

# A Critical Discourse Analysis of Government Spokesman's Identity Construction: A Case Study

Yin Zhong<sup>1</sup>

<sup>1</sup> Shenzhen Tourism College, Jinan University, Shenzhen, China

Correspondence: Yin Zhong, Shenzhen Tourism College, Jinan University, Shenzhen, Guangdong 518053, China.  
Tel: 86-755-269-318-77. E-mail: zhongyin@sz.jnu.edu.cn

Received: February 19, 2014 Accepted: March 19, 2014 Online Published: May 27, 2014

doi:10.5539/ijel.v4n3p74

URL: <http://dx.doi.org/10.5539/ijel.v4n3p74>

## Abstract

How people's identity is constructed in language has been an interesting field for linguists. For a spokesman who speaks for the government, his identity and image have to conform to his duty and responsibilities. In this paper by analyzing the improper linguistic strategies of the spokesman and his position in the news conference of 723 Motor Train collision in China, the author tries to show how a negative image and identity are constructed with the perspective of critical discourse analysis.

**Keywords:** spokesman, stance, identity construction, discursive style, critical discourse analysis

## 1. Introduction

A spokesman is usually seen as the one who speaks for their government, institution or groups of the same interests. The performance of him is crucial to the image of the government or institution being represented. Though spokesmen are trained with language skills and strategies to say things quite skillfully, there are always cases of how mistakes, improper expressions or slips of tongues being ridiculed and criticized by their political opponents or the public. Thus by looking at one of the negative cases of a government spokesman's responses in a news conference arousing much of the public's criticism in China, this paper tries to show how a government spokesman's improper answers contribute to his a negative identity construction and in turn leads to the failure of handling properly a public emergency in the news conference so as to demonstrate the place of language in the construction of one's identity in real social life in a micro perspective as a window into a bigger picture of social and discursive constructions. In this paper the author tries to answer two questions: 1. What is the identity the spokesman in the case being studied established in the press conference? 2. How this negative identity is constructed in view of CDA?

## 2. The Case Background, Data and Methodology

On July 23th, 2011 two motor trains collided into each other in Wenzhou, China, causing 40 deaths and over one hundred of casualties. The next day a press conference was held to inform the public of the latest news of the accident. The spokesman of China's Ministry of Railways, chaired the news conference and answered the journalists' questions. After the live broadcasting, Chinese audiences and netizens waged a hot discussion against the spokesman's responses in the press conference. And he was accused of employing the improper expressions and soon was found no longer assumed the role of the spokesman of the Railway Ministry. The news conference consists of two parts, with the first section of the spokesman's announcements of the central government's resolution to investigate the accident and conveying the concerns from the central leaders and the second section of the spokesman and the journalists' questions and answers. As the first section is merely the behavior of reading out official documents instead of an active and two-way communication, the contents of it is beyond our consideration here. What we are interested in is the second section of the news conference as this part shows the interactive dialogue between the spokesman and the journalists by which the spokesman shows his stance and thus establishes his identity. The scripts in the second section of questions and answers was transcribed from the video of the live news conference of 28 minutes on website <http://v.ku6.com/show/DNcQDAwBn4mzZkBDuG0bNw...html> in which 12 pairs of questions and answers are identified and each of the questions and their adjacent answers is considered as a conversational turn here. We use Q1, A1 to Q12 and A12 to denote each of the questions and its answers in the following examples.

A critical discourse analysis is introduced to lay down the theoretical perspective into the phenomenon as identities, is held to be social and discursive constructions (Barker, 2000). And it is through discourse that language users constitute social realities: their knowledge of social situations, the interpersonal roles they play, their identities and relations with other interacting social groups (Van-Leeuwen & Wodak, 1999). The discussion will be framed in terms of “levels of language” (Fairclough, 1995), that is, the three levels of vocabulary, grammar and textual structure. And with the limitation of the length of this paper, we shall focus on that which we consider to be the most salient aspects of the linguistic form.

### 3. Literature Review

With the birth of critical discourse analysis (CDA) in 1970s, much progress has been made in two domains which CDA shows its most concern—the mass media field including political arena and personal utterances and texts as in these domains analysts showed us what was hidden behind languages and how the dominant factors such as ideology, power, identity and class etc. controlled the language as it presented to the public (see for example Billig, 1990; Fairclough, 1995; Meinhof & Galasinski, 2000; Muhlhausler & Harre, 1990; Menz, 1989; Barker & Galasinski, 2001; Bamberg, Fina, & Schiffrin, 2011).

