

# 11. For a cognitive continuum underlying the distinction between arguments and adjuncts

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The main aim of this paper is to resystematize the traditional discrete distinction between arguments and adjuncts within the cognitive continuum of subjectivity (Langacker 1990, 2007). From this perspective, the traditional discrete distinction between argument and adjuncts can be reinterpreted in a continuistic way (Mereu 2020). To achieve this, we will qualitatively analyse the behaviour of an Italian adverbial preposition of limitation, *riguardo (a)* NP ‘regarding NP’, showing how the different roles it assumes with respect to the argument structure can be traced back to a different subjective or objective construction of the relation it establishes.

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## 1. Introduction

The dichotomy between arguments and adjuncts is the natural outcome of the structuralist tradition. More recently, the post-structuralist literature, characterized by an emergentist and usage-based approach to grammar (Hopper 1987; Bybee 2010, among others), has attempted to overcome the classical approach in favour of a perspective that does not see the different features of language as the result of binary oppositions, but rather as focused areas within broader grammatical continua. The linguistic structures that form the speaker’s grammar would emerge as the outcome of functionally motivated but blurred distinctions.

We want to reconsider the traditional dichotomy between arguments and adjuncts, adopting an approach that takes these two categories as extreme

poles of a continuum (Mereu 2020).<sup>174</sup> More specifically, the distinction can be grasped in terms of different construals of the conceptual representation of the sentence. By construal we mean «our multifaceted capacity to conceive and portray the same situation in alternate ways» (Langacker 2007: 435).

The continuum that we believe best characterizes the distinction between arguments and adjuncts is that of subjectivity-objectivity. Central to the construal of a proposition is indeed «the extent to which a particular entity is subjectively or objectively construed» (Langacker 2007: 435). We can describe the two categories in these terms: «an entity is said to be objectively construed to the extent that it goes ‘onstage’ as an explicit, focused object of conception. An entity is subjectively construed to the extent that it remains ‘offstage’ as an implicit, unselfconscious subject of conception» (Langacker 2006: 18). We will thus use the subjectivity-objectivity continuum to re-propose an internal distinction at the adjunct pole. This distinction is roughly equivalent to the traditional difference between sentence modifiers and predicate modifiers. In the first case (sentence modifier) it is the entire event/state of affairs presented in the sentence that is modified. See for example: *Theoretically, man can arrive on Mars*. Thus, the fact that man can arrive on Mars is only presented theoretically. In the second case it is only the predicate that is modified: *Luke eats fast*. Here it is only the action of eating performed by Luke that is modified, specifically the fact that he does it quickly. Placed on a cognitive level, the difference can be explained on a different construal of the proposition.

In order to show how the continuum of subjectivity-objectivity responds to different construals of the proposition, we analyse the behaviour of a rather marginal complement in traditional grammatical literature: the complement of limitation in Italian *riguardo (a) NP* ‘regarding NP’. The class of complements of limitation is very broad. A non-exhaustive list<sup>175</sup> of its instances is given in Table 1.

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<sup>174</sup> See Birtić & Brač (*this volume*, Chapter 9) for a survey of tests for distinguishing between arguments and adjuncts.

<sup>175</sup> Providing a complete list of the possible realizations of the complement of limitation is beyond the scope of this paper, although it represents an interesting object of analysis that deserves a dedicated work. Already a non-exhaustive list nevertheless provides a first picture of the variety and complexity of complement’s combinations.

Table 1. A non-exhaustive list of complements of limitation in Italian

Combination <sup>176</sup>	Instance
P	<i>per; in; su; circa; secondo</i>
V	<i>considerando</i>
N + P	<i>riguardo a; rispetto a</i>
V + P	<i>parlando di</i>
Adv + P	<i>relativamente a; limitatamente a</i>
P + N + P	<i>a proposito di; in relazione a; in riferimento a; in quanto a; in merito a; in fatto di; a livello di; in tema di; in rapporto a; in connessione con; con attinenza a</i>
P + Pro + Rel + V	<i>per quanto riguarda; per quello che concerne; per ciò che si riferisce</i>

In Table 2 we also provide a non-exhaustive list of possible realisations of the complement of limitation in English. In the examples we will always propose a translation of *riguardo (a)* as ‘regarding’ thus favouring the criterion of structural similarity between the two, but the other forms are also possible translations of the limiting meaning of the complement.

Table 2. A non-exhaustive list of complements of limitation in English

Combination	Instance
P	<i>on; for; of; about</i>
V	<i>regarding; concerning; respecting; touching</i>
P + P	<i>as for; as to</i>
V + P	<i>relating to; dealing with; referring to; speaking of; according to; concerned with</i>
Adj + P	<i>relative to; germane to; relevant to</i>
P + N + P	<i>with reference to; with respect to; in reference to; in relation to; in respect of</i>

All realizations of this class of complements share the same limiting function, hence the possibility of treating them as belonging to a single, functionally homogeneous class. In this sense, *riguardo (a)* NP has not been

<sup>176</sup> The different combinations are represented here by word classes and not as syntagmatic representations. We therefore intentionally use N to denote a noun and not a noun phrase.

chosen because it is endowed with special characteristics with respect to the other elements of the class, but precisely because it is its member. Moreover, the choice of studying the behaviour of complements of limitation with respect to the distinction between arguments and adjuncts is based on the fact that this type of complement never has the status of argument, but shows a variety of realisations as different types of adjuncts, thus allowing us to complexify a category that seems by nature discrete. This does not distinguish it from other types of complements that are semantically different but with similar syntactic status. The results we will arrive at would thus theoretically be extendable to other classes of complements, but a separate work will be necessary to corroborate this hypothesis.

