

HIV/AIDS Prevention and Media Campaigns: Limited Information

Vincent Coppola, Odile Camus

▶ To cite this version:

Vincent Coppola, Odile Camus. HIV/AIDS Prevention and Media Campaigns: Limited Information. 2009. halshs-00410052

HAL Id: halshs-00410052 https://shs.hal.science/halshs-00410052

Preprint submitted on 18 Aug 2009

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers. L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

JOURNAL OF APPLIED SOCIAL PSYCHOLOGY

HIV/AIDS Prevention and Media Campaigns: Limited Information

Journal:	ournal: Journal of Applied Social Psychology		
Manuscript ID:	09-JASP-0096		
Manuscript Type:	Original Article		
Keywords:	HIV/AIDS, Prevention, Media Campaigns		
	•		



Journal of Applied Social Psychology

Journal of Applied Social Psychology

Abstract: In this study we start by recalling some hypotheses on how the media construct an event. Then we focus especially on a linguistic process, the presence of some particular adverbs, that we identified in French daily news media informing about the prevalence and incidence of HIV/AIDS. We claim that this linguistic process is part of the construction of the event and we experimentally test its reception effects. We show that this "adverbial marking" influences one's risk perception, the preventive intentions, the perceived seriousness of the epidemiological situation, and attitudes towards fighting the epidemic. The final discussion addresses the persuasiveness and efficacy of preventive mass media campaigns.

HIV/AIDS appeared by surprise in the 1980s and it continues to be a serious health problem, remaining the number one killer in some parts of the world. But in the recent past HIV/AIDS has been trivialized in Western countries and particularly in France and gradually perceived as an another disease, losing its epidemic status and falling out of public discussion and fear as an object of social perception. For a long time perceived as a singular disease and generalized threat, HIV infection has progressively evolved toward the status of a chronic disease and thus "acceptable risk". This "AIDS normalization process" grew during last decades and seems to be matched today with a relaxation of preventive behaviours (Setbon, 2000; Beltzer, Lagarde, Wu-Zhou, & Gremy, 2005).

Faced with this problem, mass media can be (again) one element of broader health promotion programmes, in particular because they offer the widest possible exposure, the best opportunity for reaching the concerned target within a short timeframe, and they are awareness-creating tools (Winnett & Wallack, 1996; Rice & Atkin, 2002; Salmon & Atkin, 2003). Indeed, mass media are a leading source of information about important health issues and therefore are targeted by those who aim to influence perceptions and behaviours. Concerning HIV/AIDS, experimental research has focused on how best to compose media

messages and evaluate their efficacy (Sherr, 1987; Bertrand, O'Reilly, Denison, Anhang, & Sweat, 2006; Myrhe & Flora, 2000; Palmgreen, Noar, & Zimmerman, 2007).

However, beside this positive and optimistic view as regards the role of mass media in health promotion programmes, there is also a critical view regarding how the media portray the hazards in general - that mass media reports about hazards are generally biased and not strictly driven by pure healthy considerations (Clarke, 1992; Singer & Endreny, 1993; Sandman, 1997; Kitzinger, 1999). Moreover, regardless of the theoretical perspectives and methodological tools used, critical studies on media information have all concluded that the "construction of information" (and thus "construction of reality") and its influence on individuals are sound and convincing propositions (Veron, 1981; Adoni & Mane, 1984; Fielding, 1997).

Drawing its inspiration from this critical perspective, this study focuses on the media treatment of AIDS. First, certain propositions from studies on mass media are presented. These are used as criteria for analysing some singular journalistic statements extracted from the data collected in the French dailies. They reasonably encompass the "constructed" part in the media discourse on AIDS. Second, the potential effects of this journalistic phrasing on the perception of risks and on the opinions of the management of the epidemiological situation are experimentally investigated.

Reality and the Media: The Human and Social Sciences' point of view

The critical view on mass media is based on the following set of general assumptions. The first one is based on the "agenda setting" and "framing" concepts and claims that the

Journal of Applied Social Psychology

mass media draw the public's attention to some questions and contribute to imbue those questions with a sense of urgency. They direct the public's preferences and define which problems are important and how events must be understood, telling what to think about and how to think about it (McCombs & Shaw, 1972; Combs & Slovic, 1979; Iyengar & Kinder, 1987; Mazur, 2006; Weaver, 2007). The second one refers to the research about the (important) role of the media in the shaping of people's risk perception and claims that the mass media tend to exaggerate some risks and ignore others, sacrificing objectivity for sensationalism, hazards with associated deaths or injuries being longer and more prominently featured than other hazard stories (Johnson & Covello, 1987; Kristiansen, 1983; Karpowicz-Lazreg & Mullet, 1993; Af Wåhlberg & Sjöberg, 2000). The third one, referring to the Lippmann's "pseudo environment" idea (1922) claims that the mass media stage the world into representations which are considered by the public as "The real" (McCombs & Gilbert, 1986; Kinder & Sears, 1985) and to some extent matches with the main tenet of the Bandura's Social Learning Theory (1977) according to which the picture the people are given by the media distorts their worldview and makes them unrealistically worried.

There is also a large consensus in the human and social sciences that language is an essential aspect of the social construction of reality. The structural power of language is asserted by Berger and Luckmann in their "constructionist theory": "The common objectifications of everyday life are maintained primarily by linguistic signification" (1967, p.67) and also asserted by some social psychologists, supporting the thesis that language is not simply an inert vehicle for communication but also a means for the control of the world around us and its social orders (Blakar, 1979). This notion is also shared by researchers on mass media who highlight the inevitability of constructing meaning through the use of language, considering that factual reality must necessarily be put into words and this phrasing

is a potential way of anchoring the construction of reality in media information (Manning, 2001; Sandstrom, Martin, & Fine, 2006; Charaudeau, 2005).

