified in (6) (Figure 3) and (7) (Figure 4), below. Second, if the trajector is uniplex and the landmark is multiplex, the interpretation is ‘near’, as shown in example (8) (Figure 5). Third, if the entities are both unbound and elongated, the interpretation is ‘alongside’, as in example (9) (Figure 6).

- (6) *Reliqui [...] Icarum [...] secundum arborem quendam defoderunt.*
‘The others [...] buried Icarus near a certain tree.’ (Hyg. *Astr.* 2, 4).



Figure 3: Proximity meaning of *secundum* + NP with uniplex trajectory and landmark

- (7) *P. Postumius [...] nuntiavit M. Marcellum [...] duo vulnera accepisse, unum in stomacho, alterum in capite secundum aurem.* (Cic. *Fam.* 4, 12, 2)
‘P. Postumius told that M. Marcellus received two wounds, one in the stomach and the other behind his ear.’

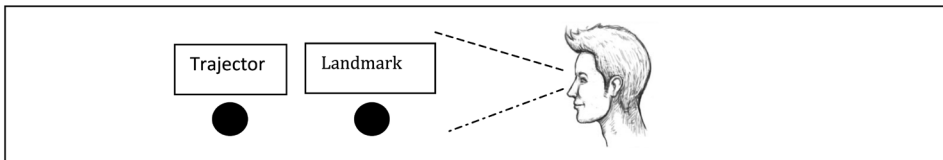


Figure 4: Proximity meaning of *secundum* + NP with uniplex trajectory and landmark. The vantage point of the conceptualiser favours the interpretation ‘(immediately) behind’.

- (8) *Insula Gallinaria [...] quae est in mare Tusco secundum Italiam.* (Varro *Rust.* 3, 9, 17)
‘The Gallinara island [...] which is in the Tuscan sea near the coast of Italy.’

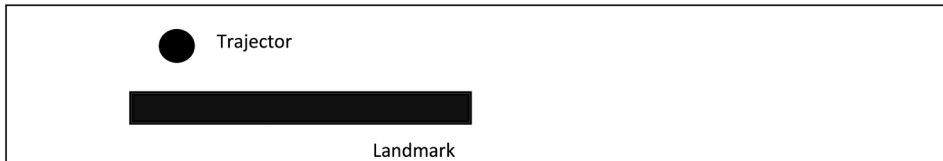


Figure 5: Proximity meaning of *secundum* + NP with uniplex trajectory and multiplex landmark (‘near’)

- (9) *Si erunt moenia secundum mare...* (Vitr. 1, 7, 1)
‘If there are city walls along the sea...’

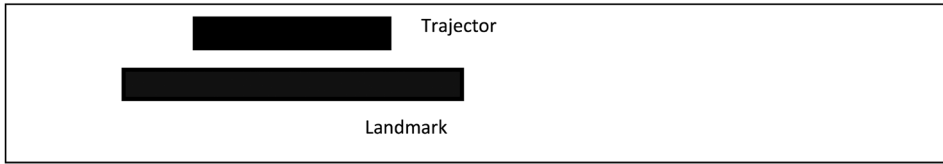


Figure 6: Proximity meaning of *secundum* + NP with multiplex trajectory and landmark ('alongside')

Finally, some instances allow an ambiguous reading between ‘alongside’ and ‘near’, depending on the trajector’s plexity and the level of granularity (Croft and Cruse, 2004, p. 52) with which it is construed. The term ‘granularity’ indicates at what level of ‘magnification’ and detail a certain scene is seen/conceptualised.

- (10) *Si ager (est) secundum viam.* (Varro *Rust.* 1, 2, 23)
 ‘If the farm is along/near the road.’

To sum up, *secundum* as a spatial preposition can either denote path or location (proximity). As Luraghi (2014, p. 103) points out, the path can be “conceived as location, that is, the portion of space in which a trajectory is located” because “a path and a location share the same conceptual space between the starting point and the goal of a directional motion” (Figure 7). Furthermore, Luraghi (*ibid.*) observes that, just as locations, “path is atelic”, i.e. it “does not include the starting point and the end point of the trajectory.”