In general, this complement limits the propositional content to a domain it introduces:

- (1) *La Adam Air è ora al centro di polemiche riguardo allo stato di manutenzione della sua flotta.*

‘Adam Air is now at the centre of controversy regarding the state of maintenance of its fleet.’

- (2) *Riguardo la dissipazione, la CPU sopportava temperature fino a 100 °C e non consumava oltre i 31 Watts.<sup>177</sup>*

‘Regarding dissipation, the CPU could withstand temperatures of up to 100 °C and consumed no more than 31 Watts.’

Starting from the qualitative discussion of real examples, we will show how such a complement can place itself between and outside the margins of the sentence. We will discuss how this ambiguity is the product of interacting factors: semantics, sentence syntax and pragmatic roles (i.e. topic vs. comment). The distinction between arguments and adjuncts and between different adjuncts will thus be determined by the interface between different levels of linguistic analysis, motivated at a cognitive and functional level (Mereu 2020).

All the examples used in the analysis are collected from the PAISÀ (*Piattaforma per l’Apprendimento dell’Italiano Su corpora Annotati*) corpus of written Italian of the web (Lyding *et al.* 2014). The corpus contains a

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<sup>177</sup> In this example it can be seen that the simple preposition *a* is not obligatory. In a process of simplification we have forms of the same complement represented only by *riguardo* NP, which are considered equally grammatical as their counterpart *riguardo a* NP. For this reason, we have represented the element *a* as an optional element in round brackets.

total of about 380,000 documents from about 1,000 separate sites with a total of about 250 million words, collected between September and October 2010. About 260,000 documents come from the Wikipedia, about 5,600 from other Wikimedia Foundation projects. About 9,300 documents come from Indymedia, and an estimated 65,000 documents come from blogs. We have chosen this corpus over other larger corpora exclusively for a practical reason: PAISÀ is freely available online at <https://www.corpusitaliano.it/> without any kind of subscription. Moreover, its size still guarantees an adequate representation of the written Italian of the web.

## 2. Subjective and objective construal

Within a cognitivist view of grammar, the meaning of a sentence is given by the way we construct the conceptual representation of the entities, states, events, and processes involved. In this sense, the meaning conveyed by linguistic expressions reflects how we see them and how we want the addressee to see them. Meaning is therefore not exclusively given by the correspondence between a linguistic and a real dimension, but rather actively constructed by speakers during the interaction. To represent this view of things, Langacker (1990) introduces the term “construal”:

«A speaker who accurately observes the spatial distribution of certain stars can describe them in many distinct fashions: as a constellation, as a cluster of stars, as specks of light in the sky, etc. Such expressions are semantically distinct; they reflect the speaker’s alternate construals of the scene, each compatible with its objectively given properties.»  
(Langacker 1990: 61)

The choices that the speaker makes when selecting a linguistic expression are reflected at all levels of the language: from inflectional morphemes (temporal and aspectual relations with respect to the communicative situation) and derivational (consider the effect elicited by diminutives with respect to their normal forms), to the choice of word class (see, for example, nominalizations of verbs), up to broader syntactic structures (e.g. cleft or passive structures or word order). The use of language, as an activity, is in fact always set in a precise spatio-temporal context and situated at the convergence between at least two individuals, each endowed with respective

knowledge and, in addition, in a continuous operation of calibration of meaning according to shared knowledge.

One of the operations of construal is that of perspective: the speaker builds the conceptual representation of the message from a certain point of view, which may be more or less subjective or objective. In the meaning proper to cognitive linguistics, these two terms must be understood as two extreme poles of the same continuum reflecting the way in which a particular entity can enter the process/event described by the sentence. A subjective entity or relation between entities will therefore be «a locus of consciousness that is not itself conceived» (Langacker 2007: 436) as part of the described action. Rather, it will be external to it, as a point of view that is on the side of the conceptualizer – which can be understood here as the speaker – of the described event, reflecting the perspective it takes on the event and on its linguistic representation. In contrast, an objective entity or relation between entities will be a part of the described event, an entity or relation involved in the scene represented by the meaning of the sentence. We then have a whole series of realizations characterized by intermediate degrees of subjectivity separating the two extreme poles of the continuum.

For the purposes of our analysis, this continuum can help to enlighten the traditional distinction between arguments and adjuncts, and within these, between different types of adjuncts, from a more cognitivist perspective. An argument, due to its distributional and structural properties, should be seen as a participant in the event presented with the highest degree of objectivity, as a necessary component of the conceptual representation. In contrast, an adjunct is usually constructed with a maximum degree of subjectivity, as an optional component that contributes to the representation by presenting unnecessary participants or relations that reflect a subjective point of view of the speaker on the event. As they are not part of the objective representation, they can be omitted.

We must not forget how subjectivity and objectivity are gradual properties, which gives us the opportunity to consider the whole series of realizations that show behaviour somewhere between argument and adjunct, such as adverbial modifiers. In order to better understand this, however, we need to introduce the different linguistic metafunctions; indeed, depending on the level of metafunction to which a linguistic element can be traced, it will show a greater or lesser degree of subjectivity.

