The advent of Cognitive Linguistics has enhanced the study of space and its consideration as a basic domain in the construction of abstract concepts. While we acknowledge the epistemological value of space, we also believe that the expression of a diversity of relations using spatial prepositions is possible due to the existence of fundamental notions that organize the range of concepts that human beings hold. Space is a privileged domain where these fundamental notions show up, but they are not necessarily triggered by space. To demonstrate this we have analyzed the English word *since*, which does not express spatial relations. The same analysis has been applied to the Spanish word *desde* operating in the spatial and temporal domains. Our thesis is that if the same notions can be used in the analysis of terms that categorize different domains, it is because these notions are derived from a more general level. This level would be beyond the conceptualization of space and would constitute a generic frame on which human thoughts are based.

**Key words:** philosophy, cognitive semantics, conceptual primitives, linguistic categorization, mental representations and prepositions.

1. Introduction

This paper is inspired by an assertion made by Langacker (1987), which reverses the idea of the primacy of space in comparison to time. Originally, spatial terms were not used in domains other than space. However, presently, spatial terms can be used in a variety of domains, particularly time. This led a number of scholars to agree upon the importance of space for conceptualization. The alternative to this is to postulate the existence of fundamental notions that occur in the different concepts, including space. This multiple occurrence provides an explanation for the pervasiveness of conceptual metaphors. It can also explain the existence of lexical items that do not codify spatial relations, such as the word *since* that, however, can still be described in, allegedly, spatial terms. This fact would corroborate the thesis that there exist common general elements underlying the actualization of more specific conceptual constructions. Thus, we can speak of conceptualization as a multi-layered phenomenon, at different levels of specificity. Nevertheless, all these levels would be based on a recurrent structure. This structure would be reified into concrete manifestations, observable through the examination of linguistic data.

Even though space has, from the point of view of epistemology, a privileged status, Langacker’s statement illustrates the view towards questioning the primacy of space in the...
construction of concepts: “The fact that we often conceive and speak of time in spatial terms only shows the utility of such metaphor for higher-level conceptualization. It does not imply that the experience of time is reducible to a purely spatial one; if anything, the opposite would seem more plausible. I incline to agree with Givón (1979, ch. 8) that time is in some sense more fundamental than space” (1987: 148–49). But Langacker was not the first to report on the ontological primacy of time over space. In the seventies, Wilks affirmed that “The logical or linguistic priority of space to time is by no means a settled matter, and neither therefore is the thesis of localism” (1978: 180).

I attempt to demonstrate in this paper that there are notions which are basic to the human mind and determine the conceptualization of relations in every domain of knowledge (space, time, mental states, etc.). To achieve this purpose, I have implemented a contrastive analysis of since and desde where we are confronted with our first pivotal problem: They do not operate in exactly the same domains. In fact, since operates in the time and cause domain, and desde codifies spatial and temporal relations. Hence, the question was whether we should analyze them with the same devices. Desde expresses spatial as well as temporal relations, so analyzing it using simply spatial basic notions seems to be quite straightforward. However, since does not refer to any relation in the spatial domain. Besides, a diachronic examination of the category shows that it has never been used in the spatial domain.

The facets of since that are of interest in this paper are those which are relational, i.e., as a conjunction and a preposition. As to the question of how we have dealt with this difference, we have followed Brugman (1981) in her analysis of over, in the sense that we have disregarded the different parts of the speech to which these categories are connected, which is basically syntactically motivated, and have focused on its categorization labor that is in both cases very much the same, from the semantic point of view. The feasibility of describing this category in spatial terms indicates that those notions we are calling spatial are too general to be ascribed to just one domain of conceptualization, and should be placed at a deeper and more generic level of reasoning. This study is a cross-linguistic analysis of two partially synonymous prepositions, and it attempts to set forth consequences at the ontological level of category description. In this sense, some conclusions have been drawn which we will expose at the end of the current paper.

