

# The myth of the linguistic lie detector

GEORGINA HEYDON  
MONASH UNIVERSITY

*This paper is the result of investigations into the features of a mythology of police interviewing techniques and its relationship with current law enforcement practices. An investigation of the SCAN (Scientific Content Analysis) technique as promoted on the website of the Laboratory for Scientific Interrogation was initiated in order to discover the way in which texts aimed at law enforcement professionals contribute to or form a part of the network of beliefs, assumptions and understandings which constitute a mythology about police interviewing. This paper suggests that critical discourse analysis is an appropriate approach to the policy issues surrounding police interviewing techniques, as it provides the possibility of exposing the mythology at an institution-wide level.*

## 1. Introduction

### 1.1 Context of the paper

This paper forms part of a current research project which broadly aims to analyse the discursive practice of participants in police evidentiary interviews with suspects. In particular the project examines the way in which police institutional discourse may be influenced by the perpetuation of a mythology about police interviewing procedures. This paper is the result of investigations into the features of such a mythology and its relationship with current law enforcement practices. An investigation of the Scientific Content Analysis technique (SCAN) was initiated in order to discover the way in which texts aimed at law enforcement professionals contribute to or form a part of the network of beliefs, assumptions and understandings which constitute a mythology about police interviewing. The investigation focusses on the material used to promote SCAN by the Laboratory for Scientific Interrogation on their website ([www.lsiscan.com](http://www.lsiscan.com) - the relevant parts of the website are appended).

### 1.2 Underlying assumptions – a mythology

The mythology of police interviewing is a set of assumptions made at a policy or other institution-wide level that underlies the interview-related beliefs of people both inside and outside of the institution. Researchers in this area (for instance Baldwin 1993; Bull 1989; Auburn, Drake & Willig 1995, Shuy 1998) have suggested that there are several such assumptions underlying police interviewing techniques. These assumptions can be summarised as follows:

1. that it is possible to detect when someone is being deceptive by examining their use of language;
2. that to detect when someone is being deceptive is simple;
3. that it is possible to be trained to detect deception in a person's language use;
4. that it is possible to apply successfully a binary test to human behaviour which works as well as, for instance, a physical or chemical test;
5. that deception is a binary behaviour;
6. that there is one objective version of events adequately represented by the police version or statement of evidence; and,

7. that the suspect is guilty and behaving deceptively to cover up their involvement in the crime.

This list of assumptions is ordered so that those beliefs that pertain more specifically to this discussion are mentioned before those that have a broader application.

## 2. Mythologies

In a critical discourse analysis framework, the importance of examining discourses for underlying assumptions that might constitute mythologies has been quite well established. Different sub-types of 'institutional discourse' are found to exhibit evidence of mythologies being created and maintained by participants in the discourse. Such mythologies concern the relationship between the rules of the institution and the rules of the institutional discourse practised there. For example, Wodak's (1996) findings indicated that such mythologies can influence the discourse in such a way as to reduce the effectiveness of the communication and the likelihood of reaching a satisfactory outcome from any given encounter in which assumptions based on the mythology are made by participants.

Baldwin (1993), in his discussion of a criminological examination of 600 police interviews in Britain, finds that the existence of a mythology surrounding police training in the area of interviewing suspects is supported by the fact that "debates on the crucial question of interview procedures...have tended to be dominated by views from the police service. However, many of these views have proved on analysis, to be misconceived or erroneous" (1993: 331). In support of these claims, Bull (1989) discusses several studies which find that training in detecting deception has no significant effect on police officers' performance, despite the claims of texts aimed at police officers and recruits. In reference to two unpublished studies which suggest that experience (as opposed to training) can make a difference in performance, Bull notes that "[u]ntil a number of publications in refereed journals appear demonstrating that training enhances the detection of deception, it seems that some police recruitment advertisements and police training books are deceiving their readers" (1989:97).

## 3. The mythology – why does it matter?

As Wodak (1996) points out, the danger of a mythology of discursive practice in an institutional setting is that it can actually prevent the organisation from meeting its goals – beliefs about the discursive practices in an organisation can be counterproductive when they are erroneous because they create behaviour in participants which may be inappropriate to the real-life situation.