### 3. Language metafunctions

In the perspective presented by Halliday (1970, 1994), and continued in works such as Dik *et al.* (1990) and Hengeveld (1989), the sentence is the result of three different structures each belonging to three different linguistic metafunctions. Each component then fulfils different roles in the economy of the message and expresses a different meaning with which it contributes to it. Thus, we have: an ideational level, within which the meaning of the sentence is represented as a representation of the event described, with its participants and the different circumstances that contribute to defining the event. It is thus the level in which participants, events and relations are objectively constructed. Then, we have an interpersonal level, which manages how the speaker stands in relation to the representation of events (think of marker of evidentiality or epistemicity) and the discursive dynamic between speaker and listener. This level is construed on a higher degree of subjectivity and a lesser degree of objectivity, in fact it has less to do with the representation of the message than with the perspective the speaker takes on it. Finally, there is a textual level, which handles thematic progression, how the sentence binds to the preceding and following context in the broader textual and discursive organisation. This level possesses the highest degree of subjectivity, as it exclusively reflects the speaker's point of view for his communicative purposes, it is thus entirely determined by the perspective taken by the speaker.

The distinction between arguments and adjuncts can then be appropriately interpreted if we take this perspective: depending on the different level, we have arguments or adjuncts. Arguments are in fact part of the ideational level, they are necessary participants in the represented event. Some adjuncts can also be part of this level, namely predicate and predication modifiers (Dik *et al.* 1990), whose role for the former is to add participants or relations that characterize and enrich the conceptual representation, while for the latter it is to specify the spatial, temporal, or conceptual coordinates within which the event takes place. At a higher level of subjectivity and meta-functionality, on the other hand, we find additions that do not directly participate in the event but indicate an attitude or state of the speaker towards what is being represented, or that frame the event in an interpretative frame of reference. Finally, at the textual level we usually find discursive signals such as connectives or topicalization markers. Different syntactic realizations thus pertain to different levels.

For the purposes of our analysis, we will therefore resort to a particular category, that of adverbial modifier, which better than others shows different behaviours depending on the level of metafunctions it modifies. For this reason, it constitutes an interesting observation point from which we can test our interpretation in terms of the subjectivity and objectivity of the construal. We shall do this by observing the behaviour of a *riguardo (a)* NP as an adverb.

#### 4. Adverbial modifiers

It is necessary now to better understand to which syntactic category *riguardo (a)* NP belongs to. Once this has been clarified, it will be easier to explain its behaviour. The definition of *riguardo (a)* NP in terms of discrete syntactic categories is indeed problematic. In fact, it is clearly a prepositional phrase, characterized, as usual, by a high cohesion between the prepositional element and the nominal one, such as not to allow the insertion of other linguistic material between the two. In terms of a preposition, it will be more appropriate to describe *riguardo (a)* as a complex preposition composed by a nominal element (*riguardo* ‘regarding’) and a simple preposition (*a*). It should be noted here that the simple preposition *a* may not appear in some cases and the preposition is limited to its nominal element.

However, once we move on to consider the function of this complex preposition in the economy of the sentence, we can realize how its function is that of an adverbial modifier. Indeed, it modifies the propositional content and truth value of the sentence, limiting them in relation to the dimension represented by the NP introduced by the preposition. An adequate paraphrase of *riguardo (a)* NP may in fact be *limitatamente a* NP ‘limitedly to NP’. Adverbs, indeed, constitute a structurally heterogeneous class, characterized by a typically prototypical configuration (Croft 1998), endowed with its own centre, represented by the most frequent and representative cases of the class (such as adverbs in *-mente* for Italian) and a whole constellation of more marginal cases, both in frequency and representativeness, also consisting of other word classes that may have modifier functions.

In this sense, *riguardo (a)* NP as an adverbial modifier is certainly a non-prototypical case of an adverb. In contrast to prototypical adverbs, the complex preposition cannot appear on its own (*\*riguardo a*), the presence of the NP is necessary. In this sense, it can be seen as a case of argument-

taking adverb (Ramat & Ricca 1998: 188). *Riguardo (a)* works as the head of the prepositional phrase, we can then define it as an adverbial preposition (Ramat & Ricca 1998: 188). As is typical of all adverbs, however, it can modify a noun, an adjective or more complex syntactic structures such as predication or the entire process (Ramat & Ricca 1998: 187):

- (3) *Il tutto è successo per colpa di una lamentela da parte di Giancarlo verso Davide riguardo ad un presunto danneggiamento della sua vettura e un divieto di posteggio nel cortile del condominio.*  
 ‘The whole thing happened because of a complaint by Giancarlo to Davide regarding alleged damage to his car and a parking ban in the condominium’s courtyard.’
- (4) *Le applicazioni più elastiche riguardo alla perdita dei dati e dipendenti dal tempo si affidano invece a UDP.*  
 ‘Applications that are more elastic regarding data loss and time-dependent rely instead on UDP.’
- (5) *Non sappiamo nulla riguardo l’aspetto di questa prima chiesa né del primo nucleo del convento.*  
 ‘We know nothing about the appearance of this first church or the first nucleus of the monastery.’
- (6) *Riguardo a tale opera è sorta una disputa.*  
 ‘Regarding this work a dispute has arisen.’

Having clarified the category to which *riguardo (a)* NP pertains, we must now take a closer look at how this adverbial preposition behaves with respect to the distinction between arguments and adjuncts of the argumentative structure. In fact, in general, adverbs are considered as adjuncts, by virtue of the freedom of movement and on the consideration that they constitute an optional part of the sentence, which is not required to have a grammatical sentence, but merely enriches its meaning, modifying it. They can therefore be omitted without affecting the grammaticality of the resulting sentence. This is also true with *riguardo (a)* NP, which thus behaves like most adverbs in this respect:

- (7) ~~*Riguardo all’aspetto lirico, il Midwest rap è dominata dall’arte di concetto.*~~  
 ‘~~Regarding the lyrical aspect, Midwest rap is dominated by concept art.~~’
- (8) ~~*Hynek era scettico riguardo molte testimonianze.*~~  
 ‘~~Hynek was sceptical regarding many testimonies.~~’

In (7) and (8), the sentences resulting from the omission of the adverbial preposition are syntactically correct, while being semantically more generic: the propositional content and truth value of the sentence is no longer interpreted limited to one dimension but applies more generally.

