HAL open science

On the distribution of clicks and inbreaths in class presentations and spontaneous conversations: blending vocal and kinetic activities

Loulou Kosmala

To cite this version:

Loulou Kosmala. On the distribution of clicks and inbreaths in class presentations and spontaneous conversations: blending vocal and kinetic activities. Laughter and Other Non-Verbal Vocalisations Workshop 2020, Oct 2020, Bielefeld, Germany. hal-02964632

HAL Id: hal-02964632

https://hal.science/hal-02964632v1

Submitted on 12 Oct 2020

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.

On the distribution of clicks and inbreaths in class presentations and spontaneous conversations: blending vocal and kinetic activities

Loulou Kosmala
Sorbonne Nouvelle University
Loulou.kosmala@sorbonne-nouvelle.fr

Abstract

The present exploratory study compares the distribution of clicks and inbreaths in the productions of French students in two different communication settings (semi-read oral class presentations vs spontaneous dyadic conversations). Grounded in a conversation analytic and discourse-pragmatic approach, mixing qualitative and quantitative methods, this study looks at the functions of clicks and inbreaths as well as accompanying kinetic behaviors (e.g swallowing, facial expressions, hand movement) in discourse. Preliminary results show a higher rate of pre-utterances clicks and inbreaths during oral presentations, which reflects the type of talk produced (structured and clear, which requires planning and preparation). And the qualitative analyses illustrate the ways speakers blend vocal and kinetic activities when producing clicks and inbreaths.

1 Introduction

Non-lexical vocalizations (breathing noises, laughter, tongue clicks, creaky voice etc.) occur very frequently in conversation, and have been analyzed extensively in different languages such as English, (Ogden, 2013; Wright, 2011) Spanish, (Pinto & Vigil, 2019) Dutch, (Torreira et al., 2016), French, and German (Trouvain et al., 2016). The present preliminary study focuses more specifically on tongue clicks (tsk, ttut) and inbreaths (audible inhalations) in French.

Despite having very different distinct phonetic properties, both clicks and inbreaths lack lexical content, but also "display regular patterns of usage in situated social situation" (Hoey, 2014: 2). Clicks, which can be defined as "sounds made in the vocal tract alongside speech, not as part of the lexical content of the language, but clearly as resource for making meaning" (Ogden 2013: 299) are often used to display stance or affect (e.g. disapproval, annoyance, irritation, impatience, sympathy, Wright 2011: 208). But they also handle aspects of sequence management, such as projecting a new sequence (Ogden, 2013; Wright, 2007) or marking a word search (Pinto & Vigil, 2019; Wright, 2005). Similarly, audible inbreaths, can occur in pre-answers to indicate the time course of sentence planning (Torreira et al., 2016). They can also project the onset of upcoming talk, and mark a dispreferred answer (Hoey, 2014). Moreover, clicks and inbreaths have similar patterns of distribution, as they tend to occur in pre-turn position, medial, final, or standalone (Odgen, 2013, Hoey, 2014).

Another body of work has also focused on the semiotic resources accompanying clicks and inbreaths, such as parted lips and gaze behavior (Schegloff, 1996), eyebrow flashes (Ogden, 2018), and manual gestures (Pinto & Vigil, 2019). Building on similar work (Hoey, 2014; Ogden, 2018; Pinto & Vigil, 2019; Wright, 2007) this paper takes a conversation analytic approach, as well as a discourse-pragmatic one, mixing quantitative and qualitative methods. While a lot of work has been done on the phonetic and conversational properties of clicks and inbreaths (Ogden, 2013; Trouvain & Malisz, 2016; Ward, 2006; Wright, 2005 among others) fewer studies have compared the different distributions of the two markers and their different kinetic properties. The aim of this paper is thus to compare their pattern of distribution in two different communication settings (oral class presentations semi-read speech versus casual conversation spontaneous speech) in order to better understand

how non-speech vocalizations with no lexical content can become key components of discourse management. The following research questions will be addressed in this paper: (1) How do clicks and inbreaths differ functionally in discourse? (2) How is this difference reflected in their distribution in semi-read versus spontaneous speech? (3) What kind of physical actions are typically associated with clicks and inbreaths? Since inbreaths are said to be associated with sentence planning and speech preparation (Fuchs et al. 2016 ; Scobbie et al., 2011) I hypothesize that inbreaths will be more frequent during class presentations than clicks, as speakers have to speak continuously for a certain amount of time, and thus need to project upcoming talk.

