

THE EFFECT OF LANGUAGE ON EYE-WITNESS TESTIMONY

An awareness of the significant role language plays in the legal process is not a recent development. This issue, particularly in relation to courtroom testimony, has been of concern to many since the early 1900s.

This paper reports on some of the empirical research that seem to suggest strongly that "eye-witness testimony is extremely vulnerable to linguistic engineering."¹

Fallibility of eye-witness testimony

Some of the earliest work in applied psychology in the area of eye-witness testimony date back to the beginning of this century. Many psychologists, having observed that eyewitness accounts of the same event often disagreed significantly, began to examine, experimentally, the psychological processes of perception and recall. The findings showed so conclusively the human perception to be highly fallible and the human memory highly unreliable, that the psychologists felt it necessary to sound a warning note against the assumptions that were generally being held about eye-witness evidence given in courtrooms.

The classic work most widely cited is Munsterberg (1908) *On the Witness Stand*. Munsterberg was probably the first to use the technique of staging a mock crime before a group of observers in order to demonstrate the fallibility of personal identification. The scenario generally runs like this: at some point in the middle of the professor's lecture, a stranger enters the room, confronts the professor or a student, feigns an assault on that person and quickly runs off. Members of the audience are then asked to give descriptions of the event. The experiment has since been repeated in practically all law and introductory psychology classes, with results that Munsterberg himself would have considered most salutary — the results are consistently uniform. Most observers make significant errors on almost every facet of description, from duration of event, physical description of attacker and clothing worn, to words spoken, weapons used and even sequence of events. Similar results have been obtained when the event occurs under non-stressful conditions as when a repairman enters the room rather than an attacker. Likewise, the same errors appear even when trained observers, such as police officers, receive advance notice that an incident is about to be staged and that they will be questioned about it.²

¹Loftus, Elizabeth F., "Reconstructive Memory Processes in Eyewitness Testimony", in Bruce D. Sales (ed.), *Perspectives in Law and Psychology*, New York, Plenum, 1977.

²"Expert Psychological Testimony on the Unreliability of Eyewitness Identification", Notes. *Stanford Review* 29: pp. 969-1030 (1976/77).

Dr. Robert Buckhout, an American, is probably the foremost researcher in this field today. He has conducted tests on more than six thousand subjects using videotape equipment and simulated identification exercises. His experiments show an average correct response rate of 15%.

The influence of the form of a question on eye-witness testimony

It was also observed that, under certain conditions, the answer to a question was partly determined by the form of the question. Binet, the French psychologist, contended that whenever a question was put to a witness his memory was 'forced'. All questions that can be asked of someone who has observed an event are either non-suggestible, moderately suggestible or highly suggestible, and, dependent on what kind of question he is asked, the witness is subjected to different degrees of 'forcing'. For example, to ask whether a coat was very tattered is more suggestive than to ask if it was old. Stern and Lipmann pursued the same line of research in Germany.

The best known British contribution is probably Muscio (1915). Muscio took Binet's ideas one step further and argued that, basically, there are only two kinds of questions that can be asked of a witness to an event — the subjective-direction and the objective-direction question. The subjective-direction question directs the attention of the addressee to his actual prior relation to the object, eg. "Did you see a pistol on the table?". The objective-direction question directs the addressee's attention only to the object in focus, not to his own observation of it, eg. "Was there a pistol on the table?". And these two question forms affect the addressee differently. In addition, Muscio felt intuitively that it might make a difference to the answer if the question "Did you see a Zeppelin?" were changed to "Did you see the Zeppelin?" and that this difference is not as trivial as it may seem. "... Questions with the definite article seem more 'implicative' than questions with an indefinite article."³

To test his hypotheses Muscio carried out a series of experiments at the Cambridge Psychology Laboratories. Specifically, he set out to investigate two phenomena:

- (i) the influence of the direction of a question, subjective or objective, on answers.
- (ii) the influence of the article, definite or indefinite, on answers.