Although not a prototypical case of an adverb, we can then observe how the adverbial preposition under investigation has the typical functions of an adverb, as well as its behaviour as an adjunct. This can also be observed from another property typically assigned to adverbials and adjuncts: the possibility of occupying different positions within the syntagmatic continuity of the sentence:

- (9) *Riguardo il titolo dell'album ci fu una polemica.*  
 'Regarding the title of the album there was a controversy.'
- (10) *Un genitore indignato riguardo al cartone ha scritto una lettera al Washington Post.*  
 'A parent outraged about the cartoon wrote a letter to the Washington Post.'
- (11) *In molte transazioni, una parte ha maggiori informazioni riguardo al prodotto, rispetto all'altra parte.*  
 'In many transactions, one party has more information about the product than the other party.'
- (12) *Va però segnalato che diverse volte in passato si sono diffuse notizie infondate riguardo la sua morte.*  
 'It should be noted, however, that several times in the past there were unfounded reports about his death.'

However, the apparent freedom of movement with which the adverbial preposition is endowed is not the result of a free choice of the speaker but depends on several factors. These, as we will see in section 5, include the level at which the adverbial is modified.

Before proceeding, it is first necessary to provide a terminological clarification of the use of the term adjunct and the term modifier. In this paper the former is used in its traditional sense, as summarized by Lyons (1968: 334): «adjuncts (of place, time, manner, reason, etc.) are optional, or structurally dispensable, constituents of the sentence: they may be removed without affecting the remainder of the sentence». For the syntactic tradition, an adverbial modifier is an adjunct. For the cognitivist tradition, the term adjunct is reserved for those syntactic structures that do not further elaborate

the sentence structure by completing or modifying it (Langacker 1991: 430). This entails a potential ambiguity with regard to our use of the term adjunct and the term modifier. Since the aim of this paper is primarily to describe the traditional discrete distinction between argument and adjunct as a continuum, we are interested here in maintaining the structuralist meaning of the term adjunct. In contrast to the cognitivist position, adverbial modifiers here are considered adjuncts, although recognising the inadequacy of the term to describe a wide range of phenomena united only by their optionality.

## 5. Tests for subjectivity and objectivity

In this part of the paper, we will resort to a series of tests to show how the adverbial preposition *riguardo* (*a*) can be characterized according to different degrees of subjectivity or objectivity, depending on the level of linguistic metafunctions it contributes to modify. We will resort to a series of tests of a different nature, both more strictly syntactic and also semantic and pragmatic, as we believe that the behaviour of a linguistic expression can only be explained starting from a holistic approach, which sees the different levels of linguistic analysis not in isolation but in their natural interaction, without thereby running the risk of confusing the specificities proper to each level.

In proceeding, we shall follow an increase in the subjectivity with which the limiting relation established between *riguardo* (*a*) NP and the modified element is constructed. At first, we shall in fact show how *riguardo* (*a*) NP is placed at an ideational, hence objective, level of the sentence. In such cases it can modify a noun, an adjective or the predication. It acts as a modifier of predication when it modifies the state of affairs represented by the predication (consisting of predicate followed by its possible arguments) with respect to a spatial, temporal or conceptual dimension (Dik *et al.* 1990: 176). In general, these types of modifiers «specify the setting within which an SoA occurs» (Dik *et al.* 1990: 176), but they can be characterized according to the type of setting they impose. Among the most frequent and widespread are certainly temporal and spatial settings, while *riguardo* (*a*) NP imposes a setting that we can define as conceptual, presenting the dimension (represented by the NP) limited to which the predication is to be interpreted as relating.

Starting from a series of examples collected from the Paisà corpus, we will show how these uses must be kept distinct from more subjective constructions of the relation established by *riguardo (a)* between the introduced NP and the broader process depicted by the sentence. In these cases, *riguardo (a)* NP must be seen as an adverbial modifier of the entire process, establishing a domain within which it is to be interpreted. Therefore, we call this type of adverbs domain adverbs (Bellert 1977; Bertuccelli Papi 1992; Ramat & Ricca 1998, among others). Such adverbs restrict the domain within which the sentence must be interpreted in order to be considered true. In this sense, this type of adverbs does not express a manner in which the process takes place, «but denotes an extra-linguistic domain, for which the utterance is presented as being objectively valid by the speaker» (Grübl 2018: 66). Compared to the cases of noun, adjective, or predication modifier, we find ourselves here observing relations endowed with a higher degree of subjectivity. The level of linguistic metafunctions they modify is no longer the ideational one, but the interpersonal one. They can be paraphrased by expressions such as *parlando* ‘speaking’ plus an adverb, in the case considered by *parlando limitatamente a N* ‘speaking limitedly to N’, in this sense making explicit their interpersonal metalinguistic function: *I clarify to my interlocutor the conceptual domain within which I am going to place what I am going to say*. This metalinguistic function is a subjective construal operation that clearly has nothing to do with the representation of the event itself. As we shall see, domain adverbs constitute an interesting category that displays typical behaviours of modifiers of the conceptual level, such as modifiers of predication, such as the possibility of being posited in focal structures, while not sharing others, such as the possibility of being questioned or denied (Ramat & Ricca 1998: 191). In this sense, it emerges «the difficulty of drawing sharp distinctions between different layers or, better, at the fact that the same adverb may perform different functions» (Ramat & Ricca 1998: 193).

