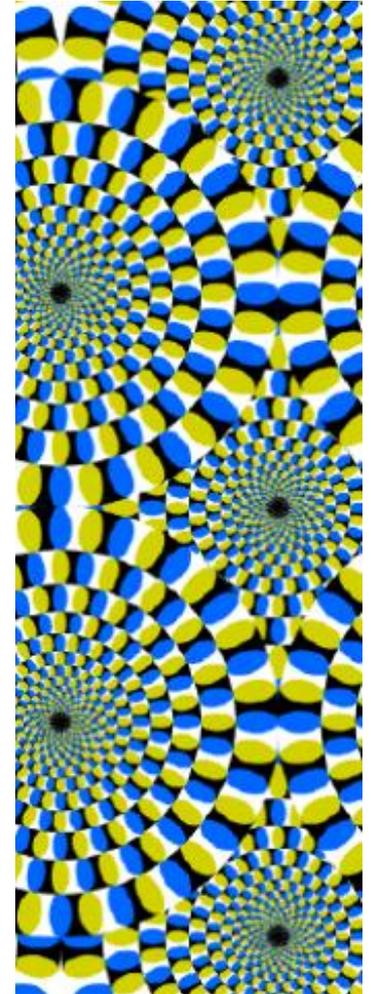


Epistemic causality in inferential connectives. The example of Italian *come si vede*

LogPrag work-shop, Les Diablerets,
June 18th, 2015

Johanna Miecznikowski
Istituto di studi Italiani, Faculty of
communication sciences, USI
Swiss National Science Foundation
project n. 141350



