

Responsible subjects and discourse causality. How mental spaces and perspective help identifying subjectivity in Dutch backward causal connectives

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ARTICLE INFO

Article history:

Received 10 March 2010

Received in revised form 7 September 2011

Accepted 18 September 2011

Available online 1 November 2011

Keywords:

Cognitive linguistics

Causal connectives

Discourse analysis

Subjectivity

Mental space theory

Domain theory

ABSTRACT

The Basic Communicative Spaces Network (BCSN – Sanders et al., 2009) accounts for crucial semantic–pragmatic characteristics of causal relations expressed by frequently used Dutch causal connectives. BCSN integrates subjectivity theory, domain theory, and mental spaces theory to explain their linguistic categorization. Starting with the original three-way classification of content, epistemic, and speech act use, BCSN represents different uses in separate but connected and embedded mental spaces that are linked to the Subject of Consciousness (SoC), who is present as an actor or concluder in many causal relations. The analytic structure of BCSN explains the contrasts between the backward Dutch causal connectives WANT ‘because/for/since’, signaling speech act and epistemic relations in which the speaker is the implicit SoC, and OMDAT ‘because (of the fact that)’, typically expressing content relations with an explicit SoC. This division of labor corresponds to a cognitive categorization in terms of BCSN. On a more general level, BCSN offers a model for the recursive patterning that characterizes perspective alternation in natural discourse, since the BCSN represents both the author’s subjectivity and the subjectivity of other actors in the discourse (such as speakers and characters in a narration), as well as the blends between these perspectives. The analysis is illustrated with corpus examples.

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1. Introduction: causal connectives in Dutch and English

While using language to communicate, people constantly produce and interpret utterances that, together, form a discourse. These utterances are connected by, among other things, conceptual relations of addition, contrast, or causality. Such relations have been defined as coherence relations (Hobbs, 1979; Sanders et al., 1992), discourse relations (Asher and Lascarides, 1998) and rhetorical relations (Mann and Thompson, 1988). Speakers of English can use the connective *because* to express all of the uses manifest in examples (1)–(4).

- (1) What do you want, because there is coffee and tea.
- (2) The neighbors are not at home, because their lights are out.

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- (3) Jan went swimming, because it was a hot day.
 (4) The temperature rose, because the sun was shining.

This observation suggests that these relations have something in common – indeed, we agree with many other analysts that they share a conceptual relation of causality. English speakers also have other discourse connectives and cue phrases at their disposal, suited to express a more specific set of relations and no other, such as *since*, or *given that* (Halliday and Hasan, 1976; Knott and Dale, 1994; Knott and Sanders, 1998; Sweetser, 1990). Similarly, Dutch divides up the domain of causal connection more precisely, with no overall marker such as *because* which can cover all of (1)–(4). The prototypical connectives used to express the very same relations are shown in (1')–(4') for both English and Dutch, with causal connectives expressing forward (first *antecedens* P, then *consequens* Q) and backward (first *consequens* Q, then *antecedens* P) causal relations.

(1')

- forward Er is koffie en thee. **Dus** wat wil je?
There is coffee and tea. So what do you want?
 backward Wat wil je, **want** er is koffie en thee.
What do you want, because there is coffee and tea.

(2')

- forward Het licht bij de burens is uit. **Dus** ze zijn niet thuis.
The neighbors' lights are out. So they are not at home.
 backward De burens zijn niet thuis, **want** hun licht is uit.
The neighbors are not at home, because their lights are out.

(3')

- forward Het was een warme dag. **Daarom** ging Jan zwemmen.
It was a hot day. That's why Jan went swimming.
 backward Jan ging zwemmen, **omdat** het een warme dag was.
Jan went swimming, because it was a hot day.

(4')

- forward De zon scheen. **Daardoor** steeg de temperatuur.
The sun was shining. As a result, the temperature rose.
 backward De temperatuur steeg, **doordat** de zon scheen.
The temperature rose, because the sun was shining.

In particular, Dutch DOORDAT and DAARDOOR could not possibly express the connective relations in (1')–(3'); and if WANT or DUS were used in example (4'), it would sound as if the speaker was focusing not on the 'physical' causal relation between sunshine and temperature, but on causal relations under her own responsibility at a higher epistemic or argumentative level. This observation suggests that the examples may have causality in common, but also show differences, especially with respect to the attribution of the causal relationship. These differences have often been characterized in terms of domains of use (content, epistemic, or speech act; Sweetser, 1990), semantic or pragmatic types (Sanders et al., 1992; Sanders, 1997), or levels of causality (for an overview see Knott et al., 2001; Sanders and Spooren, 2007). The systematic differences between Dutch causal connectives help us to understand how speakers vary between sources of responsibility for the relations they want to express.³ In this paper we describe both the similarities and the differences between various types of causality in terms of responsibility,⁴ focusing on the backward causal connectives used to express them in Dutch. We use the Basic Communicative Spaces Network model first proposed in Sanders et al. (2009), where specifically forward causal connectives expressed by connectives like DUS 'so' and DAAROM 'that's why' were analyzed.

³ Dutch speakers categorize causally related events in the order cause-consequence, by expressing them with forward connectives like DAARDOOR (*As a result*), DAAROM (*that's why*), and DUS (*so*). Here, we propose an analysis of the frequently used Dutch backward connectives DOORDAT (*As a result of the fact that*, literally *through that*), OMDAT (*because*), and WANT (*since/for*) clarifying their similarities and differences. Many linguists and discourse analysts have observed the similarities between cause-consequence (content) and claim-argument (epistemic) relations on the one hand and consequence-cause (content) and argument-claim/conclusion (epistemic) relations on the other hand. In Sanders et al. (1992) and Sanders (1997) it was shown how these similarities are systematic.

⁴ In this article, we use the term 'responsibility' not in an ethical, but in a technical sense, indicating the ascription of causal force.

Forward and backward causal relations and connectives share crucial conceptual properties, which do not change fundamentally as a result of different orders of presentation; however, since the order of clauses does have consequences for discourse organization, backward causal connectives are particularly interesting in this respect. They turn the iconic cause-consequence relation around, allowing the speaker to foreground what is from an iconic viewpoint primal, or given.⁵ A cause is presented in foregrounded position when it is relevant as an explanation or justification for an act, wish, or fact as consequence (cf. Mann and Thompson, 1988).⁶ Speakers may anchor such justifications and explanations to themselves, or to other speakers in their discourse, and express this difference in causal responsibility using specific backward causal connectives. Analyzing these relations will help us to understand not only the semantic-pragmatic characteristics of causal connectives, but also the mechanisms of alternation between perspectives in discourse: Who thinks what? Who is responsible for the causal reasoning? These questions are particularly relevant in narrative discourse, that is, discourse recapitulating experience (Labov and Waletzky, 1967), in which the speaker relates events, acts, utterances, and ideas of herself or other subjects in a setting with other coordinates of time and place,⁷ by representing these other subjects' speech and thoughts (Vandelanotte, 2009).

In the current analysis, we start from the assumption that the same fundamental conceptual notions shape both forward and backward causal relations and that this is reflected in connective use.⁸ Our first aim is then to test this assumption by applying the earlier proposed analysis to backward causal connectives. Our second aim is to elaborate the consequences of our analysis for causal responsibility of subjects in discourse, particularly narrative discourse. The Basic Communicative Spaces Network (BCSN - Sanders et al., 2009) allows us to describe these variations in perspective. The relevance of this model lies in its satisfactory explanation of complicated causal perspectives, but it may be expanded to analyze perspective phenomena in narrative discourse on a more general level, since it allows for recursive patterning which can represent not only the author's subjectivity, but also the subjectivity of embedded actors, such as speakers and characters in a narration.

In section 2, we will first outline the three contributing theories: domains of use, subjectivity, and perspective, and illustrate their explanatory force with respect to causal connectives. In section 3, we will use the framework of mental space theory to integrate the three models into the BCSN, and outline this model's structure and functions. Section 4 applies our integrated BCSN model to Dutch causal connectives. We will show that it accounts for differences in causal construal in both stylized and attested, natural examples.⁹ Section 5, finally, will discuss what the analyses of domains of use and subjectivity in terms of mental spaces imply for the analysis of narrative perspective.

2. Domains of use, subjectivity, and perspective

A conjunction like *because* is used in the content-domain when one event causes another in the described world, as in example (4), while epistemic use concerns the speaker's reasoning as in example (2), and example (1) illustrates the speech act use (Sweetser, 1990). Although *because* can be used across the three domains, some connectives specialize in one domain: English *since* and French *puisque* would be specifically used in the epistemic and speech act domains (Sweetser, 1990). Similarly, German *denn* is almost exclusively used to express epistemic relations (Günthner, 1993; Keller, 1995; but see also Wegener, 2000).

The domain of use analysis was tested empirically for Dutch. In a number of corpus studies, Dutch connectives expressing causality were investigated. The prototypical use of backward connectives is illustrated in the above mentioned examples (2) with WANT 'for/since' and (4) DOORDAT 'as a result of the fact that', as well as in example (3) with OMDAT 'because (of the fact that)'. DOORDAT 'because/as a result of the fact that' in (4) expresses a simple consequence-cause relation in the non-volitional content domain; (2) can only be interpreted as an epistemic conclusion that is expressed by WANT 'because/for/since'; and OMDAT 'because (of the fact that)' in (3) expresses the reason for an intentional action in S1. In general, OMDAT has a slight preference for volitional content relations. Roughly the same mechanism accounts for forward causal connectives, where DAARDOOR can only express a non-volitional content relation, but this relation cannot be expressed by

⁵ The interactions between the semantic-pragmatic characteristics of causal relations and issues of information distribution are described in corpus studies of linguistic structures in a discourse context: Tomlin (1985), on subordinated clauses; Haiman (1978) and Ramsay (1987) on IF/WHEN-clauses; and Thompson (1985) on purpose clauses. These studies show, among other things, how the discourse function of purpose clauses appears to depend on their placement in relation to the main clause. In medial or final position, their role is one of the local elaborations, but in initial position, their role becomes one of the foregrounding information. They signal how to interpret the following clause, and how to relate it to the preceding text.

⁶ For instance, pre-posed *because*-clauses may have a function of linking earlier mentioned information to the previous discourse, whereas post-posed *because*-clauses often contain more central information, providing explanations, cf. Mann and Thompson (1988).

⁷ We follow Labov and Waletzky's (1967) functional definition of narrative as: "An oral narrative of personal experience employs temporal junctures in which the surface order of the narrative clauses matches the projected order of the events described."

⁸ Note that correlations are found between discourse function and frequency of clause orders. For instance, there is a recognized tendency for conditional protases (if-clauses) to precede their main clauses, while the reverse order is more common (though not required) for clauses marking cause. These unmarked orders are exemplified by the contrast between *If it rains, they'll cancel the game* and *They cancelled the game because it rained*. Ford (1993) documents this, and notes that the two clause orders make sense because functionally, a causal clause is an added explanation of the main clause, while a conditional clause actually changes the assertion status of the main clause. Dancygier and Sweetser (2000, 2005) have pointed out that mental space theory allows us to capture this difference: most causal clauses are elaborating the previously established mental spaces wherein the main clause content holds, while conditional clauses are setting up mental spaces as contexts for the content of the main clause.