The last class of adverbial modifiers that *riguardo (a)* NP can be a part of is that of connectives (Berretta 1984; Schiffrin 1987; Bazzanella 2006; Fischer 2006; among others), endowed with a maximum degree of subjectivity, as elements proper to the textual metafunction. Contrary to the cases seen above, they do not participate in any way in the truth-value of the sentence, but merely play a cohesive role within the text and conversation, referring back to the preceding context and giving coherence to the following one, which is segmented into a thematically coherent unit, i.e. one that speaks of

the same thing. In this sense, *riguardo (a)* NP as a connective serializes the text into subunits. With this function, adverbial modifiers are constructed with the highest degree of subjectivity, as they encode a relation that can only be on the side of the conceptualizer: it is in fact him the one who decides on the organisation of the text, reflecting his communicative goals. These elements thus make explicit precisely this operation of constructing the textual texture, without in any way modifying what is said. Given these properties, we expect that from the proposed tests *riguardo (a)* NP as a connective will show a different behaviour from that observed for its uses as an objective modifier of nouns, adjectives, and predications and as a subjective domain modifier. In particular, it will be impossible for it to be focalized, as a properly thematic element, and its omission will entail no loss for the propositional content and truth value of the sentence.

### 5.1. *Riguardo (a)* NP as an adverbial of the predication and as a domain adverb

Let us begin by distinguishing between the role of *riguardo (a)* NP as modifier of noun, adjective and predication and as modifier of domain. We mentioned earlier how in the former case, the limiting relation established by the adverbial preposition is constructed objectively, whereas in the latter case subjectively. This distinction in the perspective with which the relation is constructed leads to different results when placed under negation. In fact, only what is part of the objective representation of the sentence can be negated, whereas what is outside this cannot be. In this regard, see the following examples:

(13) *Non si sa nulla di Lord Millenial riguardo alla sua vita prima di diventare apprendista.*

‘Nothing is known about Lord Millenial regarding his life before he became an apprentice.’

(14) *Riguardo l’anno esatto della fondazione non c’è certezza, ma tradizionalmente la si fa risalire al 1229.*

‘Regarding the exact year of the founding, there is no certainty, but traditionally it is dated to 1229.’

In (13), the modification of predication falls under negation, the possibility of limiting the positive content of the sentence (knowing something) in relation to the dimension introduced by the argument taking

adverbial is in fact represented as negative. On the contrary, in (14), the conceptual domain represented by *riguardo (a)* NP is outside the scope of negation, which merely negates the predicate of the sentence. It is only this that is negated, and not the relation established by the adverb, is shown by the fact that the following context, itself framed by a domain adverb as *tradizionalmente* ‘traditionally’, provides us with new positive information about the domain presented by *riguardo (a)*.

The same behaviour is shown by the two different modifiers with respect to the possibility of being questioned. In this sense, *riguardo (a)* NP, when objectively construed, can be made the object of questioning, on the contrary when it is subjectively construed, it necessarily remains outside it. Consider the following examples:

(15) *Riguardo l'Italia, il partito della Margherita aveva aderito ed attualmente è confluito nel PD?*

‘Regarding Italy, did the Margherita party join and is it now part of the PD?’

(16) *Stein iniziò a investigare riguardo alla struttura delle proteine?*

‘Did Stein begin to investigate about the structure of proteins?’

In (15), *riguardo (a)* NP used as domain adverbial is not affected by the question, it is not the domain relation that is questioned. One could therefore not answer this question by stating: *no, not regarding N*. On the contrary, when *riguardo (a)* NP is objectively constructed as in (16), it falls under the question. An answer, this time appropriate, to the question could then be: *no, not regarding the protein structure*.

The observed difference for questions and negation is due once again to the difference observed above between subjective and objective construction of an entity or relation. When we have a subjective construction, it will necessarily also be presupposed, as it does not reflect a state of affairs, but an attitude that the speaker takes with respect to what is being said. Conversely, when it is objectively constructed, it constitutes asserted information, which is part of the information that is not shared between speakers and can therefore be denied or tested through questions. Thus, while the assertion can be denied or inquired into, the presupposition cannot be; not being part of the objective representation of what is said, it necessarily remains outside of denial or question.

This difference between presupposed and asserted information is reflected in the assignment of pragmatic roles that can be assigned to the NP

introduced by the adverbial preposition. As a domain adverb and in initial position, *riguardo (a)* NP marks the NP as topic (i.e. a point of reference for the message, Langacker 1993: 25). The topic is an extrasentential category and is part of the subjective construction of the message. In final position and as a modifier of predication, *riguardo (a)* NP is part of the focus (i.e. unshared information conveyed by the message, Lambrecht 1994: 206). Focus is a sentential category and thus part of the objective construct of the message:

- (17) *Riguardo a questa Cappella, dalle scarse notizie che rimangono possiamo dir che ha avuto un'esistenza travagliata. Nel 1797 e nel 1799 è stata chiusa al culto ed è servita per le adunanze consiliari: è stata la prima sede del municipio. In seguito si era cercato di adibirla a uso di forno, finché è stata riconsacrata e benedetta il 23 aprile 1840. Infine dopo tante vicende è stata demolita nel 1916 e il quadro del Santo Protettore è stato destinato all' Oratorio.*

'Regarding this Chapel, from what little is known we can say that [it] had a troubled existence. In 1797 and 1799 [it] was closed to worship and used for council meetings: [it] was the first seat of the municipality. Later, attempts were made to use it as a bakery, until [it] was re-consecrated and blessed on 23 April 1840. Finally, after many vicissitudes, [it] was demolished in 1916 and the painting of the patron saint was used as an oratory.'