2 Data and Method

The data under study is taken from the DisReg Corpus, which includes 18 videotaped recordings of 12 French undergraduate students (6 pairs, aged 18-23) who were filmed once in class while giving an oral presentation on French literature (semi-read speech ; the students mostly read their notes during their presentation), and a second time in pairs while engaged in a casual conversation (spontaneous speech). The selected data for the present preliminary study is drawn from 4 pairs of the corpus (approximately 41 minutes in total). The data collected is part of a larger study conducted on (dis)fluencies. The clicks and inbreaths were annotated perceptually in the data by one annotator, and were coded according to their utterance position (initial, medial, final, isolated) and their function (adapted from Odgen 2013, 2018: marking incipient speakership, new sequence (of talk) indexing, speech management, and display of stance/affect).For the qualitative analyses specific attention was also paid to the other visual modalities of discourse (facial expression, gaze, gesture, accompanying the non-lexical markers see Kosmala, 2019; Kosmala et al., 2019).

3 Distribution of clicks and inbreaths

A total of 68 clicks and 152 inbreaths were found in the data. Both clicks and inbreaths were more frequent during semi read speech than spontaneous speech, as 78% (119/152) of inbreaths and 82% (56/68) of clicks occurred during class presentations. Additionally, 73% (87) of the inbreaths occurred in initial position, and 27% (32) in medial position during class presentations; during conversations, 67% (22) occurred in initial position, 27% (9) in medial position, 3% (1) in final, and 3% (1) isolated. 76% (43) of the clicks occurred in initial position, 19% (11) in medial, 5% (2) in final position during class presentations, and 41% (5) initial, 41% (5) medial, 9% (1) isolated and 9% (1) final. It appears that both clicks and inbreaths were more frequently produced in initial position during presentations, which reflects the kind of talk produced: speakers need to structure their presentation a clear manner which requires preparing and planning ahead. They also have to talk continuously without interruption, so they need more time to stop for breathing and marking prosodic-syntactic boundaries (Trouvain et al., 2019).

	Class	**Conversation**
incipient speakership	0%	18% (6)
new sequence indexing	85% (100)	39% (13)
speech management	15% (19)	15% (5)
stance	0%	27% (9)

Table 1: Distribution of inbreaths (functions)

	Class	**Conversation**
incipient speakership	0%	0%
new sequence indexing	80% (45)	0%
speech management	20% (11)	67% (8)
stance	0%	33% (4)

Table 2: Distribution of clicks (functions)

The aim of this paper is also to compare the functions of clicks and inbreaths in speech. While it is clear that functions such as “incipient speakership” and “stance” play a larger role in casual conversations than in presentations, results show that both inbreaths and clicks (Table 1 and 2) were used much more frequently to project a new sequence of talk during presentations (85% and 80% than during conversations (39% and 0%), although inbreaths performed this function more frequently in both conditions, while clicks did not (0%). However, given the limited number of clicks found in the study (N=68), this finding will have to

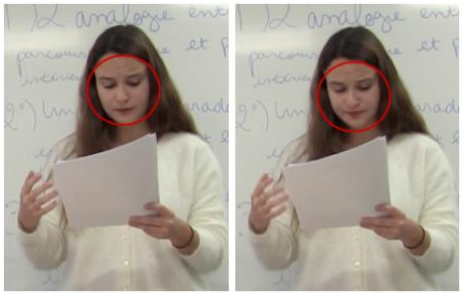

Figure 1. Parted lips, eyebrow flash, and swallowing activity during the click

be confirmed by looking at more data.

