

## Close your eyes...and communicate

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### Abstract

In this work we present a typology of eye closings and their possible meanings based on a taxonomy of communicative signals. The two types of eye closing we investigate here are blinks and eye-closure. Our aim is to prove that these social signals may be communicative and bear subtle but important meanings.

### 1. Introduction

Facial communication is a widely studied field, where on the one side, research is carried out on single parts of the face, like eyes or mouth, and on the other side, on face as a whole. This paper focuses on a single part of the face, eyes, specifically on two types of eye closing, *blinks* and *eye closure*, trying to interpret the possible meanings of these two signals. Numerous studies have been devoted to gaze. Gaze has been studied in many of its social and communicative functions (Kendon and Cook 1969; Argyle and Cook 1976), mainly in connection with greeting and flirting behaviour (Kendon 1973), conversational manoeuvres like turn-taking (Duncan 1974, Goodwin 1991) and backchannel (Heylen 2005, Maatman et al. 2005). Eyebrows also received attention from scholars (Ekman 1979, Eibesfeldt 1972, Pelachaud and Prevost 1994, Costa and Ricci Bitti 2003) who studied eyebrows behaviour as a signal fulfilling social and emotional but also syntactic and conversational functions. Researchers' interest was attracted also by blinks. Blinks' occurrences have been studied during cognitive tasks such as reading, memorizing and lying (Zuckerman et al. 1981; De Paulo and Kirkendol 2003; Leal

and Vrij 2008). As far as we know, there have been no attempts to investigate the *meanings* borne by blinks and eye closure.

### 2. Gaze semantics

This paper is meant to contribute to the detailing and specifying of the lexicon of gaze (Poggi (2007). According to Poggi (2007), it is possible to single out a list of signal/meaning pairs for the features and movements of the eye region (eyebrows, eyelids, eyes, eye sockets). Moreover, according to how these features are combined, changes occur in meaning (much like with morphemes of verbal languages). Specific gaze behaviours were analyzed in detail, like eyebrow frown and eyebrow raising (Poggi 2007) and eyelids positions (Poggi et al. 2010 a). These studies have proved the semantic richness of gaze, by stressing that eyes convey much more than simply turn-taking and backchannel, emotions and some basic information like the topic/comment distinction, and that not only gaze direction should be studied, but also many other features of eyes and their behaviour.

### 3. Closing eyes. An observational study on blink and eye-closure during debates

In this paper we investigate the gaze behaviours of *closing the eyes*. As for any analysis of body (potentially) communicative behaviour, we must first distinguish between the signal (the set of physical features of the eyelids, their muscular actions and their physiological state in closing the eyes) and its goal.

On the signal side, we distinguish two types of eye closing: *blink* versus *eye-closure*. Both signals share a common feature, complete eye closing of both eyes, that distinguishes them from the *wink*, a unilateral eyeclosing usually conveying complicity or furtive agreement (Vincze and Poggi forthcoming). But they

differ in one major feature: the *duration* of the closing. By *blink* we mean, following Ekman and Friesen (2002), a quick closing of the eyes and return to eyes open, while by *eye-closure* we refer to a longer eye closing than in a blink, sometimes further characterized by a higher tension in the eyelids.

As to the goal of these signals, often eye features and behaviours do not have a communicative goal, so we distinguish *non-communicative* cases, that only have biological goals (like soaking the eye), and *meaningful* cases, in which either the Sender of that eye feature or behaviour had the goal of communicating some meaning (*communicative cases*), or simply a potential Receiver can acquire information (*informative cases*).

Within *non-communicative* blinks (at least from what results from our observation, see below) we count at least two cases: 1. the “physiological” blink, that merely fulfils the physiological need of keeping a standard level of eye humidity, and 2. the blink of a stuttering person: a person having problems in pronouncing a word may blink when engaging in the production of that word, while repeating its first syllable. From our observation it results that a *non-communicative* blink is generally rapid and single (not repeated), while a communicative blink is in general constituted by a series of rapid blinks. Repetition is not a sufficient condition to interpret blinks as meaningful, since due to idiosyncratic differences some people tend to blink more frequently; but in general repetition is necessary to consider a blink as communicative.