While the problems associated with using questionable techniques of analysis to ascertain the truth of an interviewee's statement may be rather obvious, other practices are equally deserving of scrutiny - perhaps the more so because their effects are deeper and often hidden from the casual observer. For instance, the very belief that it is possible to detect truth accurately is itself dangerous, as it encourages police institutions to continue to search for 'reliable' methods of lie detection, when none exist. In a further example of assumptions underlying the discourse of police interviewing, Bull (1989) cites several contemporary newspapers and published articles which strongly suggest that the detection of deception is straightforward and simple – a claim which Bull rejects.

To return to the assumptions listed above, these assumptions may be collapsed by considering that, insofar as marketing a training course which teaches 'lie detection' is concerned, assumption 3 *that it is possible to be trained to detect deception in a person's language use*, is the most critical to support. However, the remaining assumptions provide a network of support for this one. For instance, in order to learn a technique, it is first necessary that the technique is possible and exists, and this is the purpose of assumption 1. A training course will be made simpler and more attractive to potential clients if the technique is simple (assumption 2). Assumptions 4, 5 and 6 all concern the casting of deceit and truth as binary by nature, and this is used in the marketing of the method as 'scientific' (see below). The final assumption, assumption 7, addresses a slightly different set of issues as it relates to the interviewer's conduct within the framework of the interview, rather than to aspects of training surrounding the interview procedure. Nonetheless it is appropriate that this assumption be considered as part of our investigation as it is still part of the mythology attached to the marketing of SCAN rather than being part of its methodology.

As part of this paper, we shall explore how the marketing of SCAN strengthens the mythology of interviewing by promoting certain views and beliefs as commonsensical. In particular, we shall examine the way in which those features of the mythology identified by previous research (those listed above) are represented in the SCAN marketing presented by the LSI website.

### 3.1 Sapir's Scientific Content Analysis (SCAN)

#### 3.1.1 The linguistic approaches to SCAN

It is pertinent to note that the SCAN technique itself is based on the analysis of language use, and is therefore an area of law enforcement practice which falls well within the scope of interest and expertise of the linguistic researcher.

The linguistic interest in SCAN is thus two-fold: on the one hand, there is the issue of underlying assumptions in the discourse used to promote and describe SCAN, and the relationship of such assumptions to the mythology. This aspect might be approached through the application of critical discourse analysis.

On the other hand there is the interest in the methodology of SCAN itself, as it is (loosely) based on linguistic analytic tools. However, the latter interest is reasonably well represented by the work of Roger Shuy (1998), who demonstrates that the SCAN methodology is fundamentally flawed due to its apparent ignorance of large portions of sociolinguistic theory. In particular, Shuy is concerned that the methodology fails to take into account socio-cultural variation in language use and ascribes meanings to language features which are unsupported by socio-linguistic research and which grossly generalise the functions of certain utterances or speech patterns by individuals.

A sample SCAN analysis from the LSI website appears in the appendix at the end of the webpage, under the heading *Can you find the confession in this statement?*

Notwithstanding Shuy's previous work, it is the researcher's opinion that one glance at the descriptions of SCAN provided by its proponents would be sufficient to convince any linguist of the absence of defensible or sound linguistic theory supporting the methodology. For this reason, this paper concentrates on the former of the two linguistic interests in SCAN.

#### 3.1.2 Introduction

The LSI site advertises courses in Sapir's SCAN technique, taught at centres in Britain, the USA and Australia. The focus of this paper will be a close examination of part of this site, namely the SCAN information page, which is reproduced as an appendix. This page of the LSI SCAN site constitutes the first point of contact that interested members of the public are likely to have with SCAN once they have opened the home page, and the text contained therein functions to introduce and make claims about the use of SCAN.

### 3.2 The SCAN assumptions

#### 3.2.1 Detecting deception is possible

As the whole marketing scheme is based on the premise that it is possible to detect deception in a person's (written) statement, this assumption can be said to underlie the actual existence of the LSI website. Therefore it is perhaps more interesting to examine some of the other assumptions said to contribute to the mythology of police interviewing.

#### 3.2.2 Detecting deception is simple

The opening sentence, beneath the heading, adequately demonstrates the presence of the assumption that detecting deception is simple: *SCAN (Scientific Content Analysis) will solve every case for you quickly and easily.* This assumption underlies the description of the technique as a three step process, and the way in which the most complex part of the technique (the analysis) is treated as half of one step: *3. Analyze the statement and solve the case.*

The assumption that deception detection is simple is strongly supported by the metaphor of SCAN as a visual technique. For a start we have the two acronyms used for the products, SCAN (Scientific Content ANalysis) and VIEW (Verbal Inquiry – the Effective Witness). Both seem highly contrived, as acronyms often are, and can therefore be discussed as labels chosen for their connotational qualities by the Laboratory for Scientific Investigation (thankfully acronym-free!). The use of the name SCAN implies an analysis comprising a short, visual examination of the text, while VIEW does not imply any cognitive digestion of the text at all, merely that it is seen. Both support the assumption that deception detection is a simple procedure requiring minimal analytic work on behalf of the investigator. Furthermore, *scan* has the technological meaning of a computer-assisted process, adding a sense of automation to the description of the methodology.