- (18) *I Padri conciliari poi ordinarono una citazione perentoria contro i francesi riguardo la Sanzione Pragmatica. Quest'ultima fu solennemente revocata e condannata e venne approvato il concordato con Francesco I di Francia.*  
 'The Council Fathers then ordered a peremptory summons against the French regarding the Pragmatic Sanction. This last one was solemnly revoked and condemned and the concordat with Francis I of France.'

In (17), the NP *questa Cappella* 'this Chapel' is taken up in subsequent sentences by a series of high continuity coreferential pronouns: zero anaphora pronouns. In contrast, in (18), the name *la Sanzione Pragmatica* 'the Pragmatic Sanction' is not retrieved by a coreferential anaphora in the sentence in which it appears but can be retrieved by a full lexical element (*this last one*) in the following context.

Another aspect reflecting the difference in the subjective and objective construction of *riguardo (a)* NP, is the noticeable difference in the extent to

which the adverbial preposition modifies the domain in one case and a noun, adjective or predication in the other. In the former, since it is subjectively construed, the scope of the modification can be extensive, stretching over several sentences placed in sequence:

- (19) *Riguardo a Fisker, gran macchina la Karma e spero che il nuovo progetto sia così entusiasmante... chissà che non sia la vera rivelazione e magari quando il petrolio finisce, questi fanno le scarpe a tutti i marchi più conosciuti.*

‘Regarding Fisker, the Karma is a great car and I hope the new project is as exciting as it is... who knows, maybe it will be the real revelation and maybe when the oil runs out, they will outdo all the better-known brands.’

If, on the other hand, we consider cases in which *riguardo(a)* NP modifies the ideational level of the language and is thus objectively constructed, the scope of the modification cannot extend beyond the limited boundaries of the element being modified.

- (20) [*Gli zaibatsu*] *Erano largamente considerati benefici e l’opinione pubblica giapponese oscillava tra il disinteresse e la disapprovazione riguardo a un’eliminazione degli zaibatsu. Attualmente gli antichi sistemi di controllo amministrativo e finanziario sono stati distrutti.*

‘The zaibatsu were widely regarded as beneficial and Japanese public opinion swung between disinterest and disapproval regarding an elimination of the zaibatsu. At present the ancient systems of administrative and financial control have been destroyed.’

As can be seen, in (20) *riguardo(a)* NP modifies only the predication within which it is found, as it is part of it. The subsequent context is in no way modified by the adverbial preposition. In this sense, as an objective part of the representation, it cannot be extended outside it, while when subjectively construed, it can do it.

A final useful test for the distinction between predication modifiers, which pertain to the ideational level, and domain modifiers, which pertain instead to the interpersonal level, sees the possibility for the former to be moved into an independent sentence as modifiers of the predicate *farlo* ‘to do it’ (Prandi & De Santis 2006; Dik *et al.* 1990; Hengeveld 1989). This can in fact be used as a verbal proforma, to indicate an action in its entirety that

can still be modified internally by adjuncts. In contrast to this, a verb such as *accadere* ‘to happen’ denotes a closed process, completed within it, which can only be modified by elements external to it, which therefore do not participate in its conceptual representation and can therefore be described as subjective. Thus, *riguardo (a)* NP as a domain modifier can be moved into an independent sentence with *accadere*, whereas it cannot be so with a predicate such as *farlo*. Conversely, *riguardo (a)* NP as a predicate modifier can be moved into an independent sentence with *farlo*, but not with *accadere*, which describes a closed process that cannot be modified from within. As expected, the adverbial preposition behaves differently when modifying predication from within and when modifying the domain from outside. In (21a) and (22a) we provide the examples in their original form from the corpus, while in (21b) and (22b) we give the modified version with *farlo*, and finally in (21c) and (22c) the modified version with *accadere*:

- (21) a. [Adolphe Quételet] *Ha influito sul sistema di Émile Durkheim riguardo l’affermazione che i fenomeni sociali hanno una natura non riconducibile ai singoli elementi di cui sono composti.*  
 ‘Adolphe Quételet influenced Émile Durkheim’s system regarding the assertion that social phenomena have a nature that cannot be traced back to the individual elements of which they are composed.’
- b. [Adolphe Quételet] *Ha influito sul sistema di Émile Durkheim. E lo ha fatto riguardo l’affermazione che i fenomeni sociali hanno una natura non riconducibile ai singoli elementi di cui sono composti.*  
 ‘Adolphe Quételet influenced Émile Durkheim’s system. And he did regarding the assertion that social phenomena have a nature that cannot be traced back to the individual elements of which they are composed.’
- c. [Adolphe Quételet] *Ha influito sul sistema di Émile Durkheim.? E ciò è accaduto riguardo l’affermazione che i fenomeni sociali hanno una natura non riconducibile ai singoli elementi di cui sono composti.*  
 ‘Adolphe Quételet influenced Émile Durkheim’s system. ?And this happened regarding the assertion that social phenomena have a nature that cannot be traced back to the individual elements of which they are composed.’

