

Antonymic Discourse Functions and Manipulation: A Corpus Analysis of Present-Day French

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Abstract The study of the discourse functions of antonymy was developed mainly by Steven Jones (*Antonymy: a corpus-based perspective*. Routledge, London, 2002; *Antonyms in english. Construals, constructions and canonicity*. Cambridge University Press, Cambridge, 2012), who classifies antonymic co-occurrences in English into ten categories, based on the different discourse functions they can fulfil. On the basis of a similar study of antonymic discourse functions in French, this paper explores how two opposites used in the same sentence exploit our thought processes to influence the way we conceptualise the world. It focuses on sentences extracted from the newspaper *Le Monde* (1987–2006 and 2009–2011) in which two antonyms are used in co-presence. Through the analysis of these utterances, this paper describes the discourse functions of antonymy in French and shows how the semantic and syntactic roles of co-present antonyms determine the semantico-referential functions they perform. I then analyse how the two major (groups of) functions, the ancillary function and the coordination functions, identified in English journalistic texts by Steven Jones, produce meaning effects in French texts, and how the mechanisms underlying these functions allow opposites to manipulate us.

Keywords Lexical opposition · French corpus · Semantic function · Manipulating discourse

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Introduction

The important role of antonymy in the organisation of a coherent discourse has attracted the attention of linguists for the last 25 years. The interest for the contextual anchoring of antonymic associations in discourse arose in the wake of lexicometric studies that highlighted the quantitative importance of antonymic co-occurrences: these studies indicated that the co-presence or simultaneous presence of two antonyms in the same linguistic context (paragraph, sentence or arbitrary analysis segment) was frequent enough that their regularity could be measured by statistical tests (Mayaffre 2008: 55). Before the advent of such studies, the lexical relationship of antonymy had been considered, by many linguists and philosophers going back to Aristotle, but mainly in terms of out-of-context word pairs (Lyons 1978; Lehrer and Lehrer 1982; Rivara 1993; Geckeler 1996).

In addition to the many papers on opposition in discourse, a limited number of studies focus on the syntagmatic realisations of conventional antonymic pairs in context, for rhetorical or other purposes (Justeson and Katz 1991; Mettinger 1994; Jones 2002; Jones et al. 2012). These studies, based on corpora of textual data, consider the semantic functions of antonymy in discourse through the analysis of syntactic structures, called *syntactic patterns*, that link the two members of an antonymic pair used together in the same sentence or group of sentences. This approach was developed mainly by Steven Jones (Jones 2002; Jones et al. 2012), who classifies antonymic co-occurrences into ten categories, based on the different discourse functions they can fulfil. Each function is associated with one or more privileged syntactic patterns. Using Jones' studies as a reference point, the present study examines a journalistic corpus to see whether the same discourse functions can be identified for antonyms in French. However, Jones' syntactic patterns model (see Steffens 2016a, for an overview) is unable to account the semantico-syntactic relationships between the antonyms themselves as well as between the antonyms and their linguistic environment. In order, therefore, to better account for these relationships and reach a fine-grained analysis of each antonymic co-presence¹—including those co-presences without identifiable semantic patterns—this study includes a new dimension of analysis, the predicate-argument relationships in which the antonyms participate.

The rest of the paper is organised as follows: “[Discourse Functions of Antonymy: Jones' Ten Functions](#)” section presents an overview of the discourse functions identified by Jones (2002) and Jones et al. (2012), with a focus on the two most common functions, ancillary and coordination. “[Discourse Functions of Antonymy: A Study for French](#)” section describes the constitution and analysis of the French journalistic corpus at the heart of the present study. “[The Ancillary Function and the Dimension Effect](#)” and “[The Categorisation Functions and the Binarity Effect](#)” sections discuss the ancillary function and the coordination function, respectively, as they apply to French, and concluding remarks are presented in “[Conclusions](#)” section.

¹ The term *co-presence* is used throughout instead *co-occurrence* because the present study does not include a statistical dimension, unlike that of Jones.

Discourse Functions of Antonymy: Jones' Ten Functions

The discourse functions of antonymic co-presence were studied mainly by Jones (2002), based on a corpus of texts in English, composed of articles in *The Independent* (1/10/1988–31/12/1996). Similar functions have been identified in a corpus of Swedish texts (Willners 2001; Jones et al. 2009), as well as in Japanese texts (Muehleisen and Isono 2009). Although Jones has published additional work on the subject in the intervening years—namely an application to an oral corpus (Jones 2006) and to children's language (Murphy and Jones 2008), and most recently a synthesis of this body of work (Jones et al. 2012)—his 2002 monograph remains the primary and most in-depth discussion of the discourse functions of antonymy.

The objective of Jones' research (2002) is threefold: to describe the functions of co-occurrent antonyms and to quantify their distribution in the corpus; to generate the textual profiles of individual pairs of antonyms; and to identify variables, including the grammatical category of antonyms, which may affect the functions of antonymy in discourse (Jones 2002: 25–26). To achieve these goals, Jones selected 56 pairs of antonyms to study and extracted sentences that contain one of those pairs from his journalistic corpus. The list of antonym pairs was established in consideration of the diversity of antonyms (ibid.: 29–31): it includes pairs taken from different parts of speech (e.g. nouns like *peace/war*, verbs like *confirm/deny*, adjectives like *dry/wet*, adverbs like *badly/well*), and which may or may not be morphologically related (e.g. *advantage/disadvantage*, *true/false*). Based on the sentences extracted from his corpus, Jones (2002) identifies eight discursive functions of antonymy.

The two most frequent discourse functions of co-occurrent antonyms according to Jones' study are ancillary antonymy and coordinated antonymy.