Opposed to what they consider as an "objectivist" conception of language, some authors propose that a linguistic description of reality cannot be neutral, language being a subjective mediating form which constructs and directs those descriptions. For example, Koren (2004) mentions the idea of "unreachable objectivity" and defines it as "the one which consists in claiming or presupposing that the journalist could do without the nature of language, without its fundamentally indirect and subjective nature as intermediary, and could deliberately choose the objectivistic option of a neutral, ontological and transparent wording" (p. 210). More relevant for our study considering the media treatment of HIV/AIDS and its effects in reception is the idea, widely shared among the researchers, that by a selective use of language, the journalist can trivialise an event or render it important, define an issue as an urgent problem or reduce it to a routine one (Chyi & McCombs, 2004; Entman, 2004; Sandstrom, 2005).

AIDS: A Media Constructed Reality

Indisputably, in all the western countries, the mass media have been an important source of information about HIV/AIDS¹. Numerous studies devoted to this media coverage confirm that media participated in the elaboration of a representation of the disease, and thus influenced public opinions and attitudes towards the disease and HIV infected people (Nelkin, 1991; Hertog & Fan, 1995; Wellings, 1988; Berridge, 1992; Kitzinger, 1998). As regards the French press, it seems that the media treatment of HIV/AIDS was directed by traditional

¹ In an October 2003 survey by the Kaiser Family Foundation, 72% of the U.S. public said that most of the information they get about HIV/AIDS comes from the media, including television, newspaper and radio.

journalistic criteria and was also biased towards the dramatic and sensationalistic aspects (Herzlich & Pierret, 1988, 1999; Masseran, 1990).

Apprehending AIDS as an event constructed through the media means that it is in media discourse and through media discourse that a fact is transformed into its representation. Traditionally, studies concerning linguistics aspects questioned above all the use of metaphors, demonstrating that in Western press these have been widely used to make sense of HIV/AIDS during its construction as a new disease in the public consciousness (Sontag, 1989; Pepper, 1989; Lupton, 1994; Aroni, 1992; Manning, 2001; Herzlich et al., 1988, 1999). Our study is to some extent also concerned by linguistic aspects, focusing on some particular linguistic forms frequently identified in journalistic statements, namely some adverbs, and questioning their status.

Let's consider the following statements: "AIDS has already killed 300 patients", "In December only, 91 deaths were reported", "Since its emergence, the virus has infected more than 60 million people worldwide, killing more than a third", "In Europe, their number has again increased by 60% from the first to the second half-year", "The infection is spreading at the rate of more than 14000 new cases per day"². The figures quoted are indeed raw data and are likely to be associated to scientificity in a collective subjective way of thinking, according to a certain representation of objectivity and the way in which it is revealed through discourse. But it should not hide the fact that these information items have been worked upon and constructed; hence we argue that information is a construct and thereby constructs the reality referred to in the message. It is from this perspective that these particular statements are

 $^{^2}$ This study only focused on some of the numerous statements collected in a study devoted to the media treatment of AIDS in the French press (Coppola & Camus, 2006).

investigated, considering them as efficient formatting of reality but also as an insidious and subtle construction of a properly mediatised world endowed with ideological characteristics.

The study examined if such statements did not quantify the number of people deceased, ill and/or infected in such a way that this number is seen as having exceeded an acceptable and tolerable threshold, precisely because of the presence of adverbs such as "already", "only" and/or "again"? They seem to put the indicated quantity into relief. It was then assessed if such statements are likely to influence the readers' judgment and appreciation of the epidemiological situation referred to in the message. For instance, according to Charaudeau (1992), the use of the adverb "already" shows that "the moment the event occurs is deemed premature compared to its expected occurrence" and signals that "a certain reference point, considered as a maximum not to be exceeded, has been overshot" (p.483). This manner of phrasing the epidemiological fact could be seen as a way of influencing its "visibility", its "salient character" and its "character as event", in other words as a means of affecting the way the fact is perceived as regards its importance and seriousness.

Method

Independent Variables

Given that a first objective of this experimental study was to assess the impact of this particular phrasing on perceptions and judgments, we elaborated a text presented as an epidemiological information message regarding HIV/AIDS in which we manipulated *the adverbial marking*. Concretely, one version was characterized by the presence of adverbs in some statements (*"high marking" condition*) and another version not (*"low marking"*

condition). A second objective was to compare the effects of this phrasing (i.e. adverbial marking factor) according to whether the disease to which the experimental message referred was known or not. One version referred to a sexually transmitted infection whose existence the participants knew of, namely HIV/AIDS (*"known disease" condition*) and a second one referred to a sexually transmitted infection whose existence the participants did not know, namely Paramyxoviridae infection³ (*"unknown disease" condition*).

For example: "The *HIV* contaminates in France 6000 new persons per year (...) 3500 *HIV infections* have been registered *from January to June*" (low marking/known disease condition) versus "The *HIV* contaminates in France *up to 6000* new persons per year (...) *Already 3500 HIV infections* have been registered *just for the period of January to June*" (high marking/ known disease condition) versus "The *Paramixoviridae* contaminates in France 6000 new persons per year (...) 3500 Paramyxoviridae infections have been registered *from January to June*" (low marking/unknown disease condition) versus "The Paramixoviridae contaminates in France *up to 6000* new persons per year (...) *Already 3500 Paramyxoviridae infections* have been registered *just for the period of January to June*" (high marking/ unknown disease condition).

Dependent Variables

The self risk perception. Participants indicated whether they considered that, in comparison with other persons of same age, status and sexual orientation, the risk to be

³ In fact it was a fictitious disease whose the so called origin was the "Paramyxoviridae virus". We controlled that the participants declared they did not know it.

personally infected in the future was 1 "more weaker" - 2 "weaker" - 3 "the same" - 4 "higher" - 5 "more higher"⁴.