Both inbreaths and clicks show a very regular pattern of distribution during class presentations, as they are mostly used to index a new sequence of talk, but their distribution is more disparate during conversations: clicks are mostly associated with speech management (67% i.e. word search, repair), which is in line with previous work (Wright 2005; Pinto & Vigil, 2019), while inbreaths perform a range of different functions.

4 Analyses

As Ogden (2013, 2018) points out, clicks are often associated with eyebrow flashes, and one physical activity accompanying them is swallowing. A similar case was found in the data during class presentations. The excerpt is taken from one student who had to analyze the notions of "journey" in a novel which deals with a blind man who becomes fond of paintings. In the following example, the speaker is analyzing the ways a painting becomes a key figure for the main character of the book.

1 D2: c:c'e:est une figure presque obsessionnelle à laquelle &i [//] il revient toujours.
i:it's almost an obsessional figure [the painting] that he always comes back to.
2 D2: (0.703) [%swallowing] [!] hh c'est donc un point de départ dans le musée car c'est bien la première étape du parcours.
***(0.703) [%swallowing] [!] hh** it is thus a starting point in the Museum as it is indeed the first step of the journey.*

Transcription shows that the speaker (D2) first produces a pause of 703 ms, then a click [!] at the beginning of her utterance (line 2), but when looking at the video (Fig.1 above) we can also see her swallowing, flashing her eyebrows and slightly frowning. Then, as Figure 2 shows, as she produces

Figure 2. Mouth open, and hand gesture in preparation during the inbreath

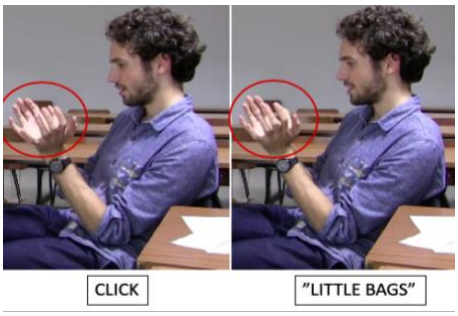

Figure 3. Click and hand gesture referring to the lexical affiliate ("little bags")

an inbreath (hh), she also opens her mouth, and her right hand is also slightly moving in preparation phase before producing a full gesture. This shows that the combination of vocal (non-lexical markers and a pause) and kinetic activities (eyebrow flashing and swallowing) projected the planning and preparation of the upcoming utterance, and this was also shown in her gestural activity (hands in preparation).

In another example (Fig. 3), taken from the conversation-session, another speaker is also producing a click (l.3) during word search.

1 A1 : (0.406) après tu peu:ux soit faire des [/] tu peu:ux [//] après avec ces objets tu peux faire des expositions.
(0.406) and then you ca:an either do [/] you ca:an [//] so with these objects you can do exhibitions.
2 A1 : faire des expositions ça te rapporte aussi des points et tout ça c'est réparti dans une &s [//] dans une seule année.
Doing exhibitions gets you points and all of them are dispatched in one &s [//] in a single year.
3 A1 : et donc ce qui est assez nouveau c'est que t'as des &pie [//] de:es [!] des p'tits sacs.
*And so what's pretty new is that you have **&l [//] e:e [!]** little bags.*

Here the speaker (A1) is talking about a specific board game where players can dig all sorts of rocks that can be put in a little bag; but he is experiencing trouble retrieving the noun phrase "little bags",

which is shown in the transcription (he first produces a truncated word, then lengthens the pronoun, and produces the click in median position, line 3), and as Figure 3 shows, he also produces a referential gesture (Kendon, 2004) depicting the iconic properties of a little bag, which has an additional communicative function. This shows that despite lacking meaning, non-lexical vocalizations can still be linked to other communicating activities.