2. Theoretical assumptions

The analysis will be carried out in a propositional and analogical fashion. For the propositional description of both terms I have resorted to components from case grammar: source, path, and goal. My reasons for doing so is that these concepts have to do with cognitively simple notions since they are used recurrently to conceptualize layers of information of increasing complexity. Finally, these concepts present the advantage of being able to be associated with the graphic description I have devised here. Concepts from Space Grammar, such as trajector and landmark will also be used (Langacker 1987). The complexity of the relations conceptualized by since and desde is shown by the presence of

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1. Hereafter, these cases will be referred to by smaller capitalized words.
what we call secondary landmark, which can be related to the figure of the observer (Vandeloise 1984). In order to differentiate it from the main landmark, we will mark the latter with a subscript one (landmark1), and the former with a subscript two (landmark2). In the current paper, the figure of the observer is identified with the speaker’s viewpoint, ultimately responsible for the choice of the preposition. The speaker’s viewpoint will be a further component used in the description, added to the ones we have just mentioned. Graphically, they will be represented as follows:

![Figure 1: Spatial notions used in the description of the categories since and desde](image)

The figure symbolizing the source is thicker than the one representing the goal, because the categories we are studying profile the origin but not the destination of the path. The line representing the path ends in a broken line because its end is unknown. That is to say, the categories studied do not highlight the end of the path. Finally, the smiling face symbolizes the perspective of the speaker, which sometimes constitutes the deictic center.

The representations used for depicting the categorization of these prepositions in the distinct domains is based on Johnson’s (1987) image schema theory. We will see recurrent patterns in these representations, which is due to the fact that “the one and same image schema can be instantiated in many kinds of domains” (Johnson 1987: 80). This claim constitutes one of the main tenets of our discussion: that the transference of the same structure from spatial to more abstract domains underlies the metaphorical uses of the prepositions. The point I am making in this paper is that the elements that build up that structure are not necessarily spatial in origin.

3. Temporal-since

For the analysis of temporal-since, let us use this example from the novel by Emily Brontë Wuthering Heights (WH):

(1) Times are greatly changed since then (WH 45)

**Source:** An action/state (trajector) starts at a given point in time (landmark1). The landmark acts as the source of such an action. The source is known by the speaker.

**Path:** An action/state (trajector) extends in time beyond the perspective of the speaker (landmark2). The configuration of the trajector according to Hawkins (1984) is path-
configuration. Hawkins also provides a taxonomy of paths according to the configuration of the trajector profiled by the preposition. Following that taxonomy, this path is initiative since only its beginning is profiled by the category since. According to Hawkins, in the spatial domain all initiative paths are directional, in the temporal domain we may consider the end of an action as its goal. Thus, the path activated by since can also be considered directional because, in principle, almost all states and actions are doomed to an end.

**Goal:** The goal of the action/state (trajector) is not determined. It is unknown by the speaker. Following Langacker (1987), the goal is not profiled.

**Speaker’s viewpoint:** Also known as landmark. It is placed beyond the source point and at a given time in the process of the action, or duration of the state. In this respect, in the pragmatic plane, we can affirm that temporal-since has a deictic usage: “motion-beyond-speaker.” Thus, the deictic center is placed at a certain point between the beginning of the action and its potential end. Figure 2 below illustrates this fact:

![Figure 2: Analogue representation of temporal-since](image)

### 4. Causal-since

As for the analysis of causal-since, we present this example:

(2) He minded little what tale was told since he had what he wanted (WH 53)

**Source:** The action/state (trajector) initiates at the activation of another action/state (landmark/source). The action/state functioning as the source is known by the speaker. The relationship between the source and the trajector is temporal. As is the case of all relationships codified by temporal-since, there exits a coincidence between the source and the trajector’s beginning. Hinckfuss (1975) explained that causes always precede or are coincident with their effects. This relationship is so firmly entrenched in the speakers’ minds that sometimes simple temporal coincidence could lead to the attribution of cause, as in Whenever you come, my sister falls ill, where the speaker may be stating temporal coincidence or may be teasing her interlocutor by implying her sister does not like him. Conceptually, the temporal relation between cause and effect is honored but the spatial
relation is not. However, natural philosophers have long insisted in the spatial, as well as temporal contiguity of cause and effect, this reinforces our hypothesis of the existence of common notions at different layers of actualization. Lucas has suggested this is beyond linguistic facts: “Our concept of causality is therefore seen to be thus linked with our concepts of space and time, not simply on account of the meanings of the words, nor as something given us in experience, but as a requirement of reason” (1984: 42).

Path: The action/state is initiated as a consequence of the existence of landmark, /source. Significantly, its extent in time is not so obviously profiled as in the case of temporal-since (figure 2). For this reason, we will represent it with a thinner line (figure 3). The speaker’s intention in using temporal-since is mainly focused on stating the extent of the trajector. Whereas, with causal-since, it is the connection between the trajector and the source that is highlighted, graphically the thicker arrow characterizes the landmark as an initiator of the trajector. The path is established in the base of this use of the category. As a matter of fact, the trajector does not necessarily have temporal extension: it could be punctual. Its duration is not in profile in this use of since. This is one of the main differentiating factors between both uses, temporal- and causal-since.