(1) Ancillary antonymy is manifested in sentences such as *I love to cook but I hate doing the dishes* or *Broadly speaking, the community charge was **popular** with Conservative voters and **unpopular** with Labour voters* (Jones 2002: 45, 49). These sentences contain two pairs of opposed words or syntagms: the A-pair (*love/hate* and *popular/unpopular*) and the B-pair (*to cook/doing the dishes* and *Conservative voters/Labour voters*). Jones (ibid.: 47) considers that the A-pair, which constitutes the most obvious opposition, serves to reinforce or even create opposition in the B-pair, depending on the degree of opposition already present. He identifies three different categories of outcome: (1) if the B-pair already has a high degree of opposition, the use of the A-pair reaffirms this opposition; (2) if the B-pair has a low level of opposition, the use of the A-pair activates this potential for contrast; (3) if the terms of the B-pair are not normally opposed at all in other contexts, the use of the A-pair generates an opposition between them. The discursive relationship of the antonyms (A pair) thus has an ancillary function with respect to the B pair, it is at the service of the opposition of the terms of B: "the function of the 'A-pair' is to act as a signal of opposition, demanding that we interpret the 'B-pair' contrastively" (Jones et al. 2012: 28).

The syntactic structures that relate antonyms in an ancillary function are multiple: not only constructional parallelisms and structures of the schema *X but*

Y, but also structures characteristic of other functions of antonymy in discourse such as *X and Y*, the most representative structure of coordinated antonymy.

(2) Coordinated antonymy is the next category in frequency order. This category is illustrated in sentences such as *While pensions will not be abolished, the government will encourage everyone, rich and poor, to rely on their retirement for the most part* (Jones 2002: 61). In this kind of statement, antonyms are coordinated by syntactic structures like *X or Y*, *X and Y* (or its negative equivalent *neither X nor Y*), or juxtaposed without conjunction of coordination (ibid.: 73–74 and Jones et al. 2012: 31). The coordinating syntagm expresses exhaustiveness (Jones 2002: 61), i.e. “all points on the given scale, not just the two specific points mentioned” (ibid.: 66), here, everyone, any person irrespective of financial status (ibid.: 66–67).

The remaining functions discussed in Jones (2002) are considered minor because they are much less frequent. They are strongly associated with particular syntactic frames and defined essentially by the meaning content of these frames: (3) comparative antonymy (*more X than Y*, *less X than Y*) where antonyms are compared directly or indirectly; (4) distinguished antonymy (*the difference between X and Y*) based on syntactic structures that explicitly refer to the distinction between antonyms; (5) transitional antonymy (*from X to Y*) where antonyms express the passage of a state or quality to an opposite state or quality; (6) negated antonymy (*X not Y*) where one of the antonyms is denied to reinforce the other; (7) extreme antonymy (*the very X and the very Y*) where the opposite extremes of a antonymic scale are brought together, regardless of any intermediate values; (8) idiomatic antonymy (e.g. *Easy come, easy go*) characterized by the use of antonyms in idiomatic sequences and proverbs.

Two additional functions were added to the eight others in Jones et al. (2012): (9) interrogative antonymy (interrogative sentences) can be used mainly to obtain factual information or opinions; (10) simultaneity, that is to say the simultaneous application to the same referent of two opposed states or qualities, without creating a paradox, such as in *Mr Amato's weakness is his strength*.

This classification of the discourse functions of antonymy in ten sub-categories is the most robust one in present-day studies. However, while the theoretical distinction between functions and syntactic patterns is quite clear, the concrete application of this classification is less convincing. Except for ancillary antonymy, about which Jones only points out that it is often based on constructional parallels with or without explicit connectors, the nine other functions are defined mainly by the syntactic patterns underlying the antonymic co-presence. This too-close association between functions and patterns does not allow for a fine-grained analysis of what precisely happens on the semantico-syntactic level of predicative structures. In particular, with regard to the ancillary function, two questions arise: what are the semantic and syntactic criteria for identifying the members of the B pair? Also, when two antonymic pairs are connected, can one of the two pairs really be shown to strengthen the opposition of the members of the other pair?

Discourse Functions of Antonymy: A Study for French

To attempt to answer these questions arising from Jones' work, while also verifying whether the functions identified thus far in English-language corpora can be described for antonymy in written French, I extracted co-present antonyms from a journalistic corpus and applied a dependency analysis, i.e. an analysis of the relations between predicative antonyms and their arguments, or between argumental antonyms and their predicates.

A Written Corpus of French

To test Jones' results against French data, I drew on a journalistic corpus taken from the newspaper *Le Monde*. This corpus is comprised of two sub-corpora, the first of which is a lemmatised and tagged corpus available at the laboratory LDI (Paris XIII University) and collected over the years 1987–2006 (500 million of words). The second sub-corpus was collected for the needs of the present study and covers the years 2009–2011 (75 million of words).

The variety of contemporary French used in *Le Monde* is characterised by the choice of a common, i.e. non-terminological, but precise lexicon reflecting a high socio-cultural level and by a syntax which adheres to prescribed norms for written French, making it accessible for most educated French speakers in the world. Furthermore, this newspaper is widely distributed both in France and abroad; it is one of the vehicles—in some countries, the only vehicle—of French in the world. It can thus be considered a mirror of the current standard variety, in the same way as all major newspapers. However, like any other corpus, the corpus used in the present study cannot be considered representative of the French language, only of a particular actualisation of it.

I have chosen to analyse different forms and occurrences of antonymic co-presence in any kind of article without distinction. I assume that the predicative structures in which the antonyms are co-present with a definite semantico-referential function are quite similar in any type of journalistic text within my corpus.