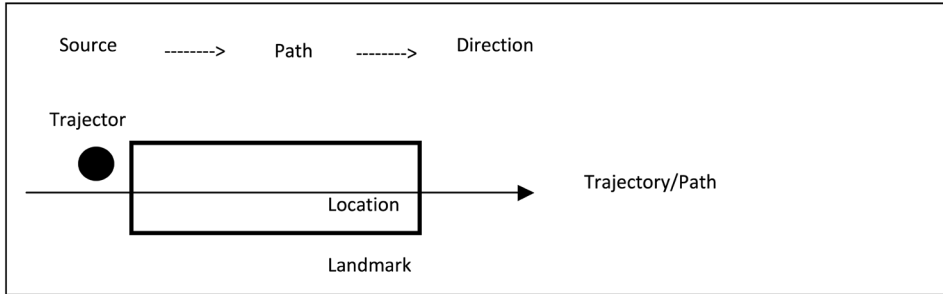


Figure 7: “A prototypical motion event” (Luraghi, 2014, p. 103)

In my sample, most spatial meanings of *secundum* + NP are concentrated in the Classical period. The latest instance is an isolated example found in Isidore’s (560 – 636) *Etymologiae* (11) in which the author’s overt explanation of the preposition’s spatial meaning can be interpreted as evidence that this meaning was already obsolete by the sixth century.

- (11) *Unde et secunda fortuna dicitur, quod secundum nos est, id est prope nos.* (Isid. *Etym.* 10, 257)
 Whence fortune is called favourable (*secunda*) because it is following after (*secundum*) us, that is near us.

In the Classical Latin sub-corpus, more than half the instances of *secundum* + NP express the meaning ‘along’, whereas ‘after’ – i.e. the meaning more closely related to the proto-scene of *sequor* ‘follow, go after’ – is the least frequent (Table 2). Furthermore, the majority of the occurrences of *secundum* + NP with spatial meaning express location instead of motion, i.e. they appear in a static context (57/65, 87%), instead of a dynamic context (8/65, 12%). This may be taken as evidence that the central meaning of the spatial preposition has evolved away from the

dynamic meaning of motion-along inherent to the proto-scene of the verb *sequor* ‘to follow’ (see section 2, above).

Space	#	%
Along	38	58
Near	22	34
After/Behind	5	8
Total	65	100

Table 2: Frequency of the spatial sub-meanings of *secundum* + NP in Classical Latin

3. 2. Time

The temporal meaning of *secundum* emerges when the landmark is an event. The exact specification of the time relation between trajector and landmark emerges in context, depending on boundedness (connected to plexity), i.e. whether the landmark is a punctual event or it is extended in time. When the landmark is bounded, *secundum* is interpreted as ‘(immediately) after’ (examples (12) and (13)).

(12) *Tua ratio est, ut secundum binos ludos mihi respondere incipias.* (Cic. Verr. 1, 34)

‘Your intention is to start replying to me after the two games.’

(13) *Secundum comitia censorum consules praetoresque in provincias profecti [sunt].* (Liv. 39, 4, 5)

‘Close upon the election of censors, the consuls and praetors set off for their provinces.’

On the other hand, when the landmark is conceptualised in its duration, the interpretation is ‘during’ (example (14)).

(14) *... ei secundum quietem⁶ visam esse Iunonem.* (Cic. Div. 1, 24)

‘(It is said) that during his sleep Juno appeared to him.’

In case of events which can be conceptualised at different levels of granularity and plexity (i.e. as extended in time or punctual), the modulation of meaning depends on the larger context: an example of this is *secundum pugnam*, which means either ‘after the battle’ or ‘during the battle.’

Both the meaning of proximity (‘near’) and that of location (‘behind’) have been mentioned in the literature as sources for the meaning ‘after, later’ (Haspelmath, 1997, p. 61-4). Regarding ‘near’/‘after’, Heine and Kuteva (2002, p. 214) point out that “more data [...] are required to determine the exact nature of this process”. On the other hand, the polysemy pattern between ‘behind’ and ‘after’ (time) can be explained with reference to a conceptualisation model of time known as the ‘moving-time’ model (Evans, 2004, p. 62), whereby time is conceived as a line moving in the direction of the observer.

According to this model (Figure 8), if a certain event (the trajector) is located in time ‘behind’ another event conceptualised as a reference point (the landmark), and the timeline (the path) is directed towards the observer, the landmark appears first, (immediately) followed by the trajector, which appears after it, that is ‘later’ (see also Haspelmath, 1997, p. 59-60).