The preventive intentions. Participants were asked to indicate on a scale from 1 "*not at all*" to 7 "*absolutely*" to what extent they were willing to use a condom during the next sexual intercourse and to what extent they were willing to undertake a screening test over the next six months.

The perceived seriousness of the (epidemiological) situation. Participants were asked to rate seven societal problems on a scale from 1 "the most important problem" to 7 "the least important problem the public powers have to solve". Besides HIV/Paramyxoviridae infection, the list referred to road safety, juvenile delinquency, unemployment, pollution, terrorism and urban cleanliness. Then they were asked to rate five public health problems on a scale from 1 "the most important" to 5 "the least important problem the public powers have to solve". Besides HIV/Paramyxoviridae infection, the list referred to cancer, cardiovascular diseases, tuberculosis and obesity.

The attitude on how to fight the epidemic. Participants were asked to indicate their agreement on a scale from 1 "totally agree" to 7 "totally disagree", considering three "coercive" opinions: "It is time a serologic test is made compulsory for every person one might reasonably think he/she might have been infected the virus", "Anyone having tested positive to a test should be registered in a file that registers the names of anyone newly infected", "It would be useful to set up a customs check for travellers coming from countries where the epidemic is persistent, asking them their serologic status"; and three "tolerant"

⁴ To some extent, this "self risk perception" measure refers to "comparative optimism". Thus when we will present the results, we will talk about "comparative optimism".

opinions: "It is unfair to blame a person infecting his/her partner not knowing he/she is carrying the virus", "Anybody infected by the virus has the right to keep his serologic status secret", "Only the person concerned by the screening test should have access to the result".

Participants

Ninety nine subjects were involved in this study, randomly assigned to the four experimental conditions defined before. They were all male students from 18 to 22 years old and all sexually active, ninety subjects declaring more than four sexual relations during the last six months. As regards these sexual relations, 35,4% systematically used a condom, 50,5% occasionally and 14,1% never. None has undergone a HIV test over the last 12 months and none knows someone suffering from HIV/AIDS.

Results

The self risk perception

Table 1 near here

An ANOVA revealed that the comparative optimism (see Table 1) expressed by the participants who received the version characterized by the presence of adverbs (i.e. "adverbial high marking" condition) was significantly weaker (M = 2.86 versus 2.27, F(1, 97) = 10.06, p < .01], with a more detailed analysis showing however that the difference only approached significance in the "known disease" condition (Gr.3 versus Gr.1, F(1, 95) = 2.92, p = .09 /Gr.4 versus Gr.2, F(1, 95) = 8.39, p < .01). The comparative optimism was also significantly

weaker in the "unknown disease" condition (M = 2.83 versus 2.30, F(1, 97) = 8.04, p < .01), with a more detailed analysis showing however that this difference did not approach significance in the "adverbial low marking" condition (Gr.2 versus Gr.1, F(1, 95) = 2.11, p = .13 / Gr.4 versus Gr.3, F(1, 95) = 7.19, p < .01). No significant interaction effect appeared (F < 1).

The preventive intentions

Table 2 near here

Regarding the preventive intentions (see Table 2), the same ANOVA revealed that the participants' intention to use a condom during the next sexual intercourse was significantly more important in the "adverbial high marking" condition (M = 4.98 versus 4.23, F(1, 97) = 9.06, p <.01), whatever their knowledge of the disease (Gr.3 versus Gr.1, F(1, 95) = 3.85, p <.06 / Gr.4 versus Gr.2, F(1, 95) = 5.51, p <.03). This intention was also significantly stronger in the "unknown disease" condition (M = 4.91 versus 4.30, F(1, 97) = 5.87, p <.02), a more detailed analysis showing however that this difference did not reach significance in the "adverbial low marking" condition (Gr.2 versus Gr.1, F(1, 95) = 2.38, p = .12 / Gr.4 versus Gr.3, F(1, 95) = 3.85, p <.06). No significant interaction effect appeared (F<1). Regardless of the experimental conditions, the intention to practice a screening test was rather weak but the statistical analysis showed that this reluctance for the test was significantly less important in the "adverbial high marking" condition (M = 3.55 versus 2.79, F(1, 97) = 11.61, p <.001), whatever the knowledge of the disease (Gr.3 versus Gr.1, F(1, 95) = 7.88, p <.01 / Gr.4 versus Gr.2, F(1, 95) = 3.89, p <.06). On the other hand, this particular intention did not differ

significantly between the "known disease" and "unknown disease" conditions (M = 3.24 versus 3.12, F < 1).

The perceived seriousness of the (epidemiological) situation

Table 3 near here

The statistical analysis revealed that when they compared the disease with other societal problems (see Table 3, 1st ranking), the subjects significantly assigned a greater importance to it as a problem to solve by the public powers in the "adverbial high marking" condition (M = 3.63 versus 4.71, F(1, 97) = 34.24, p < .0001), whatever the knowledge of the disease (Gr.3 versus Gr.1, F(1, 95) = 15.60, p < .001 / Gr.4 versus Gr.2, F(1, 95) = 18.74, p<.0001). On the other hand, this judgment did not differ significantly between the participants informed about the HIV/AIDS (i.e. known disease) and the participants informed about Paramyxoviridae (i.e. unknown disease) (M = 4.31 versus 4.02, F(1, 97) = 2.07, p = .15). The same pattern of results appeared when the disease is compared with other public health problems (see Table 3, 2nd ranking), the statistical analysis showing that the judgment of importance was significantly greater in the "adverbial high marking "condition (M = 1.61) versus 1.98, F(1, 97) = 7.02, p < .001). However a more detailed analysis revealed that this difference did not reach significance in the "unknown disease" condition (Gr.3 versus Gr.1, F(1, 95) = 6.83, p < .02 / Gr.4 versus Gr.2, F(1, 95) = 1.38). Again the "disease knowledge" factor did not yield a significant effect on this judgement (M = 1.88 versus 1.70, F(1, 97) =1.67).