Among them, most of the researchers concern mainly on how one’s own image and identity (in one or two different cultures) is established by certain discursive patterns but not the other way around, that is, few researchers looked at how people’s established identity are questioned, shattered, ignored and suspended. So what we’d like to show in the paper is that as a government’s spokesman how one’s identity of an official representative is broken by his inappropriate expressions and as a consequence, leads to a negative identity construction which in turn threatens ordinary people’s trust in the government and result in the worsening situation of handling the emergency.

### 4. Case Analysis

In order to show the process of how the spokesman’s negative identity being established, the use of the personal pronoun, the spokesman’s attitudes in adverbial structure and genre analysis at the three discursive levels of CDA will be looked at to answer our research questions.

#### 4.1 *Whom Are You Speaking For: The Confusing Use of “I” and “We”*

As Tian Hailong (2001) points out that the use of “I” tends to show the speaker is relatively more self-assured than those preferring the use of “we” in Chinese culture. “We” is, more often than not, connected with the speaker’s modesty and while on the other hand, “I” shows the individual’s own stronger wills and attitudes. And according to Fan & Yao’s corpus based analysis on personal pronouns in political news (2011), in the world of politics the use of “we” is more frequent than that of “I”, suggesting a feature of careful pronoun choices in a stylistically serious and formal environment to explain the politicians’ intention of closeness with the public. A more detailed counting of the use of “I” and “we” is thus carried out to give us the clues of what identity the spokesman constructing in his responses to the journalists, that is, for whom he speaks for, himself or the government?

Table 1. Use of “I” and “we” in the spokesman’s replies to the journalists

Personal pronoun	No.	Total words	f/1000
I	52	1958	0.026
we	17	1958	0.009

As we can see, in Table 1, 52 occurrences of the use of “I” in the total words of the spokesman’s replies suggest an average frequency of 0.026 in every one thousand words and is triple of “we”, showing us the great gap between the two terms employed by the spokesman. Compared with the frequency use of “I” being 0.031 and “we” 0.033 generated in a much larger political discursive corpus in Fan and Yao’s study (2011), we can easily spot the alarming and unusual disproportion of the use of “I” and that of “we” in the spokesman’s replies. This result demonstrates that based on his selection of the personal pronoun, his stance and attitude is more personal and individual other than positioning himself as the representative speaker of the Ministry of Railway. While in a press conference of informing the public of an emergency accident, what the people want is the first hand information of the latest situation and how the rescue work organized by the government progress instead of a

personal opinion or speculation. Thus, instead of showing the facts and realities and convincing the public that the situations are well handled, the spokesman obviously pictured himself wrongly in front of public as someone lack of trust and reliable information sources. The confusion of the identity on his personal stance and the government's representative contributes to his failure in fulfilling his job and what's worse, it could easily lead people to cast doubts on the government's credibility.

#### 4.2 An Improper Stance: Analysis of the Sentences Widely Criticized

On sentential level, we'll look at the three sentences which widely appeared in Chinese mass media of all forms and brought the spokesman severe criticism on his expressions.

##### Example (1)

*Q2: Can we release the names of the deceased according to the real name system? The second question, now many media are concerned about the pit burying, why? And ... (interruption by Mr. Wang, "too many, girl") why ... failed to work?*

*A2: ... believe it or not, I do anyway!*

##### Example (2)

*Q7: How come after the end of the rescue work, a girl was still found alive when the cars were dismantled?*

*A7: This is a miracle. Will you tell me why?*

##### Example (3)

*Q8: This is not a miracle! That I want to ask is that under the circumstance that you declared no other life symptoms on the scene and the cars thus were being dismantled, why is there still life found?*

*A8: All I can only reply to you is, this kind of thing just did happen, we did find a girl alive after that. That's what it was.*