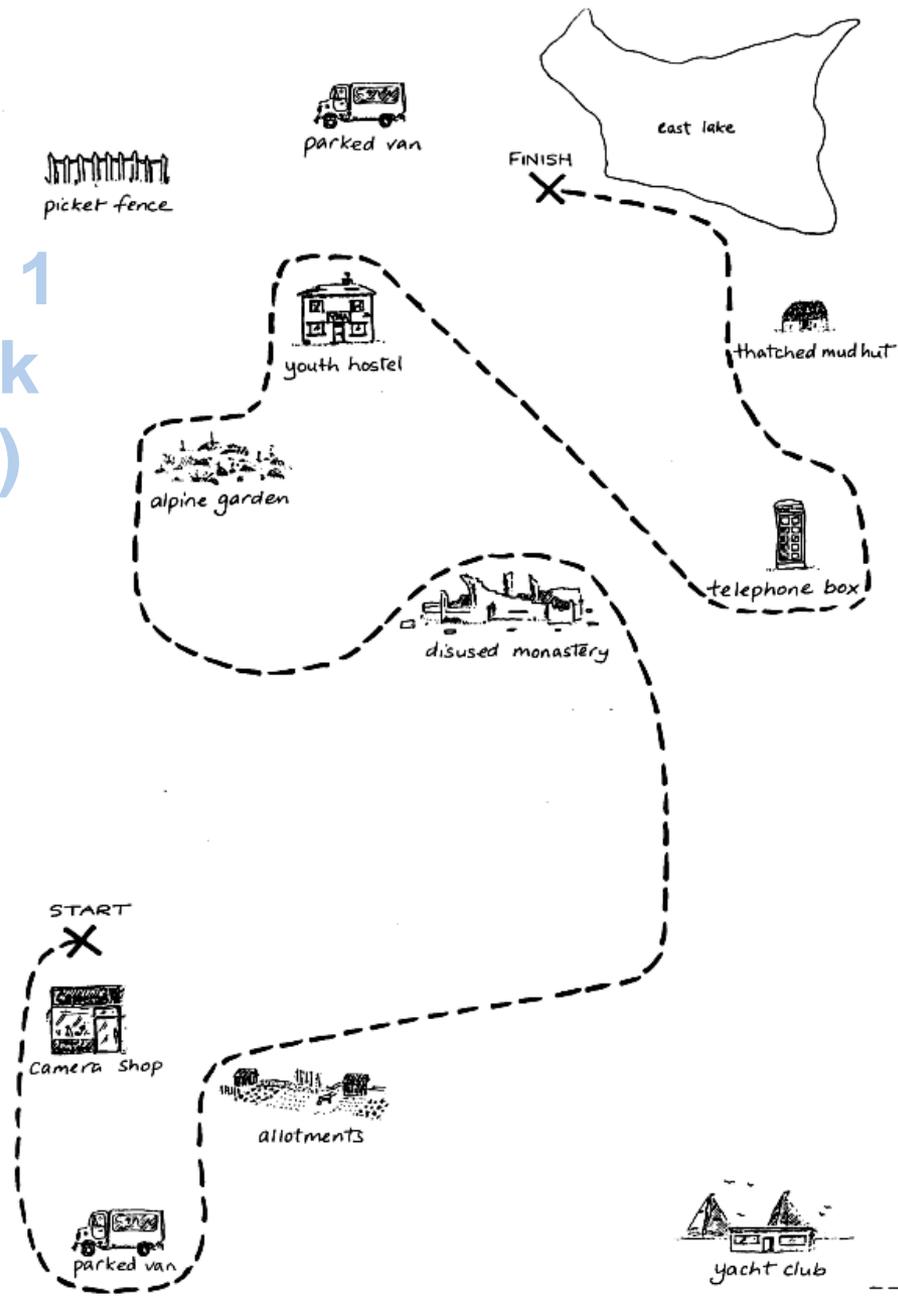
Contents

1. Some general remarks about inferential connectives
2. Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives: algorithm and epistemic causality
3. *Come si vede* ,as you (can) see'
 - Data
 - Non connective and connective uses
 - Contribution of the *come* construction and of *vedere* to the meaning of *come si vede*
 - Necessity and causal implicatures in *come si vede*?
 - Conclusion

$P \rightarrow C$ connectives

- Inferential connectives
 - (a) connect two explicit propositions p and q
 - (b) indicate that the statement of one proposition makes it possible (for the speaker, the hearer / a third party, or inter-subjectively) to infer the other, i.e. they give one proposition the status of a premise (P) and the other proposition the status of a conclusion (C).
- Connectives constrain the order of P and C . This talk concentrates on $P \rightarrow C$ connectives.

Example 1 (map task dialogue)



Example 1 (map task dialogue)

- 1 F: ah ah quindi cioè in pratica rispetto al lago
aha, so, practically, in which angle do I have to
- 2 anomalo di quanti gradi mi devo spostare cioè di
move away from the anomalous lake,
- 3 quanti centimetri rispetto al bordo?
how many centimeters from the edge?
- 4 G: rispetto al bordo sarà a un centimetro che ne so?
from the edge it must be about one centimeter,
- 5 due sarà a un centimetro potrebbe essere anche-
whatever, two, it's one centimeter I think, it could as well be
- 6 sarà un centimetro
- it's one centimeter, I think
- 7 F: toh eh **allora** sono arrivato sì
wow, so I've reached the end, haven't I
- 8 G: eh
that's it

Example 1 (map task dialogue)

- 1 F: ah ah quindi cioè in pratica rispetto al lago
aha, so, practically, in which angle do I have to
- 2 anomalo di quanti gradi mi devo spostare cioè di
move away from the anomalous lake,
- 3 quanti centimetri rispetto al bordo?
how many centimeters from the edge?
- 4 G: rispetto al bordo sarà a un centimetro che ne so?
from the edge it must be about one centimeter,
- 5 due sarà a un centimetro potrebbe essere anche-
whatever, two, it's one centimeter I think, it could as well be
- 6 sarà un centimetro **P**
- it's one centimeter, I think
- 7 F: toh eh allora **sono arrivato** sì
wow, so I've reached the end, haven't I
- 8 G: eh **C**
that's it

Perspectives on inferential connectives

- $P \rightarrow C$ connectives are **discourse markers**, i.e. particles and lexical expressions that are external to propositional content and relate discourse segments to aspects of context and situational context (Bazzanella 2006).
- The specific function of $P \rightarrow C$ connectives is to explicitly mark a **discourse relation** (Mann & Thompson 1988, Sweetser 1990, Taboada 2005, Ferrari 1995, Asher & Lascarides 2003).
- $P \rightarrow C$ connectives can assume **argumentative functions**.
- The $P \rightarrow C$ relation is conceptually, and sometimes functionally, similar to an **evidential qualification**: inference is one of several possible indirect information sources (Willett 1988, Aikhenvald 2007, de Haan 2001).