⁹ The examples used in this article are representative of salient types of usage. For reference see the large body of corpus results which is available for Dutch causal connectives: Degand (2001), Degand and Pander Maat (2003), Pit (2003), Pander Maat and Sanders (2000, 2001), Stukker (2005), Stukker et al. (2008), and Sanders and Sporen (2009).

DAAROM and DUS. DUS and DAAROM show rather gradient preferences. DUS most often expresses epistemic relations and can be used to express content volitional relations. DAAROM most often expresses volitional relations, but can express epistemic relations. Several studies have shown that these connective characteristics profiles are robust. Their preferences vary from gradient but clear to strong restrictions on the relations they can express for both forward and backward causal connectives. Taken together, these observations show how the Dutch language cuts up causality (see, among others, Degand and Pander Maat, 2003; Pander Maat and Sanders, 2000; Pit, 2003; Stukker et al., 2008; Sanders and Spooren, 2009).

DOORDAT and the corresponding forward connector DAARDOOR form the clearest case of this cutting up. There are strong restrictions on their use, since they can only express non-volitional content relations. By contrast, OMDAT and WANT show a usage profile that is less restricted: the picture arising from data is that, although OMDAT has a preference for volitional content relations, while WANT mainly expresses epistemic relations, WANT and OMDAT can both express volitional and epistemic relations. In fact, these relations are regularly lexicalized by the same connectives. The conceptual meaning these two connectives share, like their corresponding forward causation markers DAAROM and DUS, is that they both typically involve an animate subject, a person, whose intentionality is conceptualized as the ultimate source of the causal event, be it an act of reasoning or some real-world activity (Pander Maat and Sanders, 2000). In terms of conceptual categories, this is a very fundamental distinction: the one between events ultimately originating from some intentional mind, versus events that originate from non-intentional causes; between causes that are crucially located in a Subject of Consciousness (from now on SoC), and those that are located in the inanimate, outside world (cf. Verhagen, 1995, 2005; Stein and Wright, 1995).

This contrast can be described with more precision using the notion of subjectivity (Langacker, 1990): if the current speaker and the SoC involved in the construction of the causal relation are one and the same, the relation is subjective (for further operationalization, see Stukker et al., 2008). Under this approach, DAARDOOR and DOORDAT (see example (4)) express objectivity: the speaker is not involved in the construction of the causal relations between the events. In fact, there is no SoC at all. The speaker merely reports events in the world that are causally related. In epistemic DUS/WANT-relations (see example (2)), the SoC is heavily involved and is often identical to the speaker: the speaker construes the relation, even though she is usually not mentioned explicitly in the discourse. That is, epistemic relations come in the form of (2'): *The neighbors are not at home, since their lights are out* rather than in the form *The neighbors are not at home, since I observe their lights are out*. Finally, in volitional causal relation (3'), there is an explicitly verbalized SoC who acts and is responsible for the causal relation, but the speaker is not involved in the construal. This characterization in terms of subjectivity is corroborated by corpus analyses and experimental studies on language users' preferences for connectives in context (Pander Maat and Sanders, 2000, 2001; Pander Maat and Degand, 2001; Pit, 2003; Sanders and Spooren, 2009; Stukker, 2005; Stukker et al., 2008).

The concept of ground in Langacker's subjectivity model can be fruitfully combined with the SoC-approach. When there is no SoC present, in the case of a non-volitional causal relation, the ground (speech event, its participants, and its immediate circumstances) may be entirely external to the profiled semantics of the utterance. The ground can also be included in the scope of predication as an off-stage, unprofiled reference point: *yesterday, tomorrow*, etc., as in *Yesterday, they were at home*. In epistemic cases, there is a SoC present and this will be more or less clear by (implicit) evaluation by the speaker: elements like *probably, is likely to, must be*, indicate that the SoC is present, as in *They are likely to be home*. In volitional cases, the presence of SoC will be clear by (implicit) reference to this consciousness: elements like *wanted, saw, tried, thought* indicate that the SoC is present, as in *She wanted them to be home*. Finally, the ground may be onstage: *So I think they are not at home*. In the latter case, the ground is in a sense objectified: that is, made part of the situation referred to in the utterance. The speaker is referred to by the use of 'I' and thus made explicit and foregrounded. The result is that she is comparable to any other actor in the discourse.

This idea is important in order to understand the first person 'I' as volitional subject in the past. For instance, while describing the difference between the causality in (2) and (3) – repeated here for sake of clarity – it is tempting to say that the speaker is responsible for the causality in (2), whereas *Jan* is responsible for the causality in (3).

- (2) De buren zijn niet thuis, **want** hun licht is uit.
The neighbors are not at home, because their lights are out.
- (3) Jan ging zwemmen, **omdat** het een warme dag was.
Jan went swimming, because it was a hot day.

Note what happens when the third person *Jan* is changed to first person 'I'.

- (3a) Ik ging zwemmen, **omdat** het een warme dag was.
I went swimming, because it was a hot day.

Utterance (3a) has not suddenly become an epistemic relation, simply as a result of a change from third to first person (compare (3a) with the volitional content relation in example (3)). It is *not* the speaker = SoC who is here-and-now construing the causal relation.

Similarly, note what happens in (2a), where the verb tense is changed from present to past.

- (2a) De buren waren niet thuis, **want** hun licht was uit.
*The neighbors were not at home, **because** their lights were out.*

About (2a), we can now ask again: Who is responsible for the causality? Who is the SoC construing the causal relation here? It need not be the speaker, as in (2), but could be some other SoC in the discourse. These kinds of questions are hardly addressed in the literature, which usually discusses clear-cut cases like (1)–(3). The concept of perspective can be particularly helpful here. Perspective is the introduction of a subjective point of view that restricts the validity of the presented information to a particular subject in the discourse, other than the implicit speaker here-and-now; thus, a discourse segment is perspectivized if its relevant context of interpretation is a person-bound, embedded space within the speaker's reality (Sanders and Redeker, 1996:293).¹⁰ The reason for introducing this concept in the discussion is that we need it to clarify important problems such as described above. There can be numerous SoC's present in a discourse, but the perspective is presented from a particular SoC. Our aim is to describe how causal connectives guide the representation to this SoC's perspective.

Summarizing, in order to answer the questions posed above, integration is needed between the domain of use theory and the models of subjectivity and perspective. In the following, we do this by making use of mental space theory (MST, Fauconnier, 1985; Sweetser and Fauconnier, 1996). In our view, it is useful to think of subjectivity within this framework in terms of distance from the speaker's internal mental spaces (or the speaker as SoC), in the mental space network.

3. Principles of the Basic Communicative Spaces Network model

Ever since Ducrot (1980) and Lang (1984), there have been linguistic accounts of connectives as operating instructions. The basic idea is that a connective serves as an instruction to relate the content of connected segments in a specific type of relationship (Sanders and Spooren, 2007). In his influential work on mental spaces, Fauconnier (1985) treats some connectives as so-called space-builders, that is, linguistic expressions that typically establish new mental spaces. Mental spaces are mental constructs set up to interpret utterances, "structured, incremental sets . . . and relations holding between them . . . , such that new elements can be added to them and new relations established between their elements" (Fauconnier, [1985] 1994:16). An example of a connective acting as a space-builder is the if-then conditional, as in *If I were a millionaire, my VW would be a Rolls*. An expression like *if p then q* sets up a new mental space *H* in which *q* holds. In other words, *if I were a millionaire* is the space builder and in this new space my VW from the initial space is identified with the Rolls in the new space (for the detailed analyses see Fauconnier, [1985] 1994, chapters 3–4; Sweetser, 1996).

The relationship between connectives on the one hand and subjectivity and perspective on the other hand, can be traced back to Ducrot (1980), who already stressed the diaphonic nature of discourse. Even in monologic texts, traces can be found of other 'voices': information that is not presented as fact-like, but as coming from a particular point-of-view, either the current speaker's (subjectified information, in the terminology of Sanders and Spooren, 1997) or another cognizer's (perspectivized information). Fauconnier's mental space framework is suitable to model this type of phenomena as well, as has been suggested by Dancygier and Sweetser (2000), Verhagen (2005), and Sanders and Spooren (2007). Verhagen (2005) used the mental space framework to analyze differences between epistemic and content uses of *because* and *although*. He argues that in the content use of *because* only one mental space is involved, namely the speaker's space, whereas epistemic uses of *because* require the construction of a more complex mental space configuration. Below, we present a related account. We agree that content and epistemic uses are different, and that this difference can be characterized in terms of mental space configuration. In addition, we claim that in both content and epistemic use, projection in an embedded mental space is required, and that the resulting mental space configurations differ in complexity.¹¹

3.1. Accounting for a Basic Communicative Spaces Network

Communicating through language implies that the speaker has mental states, which she expresses in a particular speech act setting, using a certain set of linguistic forms. Sweetser et al. have argued for the inherent accessibility of certain mental spaces, even when not overtly set up or evoked (Sweetser, 1990, 1996; Dancygier, 1998; Dancygier and Sweetser, 2000, 2005); any communicative speech act rests on the presumed presence of content, epistemic, and speech act spaces.¹² This configuration is a conceptual network of mental spaces that represent the basic communicative situation in which a causal connective is uttered. For short, we call this grouping of spaces a Basic Communicative Spaces Network, and we assume that,

¹⁰ See also Pit (2003) who refers to the notion of 'perspective' to account for subtle differences between contexts of use.

¹¹ For instance, connectives like *but* block certain inferences, while other connectives such as *if-then* act as space-builders, i.e. linguistic expressions that typically establish new mental spaces. As a theoretical framework, MST seems compatible to findings in research on discourse processing: Britton (1994), Millis and Just (1994), Noordman and Vonk (1997), Cozijn (2000), and Traxler et al. (1997). Also, MST has proven to be descriptively adequate for linguistic items that are related to causal connectives, such as conditionals: Sweetser (1996), Dancygier (1998), and Dancygier and Sweetser (1997, 2000, 2005) and other connectives: Verhagen (2005).

¹² Note that in many publications, such as Dancygier and Sweetser (2005), a metalinguistic space is also distinguished. Here, this space is only absent from further discussion for non-principled reasons; in fact, we assume it to be part of the network; see Sanders et al. (2009).

unlike most other mental spaces, these are evoked ‘for free’ – along with a presumed base space of the speaker’s reality. And since the Basic Communicative Spaces Network comes ‘for free’, these spaces (but not generally others) are automatically accessible as potential domains of interpretation for causal connectives, conditionals, modal verbs and adverbs, and other linguistic forms – though language-specific semantics will determine whether a given form is ambiguous between these spaces. A Basic Communicative Spaces Network, then, is in essence a specification in mental space terms of the minimum basic structures involved in a speech-interaction ground¹³ – not just a speaker and a hearer interacting in an immediate context, but including some base space assumed by the speaker as reality, plus the content of the speaker’s epistemic states and the content of the communication.

By acknowledging separate mental spaces for content, speech interaction, and speaker’s epistemic processes, Dancygier and Sweetser (2005) have been able to show that there are causal and conditional markers which are general across different kinds of spaces (like English *because*) and ones which are more specific about which kinds of spaces they can mark (English causal *since* cannot mark content-space relations). These results are of interest because they make it clear that cognitively, humans can conceptualize and label both extremely general causal relations and quite specific ones – one kind of specificity being a restriction as to the level of construal of the causation.