(trajector) = “He minded little what tale was told”

Source (landmark) →

“he had what he wanted”

Figure 3: Analogue representation of causal-since.

Regarding causal-since, there is no such an evident connection between the beginning of the source/landmark, and the initiation of the trajector. The next example will illustrate this more clearly:

(3) Since you don’t like fruit, I’ll eat your dessert

The canonical interpretation of this example is that the interlocutor does not like fruit and the speaker knows it. Thus, we prefer to speak of landmark, activation, and not of its coming into existence, as triggering the trajector.

Goal: The absence of path in the profile of this use of since precludes the presence of goal.

Speaker’s viewpoint: In this causal use, the absence of path extension prevents the figure of the observer from being profiled.

2. Marín Arrese’s (2002) insightful study of linguistic impersonalization strategies shows that agency can be hinted at by locative expressions.
5. Spatial-desde

For the analysis of spatial-desde, consider the next example:

(5) Vengo andando desde la parada de tren/I’ve walked from the train station

SOURCE: This preposition highlights the origin of a trajectory, i.e., landmark/source. The configuration of the landmark is geographic or zero-dimensional. If we had a closer view of the landmark, and it was presented as a three-dimensional entity, desde would not be the correct option:

(6) Salió desde la casa al oír el claxon (?)/On hearing the horn, she came out of the house

(6) would be acceptable in a context where our goal is to find out the precise landmark from which the trajectory originates. Thus, la casa would oppose other possible landmarks, as being the actual source of the path. In contexts where definitely no such opposition takes place, using desde in collocation with a three-dimensional landmark would yield an awkward locative expression:

(7) Sal desde tu habitación y lávate los dientes*/Come out of your room and brush your teeth

The relevance of the dimensionality of a landmark as a ruling factor in defining the uses of a preposition has already been established by Herskovits (1986: 13). In fact, the preposition desde codes the point from where a trajectory starts but does not imply movement from inside a landmark.

In general, unless there is reference to a geographic place, expressions in which desde collocates with the verb salir would seem strange, since the prototypical use of this verb is “movement from inside a landmark” and the relation established by desde does not profile the interior of the landmark. The smaller the landmark, and the more visual the information we have, the more incorrect the resulting expression in which desde appears. The different degree of applicability of the following examples proves it:

(8) Salió de Madrid a las cinco
(9) Salió desde Madrid a las cinco (?)/He departed from Madrid at five

I presented 12 native Spanish speakers with (8) and (9) and asked them to mark the sentence they felt was “less complete”. Eleven out of the 12 subjects marked the sentence with desde as the one with a hint of incompleteness. One insisted that both sounded the same. After that, the 11 subjects for which (9) was “missing something” were asked to complete the sentence with their own words. Significantly, eight subjects added an expression of goal, by using goal prepositions (a “to” and hasta “up to”) and verbs profiling the reaching of a goal (llegar “arrive”). Two made reference to an existing path. Interestingly, one of the informants finished the sentence by writing . . . pero pensé que saldría desde otra ciudad. This use was explained above as one of the characteristics profiled by desde: it emphasizes one origin versus other possible ones. The table below shows the expressions used by the 11 informants to end this sentence:
Table 1: Endings provided by subjects to “Salió desde Madrid a las cinco”

The fact that our subjects found the expression with *desde* less complete than the one with *de* and added a path implicitly by establishing the goal (1–8), or by explicitly referring to it (9–10) is in accordance with López’s contrastive analysis of *de* and *desde*:  “Empleando *desde* se marca más fuertemente la longitud temporal o espacial que empleando *de*. Así, *viene de Madrid* indica la procedencia; pero *viene desde Madrid*, además de indicar la procedencia, refuerza el sentido de la longitud espacial” (1970: 181).

**Path:** The preposition *desde* implies movement performed by the trajector from a known source. On the basis of this motion, the existence of path is implied. Using again Hawkin’s taxonomy, the path profiled by the preposition *desde* is initiative. However, the path profiled by the preposition *desde* may be characterized on the other extreme. The preposition *desde* may occur in combination with the Spanish goal prepositions *a* and *hasta*. This is one of the features that separate *desde* and its English counterpart *since*.