Contents

1. Some general remarks about inferential connectives
2. Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives: algorithm and epistemic causality
3. *Come si vede* ,as you (can) see'
 - Data
 - Non connective and connective uses
 - Contribution of the *come* construction and of *vedere* to the meaning of *come si vede*
 - Necessity and causal implicatures in *come si vede*?
 - Conclusion

Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives

- Logical algorithm:
 - Inference is seen as a rule-governed process.
 - Conclusions result from comparing propositions, retaining compatible ones and ruling out contradictory discourses.
- Epistemic / *de dicto* causality:
 - Inference is seen as a mental / speech act.
 - Premises «push» conceptualizers / speakers to believe / formulate conclusions.

Inference as an algorithm

- Inference is seen as an algorithm in logic, formal semantics, pragmatics and part of argumentation theory (e.g. in the Argumentum Model of Topics).
- In this perspective, the meaning of $P \rightarrow C$ connectives can be described as a special sort of relative necessity operators (cf. e.g. Miecznikowski, Rocci, Zlatkova 2013). They signal that the speaker has considered a set of premises including the explicit proposition P and found C to be the only proposition compatible with the set.
- Causality, force, or source-goal paths are not relevant in this view, but rather comparing and quantifying.

Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives

- Logical algorithm:
 - Inference is seen as a rule-governed process.
 - Conclusions result from comparing propositions, retaining compatible ones and ruling out contradictory discourses.
- Epistemic causality:
 - Inference is seen as a mental act.
 - Premises «push» conceptualizers to believe/formulate conclusions.

Epistemic causality and force dynamics

- Talmy (1985, 2000): Causation (the action of «forces») is a basic cognitive schema relevant for the domain of physical causality as well as for various «psycho-social» domains, including reasoning.
- Sweetser (1990): «epistemic causality» in modal verbs and in *because* (in its inferential $C \rightarrow P$ connective use).
- Slightly different: Diewald (e.g. 2000), a source-path-goal «semantic template» for modal verbs, including evidential uses.

Example 2 (Stukker et al. 2008:1304)

- Stukker et al. (2008:1304) analyze the Dutch P→C connective *dus* ('so', 'therefore') as a marker of an "act of reasoning".

«(The editor in chief of the radio show *With the Eye on Tomorrow* tells about a letter he once received from a listener.)

De goede man schreef: 'Mijnheer, u bent de baas van Het Oog, en ik ben de baas van mijn vrouw. We kunnen **dus** op niveau praten.' [...]

'The good man wrote: 'Sir, you are the boss of The Eye, and I am the boss of my wife. Therefore we can talk on the same level.' [...]

[...] the causal relation is constructed between the *situation* that both the speaker and the addressee have a position of power, and the speaker SOC's *conclusion* that they 'can talk on the same level'.»

Epistemic causality: relevant for all inferential connectives?

- The notion of epistemic (and speech act) causality helps explain the polyfunctionality of modal verbs and of some inferential $P \rightarrow C$ or $C \rightarrow P$ connectives (invariant causal scheme + different scopes).
- Is it relevant also for the meaning of inferential connectives that have no (non epistemic) causal readings?
- (Is epistemic causality, more generally, relevant for the conceptualization of inferential text relations and argumentative relations - independently of marking)?

Contents

1. Some general remarks about inferential connectives
2. Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives: algorithm and epistemic causality
3. *Come si vede* ,as you (can) see'
 - Data
 - Non connective and connective uses
 - Contribution of the *come* construction and of *vedere* to the meaning of *come si vede*
 - Necessity and causal implicatures in *come si vede*?
 - Conclusion

Data

- Swiss National Science Foundation project n. 141350 (Miecznikowski / Rocci / Musi, Università della Svizzera italiana, 2012-2015)
- Corpus = itWac, corpus for written Italian compiled by *Web crawling*, two billions of words (Kilgariff et al. 2014).
- *Si vede*: 16.000 tokens; sample: 500 occurrences
- Among these: 58 tokens of *come si vede*.

