The linguistic construction of confirmation niches in online comment sequences

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1. INTRODUCTION

Online discussion boards are an important part of the digital experience since they are used to get and provide information, instructions or advice, and even help in support-groups, in a fast and accessible way. They are considered the fastest way to obtain easily-available information, offering a space to any positions, even those opposite to the mainstream. An example is the delicate and controversial issue of vaccines (e.g. MMR vaccine), which has inflamed social discussions in offline and online contexts, with the medical community encouraging individuals to vaccinate (Nyhan, Reifler, Richey, and Freed 2014) and the public concerned with vaccine efficacy and safety, as well as with anti-vaccination themes (Kata 2010). Any website, even those mainly devoted to online shopping, can turn into a unexpected venue for heated debates. Such exchanges, in fora contexts, are communicative events composed of sequential comments written by several users, often unknown to each other. The posted comments may appear similar to an email discussion (e.g. structure, text length, linguistic features and formulas, time-lag in answers, etc.) but, unlike emails, participants (those who actively take part to discussions) and lurkers (those who observe but do not participate) can read all contributions and are allowed to take part in the exchange. The resulting dialogue, even though of a written nature, has conversation-like dynamics with question/answer formats and, taking a broader view,

has sequences formed in a collective dialogue framework. Moreover, differently from other online interactions (e.g. chat, audiovisual interactions), forum exchanges are of an asynchronous nature, which enables users to participate in discussions with other users when it is convenient to them (Boyd 2014) but, on the other hand, the resulting dialogue is not linear, and reduces expectations of a 'real' interaction.

This study starts from the consideration that new media are platforms where communication and language are re-negotiated to adapt new frames (e.g. new politeness, multimodal exchanges) and, in particular, that fora are participatory frameworks, that represent a joint engagement in writing practice (Stommel and Koole, 2010). Discussions are organized as multiparty conversations on several topics, written by participants (i.e. website users accessing a parenting forum) at different levels of expertise about health issues (mostly earned through their experience of parenthood; Kata, 2010).

The challenge in this paper is: 1) to study the asynchronous forum as a talk-in-interaction venue, where sequences are construed in conversation-like succession adapted to the medium; and 2) to study the exchange in light of the notion of confirmation niche, that is a virtual space in which very similar information is shared and accepted, reinforcing one's beliefs.

A corpus of 188 comments from the parenting forum on a commercial website is analysed using digital Conversation Analysis (CA) tools with a focus on sequentiality (how the space for a new post is shaped/addressed), accountability (the display of legitimacy for taking part in the discussion), conflict (aggressiveness and troubled talk) and on the notion of confirmation niche (the shaping of a place in which to favour comments that confirm one's idea).

In the next section, I describe studies concerning the areas I am going to analyse, introduce the corpus and methods, and then discuss my findings. My paper focuses on how language is used as evidence of some conversation concepts such as sequentiality and accountability. The notions of conflict in interaction and interactional floor are discussed in light of the possible formation of confirmation niches, where information and beliefs are reinforced in a closed system.

2. BACKGROUND

Traditional spoken analysis approaches have already been applied to understand the nature of the computer-mediated interaction showing that online exchanges meet conversation criteria. Analysis modes have been crafted for the specific forms of online interactions (Herring 1999; Stommel and van der Houwen 2013), and CA, in particular, has increasingly been used to study a variety of interactions (e.g. chat exchanges), seen "*as* interaction" (Stommel and te Molder 2015: 241) with participants oriented as in oral talk. The main methodological issues are the adaptation of traditional methods to the online context, the new data, the virtual participants and the limitations imposed by the channel. The applicability of CA to online exchanges has resulted in research dealing with turn-taking, sequence organization and design of messages