**Goal:** The goal is the extreme of the path configuration that is not in profile.

**Speaker’s viewpoint:** Contrary to temporal-*since*, which indicates some deictic sense, “motion-beyond-speaker,” spatial-*desde* does not profile the speaker as a deictic center. It turns out that the speaker could be placed at the source of the trajectory, at some point along the path, or at the goal. One may argue that this is because the temporal domain is more restricted than the spatial domain, as the spatial domain allows for more than one direction, and thus more than one position for the conceptualizer, whereas the temporal domain has just one fundamental line. However, work in Mparntwe Arrernte, a Pama-Nyungan language of Australia, shows that there are lexical items that express “motion-to-deictic-center,” and at the same time indicate that there is motion towards the speaker even if this is not the goal (Wilkins and Hill 1995: 225). It should also be noted that in contrast to the preposition *de*, *desde* always occurs in combination with a motion verb. The resulting expression inherits the deictic value of the verb. Consider (10):

(10) Esta pieza viene desde China/This piece comes from China
6. Temporal-\textit{desde}

Temporal-\textit{desde} displays basically the same pattern as spatial-\textit{since}.

\textbf{Source}: The action/state (trajector) initiates at a point in time (landmark/\textit{source}). The \textit{source} is known by the speaker and introduced by \textit{desde}:

(13) Lleva casado desde abril/He has been married since April

\textit{Since} and \textit{desde} show a remarkable parallelism: Both can be used to refer to actions or states that are still in progress at the time of speaking. The action/state must be expressed in a verbal form that denotes durative aspect.

\textbf{Path}: The action/state (trajector) extends in time beyond the perspective of speaker (landmark). As in the case of \textit{since}, the configuration of the trajector is \textit{path}-configuration, and the \textit{path} is also initiative since its beginning is profiled by this category. However, one feature differentiates \textit{since} and \textit{desde}; \textit{desde} in the temporal domain can combine with a \textit{goal} preposition (\textit{hasta} "to"). Thus, \textit{desde} may state the origin of an action which has already finished. Consider the following example:

(15) Tomás ha estudiado hoy desde las nueve de la mañana hasta la cena/Thomas has studied today from nine a.m. to dinner time

\textbf{Goal}: The action/state finishes at some unspecified location in time. Thus, the \textit{goal} is not profiled. However, that does not prevent us from assuming that the state/action has an end. Nevertheless, \textit{desde} may occur in collocation with a \textit{goal} preposition, in which case the action would appear as finished. Then, the scene would be somehow deictically anchored with respect to the speaker, since she would be located beyond the \textit{goal}. The importance of this is, as mentioned above, that it does not apply to spatial-\textit{desde} due to the single line that time follows as opposed to space. Figure 4 below shows this deictic sense:

![Diagram](Image)

Figure 4: In the temporal \textit{desde}-\textit{hasta} combinations the speaker’s viewpoint is beyond the goal

\textbf{Speaker’s viewpoint}: The speaker’s viewpoint is landmark$_k$, located beyond the source point and at a given time in the process of the action or duration of the state.
7. Systemic complementariness in intracategorial organization

Against this background, we can now explain how *since* and *desde* differ more thoroughly. Their dissimilarities are not simply related to the diverse domains in which they categorize, but are also internal to common domains, such as time. Although both categories operate in the time domain, there is one important characteristic that they do not share when it comes to the codification of temporal relationships. For example, *since* can only be used for the expression of the source of actions whose goal or end is unknown to the speaker. On the other hand, *desde* can be used to refer to a trajectory bounded at the end, or in temporal terms, to refer to an action whose finishing point is established by collocating with a goal preposition. That is to say, while *since* expresses relations in which the action or state described is still evolving through time, *desde* allows for the specification of the goal. We claim that this difference can be explained by reference to the internal distribution of these categories. In short, the primary uses of a category influence the behavior of the semantic extensions undergone by such category. A possible explanation for this can be found in the fact that *desde* is composed of prepositions (*de-ex-de*) that very likely were originally spatial in nature (Brøndal 1950). Thus, it participates in the expression of facts which are particularly salient in the spatial domain such as destination (goal). From our perspective, the spatial domain allows for the establishment of a broader range of relations which are transferred to other domains in which a category is used. Thus, the source-goal connection is more salient in the spatial domain. Once it is solidly entrenched in the speakers’ minds as expressed by certain linguistic items, it becomes a productive antecedent to be used in other realms, such as time. My hypothesis is that the differences between these two prepositions, *since* and *desde*, in the time domain are motivated by the influence of the other domains in which they operate, and are thus systemic in nature. Often part of the linguistic potential present in the spatial domain somehow gets diminished in this process of transference. This accounts for the fact that *desde* in the temporal domain can collocate with the goal preposition *hasta* but not *a*. This restriction may be due to the fact that *desde* highlights path extension (see López’s quotation above), thus, emphasis is made on a process evolving crucially through time. It can be argued that the prominence of the path versus the mere statement of its source may require the assessment of its completion, the goal. The combination *desde-hasta*, in contrast to the combination *de-a*, not only profiles the ends of the path, but its whole extension as well. This fact is supported by a test administered to our 12 subjects. They were presented with the following two expressions:

(16) Hoy ha trabajado de 9 a 12
(17) Hoy ha trabajado desde las 9 hasta las 12/Today he has worked from 9 to 12

Both of them have apparently the same meaning, but given what was said previously, *desde* in (17) emphasizes the extension of the trajectory. We asked our subjects after reading the two sentences, whether they believed either of the two made more emphasis on the worked realized, and if so, which one. All 12 of the subjects said that (17) made more emphasis on the work done.

In contrast to *hasta*, the preposition *a* only profiles the direction of the path, and whether the goal is reached or not is left to the context of the sentence. In other words,
although the path completion can be codified by a, it is not inherently present in its semantic content. This preposition is normally used to refer to schedules, routines, or timetables in combination with the preposition de. De and a simply highlight the two extremes of the path:

(18) Trabajo de 4 a 9/I work from 4 to 9

The potentiality of the completion of the trajectory is shown in the following examples that demonstrate that the reaching of the goal in (18) can be interrupted:

(19) Trabajo de 4 a 9 pero hoy me voy a ir antes porque estoy cansada/I work from 4 to 9 but today I am leaving earlier since I am tired

On the other hand, as pointed out above, hasta usually involves the actual completion of the path established by desde. Thus, it is not likely to occur in reference to the duration of routines, in which the definite article does not precede the time expression due to its general character. Rather, the expressions in which desde-hasta occur are more likely to refer to specific actions than to scheduled routines. However, this is not firm and, infrequently, we can find de-a combinations in the expression of the duration of a specific event:

(20) Hoy ha trabajado de 9 a 12/Today he has worked from 9 to 12

In fact, the actual execution of the action/path is more commonly marked by the presence of the definite article before the time expressions:

(21) Hoy ha trabajado desde las 9 hasta las 12 sin parar/Today he has worked from 9 to 12 straight

Continuing the above discussion, the fact that since in the temporal realm simply refers to actions in which the emphasis lies on the beginning of an action, no reference being made to its end, determines its work in the causal domain. It should be emphasized that cause is an initiating process. In the expression of cause, the initiation of the trajector is focused on, while the end is not relevant to causality. Considering desde, although it is not usually regarded as a causal category, I believe some causality can be attributed to some of its temporal uses. I mentioned above how causal relations are strongly linked to temporal and spatial coincidence. This justifies that in some cases we can confer a certain sense of causality to some situations described by desde: Desde que no juega al fútbol no es la misma persona “Since he stopped playing soccer he has not been the same.”

From these observations, we can conclude that the central uses of a linguistic category systematically influence secondary ones, which inherit patterns of behavior from the former. The question is whether secondary uses may affect primary ones. This is associated with the notion of structural coupling advanced by Maturana and Varela (1987), two entities which coexist influence each other reciprocally in a circular process. Although this notion was first applied to explaining the behavior of living organisms and their interaction with the environment, it was later used in the study of human cognitive activity.
8. Spatial domain: primacy or centrality

The preliminary comparative study was originally designed to test whether categories that are not spatial and do not have a spatial origin could be described in spatial terms and be brought into comparison with categories in which they overlap. It can be argued that since time relations can be established in spatial terms, these terms can be used to define any item categorizing temporal relations, even if it does not have a spatial origin, as in the case of the word *since*. This indicates that these terms are not intrinsically spatial, but are of a more general nature. More specifically, they would correspond to the general notions I have mentioned in the introduction of this paper. However, far from disclaiming the ontological and epistemological primacy of space, I think that it is necessary to be critical with hard stipulations that space plays an absolute role in shaping other concepts. In fact, with the advent of Cognitive Linguistics this assumption is acquiring the status of a pre-theoretical core notion.