This latter aspect of the 'simplicity' assumption is extended by the use of phrases which suggest that SCAN itself is an animated entity which undertakes work on behalf of the investigator: SCAN GETS THE TRUTH...SCAN is the tool that will give you...SCAN will show you. This is even expanded to include the animation of the answer which will literally "jump out at you" and [e]very word in the subject's statement which will "talk" to you and show you the answer.

The assumption of a simple process is further underlined by the continuation of the 'visual technique' metaphor in the use of phrases such as SCAN will show you.

### 3.2.3 One truth

As the browser opens the LSI SCAN webpage, the text immediately presents perhaps the most powerful argument in favour of the SCAN method – that there is one objective and true version of an interviewee's statement which correlates exactly to events that have occurred in the real world, labelled THE TRUTH.

This assumption (6) is reiterated throughout the page, generally through the use of the phrase *the truth*, but also in the more suggestive phrase *the answer*, which implies a question-answer sequence in the process when none is used.

This assumption includes a concept of 'truth' in an interviewee's statement being a binary quality which, together with the assumption that deception is binary behaviour, can be seen to support the fourth assumption that it is possible to apply a 'scientific' test for the presence or absence of truth.

Auburn et al's (1995) research on a 'preferred version' of the suspect's narrative is also related to the assumption of 'one truth'. That one version can be said to be preferred assumes that one objectively true version of the events exists, or can be said to exist. That is, in order to select a preferred version, the police must begin the process by making an assumption that there is such a version that corresponds to a true and objective view of the events.

### 3.2.4 Detecting deception can be done 'scientifically'

This assumption is most clearly stated under topic 2: *How is scan different from other techniques?* Here the claim is made quite boldly that SCAN is *scientific* – a consistent formula which gives consistent results. Interestingly, the possibility that something can be scientific and complicated, or scientific and inexact is not explored.

### 3.2.5 Deception is binary behaviour

Many sections of the text seem to reflect this assumption. SCAN is described as a tool that *will show you: whether the subject is truthful or deceptive and whether or not the subject was involved in the crime*. This includes, perhaps more worryingly, an assumption that if an interviewee is said to be untruthful in part of their statement, then they must always be being untruthful. It does not allow for partial truths, or statements that may be based on a false premise, for instance.

This assumption of deception being binary behaviour is tied to an assumption that all interviewees will produce an undistorted statement.

This is a more complex assumption because it is in fact contradictory. On the one hand, readers are asked to believe that whether or not the interviewee is lying about the 'facts' of the incident, no other aspect of the statement will be distorted. For instance, there is no mention of the possibility that, in order to deceive the interviewer into believing a false statement, the interviewee might deliberately use the speech patterns that are said to indicate truthfulness. Therein lies the paradox: on the one hand, the method assumes that the deceitful interviewee will be willing and able to attempt to lie about the events in question, but on the other hand there is an assumption that such an interviewee will be completely oblivious to the possibility that effective lying would include the use of particular speech patterns.

### 3.2.6 *The guilty subject*

Perhaps the most endemic assumption and most widely recognised aspect of the mythology of police interviewing (Baldwin 1993; Auburn *et al.* 1995; Settle 1990; Shuy 1998) is that the subject is guilty and s/he is lying to conceal her/his guilt. This assumption is at work in the SCAN page in phrases such as *SCAN will show you: ... what information the subject is concealing*. Several reference to 'solving the case' using SCAN assume that the subject making the statement is one whose involvement is critical to the case. In most investigations, the person whose statement can most successfully 'solve' the case is the guilty party.

## 4. Implications for law enforcement

This paper has proposed a notion of a mythology surrounding police interviewing, of which the myth of the linguistic lie detector is a part. In closing, this paper will briefly explore the relevance of the lie detector myth to an interviewing mythology and the implications that such a mythology may have for police work and law enforcement in general.