(Antaki et al. 2005; Vayreda and Antaki 2009), and in studies focusing on identity and community construction in group discussions seen as "communities of practice", whose features are composed by participants' activities (Stommel and Lamericks 2014; Stommel and Koole 2010). Research has also revealed the relations between turns in sequence, such as the unsolicited advice given by the members of a forum group as replies to a newcomer (Vayreda and Antaki 2009), showing how unsolicited advice is not a mismatch in turns but is a consequence of new members' initial posting (e.g. a way to instruct/introduce new members into the mores of the group). Each post represents a turn-at-talk and opens space for new turns that, paired to the first part, perform actions that depend on the forum context, e.g. providing emotive help in a support group (Vayreda and Antaki 2009: 6). Digital CA has also shed light on interactive dynamics within membership categorization (Stommel and Kooles 2010), and institutional interaction online (Stommel and van der Houwen 2013). Focusing on asynchronous exchanges, emails and forum conversations were seen as a different form of online interaction and questions on turn-taking, adjacency pairs and sequences remained under-investigated. Among the studies on asynchronous texts, Gibson (2009a) showed asynchronous written discourse as displaying a similar nature to face-to-face interactions in terms of organization of conversational turns, the development of topics of conversation and the structural use of turn pairs, although some differences with synchronous sequential talk remain. In fact, in online exchanges, comments are posted one after another suggesting a sequence of turns with similar conversational talk patterns. Turns can be read as the first part of a pair in a sequence of conversational turns (adjacency pairs) but the challenge within asynchronous online interaction is to uncover the logical sequence of the posts. Participants, in fact, take turns depending on when they log on, which means that their turns are unplanned and more casual in comparison to the order of face-to-face conversation (Gibson, 2009b) and consequently, reading paths are necessary to understand how the posts are organized and functionally related to each other. From a different perspective, research aims at understanding how people manage their image or reputation and refers to the reason why actors conduct their action (Stommel 2009), believing they are legitimized in doing so.

Accountability is studied as an analytical practice to denote the strategy participants use to make sense of their talk and to manage their identities in exchanges, in order to orient, address or disarm possible challenges (Antaki et al. 2005). This notion is particularly interesting when referred to the discourse around vaccines. Newsgroups share information and opinions on vaccine-related health risks (Richardson 2005) and endorse new forms of expertise, in which medical experts are replaced by parents who claim a competence earned through their experience of parenthood. Research on the vaccine-related debate in fora has revealed the nature of the information, its accuracy and the rhetoric around the anti-vaccination thesis (Kata, 2010) and identified some recurrent themes, namely the belief in alternative models of health, the promotion of parental autonomy and responsibility, and suspicions about medical expertise. Information spreads online and emotion (e.g. fear) has a viral role in the diffusion process and in fueling the debate about risk evaluation, public health

threats, and children's vulnerability. The internet offers two (or more) different sides of the debate, exposing users to complexity, with content going beyond true-false, verifiable-falsifiable information, and thus increasing uncertainty. Online exchanges have been studied looking at floor management to gain empowerment/power by those people wishing to have a public voice (Herring 2010) and persuade others but, currently, research (e.g. Quattrociocchi and Vicini 2016) is revealing how online users participate in online debates only with communities sharing the same narratives, looking for, and interpreting information in a way that confirms their hypotheses and beliefs with little consideration for (if not being against) alternative options.

3. THEORETICAL FRAMEWORK

The extreme similarity (e.g. the linguistic patterns, turns and sequences) between chat dynamics and the data under investigation leads to consideration of this exchange as an interactional event, to be studied through CA analytical tools. CA is involved "in the study of the orders of talk-in-interaction" (Ten Have 2007: 4) and analyses the structure of conversations according to sequences ordered in adjacency pairs, as well as addressing, that determines the procedural rule according to which the interaction can evolve. However, the starting point of the approach adopted in this paper must take into account the digital asynchronous form of the exchange, thus turn-takings and sequential features must be understood as a computer-mediated communication (CMC), which combines the context-dependent interaction of oral conversation (informality, immediacy, reduced editing and synchronicity) with the properties of written language (planning, asynchronicity, no paralinguistic context (Giles, Stommel et al. 2015). The notions of digital turn-takings, sequential placement of messages and their internal design (Antaki et al. 2005), are addressed bearing in mind the methodologies from face-to-face exchanges analyses (e.g. the sequence organization as in Schlegloff 2007), adapted to online asynchronous contexts (Gibson 2009b). The analysis starts from the idea that online polylogues created amongst fora members are defined by the multiparty participation, with turn-takings that are as difficult to analyse as the increasing number of participants. Any user, writer or reader, is defined as a polylogue participant and plays a role in the participatory structure (Herring 2007) but, in the text-based interaction, only message-sending/evaluating participants can be taken into account. Posts are viewed as a sequential organization based on adjacency, which is a unit of conversation containing an exchange of one turn each by two speakers. Whereas spoken conversations display sequences logically ordered in temporal succession, in text-based CMC utterances may occur in a different order (disrupted adjacency, Herring 2013) disrupting the adjacency pair as understood in face-to-face interactions. The exchange consequently needs to be understood as subdued to a written language and to the speed and reliability of the digital medium.