Dutch shows another important contrast in its causal markers of result, not (as we shall see) entirely orthogonal to the content-epistemic-speech act contrast set, but independently based. Specifically, Dutch makes a crucial distinction between volitional causal relations, where there is a Subject of Consciousness (SoC) volitionally causing an event or situation, and non-volitional ones.¹⁴ DOORDAT is restricted to non-volitional causation situations such as a rise in temperature caused by a sunny day. Cataphorically, OMDAT is a marker of volitional causal relations, while WANT (“since”) typically marks causal relations wherein the speaker is directly involved as SoC (as an initial approximation, non-content-domain causation).

Dutch causal conjunction choice thus crucially involves distinguishing between (i) presence and absence of a SoC as a causer and (ii) involvement of the speaker’s own epistemic and speech-act spaces, and of the speaker as SoC. In the remainder of this paper, we will substantiate this distinctive interpretation between OMDAT and WANT; we will show how the Basic Communicative Spaces Network allows us to formalize this distinction between a SoC-less non-volitional relation in which the speaker is ‘just reporting’, and the volitional, epistemic, and speech act cases in which an SoC is responsible for constructing the causal relation.

3.2. Working with the Basic Communicative Spaces Network

The Basic Communicative Spaces Network (BCSN) is the deictic centre of the mental spaces network. Note that any SoC has her own base space; and any SoC who communicates builds such a sub-network, and constitutes a potential deictic nexus in the mental spaces network. Authors, narrators, speakers – each has a communicative spaces network. Since the speaker is of course a volitional SoC, there are (as we shall see) complex similarities and differences between the uses of WANT and OMDAT. The concept of blending in mental spaces theory (Fauconnier and Turner, 2002) helps us explain this. Third-person ‘non-speaker’ viewpoints are often blended with speaker viewpoint, setting up a blended space which is formally third person in reference but has other formal characteristics which are very non-standard for a third-person description. The phenomena referred to as free indirect style by narratologists (Fludernik, 1993; Banfield, 1982) are one category of such blends. Sanders (2010) discusses examples from news narratives such as the sentence *Father proposed to go and steal a good bicycle* (Sanders, 2010:227). Here, *Father* could refer to the speaker’s (narrator’s) father, but it could also refer to some third-person agent’s father, whom the narrator would more normally refer to as *his father* rather than *Father*, without the possessive pronoun. Thus, the viewpoint of the narrator is represented by the past tense, while the agent’s viewpoint is represented in the choice of the word ‘*Father*’ and by the evaluation in *good (bicycle)*. Blended spaces of this kind can therefore be understood as involving two inputs, the content (described) space and the speaker/narrator’s here-and-now – which raises the question of how volitional causation is to be marked, with WANT or OMDAT. If subjectivity is defined as closeness to the communicative ‘here-and-now’ (cf. Traugott, 1989, 1995), then one way to bring a third-person content space ‘closer’ to the speaker’s epistemic space is to blend the two spaces.

These ideas on the Basic Communicative Spaces Network (BCSN) are used to analyze examples of causal connectives from Dutch language use. Fig. 1 represents the BCSN. It is this diagram that will be used in all analyses. At the absolute top level, it specifies the literal example in a scattered box, followed by an identification of the segments Q and P that are causally related in the fragment.

Below that, the actual BCSN is displayed. It consists of a 2×2 grid. Horizontally, it distinguishes between the top level, which is the linguistic level of the explicitly realized language, and the bottom level representing the conceptual level of knowledge representation. At the linguistic or utterance level, the consequence-clause Q and the cause-clause P are represented, as in *What do you want (Q), WANT (SINCE) there is coffee and tea (P)*.

At the conceptual level, we find the knowledge base containing propositions p and q, which correspond to constituents P and Q in the linguistic realization. It is this knowledge base that licences the $P \rightarrow Q$ relationships that are uttered (cf. Sanders et al.’s 1992 ‘basic operation’): Can the fact that there is coffee and tea be a reason to ask what somebody wants? Can *falling*

¹³ By ‘speech-interaction ground’ we refer to Clark’s (1996) ‘common ground’ as well as to Langacker’s (1987) ‘ground’.

¹⁴ For forward causal connectives, we have described this in Sanders et al. (2009).

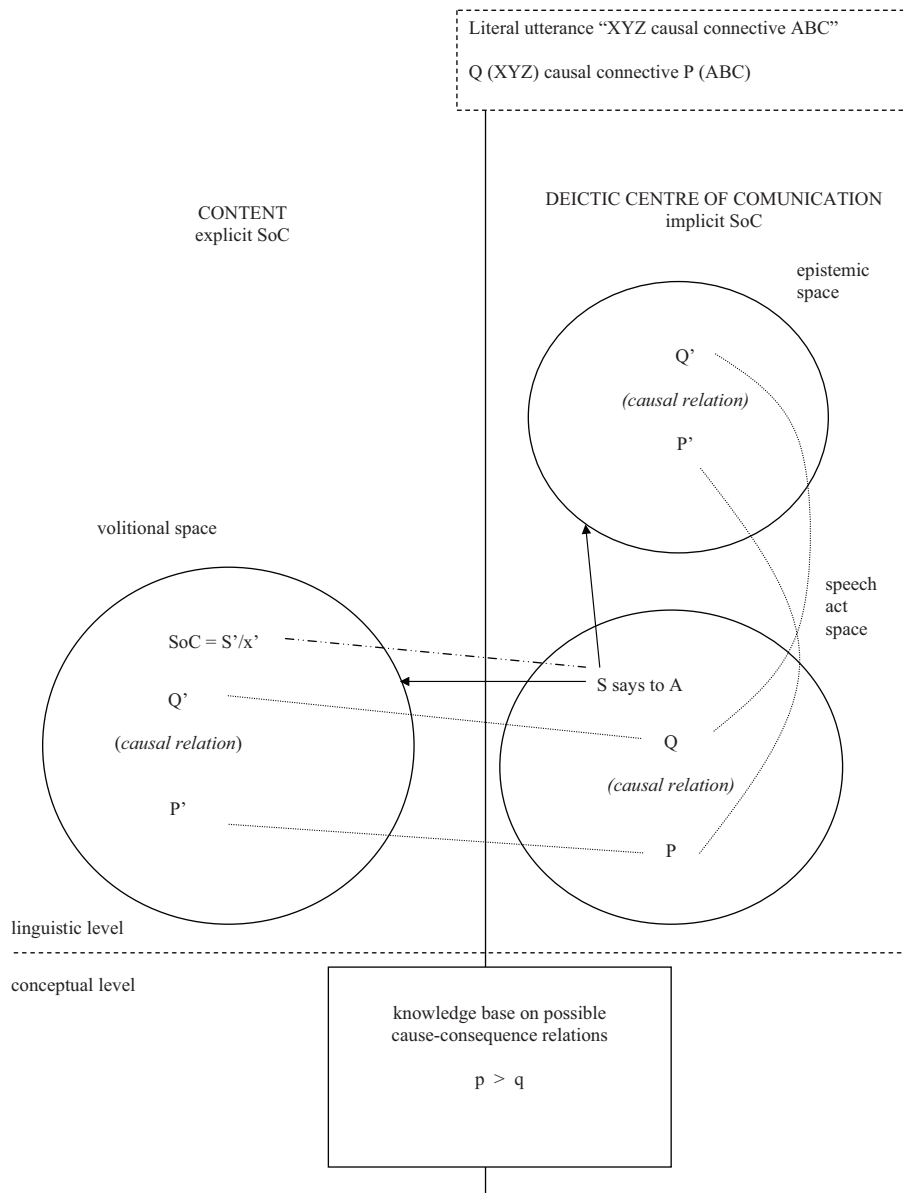


Fig. 1. Basic Communicative Spaces Network.

rain (P) indeed lead to (\rightarrow) the streets getting wet (Q)? Is the claim/conclusion that the neighbors are not at home (Q) validly explained for by the observation that the lights are out (P)? In short, the knowledge base contains the adult language user's representation of encyclopedic knowledge, pragmatic knowledge, and human reasoning, as well as the lexicon of the language that is used to express the causal relations (cf. the declarative knowledge in models like Levelt, 1989). For short, the knowledge base includes the speaker's general conceptualization of the world around her (base space, Fauconnier, 1985; Sweetser and Fauconnier, 1996).

As noted earlier, given a discourse containing a causal relation that is marked linguistically by a causal connective, three interpretations are readily available: it can be interpreted in speech act, epistemic, or content spaces. The three spaces have a fixed position in the diagram, which vertically distinguishes between cases with an explicitly realized SoC (*Jan, she, they*) – content space – and implicit SoC's – epistemic and speech act spaces. The reason why SoC's are implicit in the latter case is that the speaker is present in the deictic centre of communication.

4. Representing real-life causal relations in the BCSN

Each analysis in the BCSN starts from the deictic centre of communication, where speaker and addressee are actually present and communicate with each other, following a fundamental insight in pragmatics (Bühler, 1934; see also Clark's (1996) and Clark and Gerrig's (1990) "grounding"). The utterance under analysis is by default represented in the speech act space, because this is what S says to A here-and-now, and because this is the space in which the illocutionary force of the utterance is realized. Therefore, P and Q are also represented in the speech act space. As for interpretation, P', Q' are the corresponding representations in other spaces: for example, the uttered [P, Q] has corresponding epistemic units [hypothesis P'] and [conclusion that Q']. When the relation is to be interpreted in other domains than the speech act one only, the diagram shows this, starting from the speech act space.

An SoC is either represented by $S = \text{SoC}$ (when the speaker is the SoC) or by a variable $x = \text{SoC}$, which is then in turn specified: $x = \text{Jan}$. The lines in the diagrams denote identity correspondences. We will use dotted lines for the relations P, Q and their counterparts, indented lines for the relations between speaker or X, Y and their counterparts, and special dotted lines for the relation between the Subject of Consciousness (SoC) and its counterparts. Space building is indicated by plain lines with an arrow.

The attested examples used in this section were taken from corpus studies published elsewhere: causal connective use examples from a Dutch corpus of newspaper texts, spontaneous spoken discourse and chat conversations (Spooren et al., 2010; Sanders and Spooren, 2009), and one on journalistic texts (Sanders, 2010). In addition, a number of individual examples were taken from Internet exchanges and literary novels.

4.1. Typical backward causal relations represented in BCSN

Representing a causal relation in the BCSN starts from the Deictic Centre of Communication. Example (1) shows a communicative situation with both speaker and addressee present here-and-now. In this context, S says something to A. This utterance contains two propositions, realized in clauses, and these two clauses are related causally, as indicated by the causal connective WANT.

- (1) Wat wil je, **want** er is koffie en thee.
Q (*what do you want*) WANT P (*there is coffee and tea*)

Fig. 2 represents the mental space configuration of this unattested but unremarkable example. The utterance refers to the here-and-now in the Deictic Centre of Communication, with S and A present. Linguistically, S remains implicit; A is referred to by *you* in the first part (Q). The causal connection is construed within the speech act space; therefore, the connection between consequence (Q') and cause (P') and signaled by WANT, is represented in the same space as the utterance parts (Q) and (P). In case the hearer is implicitly addressed by the speech act, as in example (1a), there is no fundamental change in the causal relation expressed by WANT.