The attitude as regards the way to fight against the epidemic

Table 4.1 near here

Whatever the coercive opinion considered, agreement with it was more important in the "adverbial high marking" condition (see Table 4.1). The ANOVA revealed that in this condition, participants supported significantly the compulsory test measure (M = 3.35 versus 3.98, F(1, 97) = 7.93, p < .01), especially when it was a matter of unknown disease (Gr.4 versus Gr.2, F(1, 95) = 5.95, p < .02 / Gr.3 versus Gr.1, F(1, 95) = 2.26, p = .13); the identification / registration measure (M = 3.65 versus 4.48, F(1, 97) = 13.43, p < .001), whatever the knowledge of the disease (Gr.3 versus Gr.1, F(1, 95) = 4.16, p < .05 / Gr.4 versus Gr.2, F(1, 95) = 9.67, p < .01; the customs check measure (M = 3.92 versus 4.37, F(1, 97) =5.95, p < .02), with a more detailed analysis showing however that the difference was significant only in the "unknown disease" condition (Gr.4 versus Gr.2, F(1, 95) = 6.08, p < .02/ Gr.3 versus Gr.1, F < 1). As regards the "disease knowledge" factor, the same ANOVA showed that it only produced a marginally significant effect in the "adverbial high marking" condition as regard the customs check measure (Gr.4 versus Gr.3, F(1, 95) = 3.31, p = .07). Although the effect of the "adverbial marking" factor was descriptively greater in the "unknown disease" than in the "known disease" condition, no significant interaction effect appeared (F < 1).

Table 4.2 near here

Regarding the tolerant opinions (see Table 4.2), their agreement was weaker in the "adverbial high marking" condition. The statistical analysis revealed that the difference was

significant as regards the right for the person to keep his/her seropositivity secret (M = 5.08 versus 3.86, F(1, 97) = 25.82, p < .0001), whatever the knowledge of the disease (Gr.3 versus Gr.1, F(1, 95) = 13.45, p < .001 / Gr.4 versus Gr.2, F(1, 95) = 11.91, p < .001); the right for the person who realize a screening test to be the unique recipient of the results (M = 5.19 versus 3.81, F(1, 97) = 32.03, p < .0001), whatever the knowledge of the disease (Gr.3 versus Gr.1, F(1, 95) = 14.35, p < .001 / Gr.4 versus Gr.2, F(1, 95) = 17.09, p < .0001). As regards the opinion according to which "it is unfair to blame a person for infecting the partner when not knowing her seropositivity", the difference was only marginal in the "unknown disease" condition (Gr.4 versus Gr.2, F(1, 95) = 3.30, p = .07). The same analysis did not reveal a significant effect of the "disease knowledge" factor for any of these tolerant opinions (F < 1), nor an interaction effect (F < 1).

Table 4.3 near here

The ANOVA revealed that participants who received the version characterized by an adverbial high marking envisaged a manner to fight against the epidemic which was significantly more coercive (M = 3.38 versus 4.16, F(1, 97) = 19.61, p < .0001), whatever their knowledge of the disease (Gr.3 versus Gr.1, F(1, 95) = 6.99, p < .01 / Gr.4 versus Gr.2, F(1, 95) = 12.71, p < .001). On the other hand, the "disease knowledge" factor had no effect and no interaction effect appeared (F < 1).

Discussion

First, this experiment shows that the introduction of some linguistic adverbs in an epidemiological information message regarding a sexually transmitted infection, strengthens

the subjects' self risk perception, reinforces their preventive intentions, in this case, the intention to use a condom and to realize a screening test, and lastly enhances their perception as regards the seriousness and gravity of the problem. Second it also shows that the effect of this linguistic manipulation on these perceptions and intentions is approximately the same, whether the subjects know the disease or not.

We will refer to the "informative" and/or "descriptive" dimension of these particular linguistic forms (i.e. adverbs). Indeed, to talk about the "information value" of these adverbs amounts to saying that, due to their linguistic meaning, they contribute to represent the reality, giving to the depicted situation a certain image in which the notions of "excessiveness", "unpredictability", "inexpectability", "exceptionality" and "uncontrollability" are salient. In other words, such a phrasing/wording of the prevalence and the incidence of the disease reinforces the perceived "danger" and "uncontrollability" of the situation.

It is worth recalling that for the linguist Charaudeau (1992), the use of the adverb "already" shows that "the moment the event occurs is deemed premature compared to its expected occurrence" and signals that "a certain reference point, considered as a maximum not to be exceeded, has been overshot". Similarly, according to the researchers on "Risk perception" (Slovic, 1987; Slovic, Fischhoof, & Liechtenstein, 1982), these notions are precisely some of the dimensions a subject uses to judge the riskiness of a given situation or activity and to decide how much risk he is willing to accept (i.e. risk tolerance). Maybe our participants mobilized these particular semantic categories while they processed the message.

This study has evident implications for the designers of mass media public health campaigns oriented toward the prevention of sexually transmitted diseases, as it shows that a

simple linguistic manipulation is enough to increase the intention to adopt preventive behaviour. But to some extent, its efficacy is limited. Indeed, if this discursive strategy acts favourably on prevention, it also reinforces the support for coercive measures when it concerns the way of fighting against the extent of the disease. It also illustrates the unwanted consequences a mass media campaign can sometimes produce, in this case discriminatory reactions. Numerous authors have pointed out that designers of HIV/AIDS preventive campaigns have to manage a paradox: how to involve people in the adoption of healthy behaviours not while provoking discriminatory reactions (Berrenger, Rosnik, & Kravcisin, 1991; Ménard, 1996; Peretti-Watel, Obadia, Arwidson, & Moatti, 2008).