In addition, I explore data as a result of both emotion talk in interactions and confirmation bias. Emotion talk is assumed to be used "to maintain the speaker's

dignity and forming desired relatedness with their counterpart" (Sela-Sheffy and Leshem, 2016), i.e. a speaker uses emotion talk when his dignified talk is threatened. Aggressiveness is thus used as an emotional-discursive (responsive) strategy to construct and position the speaker's self in relation to others, and takes different forms e.g. assertiveness, irony, sarcasm. This is considered taking into account that web users are exposed to an incredible amount of information that is selected by confirmation bias, which is the production, search and interpretation of information consistent with one's own belief (Quattrociocchi and Vicini, 2016). This process ultimately leads to confirmation niches, or echo-chambers, virtual spaces in which very similar information is shared, "echoing" each other, with the result that beliefs are reinforced. The confirmation niche is thus a system in which the truth value of the information is not salient, what matters is the rhetorical and persuasive features (expertise, emotional involvement, trust issues) that are used in the digital debate. Research (e.g. Bessi, Zollo et al., 2015) has also underlined how some recurrent topics are at stake (e.g. diet, environment, health), with web-users actively participating in social/political debates and taking up a position, often contrasting with the mainstream. Because it is interactional, the online group discourse represented in my data gives a perspective on the construction of confirmation niches, as contributors articulate their beliefs and world-views in their different ways, and are variously challenged or accepted in doing so.

4. DATA

A set of 188 English web comments (approximately 34,000 words) posted from July 2010 to April 2013 is considered. The webpage where these comments appear (Amazon) is a site for online shopping with a forum for customers. The site, which has an evident commercial interest and cannot be thought reputable or evidence-based for health matters, has a specific space dedicated to a parenting forum, for information exchange only. From such an unexpected venue, a thread dealing with vaccine and autism is extracted and analysed. The discussion is quite old in virtual terms but it was still one of the most accessed threads when looking for information on vaccines at the time of selection and as such it has been chosen for study. An initial post published on July 17th receives 187 replies and starts a debate among 67 participants (whose details, e.g. gender, age, nationality, are unknown). Participation varies from one post (from 45 participants) to 30 posts (DeH, the most involved participant), with messages addressed to the forum in general (F) or to specific participants. The structure of the forum, in fact, allows a participant to add comments or to reply to specific posts. It also allows the evaluation of the post content, using the yes/no button that answers the question "(X number) of (Y number) people think this post adds to the discussion. Do you?". The Y numbers do not show the actual number of readers (it shows those who used the control), whereas the X numbers are those who took a positive position toward the content.

5. METHOD

Despite the many rules of conduct concerning research on and about the Internet (e.g. Association of Internet Researchers' guidelines), the analysis of publicly available data for research purposes leads to ethical challenges (Buchanan and Ess 2008). Without a widely accepted protocol and although there is a generally low expectation of privacy for those who post publicly online (Krasodomski-Jones 2016), in this study all personal information is omitted, pictures are removed, a tag replaces names or nicknames, and only parts of posts were used as evidence, in order to preserve individual cyber rights.

Comments were gathered and displayed as they appeared on the webpage, according to the chronological sequence. Then comments were organized into reading paths (the webpage allows participants to see if replies are sent) to restore the disrupted adjacency, in order to see how they were functionally related to each other. The numbers of postings were tabulated, names were edited for privacy issues, and a tally was kept of the number of participants who posted multiple messages. Replies were counted, and interactions for each comment were read. The sequential organization was studied following the chronological order, the addressivity (used to identify the intended addressee by name, in asynchronous group discourse, Herring 1999) and the topic under discussion (see Table 1). In-text references to the exchange show the participant's tag, the date and hour of comment (e.g. BE_17.07_20:42) and when necessary the addressing (HH>BE). The first post was analysed in its individual dimension, since it opens the thread (and therefore the discussion) and takes advantages of distinct specificities (see Discussion). I focused on the adjacency pairs, sequences of utterances that are mutually dependent and are produced by two participants (e.g. answer-question sequences). Secondly, I studied the display of accountability for taking part in the discussion and how the respondent(s) replied or addressed it. Finally, the comments were analysed in sequences, quantitatively and qualitatively, pointing to the strategies and the themes users employ to support one theory (or one contributor) and analysing if and how they discredited contrasting positions (conflictual talk), leading to confirmation niches. Content analysis revealed whether the post contained pro- or against vaccine-related instances. In addition, I traced the total number of people who participated in the discussion by clicking on the site control (and, as such, actively expressed an opinion without commenting, similar to the 'like' control in other popular social networks).