Two steps were necessary to extract from my corpus sentences in which two antonyms are co-present. The first consisted in establishing a list of antonymic pairs to search for in the corpus. Using the antonymic references of the *Grand Robert* (2001), I constituted a list of approximately 20,000 pairs of words. With the inclusion of their derivatives, I obtained a list of 35,000 pairs of words. This list thus contains pairs like *happy/sad* and *happiness/sadness*, as well as “heterocategorical pairs”,² whose members are not of the same part of speech, like *happy/sadness*, *happiness/sad*, etc.

The second step consisted in the actual extraction of the contexts in which the members of the pairs listed are used in co-presence. To accomplish this, automated CQP queries were executed on both sub-corpora, using extraction tools designed by

² The term *heterocategorical* in this sense is borrowed and translated from Morlane-Hondère (2008: 33).

Joël Eline (LDI) and Cyril Briquet (McMaster University), in order to extract sentences in which two antonyms on the previously-established list are used together. The amount of data gathered has been reduced to a selection of 600 sentences showing antonyms in similar configurations (patterns, functions) that those identified by Jones in his English corpus. By focusing on the dependency relations of antonyms instead of the linear syntactic patterns they are integrated in, I refined and reshaped the categorisation proposed by Jones.

Single Linkage and Double Linkage

In analysing the extracted French sentences, I identified the phenomenon underlying ancillary antonymy outside the theoretical framework of Jones (2002). This phenomenon, called *double linkage*, involves two discourse contrast relations, one between the antonyms of the A-pair and another between the members of the B-pair. In the absence of a B-pair, the antonyms are instead involved in a single linkage. This leaves, however, the question of identifying which pair of antonyms is the A pair and which the B pair. The data suggests that the members of the B-pair can be identified based on predicate-argument/actualiser relations.

Following Harris (1976) and Gross (2012), I define a predicate as a lexeme which effects a determinate selection among the words of the lexicon, in order to establish a schema with the selected elements, its arguments, which forms the basis of an assertion (Gross 2012: 13). For example, in a statement like *Yesterday, John offered flowers to Mary*, the verb *offered* exercises a predicative function, while *John*, *flowers* and *Mary* exercise an argumental function, because they are selected by the predicate, and *yesterday* exercises an actualisation function because it participates in the passage from the virtual existence of the predicative relationship to its actual existence, inscribed in actual time and space (Mejri 2011: 10–11). According to this definition, the antonyms of French or English are essentially predicative lexemes. Lexemes playing a predicative role can be verbs like *respect* in *This man respects others*, nouns such as *respect* in *This man has the respect of others*, adjectives such as *respectful* in *This man is respectful of others*, prepositions like *against* in *This man is against others* or adverbs such as *seriously* in *Paul works seriously* (examples translated from Gross 2012: 17, 18 and 287).

To identify a B-pair, my criterion is the following: there is a B-pair if two lexemes or two syntagms that designate different referents exercise directly or indirectly (i.e. through a dependency relationship with another predicate), a predicative, an argumentative or an actualising function of the same rank with respect to the antonyms (A-pair) (see also Steffens 2016b).

According to this criterion, *femmes* (*women*) and *chiens* (*dogs*), argument of the antonyms *haine* (*hatred*) and *amour* (*love*) in the following statement (*His hatred for women became as legendary as his love for dogs*) can be clearly identified as a B-pair.

(1) «Sa **haine** des *femmes* devint aussi légendaire que son **amour** pour les *chiens* [...]» (*Le Monde* 19/08/1988, «Portrait d'Arthur Schopenhauer, le rentier du pessimisme», Roland Jaccard).

Two antonymic pairs are also involved in statement 2 below (*Comfortable for a movie which mixes old and new, animated and static images*), but they fulfill no dependency relationship and share the same argument, *images*. On first reading, it appears there is no B-pair. However, it is important to note that, because of the presence of predicative antonyms, *images* as the argument of *old* (or *animated*) cannot have the same referent as when serving as the argument of *new* (or *static*). Since the lexeme *images* is expressed only once, it is necessary to reactivate, for the interpretation of such a statement, an implicit lexeme that does not refer to the same referential class as the lexeme expressed. In this case, it can be considered that there is indeed a B-pair.

(2) «Confortable pour un film [...] qui mêle des images **anciennes et récentes, animées et fixes.**» (*Le Monde* 14/05/2011, «Raymond Depardon tourne un film à Cannes», Michel Guerrin).

Including this first distinction between single linkage and double linkage, six semantico-referential functions of antonymic co-presence have been identified in the corpus. The antonyms, when they exercise these functions, play a fundamental role in the semantico-referential structuring of the units which constitute their linguistic environment. To define the configurations in which the co-present antonyms fulfil each of these six semantico-referential functions, three parameters have been considered: (1) the semantico-syntactic role of the antonyms (predicate, argument, actualiser); (2) the referential sameness or difference of the arguments of predicative antonyms or of the predicates of which antonyms are the arguments/actualisers, and (3) the syntactic structure into which each antonym is integrated.

Double Linkage Functions: Ancillarity, Correlation and Dichotomisation

The semantico-syntactic analysis of co-present antonyms enabled me to clearly distinguish two different semantico-referential functions within Jones' "ancillary antonymy": the function of *ancillarity in a restricted sense* and the function of *correlation*. In the four following sentences, the antonyms fulfil an ancillary function, contrasting the members of a B-pair.

(3) «Bloch **abandonne** l'aventure pour quelque temps, et Potez **poursuit** seul l'entreprise.» (*Le Monde* 31/05/2011, «Henry Potez et ses machines volantes», Jacques-Marie Vaslin).