Contents

1. Some general remarks about inferential connectives
2. Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives: algorithm and epistemic causality
3. *Come si vede* ,as you (can) see'
 - Data
 - Non connective and connective uses
 - Contribution of the *come* construction and of *vedere* to the meaning of *come si vede*
 - Necessity and causal implicatures in *come si vede*?
 - Conclusion

A less studied inferential connective: *come si vede* ,as you (can) see‘

- Uses that do not connect propositions:
 - *visual perception, circumstantial inference from visual data, visual discourse deixis (ex. 2);*
 - *via a distributive and temporally extended reading of the present tense impersonal construction: inference from repeated experience (ex. 3)*
 - *metadiscursive comment;*
- Uses that connect propositions:
 - *P→C connective (ex. 4, 5);*
 - *paraphrastic reformulation / summary (ex. 6).*

Example 2: non connective use, (mainly) direct visual perception

Nella figura che segue viene schematizzata una soluzione per l' interfaccia Intranet / Internet. **Come si vede** nella parte superiore della figura, molte grandi organizzazioni mantengono più server Web su Internet in modo che i contenuti siano uguali, secondo una tecnica nota come mirroring.

*In the following figure, a solution for the intranet / internet interface is delineated. **As you can see** in the upper part of the figure, many large organisations maintain several web servers in internet with identical content, according to a technique known as 'mirroring'.*

http://www.gufo.it/utenti/corsi_on_line/paragrafo.asp?IDcorso=62&IDcapitolo=236&IDparagrafo=1010

A less studied inferential connective: *come si vede* ,as you (can) see‘

- Uses that do not connect propositions:
 - visual perception, circumstantial evidence with visual data, visual discourse deixis (ex. 2);
 - *via a distributive and temporally extended reading of the present tense impersonal construction: inference from repeated experience (ex. 3)*
 - metadiscursive comment;
- Uses that connect propositions:
 - $P \rightarrow C$ connective (ex. 4, 5);
 - paraphrastic reformulation / summary (ex. 6).

Example 3: non connective use, inference «from repeated/distributed experience»

Lo jus publicum europaeum è finito e il pendolo della storia oscilla adesso verso concezioni non-politiche e orientate sul «contratto» e sul «privato»; ciò diventerà evidente nella struttura che finiranno per assumere gli Stati attuali e la comunità delle genti.

In alcuni ambiti dell'Europa in particolare (ad esempio quella orientale), **come si vede** bene oggi, non c'è alternativa.

The jus publicum europaeum is finished and History's pendulum is now swinging in the direction of frameworks that are non-political and oriented towards «contracts» and what is «private»; this will become evident in the structure that the existing States and the international community will assume in the future.

*In some areas of Europe especially (for example in the eastern area), **as we can see** clearly today, there is no alternative.*

<http://www.liberalfondazione.it/archivio/tutti-i-numeri-di-liberal/949-bruxelles-il-grande-inganno>

A less studied inferential connective: *come si vede* ,as you (can) see‘

- Uses that do not connect propositions:
 - visual perception, circumstantial evidence with visual data, visual discourse deixis (ex. 2);
 - *via* a distributive and temporally extended reading of the present tense impersonal construction: inference from repeated experience (ex. 3)
 - metadiscursive comment;
- Uses that connect propositions:
 - $P \rightarrow C$ connective (ex. 4, 5);
 - paraphrastic reformulation / summary (ex. 6).

A less studied inferential connective: *come si vede* ,as you (can) see‘

- Uses that do not connect propositions:
 - visual perception, circumstantial evidence with visual data, visual discourse deixis (ex. 2);
 - *via* a distributive and temporally extended reading of the present tense impersonal construction: inference from repeated experience (ex. 3)
 - metadiscursive comment;
- Uses that connect propositions:
 - **$P \rightarrow C$ connective (ex. 4, 5);**
 - paraphrastic reformulation / summary (ex. 6).