Date / time	*Direction*	*Action*	*Pro-vaccine /Against*	*Positively evaluated*
1. 17/07 20:42	BE>F	Opening forum	P	14
2. 23/07 07:47	HH> BE	Answering BE	A	16
3. 23/07 09:17	E>HH	Supporting HH	A	11

4. 23/07 10:25	AC>F	Supporting BE, quoting HH	P	24

Table 1. Sequence in comment exchange between participants, date and time, topic, positioning toward vaccine, total number of people who took position on the comment.

6. THE POLYLOGUE AS INTERACTIONAL GROUND

The thread is organized as a participation framework (Stommel and Koole 2010) with 67 participants and 188 posts in sequence. The actions in the exchange are: opening new topic (user starts discussion about a new theme), writing on the board (without addressing), writing a comment to someone (the message is openly directed to someone indicated by addressivity), reply (using the reply control), questioning (often for rhetorical reasons or sarcasm), and trolling (posting for the sake of disturbing readers). The user "Be" starts the discussion with a post entitled "to those of you who still believe MMR vaccine is the cause of autism", which contains a plea to read an article taken from a parenting website (everydayfamily.com), and a summary of it. The article is written by a doctor and refers to the history of the vaccine diatribe, endorsing the necessity of vaccines and rejecting connections between vaccines and autism.

The message is an initiating first turn, since its internal design accomplishes several functions. In fact, the subject contains: a nomination of an addressee (those who...); a selection of recipients (already implicitly intended as an opposing group); and a preparation for a response (as an invitation paired with acceptance / rejection). As in Antaki et al. (2005), in digital contexts the speaker starting the conversation cannot say who is going to read his/her lines (the recipient), and therefore no responsibility can be attributed to the addresser in case of conflict. Even the selection of the addressee does not correspond with a controlled identification of the intended recipient(s) and, as such, the subject only identifies a theme that involves anyone interested in the topic (and not only the intended addressee). The exchange is safe for the author (e.g. anonymity, log-in time etc.) but is also highly risky in that it is open to comments from different positions (i.e. those who have been addressed and those who are interested in the theme). The thread becomes thus a milieu where (opposing) groups exchange their opinions through 187 answers, that are addressed to the forum in general, to Be, and in reply to some individual users. The time lag between messages varies considerably, from short (i.e. 78 seconds) to very long (i.e. 33 months), but this does not influence the turn structures. A week after the first post, Be receives a reply that, "based on the experience of thousands of parents", vaccine is the cause of autism, a reply that is endorsed by a third participant (who replies to the second user, not to Be). Even if the two anti-vaccine postings are single replies, the content is visible to everybody. A fourth user posts a comment, addressed to the forum, taking positions against the two antivaxxers' observations. The asynchronous interaction that follows, displaying adjacency-pair formats for and against vaccines, is construed in a sequence organization, which is structured at the beginning by the first part being the first posting and the second part being the replies by the different participants. Messages are shown in a continuum, which increases both the perception of a disrupted

adjacency of logically-related messages and the relevance of violation issues. As suggested by Herring, "exchanges that are constantly interrupted [...] do not obey the principle of sequential relevance; responses intended to be relevant lose their relevant status by appearing too late or with too many irrelevant turns in between" (2013: 255). However, such loosening relevance is managed by participants by either adopting the reply tool as an adjacency-based control to restore a spoken conversation-like relevance, or by addressing (contributors indicate the conversation pair to which they are responding to, as in ex. 31, where SH writes in the forum addressing PS and thus acknowledging her understanding of the two-part sequence):