Both phenomena were measured for the degree of caution, suggestiveness and reliability each produced on the answers. The degree of caution a question produced was measured as the % ratio of *I do not know* answers to the total number of answers for that particular question. The suggestiveness of a question was the relative capacity of that question to produce as answers assertions that an object enquired about was present, i.e. the %

³Muscio Bernard, "The Influence of the Form of a Question", *British Journal of Psychology* 8: pp. 351-389 (1915).

ratio of answers asserting the occurrence of the object to the total number of answers asserting or denying its presence. Reliability was defined as the % of right answers from the point of view of the objective occurrence of the object, i.e. $\frac{R}{R+W}$ %.

$\frac{R}{R+W}$

Subjects, all of whom were either graduates or undergraduates of the university, viewed a series of films.⁴ They were asked first to write a verbatim report and then to answer a questionnaire based on what they had just witnessed.

Results showed that the subjects tended to answer both subjective and objective-direction questions with either a Yes or a No, rather than with such possible alternatives as 'I do not know'; 'I am not sure'; 'I cannot remember'; 'There was no x to be seen'. The subject is more likely to deny the existence of an object (when he answers No) when the simple fact is he did not observe it. In other words, there is a general tendency for a witness to assert more than his experience will justify, and a person must consciously overcome this tendency to give a plain Yes/No answer if he wishes to be more accurate. It is thus altogether possible for answers given to leading questions which ask for Yes/No replies to be inaccurate. The most reliable question form, according to the findings, appears to be a subjective-direction question containing neither a negative nor the definite article or the equivalent of the definite article.

Muscio pointed out, however, that in terms of its practical application there was little to choose between subjective and objective-direction questions considered as *an instrument for the discovery of truth* (my emphasis). No inference is in general possible from the fact that something was not perceived to the conclusion that it did not occur. Conversely, the disinclination for certain witnesses to swear that certain objects did not occur is no evidence that they then did occur. Moreover, there is nothing to prevent the questioner from inserting a false presupposition into the question he asks and consequently invalidating the answer. But this may be known only to the questioner himself. By skilful use of both these two question forms "...practically any witness can thus be manipulated so that he appears both rash and incorrect."⁵

⁴In 1915 these were separate photographs rotated rapidly round a cylinder.

⁵Muscio, *op. cit.*, n. 3. There were eight basic questions employed in the experiment, divided equally between the two categories — subjective and objective — direction.

Subjective-direction —

- | | |
|--------------------------------|--------------------------|
| A. Indefinite article | Did you see a . . . |
| B. Definite article | Did you see the . . . |
| C. Negative and Indef. article | Didn't you see a . . . |
| D. Negative and Def. article | Didn't you see the . . . |

Objective-direction —

- | | |
|--------------------------------|----------------------|
| A. Indefinite article | Was there a . . . |
| B. Negative and Indef. article | Wasn't there a . . . |

While the kind of experiments have become more sophisticated in recent years, basic concerns have remained unchanged. The studies cited below are largely American and they reflect the increasing awareness of the usefulness of interdisciplinary collaboration. Loftus and her associates often make cross references to research in theoretical linguistics, sociolinguistics, psycholinguistic and semantics for support.

Leading questions and eye-witness testimony

One of the earliest studies on the effect of implanting false presuppositions in a question, Loftus (1975),⁶ used a total of 490 subjects in a series of four experiments. In one of the experiments 150 undergraduates at the University of Washington, in groups of various sizes, viewed a brief videotape of a car accident and then answered ten questions about the event. The critical question concerned the speed of a white sports car. Half the subjects were asked "How fast was the white sports car going when it passed the barn while travelling along the country road?" and the other half were asked "How fast was the white sports car going while travelling along the country road?" In fact, no barn appeared in the film. All the subjects returned one week later, and, without reviewing the film answered ten new questions about the accident by circling Yes or No on their questionnaire. The final question was "Did you see a barn?" Of the subjects earlier exposed to the question containing the false presupposition of a barn on the country road, 17.3% responded Yes to this question whereas only 2.7% of the other group of subjects claimed to have seen it.