Also the *eye-closure* can be either *meaningful (communicative or informative)* or *non-communicative*. Typical non-communicative instances of eye-closure are while sleeping. But apart from this case, unlike blinks, which in their vast majority are physiological and non-communicative, all cases of eye-closure performed while speaking or listening may be, or definitely are, communicative.

#### 4. Eye closing as a communicative behaviour

When blinks and eye-closures are communicative, we can analyze them on both the signal and the meaning side.

To describe the signal, we refer to some of Hartmann’s et al. (2002) expressivity parameters: eyelid tension, velocity, duration and repetition. These parameters help us distinguish between a non communicative blink and a communicative one, and between a communicative blink and a communicative eye-closure.

*a. Communicative vs. non-communicative blink.* Here the relevant parameter is *repetition*: as mentioned, a physiological blink is generally single, while the communicative one is generally rapid and repeated.

*b. Communicative vs. non-communicative eye-closure.* To distinguish a communicative eye-closure from a non-communicative one, *duration* may be significant, but also the context in which the eye-closure appears is relevant: in a debate it is much less likely (if not impossible) for a non-communicative eye-closure (sleep) to appear, while in a relaxed, familiar situation this may sometimes occur.

*c. Communicative blink vs. communicative eye-closure.* We can distinguish an item of blink from one of eye-closure mainly based on the parameter of *duration*, but also *repetition* and *tension* can be pertinent.

A communicative blink and a communicative eye-closure generally differ in that a communicative blink is repeated, brief, very rapid, and therefore not tense (there is no pressure by the eyelids), while a communicative eye-closure is single, longer, with eyelids going down slowly and the upper eyelid often pressed against the lower one. During emphatic eye-closure (see Sect. 7.4), the eyebrows may be raised as well, therefore causing a tightening of the upper eyelid.

Tension is connected to *duration*. A blink is so fast that it cannot involve tension. If one has the time to press the upper eyelid against the lower one, it is not a blink anymore, but an eye-closure. So whatever closing of the eyes is long and tense, is an eye-closure.

#### 5. Corpus and method

Our corpus is composed of six political debates of roughly 40 minutes each from the Canal 9 Corpus (available on the SSPNet website [sspnet.eu](http://sspnet.eu)).

To distinguish between communicative and non communicative eye behaviour, we first viewed the six debates. When an eye closing occurred, we focused on the concomitant

verbal message delivered by the person performing the eye closing or, when the sender of the eye behaviour was the listener, the verbal message produced by the present speaker. Based on the signal and the parallel verbal message, we attributed a possible meaning to each eye behaviour.

## 6. Analysis of a gaze item

To analyze eye behaviour we built the annotation scheme of Table 1, based on the principles of Poggi (2007). Column 1 contains the time in the video; columns 2 and 3 contain a description, respectively, of the verbal and body behaviour; col. 4, the goal or meaning of the behaviours in columns 2 and / or 3. For the verbal behaviour described in col. 2, its goal is by definition a communicative goal, while for the action written in col. 3 the goal to be written in col. 4 may be either a communicative goal (for the communicative blinks and eye-closures) or not (for those behaviours in which the Agent does not intend to have the other Agent know something). The goal in col. 4 and col. 5 is phrased as a sentence in the first person. Column 5 is there because a communicative action, besides its direct goal, may aim at one or more supergoals, i.e. some information to be inferred by the Addressee; so in col. 5 we write the possible supergoal of the actions in col.3. Finally, in col. 6 we classify the goal of col. 4 (or the supergoal of col. 5, when there is one) in terms of the taxonomy of meanings illustrated in the following sections.

Table 1. shows the analysis of one item of communicative eye-closure and one of non-communicative blink. In the first instance the sender of the signal is the listener, Mr. Freysinger, who performs an eye-closure during the moderator's turn. Through his head shake he communicates that the answer to the moderator's question is 'No', while the rest of his body behaviour, eye-closure accompanied by raised eyebrows, communicates that not only it is not so, but whoever believes such a thing is a fool.