Bloch abandons the adventure for some time, and Potez pursues the business alone.

(4) «La séduction de l'**adversaire** est souvent plus importante que la conservation de ses **amis** [...]» (*Le Monde* 08/05/2011, «"Cessons d'attendre de la magie des politiques"», propos de Patrick Devedjian recueillis par Béatrice Jérôme et Arnaud Leparmentier).

Seducing the adversary is often more important than keeping one's friends.

(5) «Comme celle de tous ceux qui vivent **ici** mais sont nés **ailleurs** [...]» (*Le Monde* 12/05/2011, «Les exigences musicales de Ray Lema», Patrick Labesse).

Like that of all those who live here but were born elsewhere

(6) «Elle [la Pologne] est aussi un contributeur-clé dans les zones de conflit, **hier** en Irak, **aujourd'hui** en Afghanistan (2 500 soldats).» (*Le Monde* 28/05/2011, «La Pologne accueille M. Obama en alliée moins dépendante», Piotr Smolar).

Poland is also a key contributor in conflict zones, yesterday in Iraq, today in Afghanistan

In (3), the antonyms *abandonne/poursuit* (A-pair) are predicates which do not have all their arguments in common. The non-common arguments, *Bloch* and *Potez*, constitute the contrasted members of the B-pair: $[A_1(B_1, C); A_2(B_2, C)]$.³ In (4), the antonyms are argument of two different predicates, *séduction* and *conservation*: $[B_1(C, A_1); B_2(C, A_2)]$. In (5), the antonyms are actualisers of two different predicates, *vivre* and *naître*: $[B_{1A1}; B_{2A2}]$. Sentence (6) appears to be more complex. It is possible to consider that it follows the same schema as in (5), but it is also possible that the two pairs are actualisers of the same predicate, and thus that the relationship between the A-pair and the B-pair is indirect: $[P_{B1A1}; P_{B2A2}]$. These dependency relationships are the condition of existence for double linkage, the semantico-syntactic sign indicating that the two pairs must be related for the interpretation of the sentence. That is, when the lexical units filling the same dependency slot regarding the antonyms are different, a B-pair is necessarily present.

However, in cases where the B-pair is already antonymic, the role of the A-pair cannot be defined as a contrasting role. The notion of ancillarity would lose its relevance. In the three following sentences, the four members of the two co-present pairs of antonyms are in a two-by-two dependency relationship. These dependency relationships are comparable to those between antonyms and members of the B-pair in the examples above: (7) is comparable to (3), in that the members of the first pair are the arguments of antonymic predicates; (8) is comparable to (4), in that the members of the first pair are the actualisers of antonymic predicates; (9) is comparable to (6), in that the members of the first pair are the actualisers of a predicate with antonymic arguments.

(7) «Si demain les Français, lecteurs ou électeurs, nous accusent une nouvelle fois d'avoir gardé un secret entre soi, d'avoir **accepté** chez les **puissants** ce que nous **refusons** aux **humbles** [...]» (*Le Monde*

³ This formula and the following ones represent the predicative structures in which antonyms are involved, A_1 and A_2 stand for the antonyms, B_1 and B_2 for the members of the B-pair, C for the common arguments.

17/05/2011, «L'étrange omerta des médias sur le cas DSK», Christophe Deloire).

If tomorrow the French, readers or voters, accuse us once again of having kept a secret for ourselves, to have accepted from the powerful ones what we refuse to the humble ones...

(8) «**Jadis moribonde**, l'entreprise allemande est **aujourd'hui florissante** [...]» (*Le Monde* 31/05/2011, «Un Leica de 1923, l'appareil photo le plus cher du monde», Joëlle Stolz, Vienne, correspondante).

Formerly moribund, the German company is flourishing today...

(9) «On regrette **souvent d'avoir parlé**, **rarement de s'être tu**.» (*Le Monde* 15/11/1991, «Le drame du silence», Albert Memmi).

One often regrets having spoken, rarely having held one's tongue

In this configuration, it is difficult to identify which of the two antonymic pairs is the one (A-pair) which reinforce the contrast of the other one (B-pair), because, on the semantico-referential level, the use of these pairs does not create a contrast but underlies a correlation. In (7), for example, the co-presence of antonyms is used to correlate the acceptability of a behaviour (*accept/refuse*) and the power of people adopting this behaviour. In (8) and (9), the attribution of a quality to a referent (*moribund/flourishing*) or the realisation of an action (*speak/shut up*) is correlated to different time periods or frequency.

When the non-common arguments of predicative antonyms are lexemes designating referents from the same category, the antonyms define the intension of two referential sub-categories within the referential category to which the referents of these lexemes belong, B_1 and B_2 . Example (10) illustrates such a case: *celles (those)* and *celles (those)* are the arguments of the antonyms and designate two categories of women. In this sentence, I consider that the antonyms fulfil a *dichotomisation function*.

(10) «[...] il y a deux sortes de femmes, celles qui **aiment** à se retrouver en femelles mammifères, et celles qui **détestent** cela, ne veulent pas en entendre parler.» (*Le Monde* 13/02/2010, «Cessons d'avoir une idée unique de la gent féminine», propos d'Elisabeth Badinter recueillis par Josyane Savigneau).

There are two kinds of women, those who like to see themselves as female mammals, and those who hate it.

This function is also present in the two following sentences in which antonyms are arguments (in 11) or actualisers (in 12) related indirectly to B-pairs (in 11 *première/seconde*, in 12 *celui/celui*) whose referents belong to the same referential category (women in 10, societies in 11, tendencies of capitalism in 12). The antonyms are used to indicate the semantic criterion defining the unicity of the two sub-sets distinguished in this category.