31. SH_11.09_12:18 SH>F
PS, I think you were responding to me, and [...]

Users employ the generic "you" when writing in reply or alternatively use addressing when the post involves more than one sentence and contains replies to more than two participants. As a consequence, the polylogue is comprehensible, and turns are easily readable. Loosening relevance is also managed by the mechanism of word association, which is a form of inter-turn relation played on lexical repetitions. The sequences, thus displayed according to adjacency-based pairs, also show the overall coherence in the text, which is also exploited by repetition, which helps to determine when one is replying to someone even though the user does not post the comment as a reply. For example, the expression "shame on you" is used in post 4, AC>F, in some replies (posts specifically addressed to user 4), and forum comments. After several irrelevant turns, without being a reply to 4 (RM>F) and without addressing, RM (111) repeats the expression, and no-one replies or feels attacked by the comment. It might be expected that readers interpret 111 as a reply to 4 and do not feel personally involved in the exchange:

4. AC_23.07_10:25 AC>F […] For you parents who choose not to vaccinate […] SHAME ON YOU!! […]
5. SH_23.07_11:47 SH>AC. […] This "shame on you stuff" is a bit ridicuous.
6. IBS_29.07_08:07 IBS>AC. i suggest you [...] and stop insulting people […]. "shame on you!"
111. RM_12.10_9:03. RM> F […] liners like "shame on you." Its hard for me to respect the person who [...]

The forum also shows a dynamic dimension, since it produces topic degeneration (Lambiase 2010) and active participation, defined by some discursive activities such as the negotiations of beliefs, group solidarity and conflicts (Stommel and Koole 2010: 359). The most important interactional activity that takes place in this forum is the attack/defence of individual choices, with the pro-vaccines urging others to vaccinate and not to be fools, and the anti-vaccines, on the other hand, defending their right to choose for themselves, and attacking the pro-vaccines for going with the mainstream without caring for their own children. Conflict is particularly salient in such

exchanges: when not overtly expressed, aggressiveness comes in the form of irony and sarcastic comments. One main theme for aggressiveness is the legitimacy of discussing the topic under discussion i.e. parenting, scientific knowledge, evidence from experience, hearsay, concern for the babies. As already mentioned, the first post uses addressing as a rhetorical expedient to start a bi-directional exchange between two opposing groups, using an intricate topic in a direct message and building an unsafe interactional ground. It might be guessed that the responses will align with the negative emotion implied in the invitation. In order to validate their utterances and to protect the self from the interaction ground, contributors display legitimacy for taking part in the exchange through accountability and credibility. In fact, legitimacy may be among the first steps to be taken when entering a discussion, revealing one's connection to the group (as in Stommel and Koole 2010) or to the topic. The notion of legitimacy has been described as polysemous (Robinson 2016), and refers to the participants' role in society (e.g. their job, as in 1); legitimacy by experience, (e.g. parenthood, 2); legitimacy by knowledge (e.g. by personal readings / studies as in 3); or simply because they find a space to express their thoughts (4) and validate their right to take part in the discussion.

1. SK_05_10_05:03
   I […] have 4-7 students who have been assessed as autistic [...]
2 LO_03.10_06:08
   Being a mother of an Autistic boy [...]
3. LFP_05.10_10:29
   I researched for 10 years - full time (about 40 hours a week) because I had a vested interest - my child. I guarantee you, there is not a single 'expert' in the field who studied longer or knew more than me [...]
4. HH_11.10_09.09
   Cause and Effect […]. A child, who gets a shot, and has convulsions, then is suddenly 'autistic'...you'd have to be blind to not question that.

The discourse strategies used to display/construct accountability in the group, as well as the strategies used to respond to displayed legitimacy, make references to sources (in particular mass media, as in the thread starting post) as well as advocacy, logical thinking, and trust in scientific knowledge (peer-reviewed journals, scientific approach), that are used as self-defense (mediated knowledge) and to persuade the reader of the accuracy of one's own information:

SK_05.10_09:12 SK>LFP
   From what I have read about autism, […]. Scientific American had a really good article on [...]

Participants present themselves to suit the general accountability for providing information, yet they avoid giving details. Contributors articulate their credentials and are challenged or accepted in such a negotiation of trust:

Li_13.09_13:44 Li >F

> Before you present yourself as a "health care professional", please provide job title, qualifications and experience to support this statement, plus proof of medical training from a reputable university. If you're not a qualified nurse or doctor, please don't present yourself as a licensed health care professional to add validity to your argument [...]