In the conversational turn of example (1), when asked about the reasons why a big pit on the accident scene was filled in a hurry, the spokesman gave an explanation he got from someone in the local supervision department before he concluded in his reply with the sentence "believe it or not, I do anyway!" (Here for the sake of convenience, the previous lines of explanations are omitted and for the complete transcription, see the Appendix). Austin (1962) introduced the notion of felicity in his book *How To Do Things With Words*, by which speech acts in order to be felicitous, i.e., in order to work, must satisfy certain conditions. Consequently, for a journalist's question asking for further information or truth, in order to be felicitous, the spokesman's answer must be objective, factual and informative instead of showing a strong sense of a personal judgment. And without providing further details of the rescue work, he resorts to his authority to enforce his ideas indicating whether the public are convinced or not, this is the way you have to accept. In addition, this adverbial sentence of concession also suggests a rather rude and ignorant way of distancing him and the public, clearly drawing a line between him who represents the government and authority, and, the public who is presented by the journalist.

The spokesman's answer in example (2) consists of a rhetorical question. In face of another journalist, he seems to draw from the question a meaning of accusation of the government's insufficient rescue work and quickly fights back by throwing him the same question. The use of the rhetorical question, as Halliday (1994) argues, serves the functions of emphasizing, showing contempt or challenging the interlocutors in conversation etc. And as is shown in example (2), feeling being challenged of the effectiveness of the rescue searching, the spokesman does not take the blame, and all he accounts for the discovering of a girl alive after the end of the search work is only "by miracle". Instead of explaining how this happens or admitting there is an omission in the rescue work or whatever conditions that prevented the little girl being discovered before, he covers all possible realities and human efforts by referring it to the miracle and further adopts an aggressive strategy by asking "Then you tell me why?" to rebuke the question. But in terms of handling an emergency situation, what the public expects is an exchange of the information and to be assured that things are under control instead of getting personal opinions or an image that the government is incapable of coping with the emergency. In this case, the spokesman chooses his stance of a tough authority giving a simple explanation and showing a strong dissatisfaction of being questioned.

An analysis of example (3) suggests that the adverbials in the spokesman's reply such as "only" and "just" indicate a passive attitude and strong sense of his stance of superior authority in answering the journalist's pursuing questions as Conrad and Biber (2000) assert that adverbials signifies the stance of the narrator and

decides the propositional meaning of the discourse. By using “only” and “just” here the spokesman shows nothing in sincere communication but arrogance and dominance. The sentence “That’s what it was” once again exposes his incapability of winning the public’s confidence in the government or of facing bravely with the mistakes made in the previous rescue work.

To sum up, the analysis of the sentences in the spokesman’s answers suggest that he puts himself in an improper stance of the superior and undeniable authority instead of a spokesperson faithfully fulfilling his job of conveying information, gaining public support and trust, and building public’s confidence and consolidation in face of a serious accident.

#### *4.3 An Improper Discursive Style: Personal and Casual in a Formal Occasion*

In view of discourse construction, a salient feature of being personal and casual is seen throughout the press conference.

##### Example (4)

*Q3: By yesterday afternoon the black box of the train had been found. Can the result be released? Now it’s been 26 hours, can the Ministry of Railway give the relevant information?*

*A3: Ok, first, I had to say to the journalist friends, take it slowly. Since I am here today, I will definitely face all the questions. And I will not avoid any sharp questions, including (those questions) I can’t give you an answer and I’ll tell that I do not know. But I will be honest to answer every one of your questions, please trust me, do you trust me? ... Could you give me confidence?*

##### Example (5)

*Q4: Why the train crashed by rear end? And why did the train behind fail to pull over automatically? When interviewed you said more than 40 people died and now 35; what is going on?*

*A4: The first question, this journalist put forward, shows he is very professional. With normal situation, the trains should not have this kind of collision by rear end. But as to its reasons, I can only tell you after the investigation is finished. I could not possibly foresee its result before that. ...*

##### Example (6)

*Q10: We got the news this morning that about 6 PM this afternoon the Yongwen rail line would be ready to the traffic but as a matter of fact it did not happen, is there a new problem? Secondly, we got to know that the remedial team has formed so we’d like to know, how will the compensation funds be handled for the deceased and the casualties? How much is the consolation payment and how much is the compensation payment? Thank you!*

*A10: As to the first question, I just said, I am getting old, girl, one question at a time, this ... what is it? ...*

The words “please trust me” in example (4) would have been an appropriate way to convey the spokesman’s firm confidence in the government’s actions and thus to pass on to the public the same message, but by the following questions “do you trust me?” and “could you give me confidence?” he weakens the certainty and confidence in the government’s control of the emergency and resort wrongly to the pleading for the journalists’ confidence who just need it instead of the other way around. The requests for confidence and support for him are seen to be in a misplaced place in a formal occasion of news conference on a motor train accident.