A second experiment using a different 150 subjects strengthened these findings. Subjects viewed a 3 min. film taken from inside a car which eventually collides with a baby carriage being pushed by a man. Following presentation of the film, the subjects were divided into three groups depending on the kind of questions they would be asked. In one group, in addition to 40 filler questions, there were 5 questions phrased in a fairly direct manner asking about items which were not present in the film. eg. "Did you see a school bus in the film?" The second group were given the same 40 filler questions but 5 different key questions which contained false presuppositions referring to something which did not occur in the film, eg. "Did you see the children getting on the school bus?" The third or control group received a questionnaire which contained only the 40 filler questions and nothing else. All subjects returned one week later and without being shown the film again, answered 20 new questions about the acci-

- | | |
|---|------------------------|
| C. Incomplete Disjunction and
Definite article
eg. Was all the lampost visible or only a part of
it? | Was the K, M, or N? |
| D. Implicative and Def. article
eg. Was the man dressed in black? | Was the K, M, . . . G? |

⁶Loftus, Elizabeth F., "Leading Questions and the Eyewitness Report," *Cognitive Psychology* 7: pp. 560-572 (1975).

dent. Five of these questions were critical. They were direct questions that had been asked a week earlier in identical form, of only one of the three groups. The subjects responded to all questions by circling Yes or No. Overall, 15.6% of those who had been exposed to identical questions a week earlier said Yes; 29.2% of those who had been given questions with false presuppositions said Yes; and of the control group only 8.4% said Yes.

Based on these findings, Loftus suggests that the wording of questions asked immediately after an event can influence the answer to different questions asked about the same event at some later date. In both experiments, a significant proportion of the subjects quite readily accepted the false presuppositions as true fact. Loftus postulates that when this happens, subjects enter them into their memory as 'new information'. Subsequently the 'new' false information reappears as part of their memorial representation for answering further questions. The 'memory' may thus not accord with the actual facts. The two kinds of information i) information gleaned during the perception of the original event and ii) external information supplied after the event, have become integrated in such a way that we are unable to tell from which source some specific detail is recalled. In the real world, post-event information for a witness in a litigation can come from being questioned by an investigator, or overhearing or engaging in a conversation, or reading a newspaper article. There is, therefore, a discrepancy between assumptions made about eye-witness testimony in the courtroom and the psychological processes of perception and recall and this discrepancy needs to be resolved.⁷

Loftus, Miller and Burns (1978)⁸ using a total of 1242 subjects turned out findings similar to these. A number of independent studies provide further confirmation. Lipton (1977)⁹ reported that suggestive interrogation in the form of leading questions greatly reduced the accuracy of responses. He points out that this has been a consistent finding in the literature, quoting Binet (1900), Whipple (1912), Morgan (1918), Gardner (1933) and Stern (1938).¹⁰

⁷Miller, David G., & Loftus E.F., "Influencing Memory for People and their Actions", *Bulletin of the Psychonomic Society* 7: pp. 9-11 (1975) report corroborative findings. In two experiments a group of students at the University of Washington saw a film showing a number of people doing different things. The subjects were then exposed to some leading questions which suggested that one of the persons in the film had done something that in fact had been performed by someone else in the film. Results showed that there was an increase likelihood for subjects exposed to misleading questions to recall a person as having done something he was entirely innocent of. The misleading questions had strengthened the influence of the phenomenon known as unconscious transference when a person seen committing one act is confused with or recalled as the person seen committing a second act. In their report Loftus and Miller discuss a real life incidence of this phenomenon.