- (1a) Heeft iemand dorst? **Want** er is koffie en thee.
Q (*Is anyone thirsty?*) WANT P (*there is coffee and tea*)

An attested example is provided in (5), in which a speaker asks something and then provides the reason for this speech act. The context is a chat-session between middle school students.¹⁵

- (5) Is Ivar nr 19? **want** hij zocht net de hele tijd naar mij.
Q (*Is Ivar number 19?*) WANT P (*a while ago he was continuously looking for me*)

As in (1), S remains implicit in the first part (Q), but S is referred to by *me* in the second part (P). Again, both causal connection and speech act utterance are construed in one and the same space. This speech act use is one of the ways in which WANT is used. A second case is the epistemic use.

- (2) De burens zijn niet thuis, **want** hun licht is uit.
Q (*The neighbors are not at home,*) WANT P (*their lights are out*)

Here, the speaker concludes something and we see her mental processes of inference at work when she explains her conclusion here-and-now, that knowing that P (the lights being out) implies Q (the neighbors are gone). Therefore, as Fig. 3 shows, the causal relation between Q and P, signaled by WANT, is represented not in the speech act space, but in the epistemic space, denoting S's internal mental processes. S and A are present here-and-now; the SoC is implicit, which is the

¹⁵ Source: VU-chat-corpus (Sanders and Spooren, 2009).

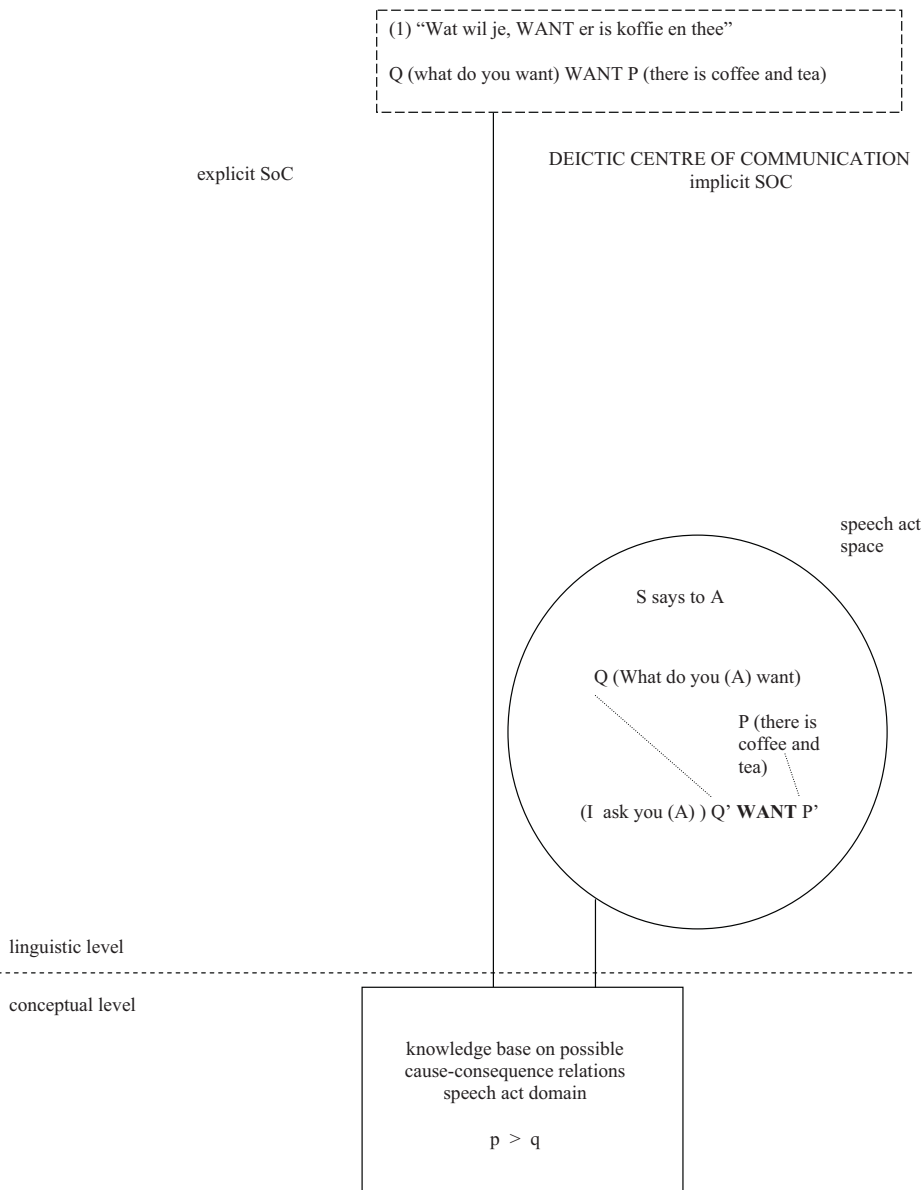


Fig. 2. Speech act implicit WANT.

reason why the representation remains on the implicit side of the diagram; the whole structure is construed without an explicit SoC present.

An attested corpus example is provided by (6), which was taken from a corpus of newspaper texts; this particular text was an interview with a sports trainer.¹⁶

(6) [Ik weet niet meer wat hij zei] maar hij moet het gewaardeerd hebben, **want** hij heeft er sindsdien vaak over gesproken.

Q ([I don't know what he said] but he must have appreciated it) WANT P (he spoke of it often since then)

¹⁶ Source: DCOI-corpus (Spooren et al., 2010).

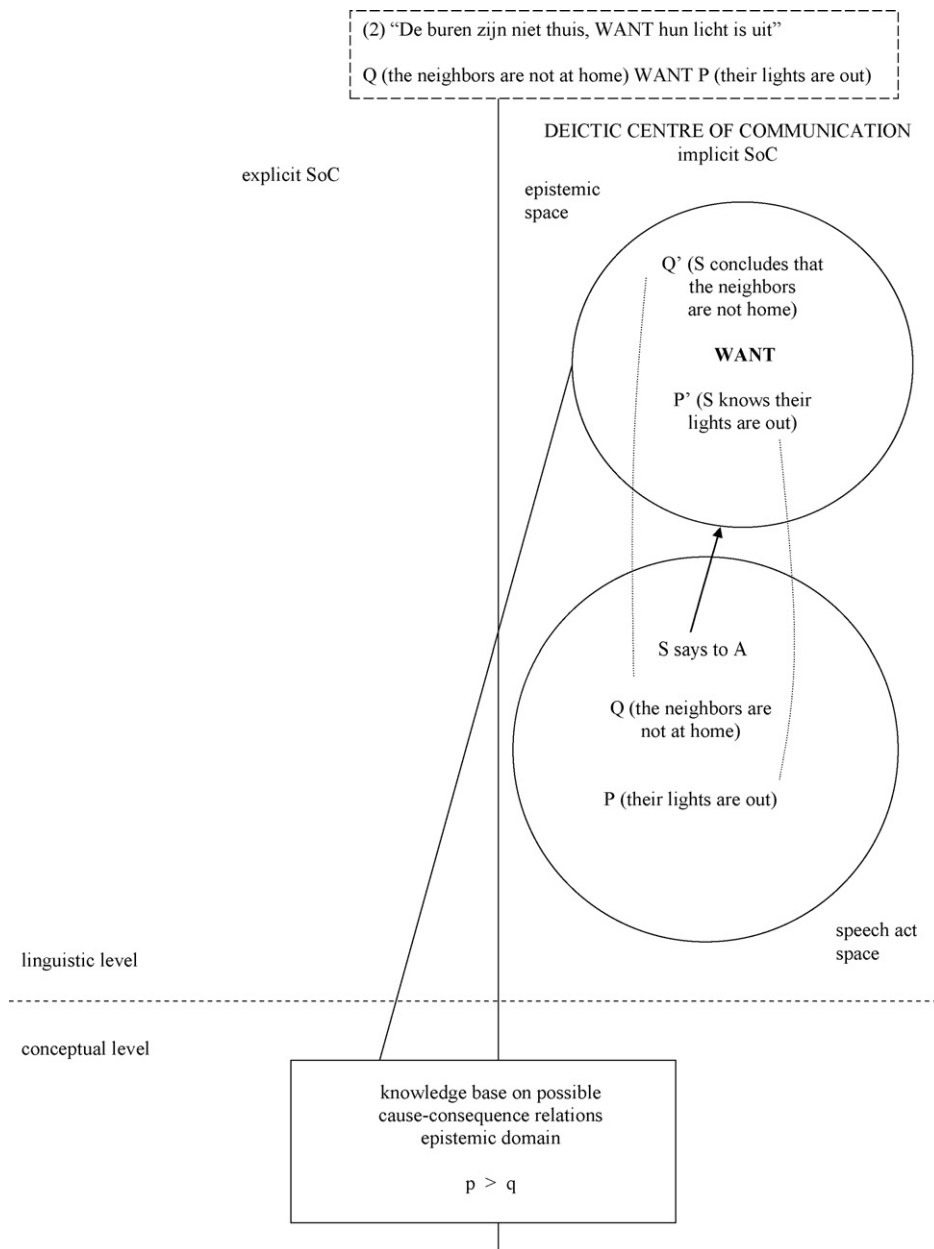


Fig. 3. Epistemic implicit WANT.

As in (2), the speaker here-and-now draws a conclusion (Q) and explains this conclusion on the basis of knowledge of an ongoing state of affairs (P). This is signaled by WANT, indicating an epistemic relation that is construed by the speaker = SoC (implicit) in the epistemic space.

The prototypical context for the connective OMDAT is that of an action in the content-volitional domain, as exemplified in (3) (Sanders and Spooren, 2009).

- (3) Jan ging zwemmen, **omdat** het een warme dag was.
 Q (Jan went swimming) OMDAT Q (it was a hot day)

Fig. 4 shows that an explicitly mentioned subject (x) in the speech act space, Jan, undertakes a volitional action (Q) for a particular reason (P): in order to prevent getting too hot, or at least to have a nice day, he goes swimming. Using OMDAT, the