Example 4: P→C connective

[...] tramite Internet si può accedere alla fornitissima biblioteca locale; chi ha terminato il proprio ciclo di studi può trovare un impiego in zona tramite il Waterford Career Center, ma anche chi, per un motivo o per un altro, non ha potuto diplomarsi può contare su un servizio educativo per gli adulti. **Come si vede**, non c'è ora della giornata, non c'è età della vita, che il distretto scolastico abbia mancato di coprire.

*[...] par internet, on accède à la bibliothèque locale, très bien dotée ; ceux qui ont terminé leurs études peuvent trouver un emploi dans la région à travers le Waterford Career Center, alors que ceux qui, pour une raison ou pour une autre, n'ont pas pu se diplômer peuvent compter sur un service de formation pour les adultes. **Comme il se voit**, il n'y a aucun moment de la journée, il n'y a aucune période de la vie qui ne serait couvert par la commission scolaire.*

(<http://webnews.html.it/storia/printstoria.php?idstor=84>)

Example 5: P→C connective

Sulla copertina della *Lettera d'amore alle sartine d'Italia* (1924) leggiamo le seguenti cifre [...] di copie pubblicate fino ad allora: di *L'amore che torna* (1908) uscirono 150.000 copie; di *Colei che non si deve amare* (1910) 220.000; [...]. La fortuna di alcuni di questi romanzi si protrasse nel secondo dopoguerra [...]. **Come si vede**, ad ogni modo, il grande successo di Guido Da Verona precede largamente la Marcia su Roma [...].

On the cover of Lettera d'amore alle sartine d'Italia (1924) we read the following numbers [...] concerning the copies published until them: L'amore che torna (1908) appeared in 150.000 copies; Colei che non si deve amare (1910) in 220.000 copies; [...]. The fortune of some of these novels lasted until the 1950ies [...]. As you can see, in any case, Guido Da Verona's success largely precedes the March on Rome [...]. [n.b. The fascists march on Rome in 1922].

<http://www.griseldaonline.it/didattica/guido-da-verona-paraletteratura-romanzatura-cornacchia.html>

A less studied inferential connective: *come si vede* ,as you (can) see‘

- Uses that do not connect propositions:
 - visual perception, circumstantial evidence with visual data, visual discourse deixis (ex. 2);
 - *via* a distributive and temporally extended reading of the present tense impersonal construction: inference from repeated experience (ex. 3)
 - metadiscursive comment;
- Uses that connect propositions:
 - $P \rightarrow C$ connective (ex. 4, 5);
 - **paraphrastic reformulation / summary (ex. 6).**

Example 6: reformulation / summary

Si è discusso molto sugli effetti sociali e economici che una epidemia di questo genere potè provocare all'interno di una società che in alcune regioni vedeva una grossa ripresa economica (specie le regioni italiane). Il gran numero di morti specie della fascia più debole della popolazione significò una diminuzione della manodopera, ma è anche vero che si ebbe una redistribuzione delle ricchezze. Gli affitti calarono, il potere delle classi baronali si indebolì. Diminuí la produttività del suolo: al posto del grano e dell'avena si diffondono orzo e leguminacee. In Inghilterra i buoi sono sostituiti dalle pecore. Molti abbandonano le città, dove la redistribuzione delle ricchezze permette un nuovo impulso al commercio. La pressione demografica, che aveva spinto a tentare la coltivazione anche di terre difficili e poco produttive, calò. Il potere d'acquisto dei salariati aumentò. **Come si vede**, segnali contrastanti.

Example X: summary

There has been an intense debate on the social and economic effects produced by this kind of epidemic in a society in which, in some regions, we see an important economic recovery (especially in the italic regions).