Referring to the "Second-order victim-blaming" process (Dressel, Carter, & Balachandran, 1995), we may wonder if some negative affects did not mediate the effect on the attitude. Maybe our participants have considered that the epidemiological situation described in the message is due to the lack of responsibility of certain people, newly infected, in spite of numerous and large preventive campaigns organized until now, and therefore judged them badly (i.e. depreciation and blame), judging that "all has been done to prevent them" or "to give them the means to avoid the disease". So we can hypothesize that the "adverbial high marking" version has reinforced these judgments and feelings. However, this "attribution of blame" process implies that subjects are convinced that the health related topic has been largely covered by mass media campaigns and so people are sufficiently aware of the problem. In other words, it depends on the perception the subjects have about the (past) mass mediatization of the disease. So did this process work in our study when the communication was about an "unknown disease"? Let us recall that increased support for coercive policy, by reinforcing the adverbial marking of the message, was also obtained when this one referred to a disease whose existence was unknown to the participants. So we can

think that in the "unknown disease" condition, participants did not consider that this particular disease had been the object of wide media coverage and then we can hypothesize that the underlying process is different. Future research should address this question.

The efficacy of the discursive strategy manipulated in this study has to be questioned for another reason. Indeed, we have to question its "real" efficacy, that is, its capacity to convert these preventive intentions into effective behaviours. We will refer now to a main tenet of the Elaboration Likelihood Model according to which the message's degree of cognitive elaboration determines how strongly the new attitude is triggered: the more important the cognitive elaboration, the more persistent, resistant and predictive of conforming behaviour is the resulting attitude (Petty & Cacioppo, 1986; Petty, Haugtvedt, & Smith, 1995; Petty, 1995). But we have some good reasons to think that the cognitive elaboration of the message content was weaker in the "adverbial high marking" condition. These reasons are theoretical and relative to the pragmatics and the "intentionalist paradigm" of the communication (Grice, 1975; Sperber & Wilson, 1986; Krauss & Chiu, 1997). Indeed, the adverbs which we have manipulated in this study have also an "argumentative function", that is, they confer to the statements some measure of "argumentative force" or "argumentative orientation" as it is defined in the theory of argumentation in the language: "The presence of some morphemes (*nearly* for instance) in some sentences gives an intrinsic argumentative orientation to these sentences, predisposing them to be used in some types of conclusions rather than others" (Ducrot, 1980, p.27), and "The statement's argumentative force or orientation can be defined as the type of conclusions suggested to the recipient, the conclusions that the statement offers as one of the discursive aims" (Anscombre & Ducrot, 1983, p.149). So basing our argument on these considerations, we can hypothesize that the presence in the message of these linguistic markers has also generated inferences centred on

the "speaker's meaning" and that these were matched with a less "systematic information processing" of the informative content. Here let us recall that stronger preventive intentions were obtained in the "adverbial high marking" condition. So we can wonder to what extent can a change towards more preventive intentions, yielded by this discursive strategy, lead to effective and lasting behaviour?

So are the mass media a useful tool or an obstacle for those who aim to change behaviour towards more precaution and security? First it depends on the type of change that such a media discourse is able to produce. Public health campaigns designers ideally seek to provoke significant long term effects and so they have to be certain that messages they compose are highly processed, a required condition to reinforce the attitude-behaviour link. For this, they have to develop ingenious and subtle strategies to facilitate the cognitive elaboration of the message, the key to success. The strategy we tested here enhanced preventive intentions. However, although we did not measure the cognitive elaboration of the message, we hypothesized that this strategy could impact it negatively. Generally speaking, we may wonder to what extent, mass media messages, due to their characteristics and the criteria which direct their construction, are likely to be highly processed? Second it depends precisely on the objectives that journalists assign to the message. As we have told before, there is a large consensus among the mass media researchers according to which journalists are primarily concerned with their audience so that mass media information is primarily driven by criteria which have much to do with drama and sensational. The recent studies on the media treatment of emerging diseases such as SARS, mad cow disease or aviary flu have shown how the information continued to be directed by these criteria (Washer, 2004; Wallis & Nerlich, 2005; Dudo, Dahlstrom, & Brossard, 2007). We may wonder to what extent messages, based on such criteria, trigger predominantly affective, stereotyped and automatic

reactions instead of rational reactions. In her book entitled "*AIDS and its metaphors*", Susan Sontag (1989) wrote "The most honest attitude which we can have towards the disease consists in purifying it of the metaphor". We will add that the mass media actor must act honestly towards his/her audience. May this be the case for present and future emerging diseases.

References

Adoni, A., & Mane, S. (1984). Media and the social construction of reality. *Communication Research*, *11(3)*, 323-340.

Af Wahlberg A., & Sjöberg, L. (2000). Risk perception and the media. *Journal of Risk Research*, *3*, 31-50.

Anscombre, J.C., & Ducrot, O. (1983). L'argumentation dans la langue. Liège: Mardaga.

Aroni, R. (1992). Looking at the media. In E. Timewell, V. Minichiello & D. Plummer (Eds.), *AIDS in Australia* (pp. 125-140). Melbourne: Prentice Hall.

Bandura, A. (1977). Social Learning Theory. New York: Prentice Hall.

Beltzer, N., Lagarde, M., Wu-Zhou, X., & Gremy, I. (2005). *Les connaissances, attitudes, croyances et comportements face au VIH/SIDA en France. Evolutions 1992-1994-1998-2001-2004*, ORS Ile-de-France.

Berger, P.L., & Luchmann, T. (1967). *The social construction of reality. A treatise in the sociology of knowledge*. Garden City, New York: Anchor Books.