The spokesman’s answers in Example (5) suggest an indirect and dodging way of answering questions. Instead of answering the question with the information available so far, he inexplicably praises the journalist’s professional judgment concerning the reason of the collision and then further avoids giving any useful explanations by winding a long way through weak excuses before concluding that no reasons can be provided without a thorough investigation. His answers here serve the function of no more than building an image of insincerity and incapability as Li and Sun (2007) suggests in their book *A Guide Book For Spokesmen* that ambiguity and irrelevant speech would lead to journalists’ great dissatisfaction.

The answers in example (6) “As to the first question, I just said, I am getting old, girl, one question at a time, this ... what is it?” is another case showing a casual and spoken style of the spokesman’s speech on the occasion. Take another look at example (1) we’ll see that he actually repeatedly mentions his aging problems by interrupting the journalist’s questions that he can’t take too many to deal with at one time. As Chen (2007) talks about the style of the spokesman’s speech in China, he points out that different from a foreign style of news conference, Chinese ones tend to be more serious and formal. The requirements for the spokesman are strict as

he is supposed to be polite in attitude and formal and well-planned in his speech. And in this aspect, the spokesman's complaints of too many questions for him at one time in the press conference certainly goes way far from showing his politeness, sincerity and formality in that situation.

## 5. Conclusion

According to Bamberg, Fina and Schiffrin (2011), discourses can be perceived as "capital-D" and "small-d" discourses. "Capital-D" discourse focus on group identities, such as the construction of sameness and belonging and the building of continuity which lead to the understanding of specific aspects of identity while the latter pays attention to the construction of difference, individuality and the building of changes with the concrete choices of language forms and language functions. By discussing the case of the spokesman, what we've been trying to do in this paper is to show how the "small-d" discourse of the spokesman's language choice is incompatible to the "Capital-D" discursive identity. When in conflict, as we can see, people are looking forward to the performance and fulfilling of a "capital-D" identity as it represents a group interests or an institutional authority instead of an individuality construction. From the analysis of the spokesman's speech by his confusing use of "we" and "I", improper attitude, stance and discursive style we'd like to point out that too much of a "small-d" identity construction threatens the "Capital-D" identity in the formal occasion and even brings negative consequences as failure in one's job responsibilities or the public's disappointment and dissatisfaction.

## References

- Austin, J. L. (1962). *How to Do Things with Words*. Oxford: Oxford University Press.
- Bahtia, A. (2006). Critical Discourse Analysis of Political Press Conference. *Discourse & Society*, 2006(2), 173-203.
- Bamberg, M., Fina, A. D., & Schiffrin, D. (2011). Discourse and Identity Construction in Schwartz. In S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook Of Identity And Research*. New York, London, Dordrecht, Heidelberg: Springer.
- Barker, C., & Galasinski, D. (2001). *Cultural Studies and Discourse Analysis*. Thousand Oaks, London and New Delhi: SAGE.
- Chen, L.-J. (2007). *Cultural Context & Political Discourse—Discourse Analysis of Governments' News Conference*. Beijing: China Radio and TV Press.
- Conrad, S., & Biber, D. (2000). Adverbial Marking of Stance in Speech And Writing. In S. Hunston, & G. Thomsaon (Eds.), *Evaluation in Text: Authorial Stance and the Construction of Discourse*. Oxford: Oxford University Press.
- Fairclough, N. (1995). *Media Discourse*. London: Edward Arnold.
- Fanran, Y.-X. (2011). A Corpus Based Research of the Use of Pronouns in English News. *Journal of Shijiazhuang University*, 3(4).
- Gal, S., & Woolard, K. (1995). Constructing languages & Publics: Authority and Representation. *Journal of Pragmatics*.
- Halliday, M. A. K. (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Edward Arnold.
- Li, X.-G., & Sun, J.-W. (2007). *A Manual for Spokespersons*. Beijing: Tsinghua University.
- Live News Conference on 723 Motor Train Accident in China*. [video]. Retrieved from <http://v.ku6.com/show/DNcQDAwBn4mzZkBDuG0bNw...html>
- Meinhof, U. H., & Galasinski, D. (2000). Photography, memory, and the construction of identities on the former East-West German border. *Discourse Studies*, 2(3), 323-353. <http://dx.doi.org/10.1177/146144560002003004>
- Menz, F. (1989). Manipulation strategies in newspapers: A program for critical linguistics. In R. Wodak (Ed.), *Language, Power and Ideology* (pp. 227-249). Amsterdam: John Benjamins. <http://dx.doi.org/10.1075/ct.7.16men>
- Muhlhausler, P., & Harre, R. (1990). *Pronouns and People: The Linguistic Construction of Social and Personal Identity*. Oxford: Basil Blackwell.
- Tian, H.-L. (2001). The Usage of I and We and the User's Personality. *Language Teaching and Research*, 2001(4).