The second item analyzed in Table 1. is a case of non-communicative blink. The Speaker Mr. Gabul has difficulty in pronouncing the polysyllabic word 'municipalité' and stutters while pronouncing its first syllable ("*Mu-municipalité*"). The blink, performed while pronouncing the first

syllable, accompanies the effort of uttering the syllable and is not communicative, as the Speaker has no intention to communicate to the listeners that he is striving to correctly pronounce the word.

## 7. Types of eye closing

Based on our analysis of the above corpus of debates, and in some cases on everyday life observation, four main categories of eye closing can be singled out, grouped on the basis of their meaning (or their non-meaningful goal) and not of the signal.

### 7.1. Non-communicative eye closing behaviours.

#### Non communicative blinks

a) The most common type of blink in our corpus is the non-communicative physiological blink: a rapid eye-closing aimed at soaking the eyes.

b) Another type of non-communicative blink is the above-mentioned blink of a stuttering person.

c) A third type are blinks performed during startle reactions. According to Ekman and Friesen (2007), startle is a reflex, quite similar to the emotion of surprise, but differing from it for both expressive behaviour and underlying emotional state. Generally, in the startle reflex rapid repeated blinks are produced, the head may go backwards and there is a "leap up" of the entire body. In surprise, instead, depending on its intensity, we may raise eyebrows, open eyes widely and even perform a jaw drop, but not necessarily blinks, though startle blinks may come as the most intense reaction of surprise.

While, as we will see later (ex. 5), repeated blinks may be a communicative signal of acted surprise, a startle blink, provided it is spontaneous and not acted, although repeated, is not communicative: the Sender does not want to communicate his startle reaction to the others.

Biologically, the rapid closing of eyes in both startle and surprise might be functional to protect eyes from a potential sudden blow, thus fulfilling an instinctive self-defence function. This might be why among ancient Romans being able not to blink in front of danger was considered a cue of braveness for gladiators (see Plinius, quoted by Fornès

Pallicer and Puig Rodríguez-Escalona, 2011). But non-communicative blinks of self-defence can also occur when the blow or injury is of a symbolic, not physical kind – for example, when receiving an insult or other unexpectedly severe offence. Here is a such case of self-defence blink (that, based on contextual cues, looks probably spontaneous, not intentionally mimicked):

- (1) Gabul: *C'est vrais que les citoyens se demandent pourquoi ça va si long à Sion lorsque dans les autres municipalités qui ont beaucoup moins de moyens financiers, ça se passe beaucoup plus vite.*  
(It's true that citizens wonder why in Sion it takes so long to resolve things, while in the other town halls, which have much fewer financial means, things are **much faster**). (in bold the words parallel to the gaze signals under analysis).

While the journalist Gabul is harshly criticizing the Vice-Mayor Feferler, and precisely during the phrase *beaucoup plus vite* (much faster), the latter performs rapid and repeated blinks, expressing his instinctive defence from this, albeit symbolic, attack.

#### Non communicative eye-closures

- a) The most common example of non communicative eye closure – while sleeping – cannot be found in a debate.  
b) A quite common type of non-communicative eye closure is while laughing. During laughter one may sometimes close eyes for a longer duration than in a blink. In collaborative and not competitive debates, a higher percentage of smiles and laughter are exchanged among the participants. In the closing of one debate in our corpus, where participants try to find solutions against the brain drain of young graduates from the Canton of Valais, one of the participants, Chiara Meichtry, assures the moderator and the public at home that they are looking for solutions in order to stop this 'exodus' towards other cantons or abroad. While doing so, she laughs and closes eyes for a duration longer than a blink.

- (2) Meichtry: *Des solutions sont envisagées, voir on y travaille.*  
(Solutions are foreseen, we are **working** on it.)

c) Eyes may be also used while thinking. When we are trying to remember something we can raise eyes up, when concentrating we may close eyes for a few seconds, isolating ourselves out of the surrounding space: this is the *cut off*, a type of eye-closure which can transmit information on the cognitive processes of the Sender (Morris 1977). These eye behaviours are not strictly communicative (Poggi 2007), in that they can be displayed exclusively to help the process of thought: they have the goal (either conscious or not) to help us concentrate and focus attention in order to reason better. Although by seeing us close our eyes our interlocutor can infer we are thinking, this doesn't imply that we intended to communicate this to him, so this eye closing is barely *informative*. But at times we may display our eye closing just to let the other know we are concentrating (and don't want to be disturbed or interrupted); in such a case, we can indeed speak of a *communicative* eye-closure.