Berrenger, J.L., Rosnik, D., & Kravcisin, N.J. (1991). Blaming the victim: When diseaseprevention program misfire. *Current Psychology: Research and Reviews*, *9*,*(4)*, 415-420.

Berridge, V. (1992). AIDS in the media and health policy. *Health Education Journal*, *50(4)*, 179-185.

Bertrand, J.T., O'Reilly, K., Denison, J., Anhang, R., & Sweat, M. (2006). Systematic review of the effectiveness of mass communication programs to change HIV/AIDS-related behaviors in developing countries. *Health Education Research*, *21*, 567-597.

Blakar, R.M. (1979). Language as a means of social power. In R. Rommetveit & R.M. Blakar (Eds.), *Studies of language, thought and communication* (pp. 104-145). London: Academic Press.

Charaudeau, P. (1992). Grammaire du sens et de l'expression. Paris: Hachette éducation.

Charaudeau, P. (2005). *Les médias et l'information. L'impossible transparence du discours.* Bruxelles: Editions De Boeck Université.

Chyi, H.I., & McCombs, M. (2004). Media salience and the process of framing: coverage of the Columbine school shootings. *Journalism & Mass Communication Quarterly 81(1)*, 22-35.

Clarke, J.N. (1992). Cancer, Heart Disease, and AIDS: What Do the Media Tell Us about These Diseases? *Health Communication*, *4*(2), 105-120.

Combs, B., & Slovic, P. (1979). Newspaper coverage of causes of death. *Journalism Quarterly*, 56, 837-843.

Dressel, P.L., Carter, V., & Balachandran, A. (1995). Second-order victim-blaming. *Journal* of Sociology and Social Welfare, 22(2), 107-123.

Ducrot, O. (1980). Les mots du discours. Paris: Editions de Minuit.

Dudo, A.D., Dahlstrom, M.F., & Brossard, D. (2007). Reporting a potential pandemic. A risk-related assessment of avian influenza coverage in U.S. newspaper. *Science Communication*, *28(4)*, 429-454.

Entman, R.M. (2004). *Projections of power: Framing news, public opinion, and U. S. foreign policy*. Chicago: University of Chicago Press.

Fielding, S.L. (1997). Comment: The discursive shaping of reality and mass media. *Sociological imagination*, *34*(2), 148-154.

Grice, H.P. (1975). Logic and conversation. In P. Cole & J. Morgan (Eds.) *Syntax and semantics 3: Speech acts* (pp. 41-58). New York: Academic Press.

Hertog, J.K., & Fan D.P. (1995). The impact of press coverage on social beliefs: The case of HIV transmission. *Communication Research, 22 (5)*, 545-574.

Herzlich, C., & Pierret, J. (1988). Une maladie dans l'espace public. Le sida dans six quotidiens français. *Annales ESC, 5,* 1109-1134.

Herzlich, C., & Pierret, J. (1999). La construction d'un phénomène social : le sida dans la presse française. *Revue Européenne des Sciences Sociales, 37 (114),* 217-232.

Iyengar, S., & Kinder, D. (1987). News that matters. University of Chicago Press.

Johnson, B.B., & Covello, V.T. (1987). Agenda-setting, group conflict, and the social construction of risk. In B.B. Johnson & V.T. Covello (Eds.) *The Social and Cultural Construction of Risk* (pp. 179-181). Dordrecht: D. Reidel Publishing.

Karpowicz-Lazreg, C., & Mullet, E. (1993). Societal risk as seen by French public. *Risk Analysis*, *13*, 253-258.

Kinder, D.R., & Sears, D.O. (1985). Public opinion and political action. In G. Lindzey & E. Aronson (Eds.), *Handbook of Social Psychology*, (pp. 659-741). Reading Mass.: Addison-Wesley.

Kitzinger, J. (1998). Media impact on public beliefs about AIDS. In D. Miller, J. Kitzinger, K. Williams & P. Beharrell (Eds.), *The Circuit of Mass Communication* (pp.167-191). London: Sage.

Kitzinger, J. (1999). Researching risk and the media. Health, Risk and Society, 1(1), 55-69.

Koren, R. (2004). Sur la critique du constructivisme en communication. *Questions de Communication, 5,* 203-211.

Krauss, R.M., & Chiu, C.Y. (1997) Language and social behavior. In: D.T. Gilbert, S.T. Fiske
& G. Lindsey (Eds.), *Handbook of Social Psychology*, 4th ed., Vol.2., (pp. 41-88). Boston:
McGraw-Hill.

Kristiansen, C.M. (1993). Newspaper coverage of diseases and actual mortality statistics. *European Journal of Social Psychology*, *13*, 193-194.

Lippman, W. (1922). Public opinion. New York: MacMillan.

Lupton, D. (1994). *Moral threats and dangerous desires: AIDS in the news media*. London: Taylor and Francis Ltd.

Manning, P. (2001). News and News sources. A Critical Introduction. London: Sage.

Masseran, A. (1990). La mise en scène médiatique du sida. De la peur au fatalisme, *SIDA 90*, *13*, 40-43.

Mazur, A. (2006). Risk Perception and News Coverage across Nations. *Risk Management, 8*, 149-174.

McCombs, M., & Gilbert, S. (1986). News influence on our pictures of the world. In J. Bryant & D. Zillman (Eds.), *Perspectives on media effects* (pp. 1-15). Hillsdale, NJ: Erlbaum.

McCombs, M., & Shaw, D. (1972). The Agenda-setting Function of Mass-media. *Public Opinion Quarterly*, *36*, 176-187.

Ménard, C. (1996). La double contrainte de la communication publique sur le Sida. *La santé de l'homme, 326*, 18-24.

Myrhe, S.L., & Flora, J.A. (2000). HIV/AIDS communication campaigns: Progress and prospects. *Journal of Health Communication*, *5*, 29-45.