⁸Loftus, E.F., Miller D.G., & Burns H.J., "Semantic Integration of Verbal Information into a Visual Memory", *Journal of Experimental Psychology: Human Learning and Memory* 4: pp. 19-31 (1978).

⁹Lipton, Jack P., "On the Psychology of Eyewitness Testimony", *Journal of Applied Psychology* 62: pp. 90-95 (1977).

¹⁰All these were early researchers.

Thorson and Hockhaus (1977)¹¹ used basically the same format — a videotape of an automobile accident. Half the subjects were given prior information concerning i) the nature of the event they were about to witness and ii) types of questions they would be asked later, eg. "What kind of cars were involved?" Half the subjects received a questionnaire with neutral or non-leading questions, the other half had biased leading questions. Results showed that leading questions led to higher estimates of speed and that prior information did not make subjects immune to the effect of leading questions on estimates of speed. A British study, Clifford and Scott (1978),¹² indicated that the use of leading questions had a massive effect — only 5% of the subjects avoided being misled by at least one of such questions. A Canadian team, Read et al (1978),¹³ agreed with Loftus that false presuppositions which concern details related to the viewed scenes do dramatically affect the likelihood that subjects will subsequently affirm that they saw the detail even though it was not present.

The use of the definite article and eye-witness testimony

Loftus and Zanni (1975)¹⁴ demonstrated how the use of the definite article in a question increased eye-witness suggestibility. Subjects viewed a short film depicting a multiple-car accident. Immediately afterwards they filled out a 22-item questionnaire which contained 6 critical questions. Three of these questions asked about items that had not been present in the film. For half the subjects, all the critical questions began with the words "Did you see a . . ." as in "Did you see a broken headlight?" For the remaining subjects, the critical questions used the definite article instead, as in "Did you see *the* broken headlight?" The findings showed that relative to questions containing the indefinite article, questions which contained the definite article produced:

- i) fewer uncertain or *I do not know* responses
- ii) more frequent recognition of events that never in fact occurred.

Loftus and Zanni argue that the addressee who hears the question "Did you see the . . ." understands the question as saying "There was a . . . Did you see it?" and if he has reason to think that the speaker probably knows better than he does, he is more likely to be influenced by this presupposition, signalled by the definite article, that a broken headlight did in fact

¹¹Thorson, G., & Hockhaus L., "The Trained Observer: Effect of Prior Information on Eyewitness Reports", *Bulletin of the Psychonomic Society* 10: pp. 454-456 (1977).

¹²Clifford, B.R., & Scott, J., "Individual and Situational Factors in Eyewitness Testimony", *Journal of Applied Psychology* 63: pp. 352-359 (1978).

¹³Read, J.D., Barnsley R.H., Ankers K., & Whishaw I.Q., "Variations in Severity of Verbs and Eyewitness Testimony: An Alternative Interpretation", *Perceptual and Motor Skills* 46: pp. 795-800 (1978).

¹⁴Loftus, E.F. & Zanni G., "Eyewitness Testimony: The Influence of the Wording of a Question", *Bulletin of the Psychonomic Society* 5: pp. 86-88 (1975).

exist. Even by answering No, he is asserting more than what he should if, initially, he had failed to observe whether there was indeed a broken headlight. The results of the study support Muscio (1915)¹⁵ and are consistent with the view advanced by Loftus (1975) quoted above.

The use of 'marked' words and eye-witness testimony

The idea of 'marking' is a concept used by both structural linguists and semanticists. In pairs of words like high/low, big/small, good/bad, dog/bitch, host/hostess, the second member of each pair is said to be 'marked' in the sense that they exhibit certain behavioural features that distinguish them from their 'unmarked' counterparts. For example, Lyons says that the marked member of an opposition like high/low tends to be more restricted in use. It does not normally occur in such sentences as "How low was the wall?" Instead we ask "How high was the wall?" We tend to say also that small things *lack size*; that what is required is *less height* etc. rather than that large things lack smallness or that what is required is more lowness. Semantically, a pair like good/bad carries different presuppositions. eg. "How good was it?" can be used without any presupposition or implication that *it* is good rather than bad, whereas "How bad was it?" carries the presupposition that *it* is bad rather than good in relation to some generally accepted norm. It has also been observed that for quantitative adjectives such as high/low, long/short etc. ". . . it is the negative case (low, short) which approaches some limit or zero point while this is not true for the positive cases. A thing can be so narrow or so short or so small that it approaches zero in extension, but there is no corresponding limit to how large, wide or tall something can be . . ." ¹⁶