#### 7.2. Communicative eye closings

Having identified the items of gaze that in our view conveyed some meaning, we classified the meaningful items of eye closing as to their meaning. According to Poggi (2007), any communicative signal – words, prosody and intonation, gestures, gaze, facial expression, posture, body movement, therefore communicative eye closings too – can convey one of three basic kinds of information: about the World, the Sender's Identity, or the Sender's Mind. Information on the World concerns the concrete and abstract entities and events of the world outside the speaker (objects, persons, organisms, events, their place and time); Information on the Speaker's Identity concerns his/her age, sex, personality, cultural roots; while Information on the Speaker's Mind concerns the Speaker's mental states: his/her goals, beliefs and emotions. These kinds of information may be conveyed in verbal and body communication systems by means of specific signals called Mind Markers, more specifically, Belief Markers, Goal Markers and Emotion Markers.

### 7.3. Eye-closure and the Sender's Identity

Information about the Sender's Identity concerns the age, sex, personality or cultural roots of the person making the blink or eye-closure.

In the debate "Disability Insurance", Mr. Richoz, representing the blind people, counter-argues to his opponent's thesis, i.e. that the disabled should contribute to the decrease of the state's contribution to their support, by finding a job.

- (3) Richoz : *A' la fin du processus on aurait fait des super chercheurs d'emplois certifiés, labélisés, à qui on aurait expliqué comment chercher un boulot, comment plaire à un employeur, comment dépasser l'handicap, mais au bout du compte, si on travaille pas sur le marché... c'est ça la réalité.*

(At the end of the process we would have transformed [the invalids] into super job searchers, to whom we would have explained **how to look for** a job, how to make a good impression to an employer, how to overcome their handicap, but in the end, if we don't work on the field... That's reality).

While reassuring the opponent (and the audience) about the actual invalids' efforts to obtain a qualification, search for a job, try to please the employer and to overcome their handicap, while uttering *comment chercher* (how to look for) , Richoz performs a *frown* and an *eye-closure*, which might be paraphrased as "I am concentrated in this effort", thus implying "we all are determined to do so". Richoz's *eye-closure* is somehow mimicking the invalids' determination in trying to do their best, thus conveying information on the invalids' identity. Taking into account that he himself makes part of the same category of people, and he himself attended training classes in order to obtain a qualification, we can say that his eye behaviour conveys information on his own identity.

### 7.4. Eye-closing and the Sender's Mind

Among the types of information on the Sender's Mind that can be conveyed by a communicative signal, Poggi (2007)

distinguishes *Belief Markers*, *Goal Markers* and *Emotion Markers*. *Belief Markers* inform on the Sender's degree of certainty regarding the stated message, *Goal Markers* on one's goals while delivering the message and finally, *Emotion Markers* convey the emotions being felt during or regarding the situation described.

#### Belief Markers

Belief Markers inform about the degree of certainty we attribute to the beliefs we are speaking about. This information (to be distinguished from emphasis, that concerns Goal Markers and refers to the importance we attribute to the goal of communicating those beliefs) can be conveyed not only verbally, by verbal markers such as *absolutely*, *probably* or *possibly*, but also through gestural and eye behaviour. With an eye-closure, one can confirm either one's own or the interlocutor's utterances. The meaning conveyed by this kind of eye-closure is fairly equivalent to saying 'Yes', hence it counts as a confirmation.

In this example, the journalist Gabul expresses an opinion about the seriousness with which files are examined by the city council.

- (4) Gabul: *L'impression que donne le vice-président à la municipalité, c'est qu'effectivement, les dossiers sont mûris, sont réfléchis, etc.*

(The impression given by the vice-mayor is that indeed, the files are carefully **examined**, reasoned, etc.)

While saying that the files are carefully examined (*mûris*), Gabul performs an eye-closure of confirmation which conveys his degree of certainty of his statement. It might then be paraphrased as "Absolutely, I am very certain of that".