Nelkin, D. (1991). AIDS and the news media. *Milbank Quarterly*, 69, 293-307.

Palmgreen, P., Noar, S.M., & Zimmerman, R.S. (2008). Mass media campaigns as a tool for HIV prevention. In T. Edgar, S.M. Noar & V. Freimuth (Eds.), *Communication perspectives on HIV/AIDS for the 21st century* (pp. 221-252). Mahwah, NJ: Lawrence Erlbaum.

Pepper, G.L. (1989). Book review: AIDS and its metaphor. *Health Communication, 1(4)*, 261-264.

Peretti-Watel, P., Obadia, Y., Arwidson, P., & Moatti, J.P. (2008). Un risque, ça va ! Trois risques, bonjour les dégâts. Les difficultés de l'éducation pour la santé à prévenir des risques comportementaux multiples. *Promotion & Education*, *15(1)*, 40-45.

Petty, R. E. (1995). Creating strong attitudes: Two routes to persuasion. In. T. E. Backer, S. L. David & G. Soucey (Eds.), *Reviewing the behavioral science knowledge base on technology transfer* (pp. 209-224). Rockville, MD: National Institute on Drug Abuse (NIDA Research Monograph 155; NIH Publication No. 95-4035).

Petty, R.E., & Cacioppo, J.T. (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed), *Advances in experimental social psychology, vol.19,* (pp. 123-205). Orlando, FL: Academic Press.

Petty, R.E., Haugtvedt, C.P., & Smith, S.M. (1995). Elaboration as a determinant of attitude strength : creating attitudes that are persistent, resistant and predictive of behaviour. In R.E. Petty & J.A. Krosnick (Eds.), *Attitude strength : antecedents and consequences*, (pp. 93-130). Mahwah, NJ: Lawrence Erlbaum Associates.

Rice, R., & Atkin, C. (2002). Communication campaigns: Theory, design, implementation and evaluation. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 427-452). Hillsdale, NJ: Lawrence Erlbaum.

Salmon, C., & Atkin, C. (2003). Media campaigns for health promotion. In A. Dorsey, K.Miller, R. Parrott & T. Thompson (Eds.), *Handbook of Health Communication* (pp. 449-472).Hillsdale NJ: Lawrence Erlbaum.

Sandman, P. (1997). Mass media and environmental risk: seven principles. In R. Bate (Ed.), *What Risk? Science, Politics and Public Health* (pp. 275-284). Oxford: Butterworth-Heinemann

 Sandstrom, K.L. (2005). Introduction: illness, crisis and claimsmaking. *Illness, Crisis and Loss, 13(2),* 89-93.

Sandstrom, K.L., Martin, D.D., & Fine, G.A. (2006). *Symbols, selves and social reality*. Los Angeles: Roxbury Publishing Company.

Setbon, M. (2000). La normalisation paradoxale du sida. *Revue Française de Sociologie*, 40(1), 61-78.

Sherr, L. (1987). An evaluation of the UK government health education campaign on AIDS. *Psychology and Health, 1*, 61-72.

Singer, E., & Endreny, P.M. (1993). *Reporting on risk: How the Mass Media portray accidents, diseases, disasters and other hazards*. New York: Russell Sage Foundation

Slovic, P. (1987). Perception of risk. Science, 36, 280-285.

Slovic, P., Fischhoof, B., & Liechtenstein, S. (1982). Why study risk perception. *Risk Analysis*, *2*(*2*), 83-93.

Sontag, S. (1989). Illness as Metaphor and Aids and its Metaphors. New York: Anchor Books.

Sperber, D., & Wilson, D. (1986). *Relevance: Communication and Cognition*. Harvard University Press.

Veron, E. (1981). *Construire l'événement : les médias et l'accident de Three Mile Island*. Paris: Editions de Minuit.

Wallis, P., & Nerlich, B. (2005). Disease Metaphors in New Epidemics. The UK Media framing of the 2003 SARS Epidemic. *Social Science and Medicine*, *60 (11)*, 2629-2639.

Washer, P. (2004). Representations of SARS in the British newspapers. *Social Science and Medicine*, *59*, 2561-2571.

Weaver, D.H. (2007). Thoughts on Agenda Setting, Framing, and Priming. *Journal of Communication*, *57(1)*, 142-147.

Wellings, K. (1988). Perception of Risks: Media treatment of AIDS. In P. Aggleton & H. Homans (Eds), *Social Aspects of AIDS* (pp. 83-105). Lewes: Falmer Press.

Winnett, L.B., & Wallack, L. (1996). Advancing public health goals through the mass media. *Journal of Health Communication*, *1*, 173-196.

1	
2	
3	
3 4	
4	
5	
6	
7	
8	
9	
10	
11	
12	
12	
13	
14	
12 13 14 15 16 17 18 19 20 21 22	
16	
17	
17	
18	
19	
20	
21	
21	
22	
23 24	
24	
25	
26	
20	
27	
28	
29	
30	
31	
31	
32	
33 34	
34	
35	
35 36	
30	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
55	
54	
55	
56	

Table 1Mean (M) and standard deviation (SD) regarding the comparative optimismin function of the adverbial marking and the knowledge of the disease*

Low			High				
marking		marking					
Known disease Unknown disease		Known disease		Unknown disease			
(Hiv/	Aids)	(Paramyxoviridae)		(Hiv/Aids)		(Paramyx	oviridae)
Group 1	(n = 24)	Group 2 (n = 24)		Group 3	(n = 25)	Group 4	(n = 26)
<i>M</i> =	2.08	<i>M</i> = 2.46		<i>M</i> =	2.52	<i>M</i> =	3.19
SD =	0.93	<i>SD</i> = 0.88		<i>SD</i> = 0.82		SD =	0.94

The higher the mean is, the weaker the comparative optimism is.