It would be desirable to have diachronic evidence that supported the thesis that most prepositions have a spatial origin. This should be applicable to most, possibly all, languages for it to obtain a universal character. The fact that most prepositions are inherently spatial could be due to that fact that when we started to speak, they only described or referred to physical facts and relations (O’Keefe and Nadel 1978). It was only at a later stage that we were able to process abstract and complex thoughts. This points to a general evolution of the cognitive system and not simply an evolution of language. Thus, from our perspective, some basic notions in the human mind found in space a suitable realm in which to develop and enhance their structure. This suitability is based on the accessibility of spatial entities and relationships to all the perceptual modalities. However, it is not only spatial entities and their locative relations that are apprehended by the perceptual system. The beginning and end of events, such as day and night, are readily apprehended by our senses too.

I am not arguing for a strong nativist hypothesis. Recent investigations in typological studies of space language show there is too much variation to defend the existence of common spatial concepts underlyling all human thought. For example, almost all languages display an intrinsic frame of reference, including terms anthropologically based, such as *right*, *left*, *back* and *front* that cannot be derived but from the experience of our own body, our line of vision and our position in space. This reference system is so pervasive that it could be considered universal if it were not for an exception, the Australian language Guugu Yimithirr (Levison 2002: 93).

Furthermore, the association of abstract ideas with spatial notions, such as *more is up* (Lakoff and Johnson 1981) supports the thesis of the centrality of space in cognition, and, therefore, its influence in human thinking. Also, embodied notions which develop from the interaction of human body with space display considerable cultural variation (Gibbs 2003). But the fact remains that there are universals which accommodate much linguistic diversity. The point we are making in this article is that they are not domain specific. We would not dare say that they are pre-conceptual, although they are highly general constructs that are enshrined into language when becoming domain-specific. Their general character accounts for their presence in different domains; however, it is spatial language which shapes how this is done. In this sense, we support the claim that it is necessary to distinguish between linguistic categories and concepts (Wilkins and Hill 1995).
The Principle of Linguistic Relativity (Whorf 1956) resulting from the observation of typological variation can coexist with the postulated existence of basic concepts. From our perspective, there are different layers of complexity when it comes to conceptual organization. Thus, specificity is found at those levels in which culture permeates concepts, as displayed by linguistic categories and even more clearly in metaphoric extensions (Maturana 1990). Beyond those specific realizations, at a more generic level are basic notions, which pervade time and space expressions, such as start, end, extension, coincidence, etc. For example, coincidence is a general notion, present in the time, space, and cause domains, but how languages code that coincidence and what other denotational properties are added, as well as the different metaphors rising from the concept of coincidence, are subject to variation. Typological evidence seems to be the fundamental means for demonstrating the existence of these basic notions.

9. Concluding remarks

In the previous discussion, I have given examples of the way in which two lexical items that categorize different domains can be analyzed using the same basic notions. These domains are space, time, and cause, whose relevance is endorsed by the fact that philosophers have regarded them as key concepts for our understanding of natural phenomena. One of the main tenets of Cognitive Linguistics and philosophers is that complex ideas build up on our bodily and perceptual experience. In an attempt to elucidate our conceptual structure, Johnson (1987) claims that there exist recurrent structures, image-schemata, based on sense experience that give order to concepts in many kinds of domains, from spatial to those that are metaphorically understood. I acknowledge the heuristic value of these image-schemata and have included them in this paper in order to clarify the meanings of since and desde. While I agree with Johnson in that they are formed from sense experience, I question the ontological nature of their constituents. In my view, these constituents are the basic notions on which we have placed special emphasis in this paper. They are the most generic building blocks of human conceptualization and are beyond cultural diversity. In other words, the variation is to be found in the schemata but not in their constituent elements. This position can be considered an alternative to the theories that defend the innate origin of ideas and the theories that assign an absolute role to bodily experience.

Finally, it must be noted, as the analysis of since and desde presented above shows, that causal relations are more complex than spatial and temporal relations. This raises an interesting point for further research within the framework of Cognitive Linguistics in regards to the differences of perceptual status and mental organization that hold between the time and space domains and causality. This question has been the subject of a heated debate since the eighteenth century, and reached interesting conclusions with the work of Hume and Kant. These conclusions should be the object of reanalysis from the Cognitive Linguistics viewpoint.
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