[Several economic developments observed after the medieval plagues are enumerated].

description

Come si vede (*In sum*), *contradictory signals.* summary

[following co-text: topic change and new paragraph]

Contents

1. Some general remarks about inferential connectives
2. Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives: algorithm and epistemic causality
3. *Come si vede* ,as you (can) see'
 - Data
 - Non connective and connective uses
 - Contribution of the *come* construction and of *vedere* to the meaning of *come si vede*
 - Necessity and causal implicatures in *come si vede*?
 - Conclusion

(Compositional) meaning of *come si vede* I

Parenthetical *come* construction; direct object ellipsis with transitive verbs, possible with some classes of verbs, especially to claim that

- an event instantiates a known model or realizes a prediction, intention or request:
Se ne andò presto, come era solito fare / come aveva promesso / come gli era stato chiesto / come si poteva prevedere
He left early, as he was used to do / as he had promised to do / as he had been asked to do / as one could predict
- a proposition is similar/identical to the content of a speech act or a belief based on perception/inference:
Come ho già detto / spiegherò dopo / si vede, non è stato facile.
As I've already said / as I will explain later / as you can see, it has not been easy.

(Compositional) meaning of *come si vede* II

- *Come si vede* claims similarity / identity between the explicit proposition C and a (true) belief X which is part of a ,seeing' event taking place in circumstances Y.
- When there is no spatial or temporal complement, the seeing event coincides with the time/place of the speech event; Y – what is ,looked at' to ,see' X – coincides with the discourse formulated so far.
- Connective inferential (vs. deictic) uses arise when the most relevant Y is the CONTENT of the preceding discourse. *Vedere* is then used in the metaphorical sense of ,seeing with one's mind's eyes'. C is identified with what can be ,seen' ,looking at' P.

Contents

1. Some general remarks about inferential connectives
2. Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives: algorithm and epistemic causality
3. *Come si vede* ,as you (can) see'
 - Data
 - Non connective and connective uses
 - Contribution of the *come* construction and of *vedere* to the meaning of *come si vede*
 - Necessity and causal implicatures in *come si vede*?
 - Conclusion

An algorithm to calculate necessity?

- Connective $P \rightarrow C$ *come si vede* presupposes a premise set including explicitly stated p : as in other inferential connectives, it is clear that C cannot be inferred from P alone.
- To account for this invitation to complete the set of premises, the analysis as a necessity operator is useful: it helps predicting the kind of premise set the addressee must infer in order to make the discourse fully coherent.
- However, in *come si vede* there does not seem to be any isomorphism between these (logical-pragmatical) properties and the lexically and grammatically encoded cognitive schemes.

Causality?

- Neither the comparison / identification scheme (*come*) nor the perception verb *vedere* entail a causal relation.
- The *come* construction can have causal implicatures that make the statement of similarity or identity more informative:
Se ne andò presto, come aveva promesso 'he left early, as he had promised to do',
Implicature: He left early because he had promised to do so.
- Vision (perception): the relation between the circumstances of perception and the acknowledgement of the percept can be framed as a causal stimulus-percept relation, an implicature encouraged by directional complements of inferentially used perception verbs: *Come si vede dalla figura, p / Dalla figura si vede che p*, lit. 'As you can see from the figure, p / From the figure you see that p'.
Implicature: The figure informs us/you that p.

Causality?

- In connective inferential *come si vede*, such causal implicatures may be available in some cases (,what we have heard so far makes us believe that C').
- However, the fact that the circumstances Y tend to be left implicit in $P \rightarrow C$ uses of *come si vede* does not encourage this implicature as far as the perception process is concerned.

Perception and inference

- Perceptual metaphor (*vedere*) + comparison (*come*) in *come si vede* foregrounds an aspect of inference that has been focused on less often in the literature: the fact that inferential connectives introduce explicit propositional formulations of what is implicit or available thanks to holistic interpretation strategies.
- According to this conceptual scheme, communicating an inferential relation is neither being pushed to believe, nor ruling out incoherent propositions, but rather a sort of translation (hence the proximity, in *come si vede*, with summary / paraphrastic reformulation).