Table 2

Mean (M) and standard deviation (SD) regarding the preventive intentions

in function of the adverbial marking and the knowledge of the disease*

	Low		High	
	marking		marking	
	Known disease Unknown disease		Known disease	Unknown disease
	(Hiv/Aids)	(Paramyxoviridae)	(Hiv/Aids)	(Paramyxoviridae)
Use of condom	<i>M</i> = 3.96	<i>M</i> = 4.50	<i>M</i> = 4.64	<i>M</i> = 5.31
	<i>SD</i> = 1.04	<i>SD</i> = 1.32	<i>SD</i> = 1.15	<i>SD</i> = 1.42
Screening test	<i>M</i> = 2.67	<i>M</i> = 2.92	<i>M</i> = 3.56	<i>M</i> = 3.54
Sereening test	<i>SD</i> = 0.96	<i>SD</i> = 1.10	<i>SD</i> = 1.19	<i>SD</i> = 1.17

The higher the mean is, the stronger the intention to use a condom and to realize a screening test is.

Table 3

Mean (M) and standard deviation (SD) regarding the perceived seriousness in function of the adverbial marking and the knowledge of the disease \bullet

	Low		High	
	marking		marking	
	Known disease Unknown disease		Known disease	Unknown disease
	(Hiv/Aids)	(Paramyxoviridae)	(Hiv/Aids)	(Paramyxoviridae)
First northing	<i>M</i> = 4.83	<i>M</i> = 4.58	<i>M</i> = 3.80	<i>M</i> = 3.46
First ranking	<i>SD</i> = 0.82	<i>SD</i> = 1.06	<i>SD</i> = 0.96	<i>SD</i> = 1.42
Cases d manihim a	<i>M</i> = 1.96	<i>M</i> = 2.0	<i>M</i> = 1.44	<i>M</i> = 1.77
Second ranking	<i>SD</i> = 0.81	<i>SD</i> = 0.72	<i>SD</i> = 0.65	<i>SD</i> = 0.59

The lower the mean is, the higher the priority given to the

disease as a problem to solve by the public powers is.

Table 4.1

Mean (M) and standard deviation (SD) regarding the approbation of coercive opinions

in function of the adverbial marking and the knowledge of the disease*

	Low		High	
	marking		marking	
	Known disease	Unknown disease	Known disease	Unknown disease
	(Hiv/Aids)	(Paramyxoviridae)	(Hiv/Aids)	(Paramyxoviridae)
Compulsory	<i>M</i> = 3.96	<i>M</i> = 4.0	<i>M</i> = 3.48	<i>M</i> = 3.23
test	<i>SD</i> = 1.12	<i>SD</i> = 0.98	<i>SD</i> = 1.19	<i>SD</i> = 1.14
Identification of	<i>M</i> = 4.50	<i>M</i> = 4.46	<i>M</i> = 3.84	<i>M</i> = 3.46
infected people	<i>SD</i> = 1.32	SD = 1.10	<i>SD</i> = 0.94	<i>SD</i> = 1.14
Customs	<i>M</i> = 4.42	<i>M</i> = 4.33	<i>M</i> = 4.16	<i>M</i> = 3.69
check	SD = 0.83	SD = 0.97	SD = 0.80	SD = 1.10

The lower the mean is, the higher the approbation of the opinion is.

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
10	
12	
13	
14	
15	
16	
17	
$\begin{array}{c} 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 31\\ 2\end{array}$	
19	
20	
21	
22	
23	
24	
25	
20	
20	
21	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
აი ეე	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
49 50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
0.0	

60

Table 4.2

Mean (M) and standard deviation (SD) regarding the approbation of tolerant opinions in function of the adverbial marking and the knowledge of the disease[•]

	L	ow	High		
	mai	rking	marking		
	Known	Unknown	Known	Unknown	
	disease	disease	disease	disease	
	(HIV/AIDS)	(Paramyxoviridae)	(HIV/AIDS)	(Paramyxoviridae)	
Do not blame the person	<i>M</i> = 4.21	<i>M</i> = 4.0	<i>M</i> = 4.28	<i>M</i> = 4.38	
for infecting the partner	<i>SD</i> = 1.06	<i>SD</i> = 0.66	<i>SD</i> = 0.46	SD = 0.70	
To keep secret the seropositivity	<i>M</i> = 3.92 <i>SD</i> = 1.44	<i>M</i> = 3.81 <i>SD</i> = 1.35	<i>M</i> = 5.12 <i>SD</i> = 0.66	<i>M</i> = 5.04 <i>SD</i> = 0.99	
Results of the test only	<i>M</i> = 3.79	<i>M</i> = 3.83	<i>M</i> = 5.12	<i>M</i> = 5.27	
for the concerned person	<i>SD</i> = 1.25	<i>SD</i> = 1.52	<i>SD</i> = 0.66	<i>SD</i> = 1.31	

The lower the mean is, the higher the approbation of the opinion is.

Tableau 4.3

Mean (M) and standard deviation (SD) regarding the general attitude as regards the fight against the epidemy in function of the adverbial marking and the knowledge of the disease*

<i>Low</i>		High	
marking		marking	
Known diseaseUnknown disease(Hiv/Aids)(Paramyxoviridae)		<i>Known</i> disease (Hiv/Aids)	<i>Unknown</i> disease (Paramyxoviridae)
<i>M</i> = 4.16	<i>M</i> = 4.17	<i>M</i> = 3.49	<i>M</i> = 3.28
<i>SD</i> = 1.04	<i>SD</i> = 0.96	<i>SD</i> = 0.57	<i>SD</i> = 0.89

The lower the mean is, the more coercive the general attitude is

(after inversion of the polarity of scales for tolerant items)