Van-Leeuwen, T., & Wodak, R. (1999). Legitimising Immigration: A Discourse-historical Approach. *Discourse Studies*, 1, 83-118. <http://dx.doi.org/10.1177/1461445699001001005>

## Appendix

### The Transcription of the Question and Answer Session of the News Conference

- Q1:** Hi, my question is that, since you just said the accident was under investigation then why some directors have been punished so far? And, here is my second question, it seems that the Ministry of railway has been very confident in the high speed rail and we'd like to know that after the 723 accident where will the confidence come from? Thank you!
- A1:** Yes. This female journalist asked two questions. The first is that with the accident being investigated why the related directors of Shanghai Railway Bureau have been given punishment? As a matter of fact, I just said that no matter by what reasons the accident was caused, the directors of the superior management department should be responsible for that. Secondly, no hurry, do we still have confidence in our high speed rail? Here I reiterate that though this accident cast a negative image on the railway and a lot of people would think that there is a safety problem, I said, it is under investigation and there must be its special reasons. I'd still like to say to the world that the technology of China's high speed railway is advanced and qualified. We still have confidence in it!
- Q2:** Can we release the names of the deceased according to the real name system? The second question, now many media are concerned about the pit burying, why? And ... (interruption by Mr. Wang, "too many, girl") why ... failed to work?
- A2:** Three questions in one breath. I am old, sometimes can't remember. The first question, the real name system. I can be responsible to tell you that when all the work has been appropriately done, we'd release every name the deceased. Why the car body needs covered, actually when I got off the plane the comrade who met me there said there was information like that on the internet. Before that, because I was on the plane and could not get access to it, I asked him, how the world would this stupid thing occur? With an accident known to the world, could covering possibly do? He told me that they did not want to cover, the truth is, this accident can't be covered. We've tried to do things like that by various channels to the whole society. But as for the covering, they explained, because of the rescue work on the scene, the complex surroundings, a mud puddle below, it was not easy to move and on top of that they had to take care of the other car bodies so they buried that car body in the earth and covered with earth in order to carry out the rescue work. And at present, that's his explanation and believe it or not, I do anyway!
- Q3:** By yesterday afternoon the black box of the train had been found. Can the result be released? Now it's been 26 hours, can the Ministry of Railway give the relevant information?
- A3:** Ok, first, I had to say to the journalist friends, take it slowly. Since I am here today, I will definitely face all the questions. And I will not avoid any sharp questions, including (those questions) I can't give you an answer and I'll tell that I do not know. But I will be honest to answer every one of your questions, please trust me, do you trust me? ... Can you give me trust?
- As to the question of the black box, first of all, I'll tell you that it was already found. This black box in terms of our railway jargon, it is actually a monitor of the running train, with such a system, it helps provide original data to our investigation, analysis and then the conclusion of the accident. Right now the black box is being investigated and analyzed. Once the situation is diagnosed, we'll make it public to the society immediately.
- Q4:** Why the train crashed by rear end? And why did the train behind fail to pull over automatically? When interviewed you said more than 40 people died and now 35; what is going on?
- A4:** The first question, this journalist put forward, shows he is very professional. With normal situation, the trains should not have this kind of collision by rear end. But as to its reasons, I can only tell you after the investigation is finished. I could not possibly foresee its result before that. I can only say to you all that the State Council has already formed an accident investigation team who will carefully, seriously and meticulously dig out the reasons and the Ministry of Railway will actively coordinate with their investigation until the end to take up the responsibility, no matter whom. This is the first question. The second one

mentioned that I said on the internet that over 40 people died, 41 people, but why 35 now? I tell you hereby, as a spokesman of the Ministry of Railway as far as I know 35 people died. As to the internet source of my saying the death toll of over 40 people, I declare here that I did not do that, I didn't take any interview on this matter nor did I give any data like this on internet.