Contents

1. Some general remarks about inferential connectives
 2. Two metaphors used in linguistic descriptions of $P \rightarrow C$ connectives: algorithm and epistemic causality
 3. *Come si vede* ,as you (can) see'
 - Data
 - Non connective and connective uses
 - Contribution of the *come* construction and of *vedere* to the meaning of *come si vede*
 - Necessity and causal implicatures in *come si vede*?
- Conclusion

Conclusion

- Conceptually rich content, such as (epistemic) causality, play a role in the linguistic encoding of inferential connectives. As in the domain of modality or evidentiality, though, several schemes (causality, perception, calculating, others...) exist, focusing on different aspects (and types) of inference. Flattening all of them to epistemic causality would not do justice to the conceptual variation observed.
- More abstract (logical) notions such as necessity are useful to explain pragmatic effects of inferential connectives (the completion of an appropriate premise set) and thus have to be integrated at some level of meaning.
- Both dimensions of meaning (conceptually rich schemes and the more abstract logical one) are important to account for the procedural function of inferential connectives in natural languages.

References

- Aikhenvald, Alexandra. 2007. "Information Source and Evidentiality: What can we Conclude?". Chap. 1, In *Evidentiality between Lexicon and Grammar. Italian Journal of Linguistics*, edited by Mario Squartini. Vol. 19, 209-227.
- Kilgarriff, Adam, Baisa, Vít, Bušta, Jan, Jakubíček, Miloš, Kovář, Vojtěch, Michelfeit, Jan, Rychlý, Pavel & Suchomel, Vít (2014). The Sketch Engine: ten years on. *Lexicography* 1:1, 7-36.
- Bazzanella, Carla (2006). DMs in Italian: towards a 'compositional' meaning. In K. Fischer (ed.). *Approaches to Discourse Particles*. Amsterdam, Elsevier, 449-464.
- Bazzanella, C., Bosco, C., Gili Fivela, B., Miecznikowski, J., Tini Brunozzi, F. (2008). Polifunzionalità dei segnali discorsivi, sviluppo conversazionale e ruolo dei tratti fonetici e fonologici. In Pettorino, M., Giannini, A., Vallone, M., Savy, R. (eds.), *La comunicazione parlata*, vol. II, Napoli, Liguori, 934-963.
- Bazzanella, Carla, Miecznikowski, Johanna (2009). Central/peripheral functions of *allora* and 'overall pragmatic configuration', in M.-B. Mosegaard Hansen, J. Visconti (eds.), *Current Trends in Diachronic Semantics and Pragmatics*. Oxford, Emerald, 107-121.
- Blochowiak, Joanna (2010). Some formal properties of causal and inferential because in different embedding contexts. *Generative grammar in Geneva* 6, 191-202.
- Bolden, Galina B. (2009). Implementing incipient actions: The discourse marker 'so' in English conversation. *Journal of Pragmatics* 41, 974–998.
- Boye, Kasper (2001) 'The Force-Dynamic core meaning of Danish modal verbs' In *Acta Linguistica Hafniensia*, 33, 19–66
- Carston, Robyn (2004). Explicature and semantics. In S. Davis and B. Gillon (eds.), *Semantics: A Reader*. Oxford: Oxford University Press, 817-845.
- de Haan, Ferdinand (2001). The Place of Inference within the Evidential System. *International Journal of American Linguistics* 67 (2): 193-219.