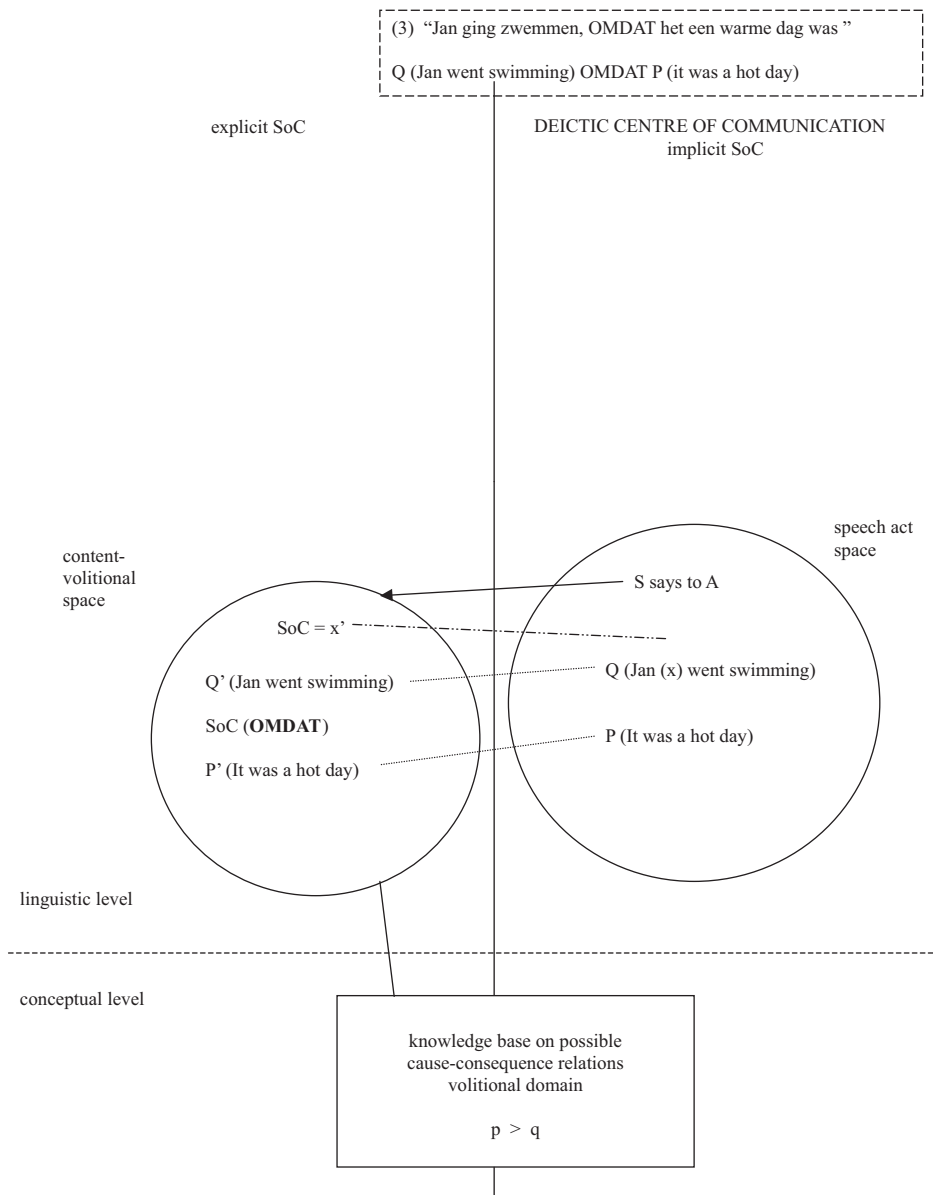


Fig. 4. Content volitional OMDAT.

speaker expresses that (x) is the SoC responsible for this causal connection. Therefore, the causal connection is not construed in the epistemic domain connected to the speaker, but rather construed by the SoC in a volitional domain that is connected to subject (x) in the speech act; this volitional domain is represented on the content-side of the diagram.

Note that this analysis does not change in the case of a first person subject with OMDAT.

- (3a) Ik ging zwemmen, **omdat** het een warme dag was.
Q (I went swimming) OMDAT P (it was a hot day)

While in this case it is the speaker’s perspective that is represented rather than a narrative third person’s, the causal relation is construed in the volitional domain, much in the same way as in Fig. 4 of example (3). Even if the ‘I’ is being objectified, this does not automatically mean that the causal relation is construed in the epistemic or speech act space. In other words, the analysis does not change because of the grammatical person. It is the volitional causal relation that distinguishes volitional relations (3) and (3a) from epistemic and speech act relations, regardless of the grammatical person: crucial is the explicitness of the SoC.

An example from an Internet exchange¹⁷ is given in (7). In this fragment, the speaker is describing her mother's behaviour.

- (7) Ze belt met mijn zus en met mij, **omdat** ze met ons zo goed contact heeft.
Q (She calls my sister and me) OMDAT P (she has such good contact with us)

As in (3), the speaker (author) makes explicit that subject *she* (mother), is the SoC responsible for the causal connection between the action (Q) undertaken in the first part and the reason (P) presented in the second part.

In the following example, this configuration of OMDAT is used rhetorically to 'objectify',¹⁸ the causal relation. The author/speaker uses a connective that connects the construal of the causal relation to an actor in the content space, who is, in fact, identical to the speaker. The example (8) was taken from a business brochure.¹⁹ Note that "ABN Amro", a major Dutch bank, writes this text about the company itself.

- (8) Cliënten met een bij ABN Amro gespaard of belegd vermogen van EUR 100.000 komen in aanmerking voor Preferred Banking. **Omdat**²⁰ vanaf zo'n vermogen en inkomen cliënten vaak andere eisen stellen aan financiële dienstverlening.
Q (Preferred Banking is available for ABN Amro clients with a property of EUR 100,000 in savings or investments). OMDAT P (as from such a property and income, clients often have different demands in financial service)

The mental space representation of (8) is similar to that of examples (3) and (6), with one exception: SoC is not a discourse subject (x) – an actor presented in the discourse – but the speaker (S'). Therefore, the causal relation is construed in the volitional domain connected to the speaker. In fact, S can be interpreted as acting as if she is an actor in the text, while in fact it is the speaker who is responsible for this causal relation. The use of OMDAT in such non-narrative, persuasive contexts can be viewed as a discourse strategy, since awareness of the speaker's responsibility for the causality can only be inferred by the reader from the context and is presumably made at an implicit or unconscious level.

4.2. Connectives in different causal relations

Although OMDAT mainly expresses volitional content relations, and WANT has specialized in epistemic relations, earlier studies have shown (see section 2), that WANT in epistemic and OMDAT in volitional relations can sometimes be interchanged. However, it is clear that OMDAT does not fit in epistemic contexts such as (2), even if we use the syntactically right word order, as is demonstrated in (2b).

- (2b) # De burens zijn niet thuis, **omdat** hun licht uit is.
Q (The neighbors are not at home) OMDAT P (their lights are out)

The use of OMDAT would express that their lights being out is the reason for their not being at home. However, the causal relation is not established between two events in the content domain, but between the speaker's conclusion and an observation on which this conclusion is based. This specific type of epistemic relation cannot be expressed by OMDAT.²¹ Still, this act of concluding here-and-now that Q is the case can be made explicit. In that case, it is possible to use OMDAT.

- (2c) Ik concludeer dat de burens niet thuis zijn **omdat** hun licht uit is.
Q (I conclude the neighbors are not at home) OMDAT P (their lights are out)

The construal in (2c) of a volitional causal connection is similar to that in (3): the speaker is made explicit as a subject, and is, as SoC, responsible for undertaking action Q because of P. In the BCSN, this would be, as in Fig. 4, represented in the volitional domain on the content-side of the diagram.

It is important to note (this is also stressed by Dancygier and Sweetser, 2005) that once a first-person conclusion or speech-act is made explicit, it is treated as a content space, with no special status such as the speaker's implicit speech-act or epistemic space. This type of explication of the speaker is rare in narrative texts, but not uncommon in the judicial genre such as exemplified in (9).²²

¹⁷ Source: Internet/Trouw; context: etiquette questions, theme: mother calls too often, found at http://www.trouw.nl/ontspanning/modernemanieren/article2694273.ece/Moeder_belt_te_veel.html, July 17, 2009.

¹⁸ Degand (1998:34) argues that the connective OMDAT tends to impose a 'factualising' reading with an objectifying effect.

¹⁹ Source: ABN Amro brochure "Preferred Banking", 2005, p. 2.

²⁰ Ungrammatical ellipsis, not uncommon in commercial discourse.

²¹ This is a case of abductive epistemic causality, see Degand and Pander Maat (2003).

²² Source: Online juridical statements, found at <http://jure.nl/bi8759>, July 17, 2009.

- (9) Op basis van de letterlijke tekst van art. 6a (...) concludeer ik dat de vrijstelling niet van toepassing is **omdat** de kinderen de grond niet bedrijfsmatig exploiteren.

Q (On the basis of art. 6a (...)) I conclude that the exemption is not applicable) OMDAT P (the children do not exploit the ground business wise)

Note that in our approach, the implicit SoC is more basic than the first-person representation. In other words, 'I' is not to be viewed as the primary representation type; a speaker made explicit as Subject of Consciousness is reframed relative to the implicit SoC in the speech act space.²³

4.3. Explaining for variation in perspective

In this section, we will systematically explore how the perspective of the speaker versus SoC relates to the causal relations in terms of the spaces we distinguished. Particularly epistemic relations are interesting in this respect. Epistemic WANT-relations like (2) can very well be expressed in narrative contexts, where the perspective is represented not from the speaker/implicit SoC/first person here-and-now, but from a third person-SoC or first person-SoC projected in another space, by default signaled by the past tense. The essential characteristic configuration of the causal connection remains, as is shown in example (2d).

- (2d) Jan zag dat de buren niet thuis waren, **want** hun licht was uit.
Q (Jan saw the neighbors were not at home) WANT P (their lights were out)

The analysis starts with the observation that the speaker's epistemic space is always, if often implicitly as in (2d), present. In case of the explicit presence of an SoC such as in (2d), the way is opened for another epistemic space which is connected to the SoC (Jan), in addition to the speaker's epistemic space. And in such cases, conceptual blending of the speaker's epistemic space and the SoC's epistemic space can take place. Fig. 5 represents the causal construal of the sequence in (2d).

As is typical for narrative discourse, subjects such as Jan (x) and objects in the speech act space are immediately projected in the content space in which the narrative character – Jan (x) – is represented. From the content space, an epistemic space connected to Jan (SoC) is accessed, in which Jan is here-and-now concluding something (Q) on the basis of some observation (P). This relation could not possibly be expressed with OMDAT: it is an epistemic relation, in which SoC is responsible for the causal relation, at which he arrives at the conclusion in his own epistemic space.

However, the configuration is more complicated than that: the speaker (author) identifies with the SoC and sees through Jan's eyes; it is a case of free indirect discourse (thought). The choice for WANT fits in with the SoC-perspective: the reader gets insight into Jan's space, sees Jan's internal mental processes. Mental spaces theory provides us with an excellent tool to represent this insight: The BCSN-representation shows there is a blend of the epistemic space of the speaker/narrator (implicit SoC) with the space of the narrative subject (x), who is SoC. In other words, the distance between S and SoC is not only small – it is entirely absent because their epistemic spaces are blended. The observing actor does not even have to be explicit to arrive at this interpretation, as we saw in example (2a), repeated below for clarity.

- (2a) De buren waren niet thuis, **want** hun licht was uit.
Q (The neighbors were not at home) WANT P (their lights were out).

In (2a), a non-identified subject = SoC in the narrative discourse is represented in the content space. The causal relation between P and Q is construed in an epistemic space linked to this observing subject, whose identity remains implicit in the causally connected clauses and must be inferred from the context.

An attested example from a Dutch novel is presented in (10).²⁴ In this fragment, the children's mother is waiting for her husband (indicated by his last name, *De Keizer*) to come home late in the evening.

- (10) Karelte en zijn zusje waren reeds naar bed, maar moeder zat nog op. De Keizer sprak geen woord, doch er moest iets bijzonders gebeurd zijn, **want** hij rook sterk naar jenever, iets dat hem anders op dinsdag nooit overkwam.
[Karelte and his sister had already gone to bed, but mother had stayed up. De Keizer did not speak a word, though] Q (something exceptional must have happened) WANT P (he strongly smelled of gin) [, something that regularly would not have happened to him on a Tuesday]

In (10), the conclusion is a clear case of free indirect thought by narrative character *mother*. She is the SoC who concludes Q on the basis of observation P, in particular the smell of gin and the knowledge that such a smell would not normally occur

²³ The 'I' is explicated relative to the implicit SoC in much the same way as a child first learns to discern and verbalize surrounding subjects and subsequently, in relation to these other subjects, is able to single out self = I as a separate and highly specific subject; see for instance Zlatev et al. (2008).

²⁴ Source: Willem Elsschot *Een ontgoocheling*. In: Verzameld Werk, Querido, 1986, p. 129.