6 The expression *secundum quietem* ‘during sleep’, hence ‘in one’s dreams’ is very similar to *per somnum* ‘during one’s sleep’ (e.g. Cic. Div. 2, 11), in which duration is indicated by *per*, originally a preposition indicating movement of a trajector through a landmark, thus having path as a salient dimension, just like *secundum*.

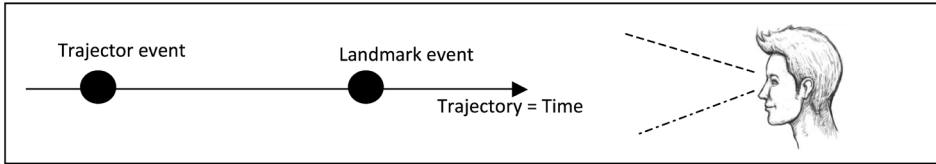


Figure 8: The moving-time model of time

The temporal meanings of *secundum* + NP are mainly found in Classical Latin. Table 3, below, shows that the meaning ‘after’ is much more frequent than ‘during’, which is restricted to the idiomatic expression *secundum quietem* ‘during sleep/in a dream.’

Time	#	%
After	44	88%
During	6	12%
Total	50	100%

Table 3: Frequency of the temporal sub-meanings of *secundum* + NP in Classical Latin

4. Logical extensions of spatial meanings

This section discusses the logical meanings deriving from the space domain, namely ranking, beneficiary and distribution.

4.1. Ranking

Secundum + NP also expresses ranking, that is the conceptualisation that a trajector is rated as inferior to a landmark in some respects.

- (15) *Secundum te nihil est mihi amicus solitudine.* (Cic. Att. 12, 15)
‘After you/next to you, there is nothing friendlier to me than solitude.’
- (16) [*Secundum*] *Pythagoricos [...]* idoneus auctor est Aristoteles. (Apul. Socr. 20)
‘After the Pythagorics [...] a suitable author is Aristotle.’

The expression of evaluative comparison between entities relies on the IMPORTANCE IS PRECEDENCE metaphor (Lakoff *et al.*, 1991), which, in turn, connects to the LINEAR SCALES ARE PATH metaphor (Lakoff, 1993, p. 214). The evaluative meaning of *secundum* is not very frequent and it is only attested in Classical and Silver Latin.

4.2. Beneficiary

The beneficiary function encodes “the (human) entity in favour of which an action is performed” (Luraghi, 2003, p. 40) and is exemplified in (17) and (18).

- (17) *Summa rei haec fuit: centumviri dixerunt dare ipsos secundum adversarium Albucii...* (Sen. Contr. 7, 7, 5)
‘This was the high/limit of the thing: the *centumviri* said that they would judge in favour of Albucius’s opponent...’
- (18) *Secundum te iudicatum erit.* (Gell. 5, 10, 10)
‘It will be judged in your favour.’

Although not very frequent, this meaning of *secundum* + NP is attested in Classical Latin, and some rare instances are also found in Silver and Late Latin.

Even if the beneficiary NP is generally human, there are some exceptions. Two legal expressions are a case in point, namely *litem DARE secundum aliquem* ‘to judge in favour of someone’ (19) and *vindicias secundum libertatem/servitutem DARE/CEDERE* ‘to enslave someone, to free someone’ (lit. to decide a claim in favour of freedom/slavery), shown in (20).⁷

(19) *Secundum te litem do.* (Val. Max. 2, 20, 40)
‘I judge in your favour.’

(20) *M. Claudio clienti negotium dedit, ut virginem in servitutem adsereret neque cederet secundum libertatem postulantibus vindicias.* (Liv. 3, 44, 5)
‘He instructed his client M. Claudius to claim the girl as his slave and not to give in to those who asked for her temporary freedom.’

Another instance is example (21) in which instead of a human participant, it is the participant’s body to be coded in the argument of *secundum*. However, since one’s body is an ‘object’ strongly affecting the individual’s personal sphere, by metonymy, it may represent the whole person.

(21) *Contra si cui suggestum fuerit, secundum corpus fortasse efficere remedia diaboli.* (Aug. Serm. 4, 36)
‘On the contrary, if to someone it was suggested to try the remedies of the devil in favour of the body (= for the body’s health).’