Q5: Does 35 include missing people?

A5: 35 is the confirmed number for death toll. So far no, I haven't found people missing.

Q6: ... from the car of the train, a 5-year-old little girl was found ...

A6: I just said that so far as I know the number of death is 35, as to the girl you mentioned, still shows the symptoms of life. Not dead.

Q7: How come after the end of the rescue work, a girl was still found alive when the cars were dismantled?

A7: This is a miracle. Will you tell me why?

Q8: This is not a miracle! That I want to ask is that under the circumstance that you declared no other life symptoms on the scene and the cars thus were being dismantled, why is there still life found?

A8: All I can reply to you is, this kind of thing just did happen, we did find a girl alive after that. That's what it was.

Q9: Mr. spokesman, I am the journalist from Morning News of Taizhou and a resident by the railway line of Yongtai as well. I'd like to ask, when the Yongtai railway was being built, two years ago, there was a viaduct collapse and a similar collapse also occurred in Wenzhou, as a journalist as well as a passenger who may take the train of the railway line of Yongtai every single day, I'd like to ask, the project quality of the railway of Yongtai, and the safety of the railway operation, as an information spokesman, how do you comment on them.

A9: I feel the same way as you do. No matter whether you are a resident by the railway or whether you often take the train, when it comes to the insecurity of trains, I feel great pain. As to the comment on this rail line, I think, it has already gone through the examination of quality and during these years of running, though we had some of the hidden trouble we had them solved and in general, it maintained safe.

Q10: We got the news this morning that about 6 PM this afternoon the Yongwen rail line would be ready to the traffic but as a matter of fact it did not happen, is there a new problem? Secondly, we got to know that the remedial team has formed so we'd like to know, how will the compensation funds be handled for the deceased and the casualties? How much is the consolation payment and how much is the compensation payment? Thank you!

A10: As to the first question, I just said, I am getting old, girl, one question at a time, this ... what is it? I actually mentioned it in the previous news release session that we did, we did mention this morning that by 18 o'clock we will have it ready to the traffic. We did fail to predict the difficulty and complication of the rescue work. Though at 7 PM, the line was ready, you probably know what happened later, the lightening, thunder and the deterioration of the weather. And in consideration of the absolute safety we did not grant its reopening at that time.

Q11: Then when do you suppose will it be reopened?

A11: It has been ready by now.

Q12: Good evening, I am a journalist from ... and my name is ... I think today you owe me a question because I am one of the passengers in the Car No. 4 of the Motor train 301 and I am a journalist as well. The car I was in is the one that suspended and I got a narrow escape from death so now I could be standing here alive and ask you a question. ... I would like to ask, just now when you introduced the situation there was a conclusion of the proper arrangement, I've no idea of the standard of the "proper arrangement" as you referred to. Is it a standard of yours, or of our passengers'? Did you ever do a research of the satisfaction rate for the arrangement that lead you to the conclusion? And the passengers were running for their life at that time and they left their luggage in the car. The subsequent recovering the luggage ... whom should we turn to for help and when can we get them back? The third question, you've said that our high-speed train technology is advanced and we have confidence in it, in that case, does it mean that we won't change its operating speed and frequency?

A12: First of all, I apologize to you; let me bow to you. After the accident, it brought people pains that could not be erased and a terrible memory of your travelling. That's why I apologized to you in behalf of the railway administration. I can understand your, you said a narrow escape? If it had happened to me, I would have felt much the same as you did. So as to your question of the "proper arrangement" I mentioned, I meant for casualties. If you were not in hospital or you were not ... injured, for that matter, you have some requests, we could satisfy ... As to the problem of the luggage, give us a little more time. Such a serious accident, the rescuing, the circumstances are very complicated including the disposition of the luggage. Believe us, that we'll try our best to get them properly handled. Thank you! The question of the speed and frequency, excuse me, I'll response to that in a moment ...

### **Copyrights**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).