The negotiation of credentials as well as of the nature of the information provided (in terms of trust, sources etc.) leads to interactional conflicts, where participants have to save their claimed (Goffman 1959) respectability and self-esteem.

7. FROM INTERACTIONAL CONFLICT AND EMOTIONAL INVOLVEMENT TO CONFIRMATION NICHES

Interpersonal and intergroup conflict situations in digital contexts occur in the presence of sequences where participants react to each others' language use. In particular, conflict is shown by the (dialectic) tension between parties that starts from disagreement or difference and is characterized by competition (no mutual adjustment or successful conflict management) and cooperation (willingness to interact). According to Gasiorek and Giles (2013: 12), conflict is a "process" and is thus constructed in interaction, since "the way we respond to them affects how they respond to us; together, we co-construct the interaction, and the course that it takes". The following interaction shows how the participants maintain their position, both in terms of topic management and interpersonal procedures, by making reference to their beliefs/values (academic, institutional, experiential information):

HH_23.07_07:47 HH>BE

> […] explain to me, then, how children who are normal and healthy go down the tubes....right after receiving a vaccine? Thousands? (hair splitter) of parents, who witness this themselves, cannot be wrong...sorry.

JG_08.10_11:57 JG>HH

> [...] HH, produce the documentation of these 'millions of parents'. Please. [...] save the world with your storehouse of empirical truth. Wait, what's that? You don't have any? [...]

HH_ 08.10_17:37 HH>F

> wow JG you are pretty hostile... why don't you start with www.nvic.org ?

JG_08.10_22:11 JG>HH

> My point, people […] Read the research papers on them. Read explanations of how they interact in the human body from credible sources [...] TV is worthless (scientifically), discussion boards are worthless, INDEPENDENT AGENDA DRIVEN WEBSITES ARE ESPECIALLY WORTHLESS.

HH_ 10.10_13:40 HH>F

> I'm not a mindless consumer, that's why I don't just take the CDC's and FDA's advice [...] BTW, get some anger management dude, go for a walk.

The exchange shows a reciprocal conflict interaction (characterized by parties matching each other's tactics, in this case both sarcastic question/answers and personal addressing). Participants do not accommodate, and signal dissatisfaction and disrespect for the interlocutors' actions and beliefs, which in turn results in the recipient's negative reaction. In other cases, the interactional dynamics of conflicts are accommodated, that is, participants make adjustments to elicit a positive face and feelings, but avoid compromising their credibility. In the following example, LFP answers a contributor in a quite provocative way (my italics) and gets an accommodated answer:

LFP_ 05.10_10:29 LFP>F

> Gi, please go back and reread all my posts before you ask such *a rude* question in such *a rude way*. I NEVER suggested anyone get advice from a feed store. I said go tot he [*sic*] internet. […] If you think doctors know more than [...], *you are sadly mislead* [*sic*] - and *woefully ignorant* of the realities of medicine.[...] in closing, yes, *I am f-ing serious* [...]. And *you*?

Gi_ 05.10_13:22 Gi>F

> [...] I *just* wanted to say it's crazy, *in my view*, to self-medicate […], *that's all* […]. *I don't mind* health food remedies - *some do indeed work*. I'm *only* knocking [...] *that's all*. [...]

The addresser adjusts her reply to make the statements smooth and concedes some space via hedges ("I just wanted to say", "some do indeed work", "I'm only … that's all"), yet she maintains her position.

Going back to the example HH_23.07_07:47 HH>BE, the author uses images ("go down the tubes"), exaggeration ("thousands?"), experiential knowledge (parents who witness) and generalization ("children who are normal and healthy") to move the topic on to an emotive level, fueling fears and distress about individual choices (parental autonomy), and suspicions (governments and Big Pharma), based on hearsay, credit to unsourced rates, and exaggeration. The replies are rhetorically aligned:

E_23.07_09:17 E>BE

> […] It's is *beyond suspicious* the rise in autism *rates*. And I have heard *a million times* how perfectly healthy a child was, and after his/her vaccines- *something terrible* happened.