The semantic evolution FOLLOW > BENEFICIARY is particularly interesting in the light of Luraghi’s (2014, p. 115-19) discussion of the polysemy patterns and diachronic origins of beneficiary markers. The author, in fact, points out that not enough attention has been paid in the literature to beneficiary markers which do not derive from expressions of direction and do not display polysemy with the function of recipient (*ibid.* and 2003, p. 118, n. 11). Luraghi (2003; 2014) outlines five sources of beneficiaries stemming out of locative markers: *on the side of* (2003, p. 325), *over* (*ibid.*), *inside* (*ibid.*), *before* (*ibid.*, p. 160), *through*.⁸ I suggest that the beneficiary meaning of *secundum* + NP may be linked to the proximity meaning ‘alongside, near’ of spatial *secundum*, and as such it can be explained with the metaphor IN FAVOUR OF IS ON THE SIDE OF.

All the instances of beneficiary *secundum* + NP in my corpus are prototypical examples of beneficiaries (see Luraghi, 2010a) meaning ‘in favour of’. However, there is also one occurrence of the so-called “behalf beneficiary” (*ibid.*), that is (22).

(22) *Qui esset secundum postumum et natum et mortuum heres institutus...* (Cic. De orat. 1, 180).
‘(If) a man was appointed as substitute heir to a posthumous child who is born and then dies.’

As Luraghi (2010b, p. 75) points out, the behalf beneficiary meaning is likely to have originated from beneficiary expressions through an implicature: that is “acting in someone’s place usually implies acting for his/her benefit.”

7 Lewis and Short, 1879, s. v. *secundum*; see also *Oxford Latin Dictionary*, s. v.

8 For the last one, see Luraghi, 2014, p. 117, from Kittilä, 2010, p. 246.

4.3 Distribution

There is only one example of *secundum* with distributive meaning, attested in Jerome's *Vulgata* (example (23)).

- (23) *Sive lingua quis loquitur secundum duos.* (*Vulg. Cor. 1, 1*)
'If any speak with a tongue, let it be by two.'

Secundum duos translates Greek *κατὰ δύο* and is probably a calque. As Luraghi (2003, p. 211) points out, the distributive meaning of *κατά*, is "already found in Homer" and "becomes widespread later," so a calque is plausible. In her study of Greek prepositions, Luraghi traces back the distributive use to the locative meaning of *κατά*, in contexts which can be either interpreted as locative or distributive (2003, p. 203-4) (see example (24), reproducing example (39) in Luraghi, 2003, p. 2013-14).

- (24) ... τετραρχίας κατέστησεν, ἵνα μὴ μόνον κατὰ πόλεις ἀλλὰ καὶ κατ' ἔθνη δουλεύουσιν ;
(Dem. 9, 26)
'... setting up tetrarchies in order to enslave them, not only city by city, but tribe by tribe as well?'

5. Conclusion

The study presented in this article fits in neatly with a wealth of studies on Latin prepositions and extends it providing insights into the *secundum* + NP construction, which has been neglected in the literature. The semantic analysis proposed in this paper confirms the centrality of the space domain for the evolution of other meanings conveyed by *secundum* + NP. This is in line with synchronic and diachronic studies in Cognitive Linguistics and grammaticalisation.

The spatio-temporal meanings of *secundum* + NP are sensitive to the landmark's plexity and the cogniser's vantage point. A metaphorical transfer TIME IS SPACE explains the semantic extension to the time domain. Here, the distinction between 'behind' and 'after' is explained with reference to the moving-time model of time. Within the logical domain, the functions of ranking and beneficiary are directly connected to the space domain. The ranking meaning derives from the metaphorical extension IMPORTANCE IS PRECEDENCE, based on the idea that LINEAR SCALES ARE PATHS. The semantic evolution connecting 'follow' to beneficiary is connected to the proximity meaning of *secundum* + NP via the metaphor IN FAVOUR OF IS ON THE SIDE OF. The distribution meaning may be a calque from Greek.

Metaphor plays a major role in the semantic development of *secundum* + NP in the space and time domains, and the domain of logical relations directly connected with space. This is consistent with traditional studies in grammaticalisation (e.g. Heine *et al.*, 1991) arguing that metaphor is more frequent in earlier stages of development, whereas metonymy takes central stage in more advanced phases. Even if more recent developments in grammaticalisation theory dispute the very possibility of rigidly assigning metaphor and metonymy to different stages of language change, and favour the view of an interplay of the two phenomena at all times (e.g. Essees, 2010, p. 63-64), my data suggests that metaphor is indeed a key mechanism at the initial stage of the grammaticalisation of *secundum*.

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