- (22) a. *Riguardo l'attività cinematografica, [Emma Danieli] è ricordata per la sua interpretazione nel film di fantascienza-horror "L'ultimo uomo della Terra".*  
 'Regarding film activity, [Emma Danieli] is remembered for her performance in the science fiction-horror film "The Last Man on Earth".
- b. *[Emma Danieli] è ricordata per la sua interpretazione nel film di fantascienza-horror "L'ultimo uomo della Terra". E ciò accade riguardo l'attività cinematografica.*  
 '[Emma Danieli] is remembered for her performance in the science fiction-horror film "The Last Man on Earth". And this happens regarding film activity.
- c. *[Emma Danieli] è ricordata per la sua interpretazione nel film di fantascienza-horror "L'ultimo uomo della Terra". ?E lo fa riguardo l'attività cinematografica.*  
 '[Emma Danieli] is remembered for her performance in the science fiction-horror film "The Last Man on Earth". ?And it does regarding film activity.'

In this section we have brought a good deal of evidence in favour of the different functions the adverbial preposition can fulfil according to the different degree of subjectivity with which the speaker constructs it. We can now move on to discuss the differences between these realizations and those with the highest degree of subjectivity as connectives.

## 5.2. *Riguardo (a)* NP as a connective

In section 3, we argued how the textual metafunction is the one endowed with the highest degree of subjectivity, in that it reflects the speaker's intentions and purposes independently of the specific content of what the speaker wants to say. In this sense, it does not participate in any way in the truth-value and propositional content of the sentence, in contrast to what *riguardo (a)* NP does, albeit with differences, at the conceptual and interpersonal levels.

In order to demonstrate this difference, we can first present the results of a test for the omission of the adverbial preposition, observing whether there are any differences in meaning and truth value with respect to the original sentence:

- (23) *Riguardo allo scaricare, io sono un vero purista per quanto riguarda i film che voglio proprio vedere.*  
 ‘Regarding downloading, I am a real purist when it comes to films I really want to see.’
- (24) *Riguardo le poste italiane, non sono affatto d’accordo.*  
 ‘Regarding the Italian postal service, I do not agree at all.’
- (25) *Sono state istituite numerose cattedre riguardo questa materia.*  
 ‘Numerous chairs have been established regarding this subject.’

Earlier, we were able to observe how omission without affecting the grammaticality of the sentence is a typical property of adverbs as adjuncts. This is confirmed again by this set of examples. What results, however, when the omission test is applied, is a difference in meaning with respect to the original sentence. Indeed, note the outcome to which the omission of *riguardo (a)* NP gives rise in examples (24) and (25). In these cases, compared to the original sentence, the sentence can no longer be interpreted as referring to the dimension introduced by the preposition, but must be read in general. The semantic value of limitation inherent in this expression, which modifies the truth value by limiting it to the presented dimension, is thus lost. In this sense, both as an objective modifier of the predication and as a more subjective modifier of the domain, *riguardo (a)* NP still partakes of the propositional content. Compare, however, this behaviour with the one shown in (23), where *riguardo (a)* NP is a connective. Its omission does not entail any loss at the level of propositional content, nor does it change its truth values. The relation it establishes is thus not that of semantic limitation to a dimension represented by the NP, but must be read as a purely cohesive relation between the different parts of the text. It therefore does not participate in the semantics of the sentence, but in the pragmatics and organization of the text. In this sense, it is constructed with a maximum degree of subjectivity, higher even than that with which it is constructed as a domain adverb, as demonstrated by the different outcome of the omission in the cases considered.

If the dimension of relevance proper to these realizations of *riguardo (a)* NP is pragmatic and not semantic or syntactic, we can see how its behaviour differs from its other uses by using precisely pragmatic tests. The first of these has to do with the shifting of *riguardo (a)* NP from the initial position, typically associated with a thematic element, to the final position, associated

with the focal element, and vice versa. With respect to the same examples proposed above, this is the outcome of the shift test:

- (26) *\*Io sono un vero purista per quanto riguarda i film che voglio proprio vedere riguardo allo scaricare.*  
 ‘I am a real purist when it comes to the films I really want to see regarding downloading.’
- (27) *Non sono affatto d’accordo riguardo le poste italiane.*  
 ‘I do not agree at all regarding the Italian postal service.’
- (28) *Riguardo questa materia, sono state istituite numerose cattedre.*  
 ‘Regarding this subject, numerous chairs have been set up.’

In (27) it can be observed how the shifting of the domain adverb, as seen above associated with presupposed and thematic information, to a final position does not give rise to any problems. It can thus be focused and made part of the representation of the event. In fact, as we mentioned earlier, domain adverbs can be focalized. The same applies to the predication modifier in (28), which can be thematized from an initial focus position. This relative freedom with which with *riguardo (a)* NP can move from topic to focus is evidence that it, even as a domain adverb, still has a certain degree of objectivity sufficient to be made part of the event. In contrast, *riguardo (a)* NP as a connective in (26) cannot be shifted without resulting in an inappropriate sentence. This is because when it is used as a connective, it is constructed with the highest degree of subjectivity, such that its inclusion within the objective representation of the sentence is impossible. It must therefore be understood as an exclusively pragmatic and thematic element.

In this regard, a final test of the pragmatic nature of the different uses of *riguardo (a)* NP has to do with the possibility of its appearance within a cleft structure. Such types of structures are typically seen as focusing strategies and in Italian have the schematic structure *è X che Y* ‘is X that Y’, in which element X is the focus, while Y represents presupposed information that is given about X. Assuming what we have said and seen above, we expect that *riguardo (a)* NP as a modifier of predication and as a domain modifier can be focused, whereas this would be impossible for its uses as a connective:

- (29) *\*È riguardo allo scaricare che io sono un vero purista per quanto riguarda i film che voglio proprio vedere.*  
 ‘It is regarding downloading that I am a real purist when it comes to films that I really want to see.’