There is also the possibility of fitting one's message/information into personal narratives:

Li_13.09_13:22; Li>F (on herd immunity)

> My niece [...] lost [her baby] because her next door neighbor, a fervent anti-vaxer [...] brought her child over for a visit [...] and neglected to tell my niece that her child had been to a chicken pox party [...]Her husband is currently deployed in Afghanistan. He'd hoped to be home in time for the baby being born. Instead, he missed the funeral [...].

The personal narrative about the niece, used as proof and self-legitimation, helps to produce a different level and moves the focus from the message to a personal emotion that will be supported by the (like-minded) group. Emotional talk in interactions is also used "to maintain the speaker's dignity and forming desired relatedness with their counterpart" (Sela-Sheffy and Leshem 2016). A speaker uses emotional talk when his dignified talk is threatened (as in HH>BE) or, in turn, to threaten the interlocutor. Aggressiveness is an emotional-discursive strategy to construct the speaker's self in relation to others and position the self in the troubled interaction, fueled by the use of irony, sarcasm, irritated/ing tones (see the case of SHAME ON YOU) that cannot be tolerated or approved by the interlocutor:

HH_ 11.10_09:09 HH>F, addressing JG

> […] Are you one of those double speak tea baggers? An attorney paid to spin reality? [...]

JG_12.10_06:38 JG>HH in reply

> Yup. I am absolutely an attorney paid by The Conspiracy to twist reality by referring people to hard science and documented, reproducible, and peer-reviewed factual research [...] how did you uncover my dark, dark secret?!? […]

HH_ 13.10_12:20 HH>JC, in reply

> […] and I'm done being attacked by JC. Good luck, and good health all with whatever choice you make....except you JC, I hope you have a really bad reaction to your next flu shot.

The hostile interaction affects the exchange and diverges the focus from topic to tones. The exchange has moved onto a personal level that involves emotions (e.g. anger, frustration) and compromises the self. The participant leaves the interactional ground decay of exchange for loss of interest (Lambiase 2010), with the same idea s/he had before the exchange. Moreover, the exposure to a contrasting idea/information seems to have reinforced the original position ("bad reaction").

Participants from both sides endorse their own form of expertise, call into question the other side's information (e.g. sources and accuracy), and accuse the other group members of stubbornly going with the mainstream. According to Herring (2010), the floor is not represented by an individual message but by the patterns of participation and responses, since the message holds the floor when other messages refer to its content. Using content analysis the 188 posts are grouped in: 117 posts against vaccines (AV), 50 posts pro-vaccines (PV), 4 deleted messages, 17 neutral/trolling comments and the thread starter (see Table 2).

Date / time	*Participants*	*Messages*	*Words*	*Duration*
PV	27	50	9904	17/07/10-17/01/11 24 days
AV	31	117	20513	23/07/10 – 30/04/13 50 days
other	5	17		
deleted	4	4		
ALL	67	188		

Table 2 Summary data (as in Herring, 2010) for AV/PV discussion

Participants with PV positions write an average of 1.8 posts each whereas contributors with AV positions write an average of 3.8 posts, showing significant involvement in the topic. The floor is thus managed by AVs, as indicated by duration (until 2013), density (participants, messages, and words) and thematic focus (Herring, 2010). Despite the thread starter (with PV positions), the digital space assumes the shaping of a place to favour comments that confirm AV's idea (confirmation niche), with 140/188 posts coming as direct (reply control) or indirect replies (written in the forum but addressing someone) referring to AV's messages. While PV participants contribute to the debate addressing the forum (PV>F 26), the most influential activity among AV participants is replying to PV (AV>PV 41) and talking to each other in similar numbers (AV>AV 42). The participants, attacked for their system of beliefs, confirm their stances among themselves and reinforce their standpoints when opposed. Confirmation bias is shown by the choice of interlocutor, as those who have parallel ideas support each other whereas they debate with opposing groups only using aggressive/ironic contents (see examples above). Moreover, groups in closed systems produce an echo, that is the repetition of the same idea, sometimes distorted during repetition, as in the following posts dealing with 'mercury' (M):

Co_5.08_8:15
[…] Mercury isn't in most, but still too much [...].

Mde_07.11_02:28
No, it's not that the "killed virus" caused autism. It's all the junk they add to it, like, oh, MERCURY.

MH_10.11_19:56
[…] you could get extremely high amounts of mercury [...]