### 4.1 Law and Order

To 'maintain law and order' has become so common as a way of describing the primary aim of a police force that it is easy to overlook the inherent paradox contained within that phrase. As Settle (1990) reminds us, to maintain *order* in society, we have handed over our right to coerce citizens to the police force. However, this 'right' is given to the police force in the form of *authority*: power exerted within a strict framework of *law*. That is, without *law*, perfect *order* might be maintained, given that police officers would have limitless opportunities to exert their authority. That we consider this an unacceptable solution to the problem of maintaining order is implicit in a citizen's right to be considered innocent of a crime until proven guilty – a right which commits police officers to a due process of gathering evidence, including conducting interviews, themselves subject to certain regulations.

When seen in these terms, the motivation for an abuse of power towards organisational ends becomes clear. Pressure is exerted on members of the police force to maintain order in our society – that is their job. Yet the same society must place heavy restrictions on the manner in which order might be maintained or risk degrading the quality of life of its citizens. This conflict between the duty of the police officer to maintain order and the necessity to do so within a restrictive framework of laws occasionally produces questionable procedures such as those highlighted by other research into police interviewing (eg. Cooke 1996; Eades 1994; Gibbons 1990, 1996; Linell & Jonsson 1991; and Walsh 1994). Where these procedures have been analysed and a clear abuse of power has been identified, then steps may be taken to redress the balance. For example, the distortion of evidence discussed in Linell & Jonsson's (1991) study (which is similar to distortions found in many other case studies cited) might be avoided by using the original audio recording of the interview as evidence, rather than a written statement based on a transcription of the recording.

However, the use of SCAN or other 'linguistic lie detectors' in police interviewing presents more subtle problems for reformists. In this case, the conflict between Law and Order leads to a much more complex abuse of power (towards organisational ends) which occurs at a policy, rather than at an individual level. Whereas an individual officer may come under scrutiny for engaging in the sort of questionable behaviour described by the researchers mentioned above, it is the nature of mythologies about institutional practices that they influence behaviour at an institutional level, often at a policy level. Thus, in the case of SCAN, it is the police force as an institution whose actions require scrutiny. In order to demonstrate that an abuse of power has even taken place, it must first be shown not just that SCAN and its ilk are methodologically flawed, but that the decision to implement training in the use of a 'linguistic lie detector' is itself based on false assumptions about language behaviour.

## 5. Conclusion

There can be no doubt that sociolinguists have a vital role to play in checking the spread of questionable interviewing techniques through vigorous analysis and critique. However, perhaps it will fall to the critical discourse analysts to problematise the police institution's understanding of evidentiary interviewing and actively pursue the exposure of the mythology, carrying the issue to the highest levels of policy making in law enforcement.

## Appendix

(Text from [www.lsiscan.com](http://www.lsiscan.com)-- parts of the Introduction to SCAN page only. For full text go to [www.lsiscan.com](http://www.lsiscan.com) and click on 'Introduction to SCAN')

### How do I use scan?

To use SCAN you need to do the following:

1. Give the subject a pen and paper.
2. Ask the subject to write down his/her version of what happened.
3. Analyze the statement and solve the case.

The LSI SCAN course will show you how to interpret the statement from beginning to end. Every word in the subject's statement - the pronouns and connections, the subjective time, the changes in language - will "talk" to you and show you the answer.

While others are out searching for physical evidence, you have already solved the case--using only the subject's own words.

### How is scan different from other techniques?

SCAN is scientific--a consistent formula which gives consistent results. There is no guessing, or 20 steps to follow, or hours of stressful interviewing; you don't need to base an answer on the confusing signals of "body language".

You need only the subject's own words, with their meaning clearly shown by SCAN. SCAN is the key to unlocking the truth.

### Interview 100 people at once with SCAN and VIEW

SCAN can be used on any written material; or, it can be applied with our VIEW Questionnaire, which offers streamlined use and optimum response. SCAN and VIEW are non-threatening and non-accusatory - the perfect way to interview witnesses and sources as well as suspects.

The VIEW Questionnaire can be completed by 100 people at the same time; it can be faxed to them at their location, and the completed questionnaires can be faxed back to the interrogator. And then, in less than an hour, the interrogator will be able to review the questionnaires and solve the case.

When you use the VIEW Questionnaire, the answer will literally "jump out at you" - and the questionnaire will practically solve the case by itself. Because SCAN and VIEW are the keys to unlocking the truth.

### Getting the SCAN advantage

The SCAN course will pay for itself as soon as the interrogator starts using SCAN on the job, on the same day that he/she returns from the course.