Harris (1973)¹⁷ set out to demonstrate the psychological reality of the marking distinction in quantitative adjectives and adverbs. His subjects were told that ". . . the experiment was a study in the accuracy of guessing measurements . . ." and they were asked to make numerical guesses in response to 32 questions. These questions contained either a marked or unmarked quantitative adjective/adverb:

eg. How tall was the basketball player / How short player?
How often . . . ? / How seldom . . . ?

The results of the experiment showed that answers to the questions containing unmarked modifiers had larger variations than answers to questions with marked modifiers. Harris contends that this supports the hypothesis that a marked modifier limits the range of the numerical answer to values in the direction of the marking, whereas its unmarked counter-

¹⁵Muscio, *op. cit.*, n.3.

¹⁶Lyons, John, *Semantics* Vol. 1, Cambridge, Cambridge University Press, 1977, p. 276.

¹⁷Harris, Richard J., "Answering Questions Containing Marked and Unmarked Adjectives and Adverbs", *Journal of Experimental Psychology* 97: pp. 399-401 (1973).

part, making no such restriction, produces guesses spanning the entire range of possible measurements. This is consistent with the linguistic view quoted above.¹⁸

Two other studies support this hypothesis. In an unpublished experiment, Loftus interviewed 40 people about their headaches and about headache products. The interviewees were under the belief that they were participating in a market research on these products. Two key questions were asked; the second, about frequency of headaches, was framed in two ways:

- i) Do you get headaches frequently, and, if so, how often?
- ii) Do you get headaches occasionally, and, if so, how often?

The 'frequently' subjects reported an average of 2.2 headaches per week, while the 'occasionally' subjects had only 0.7 headaches/wk.¹⁹

Loftus and Palmer (1974)²⁰ showed subjects films of automobile accidents and then asked them questions about what they had seen. Results suggested that the wording of a question has a definite effect on a numerical estimate. In particular, the question "About how fast were the cars going when they *smashed* into each other?" consistently elicited a higher estimate of speed than when the word *smashed* was replaced by *collided*, *bumped*, *contacted* or *hit*. On a retest one week later, more subjects for whom the accident had been identified as a smash said Yes to the question "Did you see any broken glass?" when in reality no broken glass was present in any of the films. The researchers suggest that their subjects had been influenced by the 'verbal label' that had been used in the question and their memory had shifted in the direction of being closer to the representation suggested by that verbal label. In this instance the verb *smashed* was commensurate with the idea of a severe accident and broken glass was consistent with such an accident. Loftus asserts that this corroborates Harris (1973).²¹

While there appears to be such overwhelming evidence for the case, it should be pointed out that there are studies that have failed to find support for this general view. Marshall, Marquis and Oskamp (1971)²² set out specifically to test four hypotheses suggested by the conventional wisdom

¹⁸On the average subjects guessed 79 ins. for "How tall . . .?" and 69 ins. for "How short . . .?" 130 mins. for "How long was the movie?" 100 mins. for "How short was the movie?"

¹⁹Quoted in Loftus (1975), *op. cit.*, n. 6.

²⁰Loftus E.F., & Palmer, John J., "Reconstruction of Automobile Destruction: An Example of the Interaction Between Language and Memory", *Journal of Verbal Learning & Verbal Behaviour* 13: pp. 585-589 (1974).