- (30) *È riguardo le poste italiane che non sono affatto d'accordo.*  
 'It is regarding the Italian postal service that I do not agree at all.'
- (31) *È riguardo questa materia che sono state istituite numerose cattedre.*  
 'It is regarding this subject that numerous chairs have been established.'

The hypothesis seems to be confirmed once again by the impossibility of *riguardo (a)* NP as a connective to appear in focal position in (29), contrary to what can be observed for example in (30) and (31), in which the adverbial preposition can be focalized without giving rise to an inappropriate sentence. The reason for this divergence in usage is once again to be ascribed to the different degree of subjectivity with which the relation is construed. By placing itself at the highest level of subjectivity, *riguardo (a)* NP cannot enter an objective relation with the representation of the event, thus giving negative results to all tests that increase the objectivity of the relation, such as those of focalization.

A final test<sup>178</sup> to show the different degree of subjectivity with which *riguardo (a)* NP is constructed as a connective with respect to the other cases has to do with the possibility for the NP to be retrieved by an anaphoric pronoun when it represents an argument of the predicate:

- (32) *Riguardo le ipotesi sui metodi di esecuzione, esse sarebbero con un colpo di mazza alla nuca o per fucilazione.*  
 'Regarding the hypotheses on the methods of execution, these would be a blow with a club to the back of the head or shooting.'

In (32) *le ipotesi sui metodi di esecuzione* is retrieved by the personal pronoun *esse* which must necessarily be interpreted as coreferent of the NP introduced by *riguardo (a)*. This is only possible for the connective, whereas it does not occur in the case where it is a modifier of predication, thus constructed with a higher degree of objectivity:

- (33) *?Storici autorevoli come Thomas Hodgkin e John Bagnell Bury hanno espresso chiaramente il loro scetticismo su essa riguardo a questa identificazione.*  
 'Influential historians such as Thomas Hodgkin and John Bagnell Bury have clearly expressed their scepticism about it regarding this identification.'

<sup>178</sup> We thank the anonymous reviewer who suggested this additional way to observe the different behaviour of *riguardo (a)* NP depending on the degree of subjectivity with which it is constructed in the conceptual representation of the event.

It is interesting to note that in (33) the sentence is agrammatical only if we decide to consider *essa* coreferential with *questa identificazione*. In order to give rise to an appropriate reading, the pronoun will necessarily have to be interpreted as coreferential with another NP. This is because *riguardo (a)* NP it is already part of the objective representation of the sentence and therefore cannot be retrieved by means of a cataphoric pronoun. On the contrary, in cases where *riguardo (a)* is connective, anaphoric retrieval is possible precisely because there is no conflict between the anaphora and the NP introduced by *riguardo (a)*, since the latter is absent from the conceptual representation. The anaphoric pronoun serves precisely as a way of mediating the presence of the referent in the representation of the event without directly involving the connective.

The presence of the anaphoric coreferential pronoun with the NP of *riguardo (a)* constructed with a maximum degree of subjectivity is therefore only in apparent contradiction with what we have said about the status of maximum subjectivity possessed by the connective. Indeed, for the referent evoked by the NP to appear in the objective representation of the event as an argument required by the predicate, it must necessarily be duplicated. However subtle, the contradiction is thus only apparent.

## 6. Conclusions

We can now draw some initial conclusions from this attempt to redefine the discrete difference between arguments and adjuncts within a cognitive background. We began by presenting in more detail the cognitive continuum of subjectivity as an aspect of construal that can explain the observable differences in the behaviour of arguments and adjuncts and of different types of adjuncts. To better understand the modifier role that *riguardo (a)* NP plays, we introduced a distinction of the different linguistic metafunctions. This was necessary to better understand which of these dimensions our expression modifies. Drawing on the tradition inaugurated by Halliday (1970), we distinguished between an ideational, an interpersonal, and a textual metafunction, each characterized by an increasing degree of subjectivity.

We then described in more detail the expression object of our analysis (*riguardo (a)* NP). On the one hand, it can be seen as a prepositional phrase. From a functional point of view, however, it must be described as an adverb,

since its role is to modify a noun, an adjective, or more complex syntactic structures. For this reason, we have adopted the term prepositional adverb or argument-taking adverb. These background considerations of the relationship between the role of adverbial modifiers and degree of subjectivity allowed us to present a qualitative analysis of a few examples of *riguardo (a)* NP taken from the PAISÀ corpus (Lyding *et al.* 2014). Starting from a series of tests of a syntactic, semantic, and pragmatic nature, we were able to describe some instances of *riguardo (a)* NP as modifiers of predication, thus pertaining to the level of message representation. Pertaining instead to the interpersonal level are those uses of *riguardo (a)* NP as domain adverb. Finally, it was possible to observe how *riguardo (a)* NP in initial position does not even pertain to the interpersonal level, but rather to the textual level, fulfilling the function of a textual connective. The gradualness of the subjectivity continuum thus allowed us to interpret the different modifier roles played by the adverbial preposition as different kind of adjuncts characterized by different degrees of subjectivity.

## Appendix

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### Abbreviations

Adj	adjective
Adv	adverb
NP	noun phrase
P	preposition
Pro	pronoun
Rel	relative pronoun
V	verb

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