These two examples have shown different types of kinetic events associated with clicks and inbreaths: swallowing, hands preparation, and production of a referential gesture. This stresses out the need to consider both the auditory/acoustic and kinetic aspects of non-lexical vocalizations in order to examine their role in discourse.

5 Conclusion

In this small exploratory study, I have sought to provide a preliminary overview of the distribution of clicks and inbreaths in two different communication settings based on quantitative and qualitative analyses. Both of them occurred more frequently in initial position during class presentations and were mostly used to index a new sequence of talk. However, in conversation, clicks were more associated with sequence management (word search, repair) than inbreaths, which may point out one distinctive characteristic of clicks as search markers. The kinetic activities found during clicks and inbreaths were also found to be informative of their functions: swallowing and preparing a hand gesture may be associated with indexing a new sequence, and producing a referential gesture could reveal communicative aspects of a word search. However, given the size of the data, more quantitative and qualitative work should be carried out to point out the functional differences between clicks and inbreaths.

References

Fuchs, S., Petrone, C., Krivokapić, J., & Hoole, P. (2013). Acoustic and respiratory evidence for utterance planning in German. *Journal of Phonetics*, 41(1), 29–47.

Hoey, E. M. (2014). Sighing in interaction: Somatic, semiotic, and social. *Research on Language and Social Interaction*, 47(2), 175–200.

Kendon, A. (2004). *Gesture: Visible action as utterance* (Cambridge University Press). Cambridge University Press.

Kosmala, L. (2019). On the Multifunctionality and Multimodality of Silent Pauses in Native and Non-native Interactions. *1st International Seminar on the Foundations of Speech: BREATHING, PAUSING, AND VOICE*.

Kosmala, L., Candea, M., & Morgenstern, A. (2019). Synchronization of (Dis)fluent Speech and Gesture: A Multimodal Approach to (Dis)fluency. *Gesture and Speech in Interaction.*

Ogden, R. (2013). Clicks and percussives in English conversation. *Journal of the International Phonetic Association*, 43(3), 299–320.

Ogden, R. A. (2018). The actions of peripheral linguistic objects: Clicks. *Proceedings of Laughter Workshop 2018*, 2–5.

Pinto, D., & Vigil, D. (2019). Searches and clicks in Peninsular Spanish. *Pragmatics*, 29(1), 83–106.

Schegloff, E. A. (1996). Turn organization: One intersection of grammar and interaction. *Studies in Interactional Sociolinguistics*, 13, 52–133.

Scobbie, J. M., Schaeffler, S., & Mennen, I. (2011). Audible aspects of speech preparation. *Proceedings of 17th ICPhS*, Hong Kong.

Torreira, F. J., Bögels, S., & Levinson, S. C. (2016). Breathing for answering. *The time course of response planning in conversation*.

Trouvain, J., Fauth, C., & Möbius, B. (2016). Breath and non-breath pauses in fluent and disfluent phases of German and French L1 and L2 read speech. *Proceedings of Speech Prosody (SP8)*, 31, 31–35.

Trouvain, J., & Malisz, Z. (2016). Inter-speech clicks in an Interspeech keynote. *INTERSPEECH 2016*, 1397–1401.

Trouvain, J., Möbius, B., & Werner, R. (2019). On Acousitc Features of Inhalation Noises in Read and Spontaneous Speech. *1st International Seminar on the Foundations of Speech: BREATHING, PAUSING, AND VOICE*.

Ward, N. (2006). Non-lexical conversational sounds in American English. *Pragmatics & Cognition*, 14(1), 129–182.

Wright, M. (2005). *Studies of the phonetics-interaction interface: Clicks and interactional structures in English conversation* [PhD Thesis]. University of York.

Wright, M. (2011). On clicks in English talk-in-interaction. *Journal of the International Phonetic Association*, 41(2), 207–229.

Wright, M. (2007). Clicks as markers of new sequences in English conversation. *Proceedings of the 16th International Congress of Phonetic Sciences*, 1069–1072.