²¹Harris (1973) *op. cit.*, n. 17; Daniel, T.C., "Nature of the Effect of Verbal Labels on Recognition Memory for Form", *Journal of Experimental Psychology* 96: pp. 152-157 (1972), was among the first to hypothesize a link. Loftus accepts and supports Daniels' hypothesis. In their study, Loftus and Palmer also acknowledge the ideas of Fillmore, C.J., "Verbs of Judging: An Exercise In Semantic Description", *Papers in Linguistics*, pp. 91-117, (1969). Fillmore suggests that such verbs as *hit* and *smashed* connote differential rates of movement and may thus also imply differences in the consequences of the events to which these verbs refer.

²²Marshall, J., Marquis, R.H., & Oskamp, S., "Effects of Kind of Question and Atmosphere of Interrogation on Accuracy and Completeness of Testimony", *Harvard Law Review* 84: pp. 1620-1643 (1971).

on eye-witness testimony influenced by the research of Munsterberg, Marston, Muscio dan Stern.

- (i) Accuracy and completeness of testimony will be higher in an interrogation conducted in a supportive rather than a challenging atmosphere
- (ii) As the degree of question specificity increases, the range of material reported will increase somewhat and accuracy of report will decline greatly
- (iii) Leading questions produce testimony which is less complete than testimony on the same item obtained by non-leading questions
- (iv) Leading questions in a supportive atmosphere will produce the most errors

151 middle-class American males ranging in age from twenty-one to sixty-four viewed a videotape of an accident in a car park. After presentation, each subject wrote a report on the accident and then answered questions based on his report asked by an interrogator. The interrogation was conducted by trained interviewers who adopted either a supportive or challenging stance. They asked either open-ended or structured questions ranging in specificity for recall of persons, sounds, objects and actions that had appeared on the film. After completion of the interrogation subjects were taken into another room where they were requested to complete a series of questionnaires measuring their reactions to their interrogators and for obtaining other personality and attitude data.

The findings of the study could not sustain any of the four hypotheses. The trade-off between accuracy and coverage was much less than expectations created by previous research and common belief. Coverage increased much more than accuracy decreased when leading questions were asked.

Clifford and Scott (1978)²³ investigating, among other things, the effect of different modes of initial questioning on the accuracy of testimony reported that recall accuracy was, in the first place, not high at all, but there was no significant difference in accuracy under non-interrogative and interrogative modes of elicitation. They point out that this is at odds with early research and would be welcome news to such people as the police who have been repeatedly warned against influencing testimony by asking the witness questions instead of allowing him to narrate spontaneously his experience of the event.

Read et al (1978)²⁴ modelled their study on Loftus and Palmer but employed different sets of verbs. 96 subjects viewed three short videotape sequences: i) a two-car accident, ii) a fight on a side-walk between two men, iii) a confrontation between two policemen and a group of young males. An independent group of 49 subjects viewing the same sequences were asked to assign three verbs of differential severity for each of the focal events. The assigned verbs, in order of increasing severity, were: i) bumped, hit, smashed; ii) pushed, shoved, slugged; iii) challenged, intimidated, harassed. Results of the experiment provided no support for the Loftus-Palmer

²³Clifford & Scott (1978), *op. cit.*, n. 12.

²⁴Read et al (1978), *op. cit.*, n. 13.

hypothesis that the severity of verbs included within a question about an event may alter one's subsequent interpretation or recall of it.²⁵