Our students solve more crimes than their fellow workers who have not learned the SCAN technique.

Interrogators who have learned the SCAN technique agree: the LSI course on SCAN was the best investment in their law enforcement career. SCAN gives interrogators what they need to know-and enables them to tap the vast resources of information around them.

### Can you find the confession in this statement?

On February 22, 1989, a bundle of 10's totaling 5,000.00 dollars was found in locker #3, where my cash drawer is kept. The date stamped on the straps of the bundle is that of the 31st of January 1989, on this day as on most Tuesday I am responsible for balancing the vault. At approximately 2:00 p.m. I balanced the vault. The currency is then placed in vault locker #5. If #5 is locked then the currency is placed in any open locker and locked, if I am doing the vault then I will put it in locker #3. I did not have a chance to find someone to tell them before they went to the vault. If I placed the bundle in locker #3 then it was therefrom the 31st of January until it was discovered on the 22nd of February. I had no knowledge of the missing money. I've been with this bank for more than two years and if in that time you are unaware of my trustworthiness then I suggest we need to come to some sort of agreement so this does not happen again.

### The Solution:

1. First person past tense expresses commitment to the events described. However, the following sentences are in present tense, and in passive form (=no "I"), indicating lack of commitment:

"The currency is then placed in vault locker #5..."

"If #5 is locked then the currency is placed..."

2. The word "again" ("...so this does not happen again") indicates that the event (embezzlement?) has already happened once before.

3. Changes in language:

a. "On February 22, 1989, a bundle of 10's..."

b. "The date stamped on the straps of the bundle..."

c. "The currency is then placed in vault locker #5..."

d. "If #5 is locked then the currency is placed in..."

e. "If I placed the bundle in locker #3..."

f. "I had no knowledge of the missing money."

Please note the following:

- a. Passive language + present tense = "currency".
- b. "I" + past tense = "bundle".
- c. Missing = "money"

People who work in banks work with "currency", "bundles", etc. They do not work with "money". People cannot spend "currency" or "bundles". They can only spend "money". When the teller referred to the "missing money", she incriminated herself.

## References

- Auburn, T., Drake, S. & C. Willig 1995. 'You punched him, didn't you?': versions of violence in accusatory interviews. *Discourse and Society*, 6(3): 353-86.
- Baldwin, J. 1993. Police interview techniques: establishing truth or proof? *The British Journal of Criminology*, 33(3): 325-52.
- Bull, R. 1989. Can training enhance the detection of deception? In J.C. Yuille (ed.), *Credibility assessment*. Norwell MA: Kluwer, 83-99.
- Cooke, M. 1996. A different story: narrative versus 'question and answer' in Aboriginal evidence. *Forensic Linguistics*, 3(2): 273-88.
- Eades, D. 1994. A case of communicative clash. In J. Gibbons (ed.), *Language and the Law*. Harlow: Longman, 234-64.
- Gibbons, J. 1990. Applied linguistics in Court. *Applied Linguistics*, 11(3): 228-37.
- Gibbons, J. 1996. Distortions of the police interview process revealed by video-tape. *Forensic Linguistics*, 3(2): 289-98.
- Jensen, M.-T. 1990. Differences between a written police record of interview and a tape-recorded interview of a non-native speaker of English. *Melbourne Papers in Applied Linguistics*, 2(1): 1-18.
- Linell, P. & L. Jonsson 1991. Suspect stories: on perspective setting in an asymmetrical situation. In Ivana Markova & Klaus Foppa (eds.) *Asymmetries in dialogue*. Hemel Hempstead: Harvester Wheatsheaf, 75-100.
- Settle, R. 1990. *Police power: use and abuse*. Northcote: Muxworthy Press.
- Shuy, R. 1993. *Language crimes: the use and abuse of language evidence in the courtroom*. Cambridge (Ma.): Blackwell.
- Shuy, R. 1998. *The language of confession, interrogation, and deception*. Thousand Oaks: Sage.
- Walsh, M. 1994. Interactional styles in the courtroom: an example from Northern Australia. In J. Gibbons (ed.), *Language and the Law*. Harlow: Longman, 217-33.
- Wodak, R. 1996. *Disorders of Discourse*. London: Addison Wesley Longman.

Georgina Heydon is a PhD candidate at Monash University in the Department of Linguistics. Since writing her minor thesis on police training interviews with children, forensic linguistics and language and the law have been key research interests for Georgina, and in her doctoral research she is continuing to work in the area of police institutional discourse.