- Diewald, Gabriele (2000). A basic semantic template for the lexical and the grammaticalized uses of the German modals. In: Auwera, Johan van der and Patrick Dendale (eds.), *Modal Verbs in Germanic and Romance Languages*. 2000. vi, 264 pp. (pp. 23–41)
- Ducrot, Oswald, et al. 1980. *Les mots du discours*. Paris: Minuit.
- Eemeren, F. H. van, Houtlosser, P., & Snoeck Henkemans, F. (2007). *Argumentative indicators in Discourse. A Pragma-Dialectical Study*. Amsterdam: Springer.
- Ferrari, Angela (1995). *Connessioni: uno studio integrato della subordinazione avverbiale*. Geneva, Slatkine.
- Güllich, Elisabeth & Kotschi, Thomas (1983). Les marqueurs de la reformulation paraphrastique. *Cahiers de linguistique française* 5, 305-351.
- Güllich, Elisabeth & Kotschi, Thomas (1986). Reformulierungshandlungen als Mittel der Textkonstitution. Untersuchungen zu französischen Texten aus mündlicher Kommunikation. In W. Motsch (ed.), *Satz, Text, sprachliche Handlung*. Berlin, Akademie-Verlag, 205-269.
- Günthner, Susanne (1993). '... weil - man kann es ja wissenschaftlich untersuchen' - Diskurspragmatische Aspekte der Wortstellung in WEIL-Sätzen. In *Linguistische Berichte* 143, 37-59.
- Mann, William C. & Sandra A. Thompson (1988). [Rhetorical Structure Theory: Toward a functional theory of text organization](#). *Text* 8(3), 243-281.
- Miecznikowski J., Gili Fivela, B. & Bazzanella C. (2009). Words in context. Agreeing and disagreeing with *allora*. In G. Gobber et al. (eds.), *Word Meaning in Argumentative Dialogue*, vol. 1 (= *L'analisi linguistica e letteraria* XVI, 2008/1, special issue), 205-218.
- Miecznikowski, Johanna & Musi, Elena (in press). Verbs of appearance and argument schemes: Italian *sembrare* as an argumentative indicator. In *Selected Papers from the ISSA Conference 2014*.
- Miecznikowski, J. Rocci, A., Zlatkova, G. (2013). Le funzioni inferenziali e polifoniche dell'avverbio epistemico italiano *forse*. In: Pirazzini, D. e Schiemann, A. (eds.), *Dialogizität in der Argumentation. Eine multidisziplinäre Betrachtung* (pp. 201-230). Bonner Romanistische Arbeiten 108. Frankfurt a. M., Peter Lang.

- Moeschler, Jacques (in press). Argumentation and Connectives. In How do discourse connectives constrain argumentation and utterance interpretation? In A. Capone & J. Mey (eds.), *Interdisciplinary Studies in Pragmatics, Culture and Society*. Cham: Springer.
- Mortelmans, Tanja (2010). Modality in Cognitive Linguistics. In Geeraerts, Dirk & Cuyckens, Hubert (eds.) *The Oxford Handbook of Cognitive Linguistics*, Oxford University Press, 869-889.
- Mosegaard Hansen, Maj-Britt (1997). *Alors* and *donc* in spoken French: a reanalysis. In *Journal of Pragmatics* 28, 153-187.
- Rigotti, Eddo & Greco, Sara (2010). Comparing the Argumentum Model of Topics to Other Contemporary Approaches to Argument Schemes: The Procedural and Material Components. *Argumentation* 24(4), 489-512.
- Stukker, Ninke, Sanders, Ted & Verhagen, Arie (2008). Causality in verbs and in discourse connectives: Converging evidence of cross-level parallels in Dutch linguistic categorization. In *Journal of Pragmatics* 40, 1296–1322.
- Sweetser, Eve E. (1990). *From Etymology to Pragmatics. Metaphorical and Cultural Aspects of Semantic Structure*. Cambridge, Cambridge University Press.
- Taboada, Maite (2005). Discourse markers as signals (or not) of rhetorical relations. *Journal of Pragmatics* 38, 567–592.
- Talmy, Leonard (1985a) 'Force Dynamics in language and thought' In Papers from the Regional Meetings, Chicago Linguistic Society, 21, 293–337
- Talmy, Leonard (2000). *Toward a Cognitive Semantics*. MIT Press.
- Usoniene, Aurelia. 2001. "On direct/indirect Perception with Verbs of Seeing and Seeming in English and Lithuanian." *Working Papers* 48: 163-182.
- Viberg, Åke. 1983. "The Verbs of Perception: A Typological Study." *Linguistics: An Interdisciplinary Journal of the Language Sciences* 21 (1 [263]): 123-162.
- Willett, Thomas. 1988. "A Cross-Linguistic Survey of the Grammaticization of Evidentiality." *Studies in Language: International Journal Sponsored by the Foundation 'Foundations of Language'* 12 (1): 51-97.