The effects of courtroom language on the jury

We have looked so far at empirical research into the effects of language on eye-witness testimony. Another team of Americans, composed primarily of anthropologists, sociologists, social psychologists and lawyers at Duke University, Urbana, have demonstrated how the language used by witnesses and counsel in court encourage judgements on them. O'Barr and his team hypothesized that a considerable amount of social evaluation occurs in the courtroom and judges/jurors do assess participants in terms of their competence, trustworthiness, social attractiveness and convincingness according to the language they use and how they speak. O'Barr talks about 'power' and 'powerless' speech, the latter being characterised by frequent use of intensifiers (very, so etc.), empty adjectives (divine, charming, super), hyper-correct bookish grammar, hedges (well, you know, kinda, I guess), lack of variation in intonation patterns so that speech ends with rising intonation most of the time, and use of gestures. Experiments using audio tape-recordings of actual trials in some American courtrooms which O'Barr and his team had made showed that both male and female witnesses who used 'powerless' speech were evaluated less favourably. A second experiment indicated that witnesses who answered counsel in fragmentary sentences were rated as less competent than those who could narrate their testimony in free-flowing language. O'Barr and his associates strongly believe that there is evidence to show that judicial decisions may, in some instances, be influenced by speech dimensions that are supposed to be irrelevant.²⁶

Danet (1980)²⁷ describes a manslaughter trial in which the defence counsel was so aware of the extra-legal overtones that he prepared a special memorandum on the role language would play in the trial stating that "...the use of words with precision in this case is of extreme importance

²⁵The writer feels that this could be due to the fact that Read et al asked 'outcome questions' for which subjects had to make judgments about the severity of the consequences of the actions depicted in the video sequences. eg. For the third sequence, the outcome questions were "If the sequence were to be continued what would be the likelihood of the men around the car turning it over? not very likely or very likely?" These outcome questions based on the subject's *impressions* are intrinsically different from the recall questions probing memory for details of physical objects, actions etc. which Loftus and her associates used and may be the chief reason why the findings differ.

²⁶Lind, E. Allen & O'Barr, William M., "The Social Significance of Speech in the Courtroom", in Howard Giles & Robert St. Clair (eds) *Language and Social Psychology*, Oxford, Basil Blackwell (1979). These ideas are supported by Parkinson Michael "Language Behaviour and Courtroom Success." Presented at the International Conference on Language and Social Psychology, University of Bristol, July 16-20, 1979.

²⁷Danet, Brenda, "Baby or Foetus? Language and the Construction of Reality in a Manslaughter Trial," *Semiotica* 8: pp. 187-219 (1980). The trial under discussion was that of Commonwealth of Massachusetts v. Kenneth Edelin 1975. Dr. Edelin was charged with manslaughter and tried in the city of Boston which was strongly conservative Irish-Catholic and anti-abortion. He was convicted.

since certain words have connotations above and beyond their meaning when they are used in the presence of laymen, especially in a case in which there are undoubtedly emotional considerations. . . .²⁸ Counsel also lobbied with the presiding judge before the opening of the trial for certain expressions to be outlawed:²⁸ Danet and her co-researchers, applying quantitative techniques of analysis to the trial transcript, report that despite the judge's ruling on permissible words, five terms emerged clearly as contenders for characterizing the object of the abortion: *subject*, *foetus*, *baby*, *child* and *product of conception*, and that the sheer amount of explicit reference to the result of pregnancy rose considerably during cross-examination. *Baby*, *child* and *subject* occurred 49% of the time during cross-examination where nearly every third Question-Response sequence contained one of these expressions compared to 15% use of explicit reference during direct examination. Connotations and social meaning associated with certain words as opposed to their pure referential semantic meaning played a crucial role. Danet discusses some of these connotations: the word *baby* connotes aliveness, dependency and helplessness and is additionally loaded for a conservative Catholic audience. It is therefore a prosecution-favourable expression. The word *foetus*, on the other hand, is an unemotional medical frame of reference which can refer to any other species besides homo sapiens. It serves to neutralize some of the emotional reactions in the addressee (including the judge/jury). It is, therefore, a defence-favourable expression. The expression *subject* may appear ostensibly neutral but the way it was handled by the prosecution counsel vitiated this neutrality. In his summation to the jury, by dramatic use of rhetorical questions the prosecuting counsel rejects the applicability of the word in favour of the expression *independent human being*. Of the five expressions most often used during the trial to refer to the result of pregnancy the balance was against the defendant. Danet saw this trial in particular as a war of words in which the prosecution exploited resources available in the language and not directly related to legal issues at all.