In a previous paper, Poggi et al. (2010 b) proposed a classification of nods on the basis of the meanings they convey. In the light of these new findings on blinks, we can state that the eye-closure (especially if long in duration and with a higher tension on the lower eyelid) while nodding or while shaking head, conveys a higher degree of conviction with respect to nodding/head shaking alone. When accompanied by a nod or a head shake, eye-

closure can be seen therefore as an intensifier of the degree of conviction of the sender in what he is saying or hearing, like in the following examples.

In the first one, extracted from the debate on Disability Insurance, Mr. Rossini, a deputy of the Socialist Party, who is against the idea of reducing financial support to disabled persons, categorically rejects his opponent's opinion that he and his party promote a politics based on words and not on facts.

(5) Chevrier : *Vous avez simplement voulu faire de la politique politicienne...*

Rossini : *Non, on fait pas politique, non, on fait pas de politique politicienne.*

Chevrier : .... *à travers ce référendum, alors que sur le fond vous êtes convaincu que c'est une bonne révision.*

Rossini : *Non.*

(Chevrier: You simply wanted to play party politics...

Rossini: No, we don't make politics, no, we don't play party politics.

Chevrier: ...by proposing this referendum, while deep down you are convinced that it's a good revision.

Rossini: **No.**)

While saying 'No', Rossini performs a *head shake* accompanied by an *eye-closure* which has the role of intensifying his being categorical when denying the accusations.

### Emotion Markers

Another category of Mind Markers are *emotion markers*, i.e. signals bearing information on the Sender's emotions. Among the emotions that can be expressed by eye behaviour we mention *surprise*, either really felt or only acted, and *acted desperation*.

#### Surprise

A typical eye behaviour to signal surprise is *raising the eyebrows*; besides this, Ekman & Friesen (2007) mention *wide open eyes* as signals conveying surprise, adding that a high degree of intensity of this emotion may be also expressed by mouth opening (*jaw drop*). Such strong signals of surprise do not occur in political debates. Other signals are performed to convey surprise (real, pretended, or acted): *eyebrow raising* combined with *eyes wide*

*open* and *repeated blinks*. We agree with Ekman & Friesen (2007) that surprise is expressed in general by *raised eyebrows* and *wide open eyes*, but our hypothesis is that surprise (only acted or actually felt at a certain moment in time and now re-expressed, therefore mimicked) can be conveyed by rapid repeated blinks. In this example, Mr. Feferler speaks about the surprise felt by other town hall workers and himself when a questionnaire came out in which the inhabitants of Valais were asked to assess the town hall's activity.

(6) Feferler: *Alors, écoutez, bon ben...Je dirais que quand ce questionnaire est sorti, à la veille des élections, ça nous a un petit peu surpris et puis je crois que cette surprise, elle pouvait s'expliquer parce qu'il y a avait les élections qui arrivaient.*

(Feferler : So, listen, well...I would say that when this questionnaire came out, a day before the elections, it surprised us **a bit** and I think that this surprise could be explained by the immediate arrival of elections.)

While pronouncing *un petit peu* ([it surprised us] a little), he makes a series of *rapid repeated blinks* accompanied by *raised eyebrows*, as if mimicking the surprise he felt in that particular moment when the questionnaire came out.

While this is a case of real surprise, actually felt at a particular moment in time, and now, in the moment of the story telling, recalled and iconically acted, here is an example in which surprise is not felt but only acted.

#### Acted surprise

Repeated blinks may occur in acted surprise, in this case being communicative: my (pretended) amazement in front of the speaker's statement or behaviour is so intense that I rapidly shake head and repeatedly blink, to show I want to convince myself I am not dreaming, like if I were rubbing my eyes for surprise or pinching myself to make sure I'm awake. While these behaviours are more likely performed when confronted with truly amazing situations, repeated blinks mimicking surprise are more often produced while listening to someone's discourse as a back-channel signal that conveys, in an indirect

manner, disagreement with the Speaker. In the debate "*Libre circulation*" (Free circulation) members of two different parties, Radicals and Christian Democrats, argue against each other. The former party sustains the free circulation of Polish workers, while the latter encourages the population to vote against it. In the fragment below Mr. Freysinger, member of the Christian Democrats speaking about the exodus of people from less economically developed countries towards Western countries, concludes:

- (7) Freysinger: *Et c'est **pas ça** le modèle de la société équilibrée.*  
 (And **that** is **not** the model of a balanced society).