(11) «[...] trois types de sociétés animales. La première était composée de purs **égoïstes**; la seconde d'**altruistes** s'entraidant sans conditions; dans la troisième, seuls les individus réputés serviables recevaient aide et assistance. » (*Le Monde* 25/06/1998, «La loi du plus fort démentie par les mathématiques», Jean-Paul Dufour).

The first animal society was composed of pure egoists; the second of altruists helping each other unconditionally; in the third, only those deemed to be helpful received help and assistance.

(12) «[...] l'économiste et l'abeille symbolisent les deux tendances du capitalisme, celui d'**hier** et celui de **demain**. » (*Le Monde* 01/06/2010, «Pollinisation», Philippe Arnaud).

The economist and the bee symbolize the two tendencies of capitalism, that of yesterday and that of tomorrow.

When the co-present antonyms are used for dichotomisation, the referential sub-categorisation they underlie is strictly binary with respect to the dimension on which the antonyms are opposed. This binarity can be observed even in sentence 11 where the third category is defined beyond the scope of the antonymic dimension, involving members that are neither egoists nor altruists (see Steffens 2017 for further developments on third categories and third terms for designate them).

The dichotomisation in these three examples is based on antonymic co-presence although in some cases it is reinforced (or primed) by explicit classification syntagms (*deux sortes, trois types, deux tendances*). The co-present antonyms are the elements of the sentence to provide the organising principle of the sub-categories they define. Other parenthetical and erasable elements (examples or precisions) may be used to characterise the extension of these two sub-categories, as in (13).

(13) «Parallèlement, on étudie l'avenir des espèces qui ont été importées **volontairement** (lapins, chats, rennes, mouflons et, tout récemment, salmonidés aux Kerguelen, bovins, à Amsterdam) ou **involontairement** (mouches bleues, rats et souris), et qui sont souvent redoutables pour les milieux naturels. » (*Le Monde* 20/09/1987, «Un colloque d'experts à Strasbourg. La valeur scientifique des îles subantarctiques françaises», Yvonne Rebeyrol).

We study the future of species that have been deliberately imported (rabbits, cats, reindeer, mountain sheep and, more recently, Kerguelen salmonids, cattle, in Amsterdam) or involuntarily (blue flies, rats and mice).

A Single Linkage Function: Recategorisation

If the predicative antonyms share all their arguments, no B-pair can be identified: $[A_1(C); A_2(C)]$. When antonyms sharing all their arguments are used in negative constructions (14), in propositions containing different time markers (15), in comparative structures (16) or in interrogative structures in which the antonyms constitute the two possibilities of an alternative (17), the co-presence fulfils a

recategorisation function; it indicates that the referent of the antonyms' common argument moves from a given category to the opposite one.

(14) «L'épargne des ménages doit **augmenter**, pas **diminuer**.» (*Le Monde* 20/04/2010, «La Grande-Bretagne sur le fil», Martin Wolf).

Household savings should increase, not decrease.

(15) «[...] Il est alors **accusé** – puis **disculpé** - de s'être mutilé volontairement pour échapper au front, comme l'ont fait nombre de soldats, en particulier au début du conflit.» (*Le Monde* 03/06/2011, «Un genre de déserteur», Nicolas Offenstadt).

He is accused - and then exonerated - of having deliberately mutilated himself to escape the front.

(16) «[...] Plus **actif** que **passif** cependant, épris d'indépendance et qui, lorsqu'il s'adresse à un organisme de voyages, souhaiterait davantage de formules "sur mesure".» (*Le Monde* 13/03/1993, «Douce France», Patrick Francès).

More active than passive, when addressed to a travel agency, the travelers would like more tailor-made packages.

(17) «[...] la politique de Gorbatchev est-elle à notre **avantage** ou à notre **désavantage** ?» (*Le Monde* 29/09/1988, «L'enquête : chef, depuis quatorze ans, de la diplomatie de Bonn M. Genscher, champion de l'"Allemagne centrale"», Luc Rosenzweig et Claire Tréan).

Is Gorbachev's policy to our advantage or to our disadvantage?

A Complex Function: (Negative) Exhaustiveness

Among the six semantico-referential functions I have identified, the expression of exhaustiveness has the peculiarity of being part of the functions exercised by antonyms in both a double linkage (18) and in a single linkage (19, 20). Despite a common purpose - the expression of the totality of a given scale—such that the antonyms constitute two sides of the same function, I have chosen to distinguish exhaustiveness in a single linkage from exhaustiveness in a double linkage, because they appear as the result of two very different mechanisms. These mechanisms are more complex than the *X and/or Y* surface structure—which Jones (2002) and Jones et al. (2012) associate with exhaustiveness—because they lie at a deeper semantico-syntactic level of structuring. In addition to these two functions, I have defined a dichotomisation function, which Jones gives examples of but does not directly identify.

In double linkage, the antonyms express exhaustiveness by bringing together the two sub-categories they define (along the dimension of their opposition). By dichotomising the referential category, the antonyms in fact participate in the opposite process, to denote the whole category again. For example, sentence 18 refers to the

entire category of communicators by means of the dichotomisation provided by the antonyms, as it is the case in sentence 2 above (all kinds of images).

(18) «Il fallait s’y attendre, le scélérat a encore frappé. Et tous les communicateurs, les **petits** et les **grands**, seront atteints, puisque tel est, à l’évidence, l’objet de cette nouvelle agression.» (*Le Monde* 05/05/1991, «Du coton sur les mots», André Laurens).