Commenting on a rape trial conducted in Israel, Danet notes that defence counsel and prosecuting counsel also used sharply contrasting terms, this time to refer to the victim; the prosecution called her *woman soldier*, *a young girl of 19*, while the defence spoke of her as *a sexually mature woman of 20*.²⁹

Conclusions

What has been the influence of such research on the legal system in practice? Empirical research indicates that there is a discrepancy between assump-

²⁸The judge decided to outlaw the expressions *baby boy*, *smother* and *murder* but allowed the use of *human being*, *male human being* and *male child*. Danet feels even this was weighted against the defendant.

²⁹Danet Brenda, "Language in the Legal Process", *Law and Society Review* 14: pp. 445-564 (1980). She also discusses how other features of language like slang, different forms of address, formal and informal speech style can be similarly exploited to create the desired effects on the judge/jury.

tions made about eye-witness testimony by the law courts and the psychological processes of perception and recall. This in turn suggests that the existing safeguards offered concerning rules of evidence may offer inadequate protection. It has been argued that expert psychological testimony which will aid the judge/jury in evaluating identification evidence is both admissible and necessary. In her latest investigations Loftus has looked at the influence of expert testimony on judgements. In one experiment 240 undergraduate students acted as jurors and received evidence against the defendant in a case of violence. Half the jurors read a testimony of a psychology expert on the reliability of eye-witness identification. The other half did not. Results showed that there were fewer convictions when expert testimony was introduced. In other words, expert testimony had influenced jury behaviour. A second experiment showed that jurors who had read expert testimony spent much more time discussing the eye-witness account before passing judgement. The jurors had paid closer attention to the evidence.³⁰ Loftus suggests that in order to protect a defendant against mistaken identification in real life, judges/jury should be allowed to hear expert testimony describe some of the factors that affect the reliability of eye-witness accounts. She points out that this is already the practice in some American law courts but the idea has yet to gain general acceptance.³¹

O'Barr believes that while changing and modernizing the legal language is indeed a goal worthy of consideration, the far more important issue is making lawyers more aware of the nature of the medium in which they operate. If sensitivity to language could be increased, then many of the problems associated with particular forms used in contemporary American legal language will be greatly reduced in significance. One way of effecting this is for law schools to teach more training of trial lawyers and law school curriculums to place more emphasis on looking at how language functions in interpretation and persuasion.³²

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³⁰Loftus, Elizabeth F., "Impact of Expert Psychological Testimony on the Unreliability of Eyewitness Identification", *Journal of Applied Psychology* 65: pp. 9-15 (1980).

³¹The range of factors affecting eyewitness testimony investigated under current research has widened to include such variables as sex of witness, type of event witnessed, type of description called for, etc. For example, Clifford & Scott (1978) n. 12 say that there is evidence to show that the nature of a criminal act witnessed affects the accuracy of recall. In an experiment where subjects saw both a violent and non-violent film, recall of both physical actions and physical descriptions was poorer for the violent film. In general, actions were better recalled than physical descriptions but emotionality surrounding the event can affect the testimony of both victim and witnesses in terms of accuracy and competence. Powers, P.A., Andriks, J.L., & Loftus, E.F., "Eyewitness Accounts of Females and Males", *Journal of Applied Psychology* 64: pp. 339-347 (1979) report that males and females are accurate on different types of items. Women are more accurate than men about details of appearance and actions of other women while men are more accurately observant of other men.

³²O'Barr, William M., "The Language of the Law — Vehicle or Obstacle?" in Shirley Brice Heath & Charles Ferguson (eds) *Language in the U.S.A.* New York, Cambridge University Press, 1980.