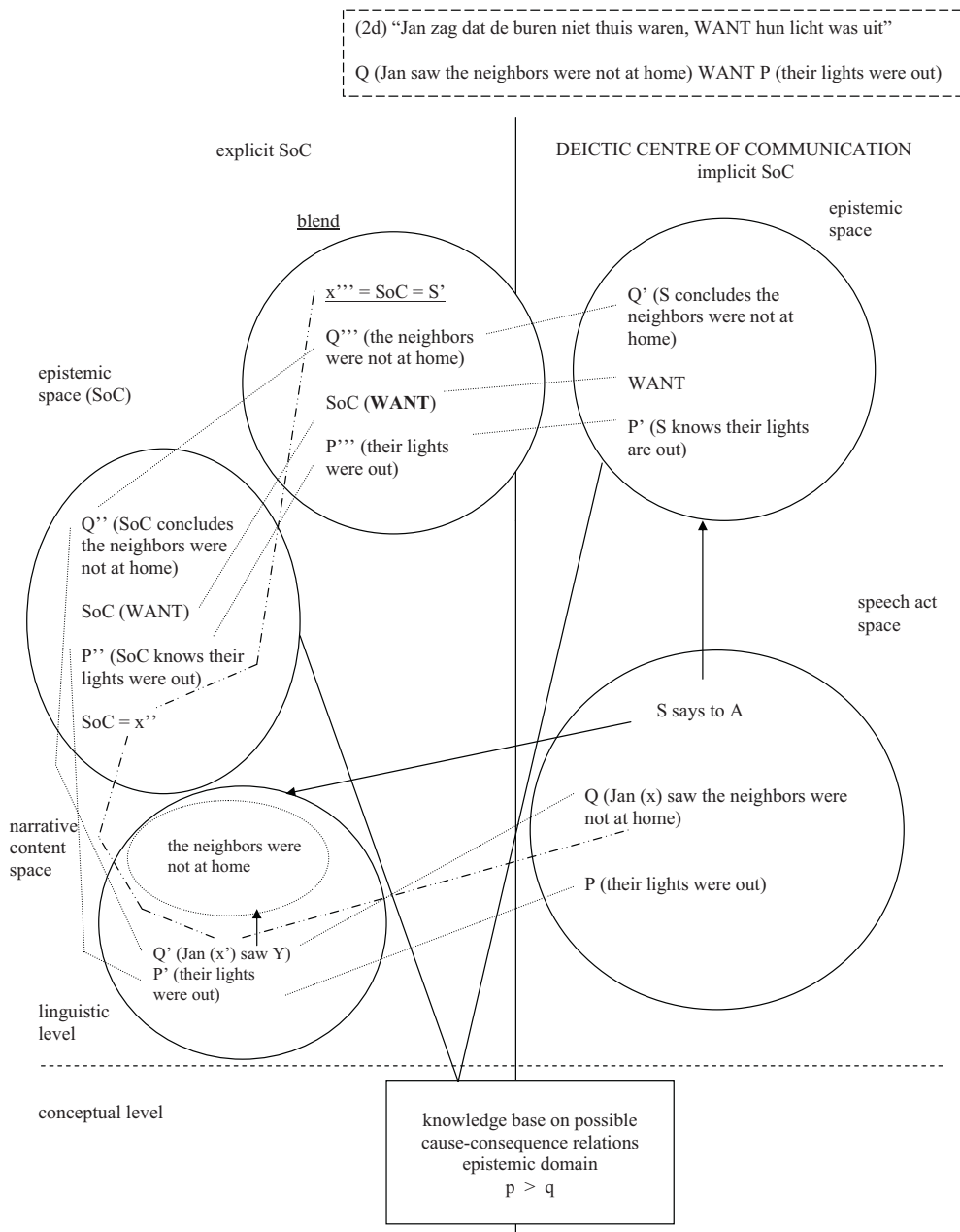


Fig. 5. Epistemic third person WANT.

on a Tuesday. Note that direct quotation marks are absent, and that S and A are implicit in Q; therefore, no clear boundary can be drawn between the epistemic domains of the narrative character and of the speaker/narrator; the two are blended. It may be concluded that blending of spaces is possible even without the presence of an observing narrative subject within the causally connected clauses; for in (10), the identity of the observer must be inferred from context. In sum, when the distance between S and SoC is small, the causal relation is construed more subjectively, which makes the use of OMDAT less obvious.²⁵ Hence: WANT is suited to express implicit SoC cases, which fits in with corpus and experimental results (see section 2).

²⁵ Particularly in spontaneously unedited discourse, such as spoken conversations, OMDAT seems to occur in subjective, epistemic relations more often than in formal, written discourse. Compare observations from chat sessions in Sanders and Spooren (2009).

Likewise, parallels between WANT and OMDAT come to light when we have another look at volitional causal OMDAT-cases with third person (SoC), such as the one discussed in (3). Again, such relations are prototypically expressed with OMDAT, but here WANT is not impossible, see (3b).

- (3b) Jan ging zwemmen, **want** het was een warme dag.
Q (*Jan went swimming*), WANT P (*it was a hot day*)

Still, there is a clear semantic difference between (3) and (3b). The WANT in (3b) seems to give the reader insight into the immediate internal mental processes of Jan = SoC while he is deciding to go swimming: it looks like an internal monologue. The reader gets involved in a here-and-now moment of decision making, even though it is represented in the past. Again, mental spaces theory can be used to analyze this insight. In a BCSN-configuration, WANT in (3b) enables an epistemic interpretation (after all, WANT is the prototypical marker of such relations), in which the S = SoC identifies with Jan who must have thought it was so hot that this was a good reason to go swimming. A blending of the mental space of the two SoC's takes place: we are interpreting the epistemic domain of the SoC = X (Jan) as the epistemic domain of the speaker. Note that this blended reading is even easier to arrive at in the case of first person in the past as shown by (3c).

- (3c) Ik ging zwemmen, **want** het was een warme dag.
Q (*I went swimming*) WANT P (*it was a hot day*)

Note also that this blended reading was not found in the sequence connected by OMDAT, as was discussed in case example (3a) above. In other words, the blended reading of example (3c) disappears when epistemic WANT is replaced by volitional OMDAT. Hence, in the WANT-case (3c), the speaker is objectified because she is mentioned explicitly, but this objectification does not imply volitionality as in (3a). By contrast, the configuration is similar to that in the attested example (11), also taken from a Dutch novel.²⁶ Louise, the novel's heroine, has bought a railway ticket and asks the officer at the booth for directions.

- (11) “Dank u mijnheer. Waar moet ik ook al weer overstappen?” “Heidelberg, Würzburg. . . wacht ik zal het even voor u opschrijven”, zei de man **want** Louise had nogal een aardig gezicht.
[“Thank you sir. Where again will I have to change trains?” “Heidelberg, Würzburg. . .] Q (“Wait I’ll write it down for you,” said the man) WANT P (*Louise had a rather charming face*)

In this case, an epistemic domain from the objectified speaker-SoC *the man* is elaborated which is blended with the epistemic space of the speaker-here-and-now (the narrator). In other words, WANT enables the speaker's participation of the SoC's reasoning, whereas OMDAT would have stressed the report of volitionality of SoC's subsequent action. In the present example, a reading with OMDAT would be rather explicit on the railway officer's motivations (Van der Horst, 1999). As is, the author eloquently chooses the middle between a deliberate action by the actor and an interpretation of the actor's (subconscious) preferences by the narrator.

This analysis sheds a new light on earlier corpus results that show significant differences in the usage contexts of WANT and OMDAT; the prototypical configuration of WANT is with first person SoC, and for OMDAT third person SoC (Pit, 2003:184). OMDAT prototypically expresses the volitional relation, irrespective of perspective: when there is an SoC undertaking this action, it is a volitional causal relation and it is expressed with OMDAT. Thus, the difference expressed with OMDAT versus WANT is not so much the third versus first person, but rather the causality that is reported from outside (OMDAT) versus the internal process of reasoning (WANT). This difference can be illuminated with narrative fragments from Internet exchanges between people asking for advice on etiquette, and the professional answer of a specialized journalist.

Example (7), repeated below with more context, uses OMDAT to appoint responsibility for the action to the narrative character (i.e. speaker's mother), while, by contrast, example (11) used WANT to express shared responsibility between speaker and SoC. The author in (7) complains about her elderly mother's behaviour.

- (7) Iedere dag hetzelfde telefoongesprek. Soms belt ze meerdere keren per dag. Ze praat over zieke mensen in haar omgeving en klaagt over kwaaltjes en eenzaamheid. Ze belt met mijn zus en met mij, **omdat** ze met ons zo goed contact heeft. Volgens haar lukt dat niet met mijn broers.
[Everyday the same telephone conversation. Sometimes she calls several times a day. She talks about sick people in her environment and complains about ailments and loneliness] Q (*She calls my sister and me*) OMDAT P (*she has such good contact with us*). [According to her it does not work with my brothers]

As Fig. 6 represents, there is blending in this fragment, but it does not concern the causal relation. The content and evaluative lexical choices in the fourth sentence of example (7) are so specific that they ask for attribution to the narrative character, i.e. speaker's mother, and not to the speaker. In a broader context of paraphrases of this character's utterances, her

²⁶ Source: Willem Elsschot *Villa des Roses*. In: Verzameld Werk, Querido, 1986, p. 110.