All the communicators, the small ones and the great ones, will be impacted.

The semantico-syntactic structures involving antonyms are thus the same for dichotomisation and exhaustiveness in double linkage. The linguistic environment of the antonyms provides markers to distinguish these two functions: the presence of a determinant or predeterminant that expresses a totality (*tous, all*), the use of antonyms in an extensional concessional proposition⁴ (*quel que soit, whatever*), the presence of a conjunction that introduces an extensional hypothesis (*qu’il soit X ou Y, whether it is X or Y*), the absence of explicit dichotomization elements (*les autres, others*), the use of antonyms in a list.

The use of extensional hypotheses can also be observed when co-present antonyms express exhaustiveness in cases of single linkage. In this situation, the antonymic predicates share all their arguments, just as they do when they fulfil a recategorisation function. This is the case in (19) and (20).

(19) «Qu’elle l’**accable** ou qu’elle le **libère**, l’ancien premier ministre et adversaire déclaré de Nicolas Sarkozy ne manquera pas de transformer cette décision en moment politique.» (*Le Monde* 28/05/2011, «L’avenir politique de M. de Villepin suspendu à la décision de la cour d’appel», Pascale Robert-Diard).

Whether it overwhelms or liberates him, the former prime minister will transform this decision into a politic moment.

(20) «Les **absences** de Federer sont aussi intenses que sa **présence**.» (*Le Monde* 02/06/2011, “En 2 D ou en 3 D, le vent reste invisible”, André Scala).

Federer’s absences are as intense as his presence.

While the dependency structures involving antonyms are the same for recategorisation and exhaustiveness, the syntactic structures underlying recategorisation (negative structures, structures based on a temporal difference between two coordinated propositions, interrogative structures and comparative structures) are not compatible with the expression of exhaustiveness. As example 20 shows, antonyms in a comparative structure of equality (not superiority or inferiority) can express exhaustiveness: Federer is intense in every situation, whether he is present or not.

⁴ The notion of extensional concession is borrowed from Muller (1996: 161–184).

Six Functions and Other Cases

The ten discourse functions of Jones, defined on basis of surface syntactic patterns, were reduced to six semantico-referential functions for co-present antonyms. My semantico-syntactic analysis, combined with a semantico-referential approach, allows to distinguish between ancillarity and correlation, and between three types of functions exercised by antonyms in a coordination structure: dichotomisation, exhaustiveness in a double linkage configuration, and exhaustiveness in a single linkage configuration.

The inclusion of this semantico-syntactic level for the analysis of co-present antonyms lends coherence to the recategorisation function, which goes beyond the framework of transitional antonymy (Jones 2002). Comparative, transitional, negated and interrogative antonymy are in fact linked to surface structures, but the use of antonyms in these structures fulfils the same function on the semantico-referential level: the organisation of meaning.

Regarding extreme, idiomatic and distinguished antonymy as well as simultaneity, my results show that these structures can be used to fulfil one of the other functions (such as recategorisation, in 21); to fulfil no function at all when a statement is made about the referent of the antonyms, but the antonyms play no role in the semantico-referential organisation of the sentence (22); or to provide a definition of the meaning of one of the antonyms by contrasting it with the other (23).

(21) «Les secteurs les plus **dépensiers** cette année seraient, d'après les prévisions de l'Insee, les plus **économes** l'an prochain.» (*Le Monde* 17/11/2001, «L'investissement industriel pourrait reculer de 4% au cours de l'année 2002», Martine Orange).

The most spending sectors this year would be the most economical next year.

(22) «On répondra que les personnes choquées par les images new-yorkaises font au moins la différence entre le **réel** et le **virtuel**.» (*Le Monde* 22/05/2011, «Paris - New York, New York – Paris», Max Vincent).

It will be said that people shocked by New York images at least know the difference between the real and the virtual.

(23) «La **paix** s'entend donc, non plus comme le contraire de la **guerre**, ou comme un état permanent d'absence de **guerre**, mais comme un état (potentiellement instable) portant en lui les germes d'un futur acceptable pour les populations.» (*Le Monde* 17/12/2010, «Quelle paix pour les crises actuelles ?», Philippe Gaucher).

Peace is thus understood not as the opposite of war, nor as a permanent state of absence of war, but as a (potentially unstable) state bearing in itself the seeds of an acceptable future for the populations.

Jones' functions	My results	
Ancillary antonymy	Ancillarity	Double linkage
	Correlation	
Coordinated antonymy	Dichotomisation	Single linkage
	(negative) Exhaustiveness with holicisation	
	(negative) Exhaustiveness without holicisation	
Comparative antonymy	Recategorisation	
Transitional antonymy		
Negated antonymy		
Interrogative antonymy		
Extreme antonymy		
Idiomatic antonymy	No special semantico-referential function, other function, definition	
Simultaneity		
Distinguished antonymy		

The Ancillary Function and the Dimension Effect

When the antonymic co-presence fulfills an ancillary function in the restricted sense, it exercises a triple action on the elements of the B-pair.

- (1) The antonymic co-presence allows the contrasting of the elements of the B-pair.
- (2) The antonymic co-presence indicates the *semantic dimension* along which the elements of the B-pair are contrasted.
- (3) The linking of the elements of a B-pair by means of the co-present antonyms presupposes that the referents of the B-pair are inscribed in a common frame of reference.

These last two actions will be more precisely defined. To do so, it is first necessary to discuss the notion of semantic dimension.