While saying "*c'est pas ça*" (that is not), Mr. Freysinger performs a series of rapid repeated blinks and makes a pause, gazing from the audience to the moderator and to his opponent, addressing, therefore, all of them. His rapid repeated blinks convey surprise and his eye behaviour seems to state 'I am very surprised that you don't realize in what an absurd society we are living in'. But since showing surprise means that what happens is completely unexpected, possibly awkward, acting surprised in this case is an indirect way to convey disagreement with the opponent.

#### *Acted desperation*

In another case, by a blink Mr. Freysinger enacts another emotion: desperation (Table 1).

- (8) Moderator : *J'aimerais qu'on aborde la troisième partie de ce débat, à savoir si les garanties sont vraiment des garanties offertes par la **confédération**.*  
 (I would like to tackle the third part of the debate, more precisely the issue whether the warranties offered by the **confederation** are real warranties).

As an answer to the Moderator's question, Mr. Freysinger *shakes his head, raises eyebrows* and performs an *eye-closure* with *pressed eyelids*. His facial expression shows acted desperation, as if he were resigned in front of the Moderator's incapacity to understand the real situation. Also in this case, acted

desperation, at the indirect level, conveys a deep disagreement.

#### **Goal Markers**

Goal Markers are all the signals that inform about the goal of the Sender's sentences (their performative) but also the structure of the sentences and discourses s/he is delivering, that is, how s/he intends to distribute information and connect sentences in a discourse. Thus, *meta-sentence* goal markers signal the beginning or the end of a sentence or phrase (syntactic goals, marked for example by intonation), or the comment (the new and more important information of the sentence, marked by emphasis); *meta-discursive* goal markers signal which parts, within the structure of his discourse, the Speaker considers important or less important, so much so to be possibly passed over.

Some items of both *blinks* and *eye-closures* in our corpus convey meta-sentence and meta-discursive information.

#### *Syntactic eye-closure*

Sometimes the eye-closure has a syntactic function: it signals the start of a sentence. In our corpus, this function is exploited in a case of misspelling and self-correction: one makes an error and signals one is restarting the sentence to correct oneself.

In the debate about the town hall's efficacy, the vice-mayor Mr. Feferler is talking about a decision made by the General Council: while quoting the numbers of votes, respectively, in favour, against and abstained, he makes a mistake, and then restarts to correct himself.

- (9) Feferler : *Il faut savoir que le Conseil Général en 2003 a pris une décision par quarante-six 'oui', une abstention, **euh** quarante-six 'oui', un 'non' et six abstentions.*

(We must say that the General Council took a decision in 2003, with forty-six 'yes', one abstention, **euh**, forty-six 'yes', one 'no' and six abstentions).

As he realizes he has said "one abstention" instead of "one no", he performs a *rapid eye-closure* with *raised eyebrows* and a *violent nod*. The meaning of his body behaviour is 'I correct myself and I start all over again'. The *eye-closure* functions in this case as a

demarcation of where the Speaker stops and starts all over again. An alternative interpretation is that all three movements are triggered by the cognitive load of self correction.

Blinks too can work as demarcation signals. In the debate about “Héliski”, Darbellay, a Green deputy, and Pouget, a helicopter pilot, discuss about whether taking people by helicopter to ski on the mountains should be banned since it represents a threat for the environment. Pouget, who claims this kind of sport is not at all harmful for nature, is interrupted by Darbellay, arguing against his thesis.

(10) Pouget : *Vous dites qu'on veut pas rentrer en matière. Non, pas sur une réduction parce que je pense...*

Darbellay : *Ah ah...*

Pouget : ... **on a on a** rien à gagner, à tous les niveaux [...], on n'a rien à gagner d'une réduction du nombre de rotations en montagne, d'autant plus qu'elles sont quand même assez minimes...

(Pouget : You say that we refuse to consider this issue. No, not the issue of a reduction [of flights], because I think...