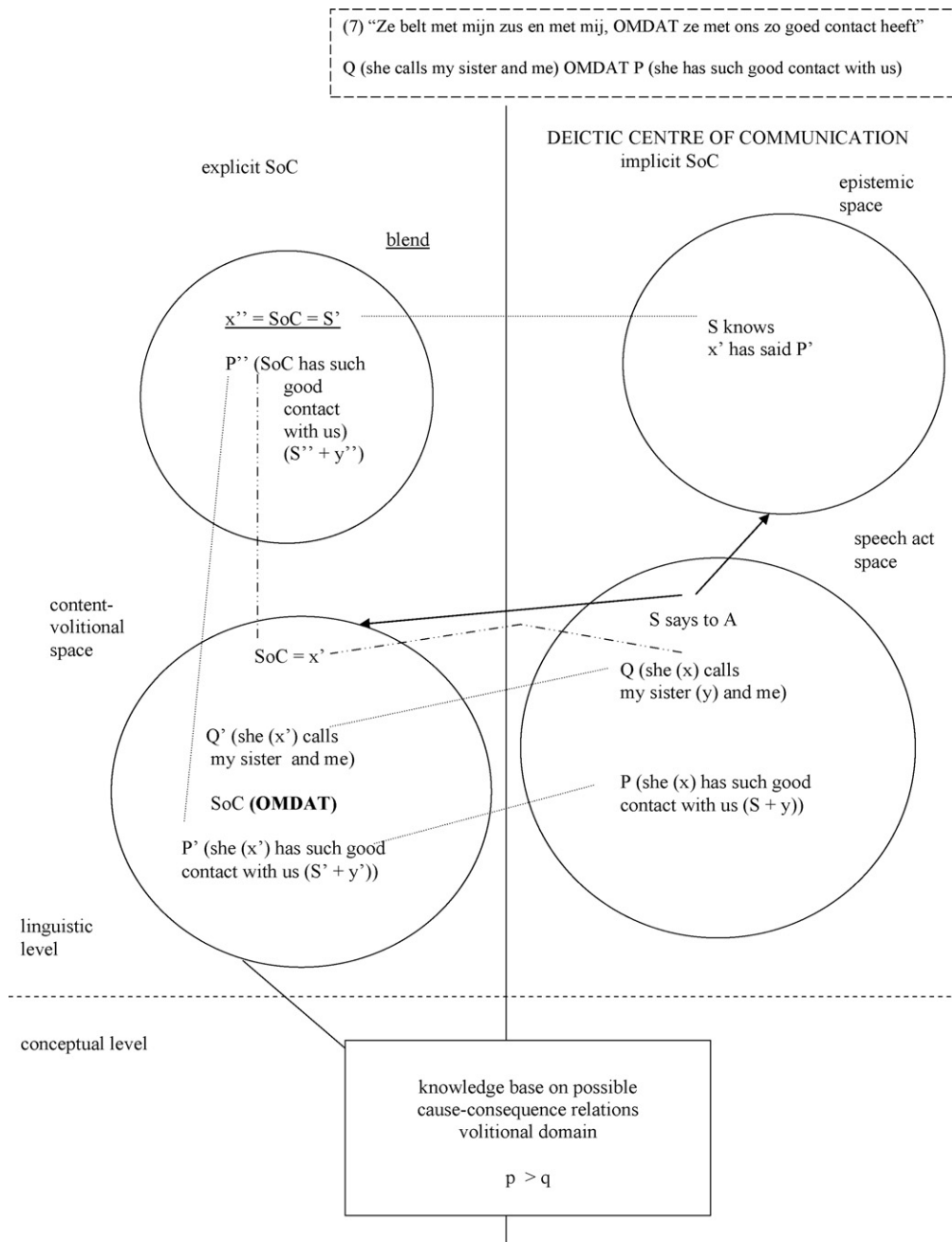


Fig. 6. Content volitional third person corpus OMDAT.

voice is particularly audible in causal segment (P) by the modal adverb ‘zo’ (*‘such good contact’*). However, no direct quotation marks are used to restrict the responsibility for this utterance to this character. Therefore, we must interpret the construal of P as a shared responsibility between character and speaker. By contrast, the use of OMDAT connects the causal relation specifically to the narrative character = SoC; it is construed in the volitional domain connected to the SoC. The use of WANT would evoke blending of the epistemic spaces of speaker (SoC) and character (SoC) and would have involved the speaker (and the reader) in the immediate decision of the character. Because of the opposite nature of their evaluations, this would be an undesired effect. This is avoided using OMDAT, which has a ‘distancing’ effect, compare (3). In principle, WANT would have been possible, but only in a reading as free indirect thought in which the mother is clearly the quoted character; free indirect thought as such is a literary device, often applied in longer stretches, that unprofessional writers generally do not use.

Let us compare this case with an attested example of WANT from a similar source. Again, the context is an Internet question–answer site on etiquette problems.²⁷ The author presents the following matter: she has invited guests, and one of them has responded by sending an e-mail message requiring to prepare very specific vegan snacks. The author is annoyed by this request and asks for advice. Fragment (12) gives the beginning and the end of the answer.

- (12) Heel vervelend inderdaad. (...) Stuur een verontschuldigend mailtje terug, waarin u zegt dat u uzelf niet vertrouwt de opdracht correct uit te voeren. Vraag hen zelf dieethapjes mee te nemen (voor één persoon) en zeg dat u de rest van de gerechten voor uw rekening neemt. Op die manier kan er niets misgaan, **want** u zou het uzelf niet vergeven als u de verkeerde hapjes zou serveren.

[Indeed, very annoying. (...) Send back an apologetic email message, in which you say you do not trust yourself to follow the orders correctly. Ask them to bring their own diet snacks (for one person) and say that the rest of the dishes will be your responsibility.] Q (That way nothing can go wrong) WANT P (you would not forgive yourself if you served the wrong snacks)

In this case, a 2nd person epistemic causal relation is signaled by WANT, involving an imaginative free indirect quote of the addressee *That way nothing can go wrong, WANT you would not forgive yourself if you served the wrong snacks*. As opposed to fragment (7), the speaker/journalist (SoC) has no objection to participate in the imaginative mental act by the addressee *you* (SoC), since there is no conflict in evaluation between S and A; hence the use of WANT rather than volitional, distance-creating OMDAT, which would in fact be impossible in this sequence. A BCSN representation would be similar to the one of example (3b): Q and P are projected in a narrative content space, from which an epistemic domain is elaborated, which is connected to the addressee who is the imaginative SoC *you*. This epistemic domain is blended with the speaker's epistemic domain; in the blend, the causal relation as signaled by WANT is construed. Note that the irony in this sophisticated case of connective use lies in the fact that both S and A know that in reality a different P is related to the veiled Q, which is in fact a refusal: A does not wish to comply with the request.

4.4. Non-volitional content: DOORDAT

Dutch offers interesting opportunities for comparison in the specific expression of causality which involves only content relations. In example (4), a causally related sequence of events is simply reported by the speaker: hence, there is no SoC involved. The result is a typical non-volitional content configuration, for which Dutch speakers uniquely use the connective DOORDAT.

- (4) De temperatuur steeg, **doordat** de zon scheen.
Q (The temperature rose) DOORDAT P (the sun was shining)

The BCSN analysis of an attested example (13) from a news text²⁸ is represented in Fig. 7.

- (13) Een vrouw uit Vriezenveen is overleden **doordat** ze is getroffen door de bliksem.
Q (A woman from Vriezenveen has died) DOORDAT P (she was struck by lightning)

The causal relation is construed in the content domain without the volitional or epistemic consideration of a Subject of Consciousness. For this reason we represent it in the upper left of our diagram, with a 'fence' around it: there is no SoC involved. Thus, the Basic Communicative Spaces Network allows us to represent a typical feature of the Dutch lexicon of causal connectives: the further elaboration of the content space in non-volitional versus volitional spaces. This can be viewed as a distinction that is 'forced' by the Dutch data.

5. Discussion

In this article, we have described similarities and differences between causal relations in discourse, especially those expressed by Dutch backward causal connectives. We have developed a mental space analysis of these connectives, working with the integrative proposal of a Basic Communicative Spaces Network as first presented in Sanders et al. (2009). Below, we summarize the main conclusions, discuss some crucial issues that were not yet addressed, and provide a brief insight into possibilities for future work.

²⁷ Source: Internet/Trouw; context: etiquette questions, theme: "Sent for an order", found at http://www.trouw.nl/ontspanning/modernemanieren/article2024915.ece/Tutoyeren_van_dementen.html, July 17, 2009.

²⁸ Source: RTV-Oost, Gr.Herman, found at <http://www.bliksemdetectie.nl/forum/62-binnenlands-nieuws/4658-een-vrouw-uit-vriezenveen-is-overleden-doordat-ze-is-getroffen-door-de-bliksem.html>, July 17, 2009.

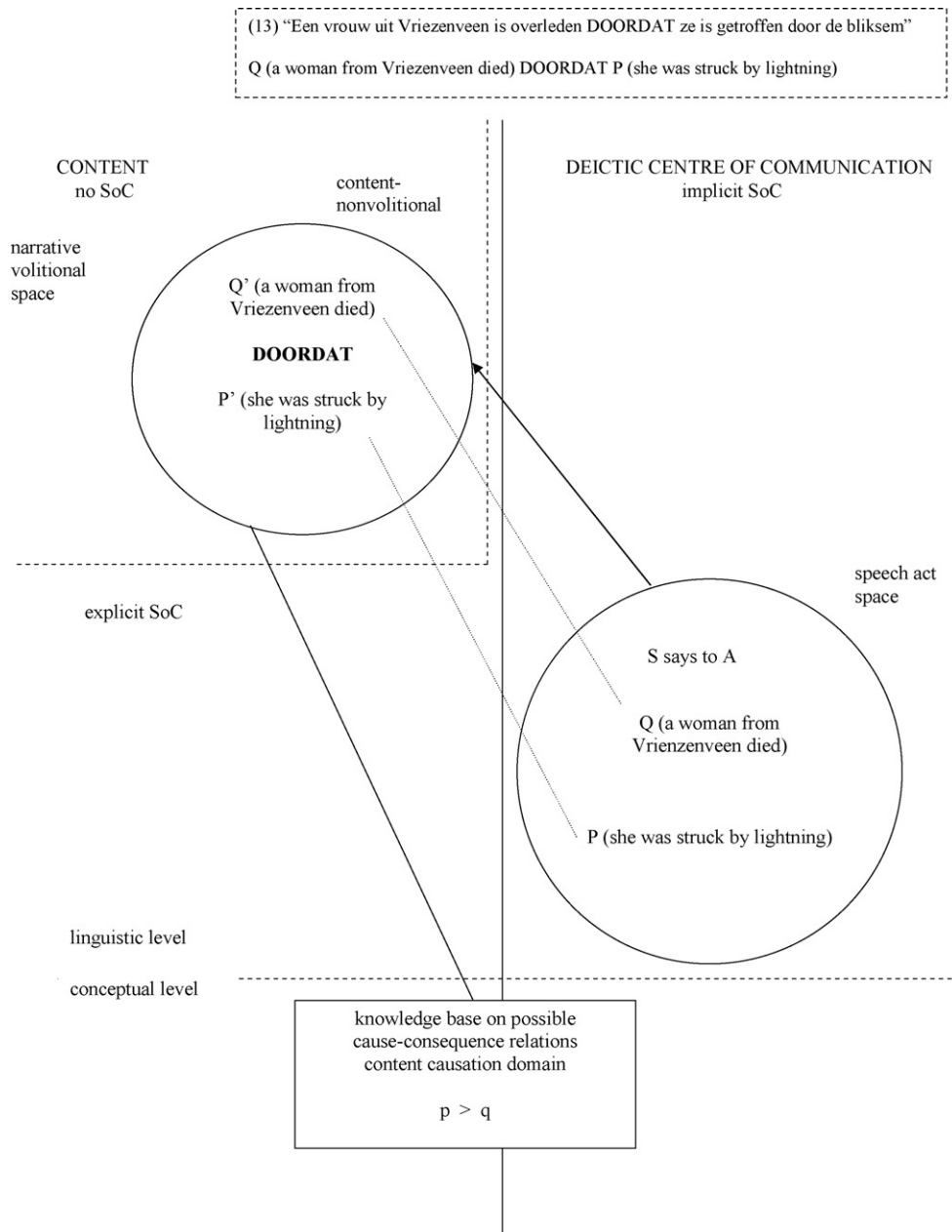


Fig. 7. Content nonvolitional corpus DOORDAT.

5.1. The representation of causal relations in the BCSN

The Basic Communicative Spaces Network allows us to account for crucial semantic–pragmatic characteristics of causal relations expressed by Dutch causal connectives. The BCSN-approach integrates insights from earlier work. The subjectivity literature and the empirical study of Dutch guided researchers towards the crucial factor of the Subject of Consciousness, who is present as an actor or concluder in many causal relations. We combined this insight with insights from domain of use theory and mental spaces theory to account more fully for the linguistic categorization of Dutch causal connectives, starting with the original three-way classification of content, epistemic, and speech act use and representing these uses in separate but connected and embedded mental spaces.