A Key Notion: The Semantic Dimension

“Any opposition needs a common ground”; this statement, common in structuralist studies, is highlighted in Blank’s work on semantic and lexical change in a cognitive perspective (Blank 2000: 61). According to Blank, both synonymy and antonymy are defined by a conjunction of similarity and contrast, the degree of existence of one being inversely proportional to that of the other. It is thus the degree of similarity between two meanings or between two concepts that makes it possible to distinguish between synonymy and antonymy. In this perspective, Murphy defines antonyms as words whose meaning is “maximally similar but for a crucial difference” (Murphy 2003: 200).

It is thus clear that, to understand precisely what antonymy is, it is essential to define not only opposition, but also the similarity necessarily underlying any kind of opposition. In this respect, Arthur Mettinger, following Eugene Coseriu (1975) and Dieter Kastovsky (1981), argues that the common basis between two antonyms can be considered as a semantic dimension with respect to which two antonyms are opposed (Mettinger 1994: 62–66). The dimension is defined by Coseriu as the criterion of an opposition, that is, the semantic property underlying this opposition (Coseriu 1975: 35).

Most of the examples of dimensions or semantic properties that underlie the opposition between antonyms can be found in works on English opposition: MERIT or MORAL QUALITY for *good/bad*, TEMPERATURE for *hot/cold*, SIZE for *large/small*, etc. (Mettinger 1994, Cruse 1986, Jones et al. 2012). However, these examples only account for dimensions and pairs which are among the most conventional, i.e. the least dependent on a particular discourse situation. The dimensions are salient, that is to say easily identifiable (Jones et al. 2012: 55). Their definition is closely related to the discourse context. In this perspective, three characteristics of the semantic dimensions that underlie the opposition between antonyms can be identified.

- (1) These dimensions can be produced discursively, according to a particular discourse situation, and be limited to it. For example, a child can contrast *green* and *blue* according to the dimension MARTIAN COLORS or *chocolate* and *jam* according to the dimension PREFERRED SPREAD. The range of unconventional oppositions between two words, in a particular discourse situation, is theoretically infinite.
- (2) They depend on reference frameworks and cultural parameters, which implies that two lexemes are opposed according to a particular dimension in a given time, in a given place, or for a given social group. The adjectives *choleric* and *phlegmatic*, for example, are opposed in the medical theory of humours from antiquity to the nineteenth century. The expression of the dimension should then also take these extra-linguistic elements into account.
- (3) To truly underlie oppositions, semantic dimensions must be specific to each use of a pair of antonyms, i.e. to each different meaning that this pair may take depending on the context in which it occurs. For example, the dimension LENGTH for *long/short* does not make it possible to distinguish their uses. It seems thus wiser to propose three different dimensions to account for the different uses of this pair: SPACE EXTENT in *Do you prefer when I have long/short*

hair?, DISTANCE in *It's a long/short way to Tipperary!*, and DURATION in *After a long/short moment of silence, she told her story.*

When they are involved in an ancillary function, the antonyms are used to indicate the dimension along which the contrast between the members of the B-pair is defined. For example, in the sentence (6), *Iraq* and *Afghanistan* are two zones of conflict opposed on the dimension TIME (former/actual).

Two Ground Principles

To better define the third action of the antonyms on the members of the B-pair, let us start with two sentences quoted by Aron Kibédi Varga (1977):

- (i) *Les prix montent, les voyageurs descendent.* [Prices go up, travelers go down]
- (ii) *La bière est bonne, l'argument est mauvais.* [The beer is good, the argument is bad]

According to Kibédi Varga, the absence of a previous/established semantic link between *prix* and *voyageurs* and between *bière* and *argument* can be used for humorous purposes (Kibédi Varga 1977: 203).

However, this absence is only apparent. The relationship between the members of the B-pair is provided by the inclusion of their referents in the same reference frame. The relative lack of context for (i) and (ii) makes it more difficult to identify this common frame of reference, which is what produces the rhetorical effect. While difficult, this identification is still possible. In (i), the referents of *prices* and *travellers* are linked in the same reference frame of collective transportation. It would thus be possible to paraphrase (i) as follows: Prices for train/bus/tram/plane/etc. fares increase, so fewer passengers use them. Sentence (ii) could be pronounced by someone in a bar discussing politics with friends, for example, or someone having a drink with colleagues to discuss the recruitment of a new partner, etc. The systematic search by the hearer of sentences such as (i) and (ii) for a referential frame common to the referents of B_1 and B_2 is triggered by the presence of the antonyms.

The co-presence of antonyms presupposes the existence of such a referential framework by virtue of two principles: (1) if B_1 and B_2 are contrasted, their opposition along the dimension provided by the antonyms is possible and has meaning, (2) any opposition needs a common ground.

- (1) When a sentence is produced, its hearer assumes that the speaker seeks to communicate meaning. As Sperber and Wilson (1989) and Grice (1989) have shown, this inferential calculation is inherent to any discourse. Sentences (i) and (ii), which are based on the contrast of two lexemes through the antonyms of which they are arguments, must therefore have a meaning. In these sentences, the rhetorical effect results from this inferential calculation. As the production of any sentence induces its hearer to find a meaning for it, in this case, the hearer reconstructs a particular contrastive relationship between *prices* and *travellers* in (i),