The information shared within the same group is agreed with and echoed during the conversation, until it is amplified:

M ins't in most vaccines > M in vaccines > M in high amounts.

8. CONCLUSIONS

This paper has shown how the interaction in an asynchronous online conversation is construed as a conversation-like exchange characterized by disrupted adjacency (Herring 2013). Participants interpret the sequences without frustration and indicate the conversation pair to which they are responding by using interactional tools (addressing, word repetition), thus acknowledging their understanding of the two-part sequence of the message. The sequences are of an attack and defence pair nature, with interactional activities involving individual (replies) and group exchanges in a digital polylogue, where (opposing) groups exchange their opinions. Web-users make use of rhetorical and persuasive features (expertise, emotional involvement, trust issues), addressing several themes concerned with the main subject (here a possible correlation between autism and MMR vaccines) and producing topic-shifts (Lambiase 2010) as belief in alternative models of health, parental autonomy and responsibility, and suspicions about medical/political expertise (Kata, 2010). The negotiation of credentials (accountability) and the nature of the information provided (in terms of trust, sources etc.) leads to interactional conflicts, often in the form of sarcastic comments, where participants have to save their respectability and self-esteem. These last terms must be understood as mediatised representations since language used by participants is a performed act carefully curated in consideration of its audience (Goffman 1959) that involves, in digital contexts, unregistered users as recipients (Boyd 2014), a sort of a "third eye" in the exchange, who are not expected to take on the speaking role. Data show that interaction is constructed by emotional talk used to maintain the speaker's dignity (Sela-Sheffy and Leshem 2016) more than by a willingness to interact cooperatively through mutual adjustment and successful conflict management. Thus the conflict as an interactional process (Gasiorek and Giles 2013) constructs two different groups made of individuals sharing opposing beliefs, with contributors not focused on the message but on the possibility of fitting it into personal narratives. In particular, this paper deals with different positions on vaccines, with parents and people reluctant to vaccinate their children, and voices discussing the negative impact these choices may have. These critical standpoints are echoed in the forum with information distortion. More importantly, it seems that the two groups do not interact but simply oppose each other because of each one's confirmation bias, a situation that determines an echo-chamber (Quattrociocchi and Vicini 2016). The concept is not new since it is the digital version of readers buying newspapers falling within the spectrum of their beliefs but the digital word is estimated as a more influential knowledge sharing tool than traditional ones (Di Virgilio and Antonelli 2017).

On a deeper level, the results of this analysis and the following picture of web-users interacting online must be related to social media literacy. Despite an assessed knowledge on the management of communication dynamics in an online environment, participants seem to lack media literacy (e.g. digital social competences), showing no critical attitude towards available information and no ability to understand different viewpoints and to respect the values of others. The immediate

response (and interaction), as well as the absence of tracking of the sources and considerations on their relevance reduces the complexity of reality to individual (often emotive) standpoints and the interaction only reinforces personal ideas in opposition to the others'. Facts are discussed in a convergence culture (i.e. the bringing together of all contents despite their heterogeneous quality and accuracy) in a participatory way, sharing and commenting information without the individual and social skills needed to effectively interpret, manage and create meanings. Self-dignity and the sharing of emotions (expressed through symbols and sensational words and phrases, i.e. lexical boosting and irony) seem to be the speakers' main goals, and such posts are more interesting or shocking and tend to be commented more than others. On the contrary, assessment and evaluation of information are essential to form an independent and critical judgement. Meeting different viewpoints and values promotes the readability of one's information and educates users to resist disinformation and the radicalization of ideas.

This study has shown how participants in a closed system (as participants in their confirmation niche may be seen) do not foster media literacy and represent a danger because of the extreme visibility of their exchanges, which may educate/define other (both active and passive) members concerning the discursive and participative practices of a (digital) discussion (Vayreda and Antaki 2009; Stommel and Koole 2010; Stommel and Lamerichs 2014; Boyd 2014). The forum grows as an unsafe (digital) social environment, in which consistency with information content, awareness of the reliability of sources, fact-based knowledge, and critical autonomous thinking are not used to distinguish fact from propaganda and generate an echo of (inaccurate) information. The participatory framework becomes a mere personal confirmation niche, which represents a significant barrier to a critical attitude and that influences the way users are informed, debate, and shape their worldviews.

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