Darbellay: *Ah ah...*

Pouget: ... **we have we have** nothing to gain, at all levels, [...] we have nothing to gain from a reduction of the flights number in the mountains, even more so since they are also rather rare...).

When Mr. Darbellay tries to intrude into Pouget's turn and take the floor, Pouget performs *two rapid blinks*, preceded by a *strict and irritated gaze* directed to his opponent. His eye behaviour might be rendered by the following sentence “I am irritated because you don't allow me to go on and therefore I start all over again”. But at the same time the *double blink* marks the beginning of his repetition: ‘*on a on a*’ (we have we have) and makes part of a strategy of floor keeping.

#### *Emphasis blink*

One of the Speaker's goals is to stress the main concepts of one's speech. Among the body communication strategies through which we emphasize the content of our sentences, i.e. the new information, beat gestures and

eyebrow raising are the most frequent, hence the most studied ones. But other signals convey emphasis too, such as a sudden *widening of eye aperture* or *repeated blinks*. *Rapid repeated blinks* can be used as a punctuation mark during speech: a Speaker performing a sequence of quick blinks while pronouncing an important concept may be signalling s/he has stated something important and attracting the interlocutor's attention on it.

This is what Mrs. Bressoud does in the debate “Mothers as educators”. She is a frequent blinker, but moreover, while pronouncing key words for her argumentation, she performs a series of rapid repeated blinks to attract the listener's attention .

(11) Bressoud : *C'est pas dire qu'elles sont pas capables, la démarche est totalement **différente**, de pouvoir s'occuper des propres enfants et de pouvoir en deuxième temps de prendre en charge les enfants des autres.*

(It's not to say that they [mothers] are not capable, the approach is totally **different**, taking care of their own children and taking other people's children in charge).

#### *Unimportance eye-closure*

So far we have seen speakers whose blinks marked the key concepts of their discourse. In other cases, though, one may need to communicate that some topic can be left out since it is not essential for present discourse. Interestingly enough, this is not conveyed by a blink but by an *eye-closure*. We have seen cases of this in previous observation, but here is one from our present corpus.

While speaking about the total of flights made for Héliski, the helicopter pilot Pouget mentions that their number is not that important.

(12) Pouget : *On pourra parler plus tard du nombre des vols qui l'on fait en Héliski, qui n'est **pas si important que ça**, je pourrais vous donner des exemples en comparaison des transport qui l'on fait pour les cabanes de SAS, par exemple pour tout autre transport en montagne.*

(We could speak later about the number of flights we make for Héliski, it's **not that important as that**; I could give



you examples as compared to the number of transports we make for the SAS chalets, for instance, or for all other types of transport in the mountains).

While saying *n'est pas si important* (it is not that important), Pouget performs a *slow eye-closure*, that looks as a bodily synonym of what he says in words, meaning "I am skipping this part, as I don't consider it important for the present conversation".

## 8. Conclusions

The aim of this paper was to prove that eyes can communicate meanings not only while gazing, but even when not looking. Following our study, we can say that through blinks and eye-closure one can confirm the Speaker's speech, intensify or stress one's own discourse, mimic personal traits as determination or emotions such as surprise and desperation, delimit the beginning of a new sentence. Our approach in this paper was qualitative: first we distinguished between communicative and non communicative eye behaviours and then we tried to individuate the possible meanings conveyed by the communicative items of blinks and eye-closure. In our further work we will attempt a quantitative approach to investigate whether blinking is influenced by social context, culture and personality.

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1. Time	2. Speech	3. Action	4. Goal or meaning	5. Supergoal	6. Type
1. 15.06 Moderator (Speaker)	<i>more precisely the issue is whether the warranties offered by the confederation are real warranties.</i>	<b>Head:</b> Head shake	No		
15.12 Freysinger (Listener)		<b>Gaze:</b> Eye closure	I am desperate → They really don’t understand I am superior → Poor them, they really don’t get it.		Communica- tive (Emotion)
2. 23.32 Gabul	<i>mu-municipalité</i>	<b>Gaze:</b> Eyebrow raising blink	Accompanies the effort of uttering the syllable		Non- communica- tive

Table 1 Annotation scheme