- and between *beer* and *argument* in (ii), due to the presence of the antonyms. The discourse effect is therefore not due to the absence of a semantic link but to the difficulty of finding one in the absence of a more specific context between two lexical units that do not necessarily belong to the same referential fields.
- (2) To oppose two ideas, two qualities, or two objects, the two things must have a common point (see “[A Key Notion: The Semantic Dimension](#)”). This common point is necessary in order to connect two antonyms but more generally for all opposition. It is therefore also necessary for the contrast between the members of the B-pair. In the absence of a shared semantic base between these lexemes, the common point that serves as the shared base for their opposition must be found on the referential level. The referential similarity is manifested by a ratio of contiguity or inclusion between the referents of the B-pair within the same reference frame. The general mechanism of communication, which implies that every utterance communicates a meaning, combined with the knowledge of French speakers of the semantic relationship in absentia between *monter* and *descendre* and between *bon* and *mauvais* thus leads the hearer of (i) and (ii), respectively, and more generally of any sentence that contains co-present antonyms, to seek a semantic and/or referential link between the units that depend on the antonyms. When this link is obvious as in (3), where Bloch and Potez are two engineers working for the same aviation company, the well-defined referential frame provides information about the referents of the B-pair. When the link is less obvious, such as in (1), the ancillary function leads the hearer to reconstruct a link that can be subversive: are women and dogs related as faithful companions? Barking animals? Secondary beings? The interpretation of a sentence like *his hatred for women and his love for dogs* insidiously plants these types of questions in the mind of the hearer.

The Categorisation Functions and the Binariness Effect

When antonyms are used in a dichotomisation function, they create a strictly binary division of a referential category into two referential sub-categories. In example 24, the use of antonyms in co-presence contributes to the creation of paradoxical sub-categories.

(24) «Relisons Chamfort (1741-1794), moraliste féroce aimant à se brûler à force de lucidité. Que disait-il sur l’amitié ? «Dans le monde, vous avez trois sortes d’amis : vos amis qui vous **aiment**, vos amis qui ne se soucient pas de vous, et vos amis qui vous **haïssent**.» Il suffit de le savoir !» (*Le Monde* 02/09/2008, «Dans le monde, vous avez trois sortes d’amis...», Laurent Greilsamer).

In the world, you have three kinds of friends: friends who love you, friends who do not care about you, and friends who hate you.

In this sentence, the two sub-categories determined by *aimer* and *haïr* exhaust the class which corresponds to the semantic dimension on which antonyms are opposed:

the class of friends who feel a particular way towards the person in question. These two sub-categories, when combined with the third (*amis qui ne se soucient pas de vous*) completely exhaust the overall class of friends, that is to say that each friend that one can have must be put in one of these three sub-categories. Furthermore, the existence of a category of indifferent friends and, a fortiori, that of a category of hateful friends, is paradoxical, because of the meaning of the lexeme *ami* makes it compatible as an argument only with *aimer*. This paradox and the use of the determinant *vos* leads the hearer/reader to interpret the syntagm *vos amis* as inscribed in his/her beliefs only: *vos amis* refers to all the individuals that the hearer believes to be his or her friends, even though those who do not care or hate him would not consider themselves as such.

Conversely, in (10), *Il y a deux sortes de femmes, celles qui aiment à se retrouver en femelles mammifères, et celles qui détestent cela* (There are two kinds of women, those who like to see themselves as female mammals, and those who hate it), the existence of a third subclass, that of women who do not feel anything particular about their pregnancy, is neglected or even obscured by the sentence due to the antonyms used defining two sub-categories of the semantic dimension of opposition, with no mention of a third possible sub-category which does not correspond to this dimension.

The same phenomenon occurs when the antonyms denote scalar properties. For example, in *While pensions will not be abolished, the government will encourage everyone, rich and poor, to rely on their retirement for the most part* (Jones 2002: 61), only two sub-categories are defined regarding the dimension of opposition of the antonyms. The middle class, not expressed in the sentence, can be defined as people who are neither rich nor poor, and thus outside the scope of the antonymic opposition. This middle class, however, constitutes a degree on the scale of wealth. If the middle class had been mentioned in this sentence, the presence of the three sub-categories would completely exhausts this scale, and what's more, the whole class of people: everyone must necessarily be rich, poor or in the middle class. If this third class is not explicitly mentioned, however, it is not entailed by the sentence: strictly speaking, the sentence does not concern someone who is neither rich nor poor. However, the coordination of two antonyms opposed on a given dimension in an exhaustiveness function gives the impression that the statement exhausts the entire scale and not only this dimension.

Such considerations open a semantico-syntactic path for studying the intention, possibly manipulative, of a speaker who wishes to emphasise only the paradoxical categories while ignoring others, or to hide certain possible categories, exploiting the common tendency toward binarity and simplification.

Conclusions

On basis of French data, this study showed how co-present antonyms contribute to the semantico-referential structuring of the sentences in which they are used. Through a semantico-syntactic dependency framework replacing the traditional

surface structures model, the analysis led to a formal modeling, compatible with the natural language processing (NLP), which closely associates semantico-referential functions and predicative schemas. This fine-grained semantic description of discourse functions of antonyms allowed to reshape the categorisation of Jones, merging functions he tended to separate on basis of surface syntactic patterns.

Through this analysis, two general cognitive mechanisms, the dimension effect and the binarity effect, were highlighted. These mechanisms seem to be non-language-specific, although possible variation of the predicative relationships and surface structures could be observed in different varieties of language (spoken/written language, dialects, etc). The dimension effect and the binarity effect play a crucial role in manipulation strategies (commercials, political speeches, etc). The description of the semantico-syntactic structures underlying the semantico-referential functions of antonymy in discourse provide thus a useful tool for discourse analysis to identify these strategies and objectify their interpretation. By articulating the semantico-logic level of the antonymic co-presence with the pragmatic-discursive level of enunciation, the aim of my future studies will be to build an interpretation grid of manipulation texts based on semantico-syntactic analysis.

Compliance with Ethical Standards

Conflict of interest Author declares that she has no conflict of interest.

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