At the level of cognitive representation, our conclusion is that backward causal connectives are represented in a way similar to forward causal connectives (Sanders et al., 2009), leading to the general conclusion that the absence of a Subject of Consciousness accounts for the differences between non-volitional content relations and the other relations. Furthermore, speech act causation invokes the current speaker as a Subject of Consciousness, remaining implicit. Volitional causation can also involve the speaker as Subject of Consciousness, but in that case the speaker is explicit as 'I'. Epistemic causation resembles speech act causation in that it implies the implicit presence of the speaker as a Subject of Consciousness, but it is different in that the speaker-SoC, in the epistemic space, is merely a participant in reasoning processes whereas in the speech-act space, the speaker-SoC is an interactive agent in a communicative exchange. This exchange takes place in the shared setting of speaker and addressee, in which both participants are connected to a Deictic Communicative Centre. Not only the speaker can be Subject of Consciousness, other actors – among them the addressee – can also be SoC's, particularly in the volitional content and in epistemic domains.

Thus, the BCSN approach allows us to describe recursive patterning which can represent not only the author's subjectivity, but also the subjectivity of embedded subjects, such as speakers and actors in a narration. Not only the speaker, but all Subjects of Consciousness in discourse can, by their presence, generate their own mental spaces, and these spaces can be blended with the mental spaces connected to other subjects. This particular insight helps us to understand why, especially in narrative discourse, the use of WANT suggests the intertwining of the speaker's voice with that of a Subject of Consciousness in the narrative discourse: the speaker's and the SoC's spaces may be blended, constituting cases of Free Indirect Speech. In other words, the voice of the SoC is heard between the lines, or the speaker sees through the eyes of the SoC (compare Sanders and Redeker, 1996; Vandelanotte and Dancygier, 2009). However, the accessibility of the speaker's epistemic space is less complicated than that of a narrative character's SoC. The epistemic space of a third person character does not come 'for free', as is the case with the speaker's epistemic space, which is always there; it requires evocation from the context, as was analyzed for examples (2d) and (3b). In addition, the blending of a third person SoC's and the speaker's spaces seems to be even more complicated, which is mirrored in the complexity of their BCSN configurations. The new insights of the SoC-speaker blending of mental spaces may account for ambiguities and complexities in language use, as well as for many rhetorical effects on readers; an important question arising from this analysis is whether such complex blending of spaces are genre-specific to narratives or possible in other genres such as news texts as well (Sanders, 2010). Empirical studies should therefore include various genres and also non-planned, non-edited types of discourse, such as spontaneous conversation (Sanders and Spooren, 2009).

5.2. Causal connectives, subjectivity, and syntax

Given these insights, to what extent can the distinctions between Dutch WANT and OMDAT be captured in the BCSN network? A first, rough answer may be: the relations on the left side of the diagram (content, explicit SoC's) are typically expressed by OMDAT, whereas those on the right side (speech act, epistemic, speakers as implicit SoC's) are typically expressed by WANT. It should immediately be added, of course, that the presence of speaker or third person SoC's on the left side of the BCSN-grid opens the way for WANT-constructions, since all subjects have their own speech act and epistemic spaces, as argued above. Verhagen's (2005:192) proposal is clearly similar in this respect, even though he adds the argumentative layer. He argues that using [p WANT q] the speaker expresses that "the attitude of conceptualizer 2²⁹ towards p may not be sufficiently positive, and q should strengthen it". By contrast, OMDAT is neutral in [p OMDAT q] "which suggests that p in the Ground is unproblematic" (2005:193). In our BCSN configuration, the latter type of relation (OMDAT) would be represented at the left side and lower level: construed within the SoC's content space linked to the speaker's speech act space. The SoC at the content level is either the speaker or some subject in the discourse, who may have a deictic centre of its own. A claim–argument relation typically indicated by WANT would be represented at the right side and on the upper level: construed in the speaker's epistemic space linked to the speaker's speech act space. In accordance with Verhagen's proposal, this construal is of an intersubjective nature: both the speech act space and the epistemic space are directly connected to the Deictic Centre of Communication and thus linked to both speaker and addressee. In other words, both the speech act causal relation and the epistemic causal reasoning as expressed by WANT involve argumentation with another subject, be it the addressee in a real dialogue or the speaker's self in an inner dialogue.

Elaborating on the question of their argumentative status, the semantic–pragmatic differences between WANT- versus OMDAT-clauses could be related to differences in word order and syntactic status. This issue did not arise in our analysis of the forward connectives DUS and DAAROM (Sanders et al., 2009), which share the grammar of coordination. By contrast, OMDAT is a subordinator which demands verb-final word order, whereas WANT is a coordinator requiring V2 verb order. From a syntactic point of view, OMDAT introduces a hypotactic enhancing clause (cf. Halliday, 1985). This means that the clause following OMDAT is dependent on the preceding main clause, and has the communicative function of reinforcing what is stated in the main clause by indicating a cause, that is, a consequence-cause relation. A functional approach (see, for instance, Fox and Thompson, 1990) will ask what different communicative function is fulfilled by paratactic WANT as opposed to hypotactic OMDAT. As we have seen, WANT prototypically expresses causality that involves a claim–argument relation, whereas OMDAT tends to express a consequence-cause relation (Degand, 2001; Sanders and Spooren, 2009). In terms of discourse structure hierarchy (see Mann and Thompson, 1988), the latter is characterized as discourse hypotactic:

²⁹ In our terms: the addressee.

the cause is subordinate to the consequence, whereas the former is a claim–argument relation, in which the two parts are seen as equal: claim and argument are coordinate, paratactic structures. The grammatical status of the second segments would correspond to this discourse characterization, showing a form–function parallelism (cf. Verhagen, 2001).

Examples from spontaneous dialogue illustrate both the point of the intersubjective, argumentative nature, and the idea that the syntactic status fits in with this characteristic of WANT-constructions. Fragment (14) was taken from a chat corpus.³⁰

- (14) S1 ik ging femke zoeken
 S2 haha
 S3 **want?**
 S1 dan kon ik daar mooi mee prate:p
 S1 Q (*I went looking for Femke*)
 S2 haha
 S3 WANT?
 S1 P (*so I could have a nice chat with her*)

In (14), S3 uses WANT to ask for an argumentative clarification of S1's utterance (Q) and the argument is subsequently presented by S1 in (P). Because of its paratactic role, WANT at the same time is seamlessly glued within S1's utterance, since it allows for reasoning within the epistemic space of the Subject of Consciousness – in this case, the objectified speaker 'I' whose deictic centre lies in the past. Thus, q and p are conceptualized in S1's perspective but in an intersubjective, argumentative setting, enhanced by S2's laughing and S3's request for a clarification. OMDAT could not be used with this effect, because it would interrupt both the syntax and the speaker's perspective. Arguably, the effect of S3 using WANT? is the signal to be willing to stay within S1's perspective.

Finally, example (15) was taken from a spoken dialogue.³¹ In this complex, real-life excerpt, the different causal connectives help separating the causal responsibilities by appointing them to different SoCs. The speaker is talking about the behaviour of someone who is not present.

- (15) Hij gaat niet naar de tandarts **want** hij moet nu naar de tandarts. (...) Maar dat gaat hij gewoon niet doen **omdat** hij geen tijd heeft. Hij neemt elke morgen zowat om half 10 de bus. Dan kan je makkelijk daarvoor nog naar de tandarts.
 Q1 (*He doesn't go to the dentist*)WANT P1(*at present he has to go to the dentist*). (...) Q2 (*But he just is just not going to do that*) OMDAT P2 (*he hasn't got the time*). [*He takes the bus each morning at about 9.30. Before that you can easily go to the dentist*]

In the first sequence, a causal relation is construed in the speaker's speech act space, thus explaining on a meta-level why she says *he does not go the dentist*; this relation is signaled by paratactic WANT, indicating the speaker's responsibility for telling this story. It does not even come to mind that the causality could be the actor's responsibility; using OMDAT would result in an unacceptable sequence. In the second sequence, hypotactic OMDAT signals a content volitional relation under responsibility of the embedded speaker *he* = SoC. Not going to the dentist because of not having the time to do it is an unproblematic and neutral causal relation in the SoC's perspective. By contrast, the speaker thinks this causal relation is highly problematic, as is clear from the last two utterances in this excerpt. The character, in speaker's opinion, can and should make the time to go to the dentist.³² WANT and OMDAT differentiate clearly between the two sources of responsibility for causal relations.

5.3. Further research

The principles that causal coherence relations share are very probably universal (Sanders and Spooren, 2009). We also expect the underlying grid of the Basic Communicative Spaces Network to hold for every language studied: four interpretations that are readily available, the distinction between implicit and explicit SoC and the mental spaces attached to SoC's. However, the exact way in which the lexicon of connectives 'cuts up' the causality will vary across languages. One obvious empirical question is whether Dutch is the only language distinguishing between volitional and non-volitional content relations at the level of connectives.

³⁰ Source: VU-chat-corpus (Sanders and Spooren, 2009).

³¹ Source: Corpus Gesproken Nederlands, CGN, as used in Spooren et al. (2010).

³² Yet, we should be careful in concluding there is a one-to-one relationship between grammar and word order on the one hand, and the subjectivity of causal relations on the other hand. Evers-Vermeul (2005:95), making use of insights by Verstraete (1998) and De Haan (2001), concludes that bound subordination is restricted to content domain interpretations, but that other construction types, including syntactic coordination, allow for interpretations in content, epistemic as well as speech act spaces.

As we have just illustrated with the discussion of several examples, the elaboration of the BCSN approach in the empirical study of interactive discourse promises to reveal in more detail, how causal relations are construed intersubjectively between speaker, addressee and non-present Subjects of Consciousness. For these, and for other reasons discussed above, future corpus studies should include various genres, and include non-planned, non-edited types of discourse, such as spontaneous conversation (Spooren et al., 2010; Sanders and Spooren, 2009).

In addition, we expect that the interpretation of connectives as markers of relations involved in the Basic Communicative Spaces Network has cognitive relevance for our understanding of processing. As in psycholinguistic approaches in which the connective is seen as a processing instruction, connectives and interpreted segments in the BCSN diagrams select the space where the relation is interpreted. Domain-specific connectives, such as Dutch forward DAARDOOR and backward DOORDAT – connectives that clearly select only one of the possible spaces for interpretation, see examples (4) and (13) – are expected to be maximally informative processing instructions (De Leeuw et al., 2008). In general, however, the interpretative choice of the domain in which the relation is construed is a question of interpreting the relation as a whole: it should be compatible with the content of the segments. In much the same way, various actual cognitive interpretations are possible in the case of blending spaces. Volitional causal relations in first person examples (*I went swimming WANT it was hot*) have the same configuration as those in a corresponding third person example (*Jan went swimming WANT it was hot*), determined by the volitional character of the causal relation rather than other factors such as perspective or grammatical person. In fact, the grammatical first person, as an explicit Subject of Consciousness in the content space, seems to be closer to other grammatical Persons at the content side of our mental space configuration, than would seem intuitively plausible. Obviously, more research is needed to clarify this hypothesis.

In sum, this line of work gives rise to new hypotheses on the (cross-)linguistic study of causal connectives, on communication in spontaneous discourse, and on discourse processing and representation. This is exactly what may be expected from a proposal embedded in a cognitive approach to discourse coherence.

Acknowledgments

We thank Ninke Stukker and two anonymous reviewers of Journal of Pragmatics for their valuable comments and advices. All remaining errors remain, of course, our own.

The authors acknowledge the support of NWO vici-grant 277-70-003, rewarded to Ted Sanders, while preparing this paper.

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